

HellermannTyton

Product Catalogue

Fixing your challenges is our passion – welcome to a world of smart cable management solutions

At HellermannTyton, we rethink what's possible in cable management – and make it real with precision, sustainability and a good dose of passion.

This catalogue goes beyond trusted standard products. It's an open invitation to collaborate. Together, we can shape components that fit your needs exactly – right down to the smallest detail.

Every new development here starts with listening. From early ideas to full-scale production, we work side-by-side with design engineers and procurement teams to create smart product solutions that perform optimally in the real world.

With our new Source label, we're making another confident step towards more sustainable products – with smarter materials, reusable designs and recyclable options that reduce emissions and conserve resources to help you meet your environmental goals.

Wherever you are, our global reach and local know-how mean you get support that's fast, relevant and personal. **Stronger together – at HellermannTyton, we don't just manufacture and deliver parts, we enable you to build better, more efficient, more sustainable systems.**



Thomas Tyll
Product Director EMEA Region



Lars Beeckmann
Director Electrical Sales EMEA

Content

1. Cable Ties and Fixings

	1.0 Technical Information	20
	1.1 Cable ties, inside serrated	23
	1.2 Cable ties, outside serrated	47
	1.3 Cable ties without serration	58
	1.4 Cable ties, releasable	62
	1.5 Cable ties, stainless steel	74
	1.6 Fixing products for holes	88
	1.7 Fixing products for bundles	142
	1.8 Fixing products for bundle separation	149
	1.9 Fixing products for self-adhesive fixing	152
	1.10 Fixing products for connectors	173
	1.11 Fixing products for weld studs	175
	1.12 Fixing products for screws	189
	1.13 Fixing products for edges	223
	1.14 Fixing products for pipes and harnesses	240

2. Insulation

	2.1 Heat Shrink Tubing	252
	2.2 Heat Shrink Moulded Shapes	320
	2.3 Insulating Tubing	361

3. Cable Protection Systems

	3.1 Non-Metallic Conduit Systems	368
	3.2 Metallic Conduit Systems	376
	3.3 Spiral-Reinforced Conduit Systems	384
	3.4 Conduit System Accessories	390
	3.5 Protective Tubing and Spiral Binding	392
	3.6 Protective Sleeves	
	Expandable Braided Sleeves	408
	Open Woven Sleeves	417
	Burst Protective Sleeves	422
	Electromagnetic Shielding Sleeves	423
	3.7 Wiring Ducts	426
	3.8 Edge Protection	440
	3.9 Grommets	443

General information

This product catalogue is valid from September 2025. It replaces all previous product catalogues. All product information is supplied without guarantee. Errors and technical modifications reserved. No liability is accepted for printing errors. As of September 2025.

4. Electrical Installation

	4.1 Electrical and Technical Tapes	454
	4.2 Wire Connectors	474
	4.3 Cable Rods	478
	4.4 Downlight Covers	481
	4.5 Cable Entry Systems	493
	4.6 Connection Products	498

5. Identification Systems

	5.0 Technical Information	502
	5.1 Wire and Cable Markers	
	Heatshrink cable markers	508
	Cable marker tags	521
	Self-laminating labels	528
	Pre-printed markers	541
	5.2 Control Panel Labelling	557
	5.3 Industrial Identification	562
	5.4 RFID Cable Ties and Accessories	574
	5.5 Security Labelling	576
	5.6 Hazardous Area Identification	579
	5.7 Printers and Software	582

6. Application Tooling

	6.0 Technical Information	592
	6.1 Automatic Cable Tying System	596
	6.2 Application Tooling for Cable Ties	600
	6.3 Application Tooling for	
	Cutting Plastic Ties	611
	Snappers	612
	Heat Shrinkable Tubing	613
	Non Shrinkable Tubing	614
	Braided Sleeves	616
	Identification	617

7. Appendix

	7.1 Product Approvals and Specifications	620
	7.2 Numerical Index	623
	7.3 Alphanumerical Index	643



Where HellermannTyton fits in

Billions of kilometres of cables, wires, pipes and hoses connect and power the modern world. Wherever they are installed, HellermannTyton products are there to support, guide and protect them – reliably and precisely.

We're a global manufacturer and supplier of high-quality products that **fasten, route, protect, connect and identify** all the infrastructure carrying electrical power, data, signals and fluids. People use our solutions all around the globe.

With 19 advanced production facilities, development centres at 13 sites, and more than 7,000 dedicated people on the ground in 40 countries, we combine international strength with local responsiveness. Whether you need off-the-shelf parts or fully customised components, we deliver to the highest standards – efficiently and cost-effectively.

Since 1935, we've been shaping the electrotechnical sector. Our **smart cable management** innovations, made from high-performance plastics, continue to drive progress in the vehicles, machines, systems and buildings that support everyday life.

90 years
leading the way in
smart cable management

MADE FOR REAL[®]

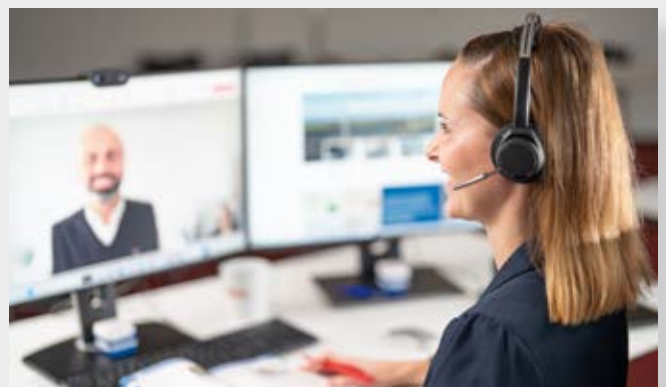


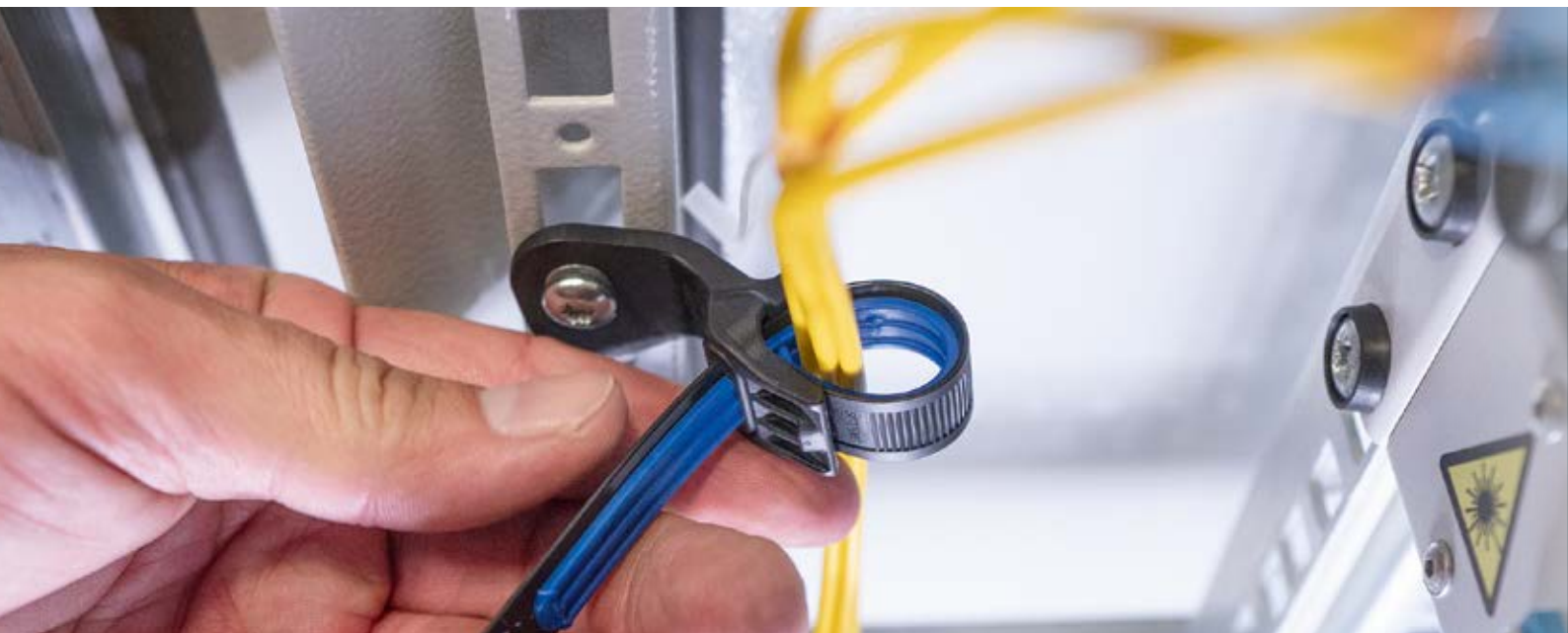
How we help you get ahead

At HellermannTyton, we work as one – from design through to delivery. This collaborative approach means you can count on **consistent quality, dependable availability and sharp focus on cost efficiency.**

Every new product we create is built on three core principles: **suitability, scalability and sustainability.** That means real benefits for you – from quicker installation and smoother workflows to long-lasting reliability and tighter cost control.

What truly sets us apart is our people. They're experienced, practical and genuinely care about finding the right solution for your challenge. Whether you need advice, a second opinion from someone who'll listen, **our local experts are there for you** – ready to recommend the right solution and support you at every step.





Designed to make the difference

You won't always see HellermannTyton products – but you'll notice the difference they make. Behind panels and under surfaces, they keep machines running, vehicles moving, and infrastructure reliable.

Backed by decades of hands-on experience, our engineering experts solve complex fastening and cable management challenges with **smart, space-saving and lightweight yet robust solutions** – built to meet real-world demands.



MADE FOR REAL[🌐]

With HellermannTyton, you're not just buying parts – you're securing the **performance, reliability, and peace of mind** our brand stands for. Whether off-the-shelf, like the products in this catalogue, or made to measure, our Made for Real promise is simple: **we strive to make the difference that matters most – for you.**



Inventiveness is in our DNA

We don't just make cable management parts – **we rethink what's possible**. Many of our most inventive products began as custom solutions that turned technical potential into practical reality. Today, they're proven standards used worldwide.

We bring ideas to life by working closely with customers and partners – challenging limits, exploring every detail and using the right materials to deliver dependable performance.

From first sketch to final product, HellermannTyton is your partner in developing application-specific components that set global benchmarks. Whether it's a modular clamp, a versatile clip or a fully automated tool, **we deliver the results that others say can't be done**.



Frame Clamp



Ratchet P-Clamp



Autotool ATS flex

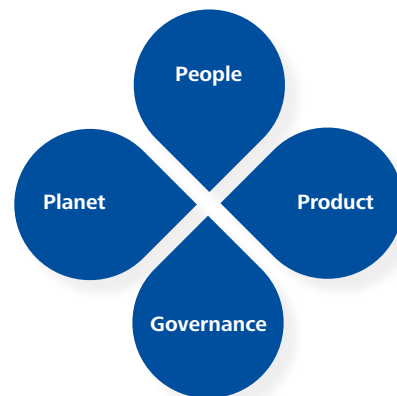


Our sustainability strategy

HellermannTyton is committed to reducing the resources we consume and minimising the environmental impact of everything we do.

Our path to carbon neutrality is guided by a company-wide sustainability strategy, **built around four key pillars: People, Planet, Product and Governance**. These principles help us act with purpose – across teams, operations and supply chains.

We actively encourage our people to drive positive change, supporting sustainability in the workplace, in our communities and across wider industry.



Let's make a greener future, together. One of our main goals is to advance sustainability through product innovation – reducing emissions by working closely with our customers, material suppliers and sales partners.



Discuss your needs with us

We're here to advise on the most suitable HellermannTyton products for your application – including those with the lowest environmental impact.

www.HellermannTyton.com/contact



Your sustainable product choice

Introducing **Source** – HellermannTyton’s growing range of products offering sustainable choice through the materials used or design features that promote **reusability, waste reduction or recyclability**.



reSource®

ReSource highlights HellermannTyton products that are made from recycled waste or from virgin materials with relatively lower carbon emissions.



earthSource®

EarthSource denotes HellermannTyton products made from polymers derived from abundant or renewable plant-based sources.



oceanSource®

OceanSource showcases HellermannTyton parts made out of plastic material recovered from marine environments or even aquatic plants.



bydesign

Sustainable by design focuses on product solutions that reduce waste, improve longevity or support subsequent reuse and recyclability.



Look out for this icon in the catalogue

Our Source icon identifies products that can make a sustainable difference for you.



Helping industry to progress

Every industry has its own combination of cable management challenges and standards to meet – from secure fastening under vibration, to weight-saving design or streamlined processing.

At HellermannTyton, **we understand the complexities and thrive on solving them.** Our deep industry know-how means we can deliver smart, targeted solutions where they're needed most – from one-off proof of concepts to full-scale series production, even under strict time and quality constraints.

Quality you can trust

You can rely on us to meet all relevant industry standards – and even go beyond them where experience tells us it adds real value.





Key market challenges we serve



Aerospace

High-performance thermoplastic parts designed for reliability under extreme temperatures.



Automotive

Lightweight parts to secure, guide, protect and identify harnesses, hoses, pipes, sensors and connectors.



Rail

Innovative products that speed up installation and meet the toughest fire safety standards.



Renewable energy

Efficient fastening components engineered from weather and UV resistant materials.



Appliances

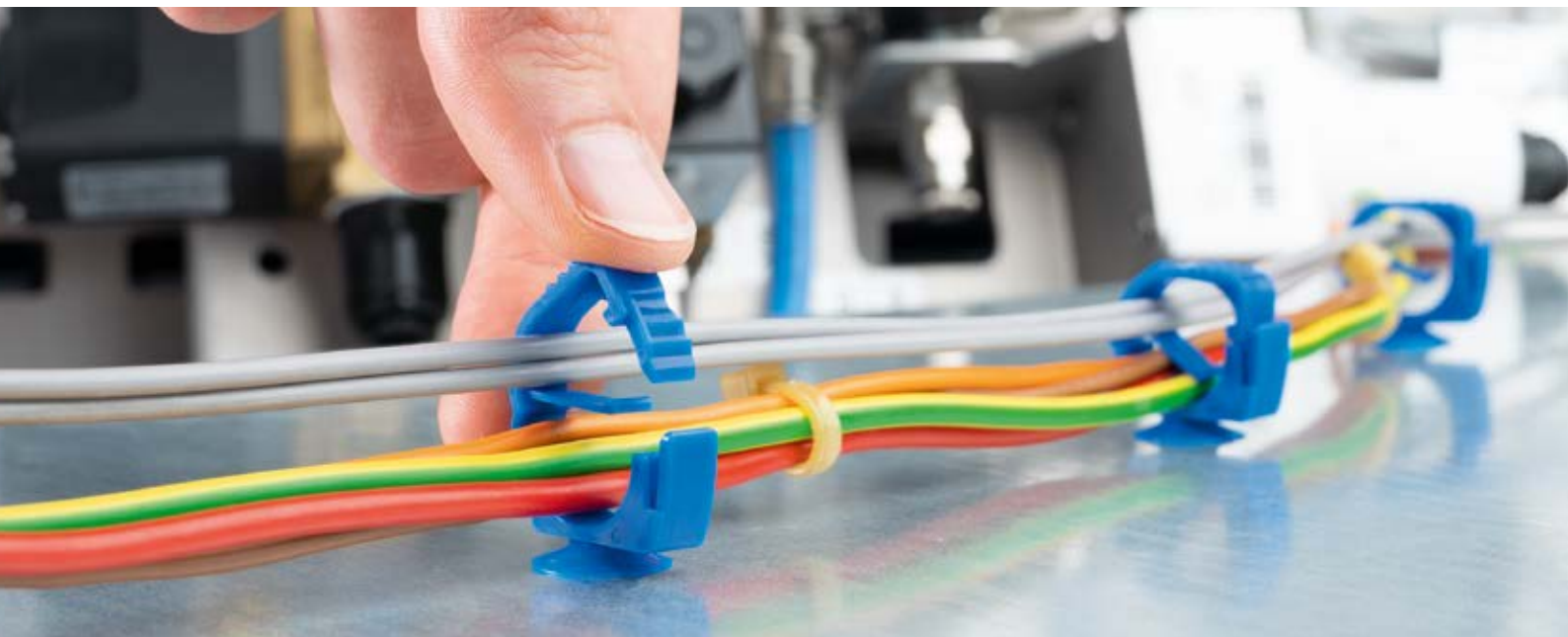
Flexible product ranges designed for smart assembly and easy maintenance across appliances.



Defence

Rugged products that shield, secure and withstand vibration, torsion and movement.

For more industry-specific product information, visit: www.HellermannTyton.com/markets



Smart cable management

Our standard product portfolio is anything but ordinary. Every part is engineered to deliver – **faster installation, longer service life, lower total cost of ownership**. They're not just parts – they're part of the solution to your challenges.

Cable Ties and Fixings



The S50ROS polypropylene cable tie has a lower equivalent CO₂ footprint – and protects bundles with an anti-slip design on the inside and serration on the outside (page 50).

Insulation



HIS heat shrink tubing in handy dispenser boxes – offering flexible, reliable insulation and abrasion protection in a wide range of sizes, colours and shrink ratios (page 265–273).

Cable Protection Systems



Twist-In-RR sleeves are flexible, lightweight and easy to retrofit – protecting cables from abrasion and the teeth of rodents in vulnerable areas (page 420).



At the right time, in the right place

With EDI-compliant systems and strong regional networks, we keep things moving – **from single boxes to large-scale shipments**, we process and deliver your orders quickly, reliably and with care.

Electrical Installation



The VarioPlate cable entry system saves space and time – with flexible inserts, strain relief and IP-rated sealing in one modular design for easy routing (page 493–497).

Identification Systems



TAGPU LOOP markers are easy to preprint and apply in one simple step – delivering fast, durable, UV stable cable labelling indoors and outside, without any cable ties (page 526).

Application Tooling



The CPK hybrid cable tie tool delivers full flexibility – running on mains power or on rechargeable battery for efficient automated cable tying across locations (page 596, 597).



1.0 Technical Information

Operating temperature ranges of cable tie materials	20
Locking technologies for cable ties	21
Optimum storage conditions for cable ties	22



1.1 Cable ties, inside serrated

T-Series		
standard, natural and black	PA66	23, 24, 25
standard, coloured	PA66	26, 27
for outdoor use, black	PA66W, UV-resistant	28, 29
temperatures up to +105 °C	PA66HS, heat stabilised	30, 31
for higher impact resistance, ScanBlack	PA66HIR(S), high impact modified	32
made from Post Industrial Recycled PA66	PA66HIRHS(REC)	33
for higher fire-protection	PA66V0, flame-retardant	34
temperatures up to +150 °C (short-term)	PA46	35
for higher chemical resistance and temperatures of -80° to +170 °C	E/TFE	36
for higher chemical resistance and temperatures up to +115 °C	Polypropylene (PP)	37
sustainable bioplastic, black	PA11	38
In-between size to T-Series		
	LK-Series	39
For temperatures up to +240 °C		
	PEEK-Ties	40
With smart design		
	X-Series	41
For hose and gaiter		
	CTT-Series	42
For parallel routing		
	DH-Series	43
For food industry		
detectable	MCT-Series	44
detectable, corrosion resistant	MCTS-Series	45
detectable	MCTPP-Series	46



1.2 Cable ties, outside serrated

For thin-walled bundles		
	OS-Series	47, 48, 49
	S-Series	50
For temperatures up to +240 °C		
	PEEK-Ties	51
With 90° angled head		
	V-Series	52
With low profile head		
	PE-Series	53
	RPE-Series	54
standard and high impact modified	LPH-Series	55
	SPH series	56
For strong hold		
on smooth bundles	Soft Grip-Series	57



1.3 Cable Ties without serration

Locked by glass fibre pin		
1-piece	KR-Series	58
ultrasonic welded	KR-Series	59
endless	KR-Series	60
With separate head and spacer		
endless	EL-TY-Series	61



1.4 Cable ties, releasable

Inside serrated		
with extended pawl, up to 200 N	RELK-Series	62
with extended pawl, up to 670 N	RLT-Series	63
with tuckaway	RT250-Series	64
with kickdown lever	REL-Series	65
Outside serrated		
for marking purposes, coloured	LR55-Series	66
	ORF-Series	67
Without serration		
flexible at low temperatures	SRT-Series for industry quantities	68
	SOFTFIX-Family	69
Inside serrated		
one-hand release mechanism	REZ-Series	70
For food industry		
detectable, releasable	MCT-Series, PA66MP	71
With quick release mechanism		
up to 888 N	Speedy-Tie	72
With hook and loop		
for identification purposes, coloured	TEXTIE-Series	73



1.5 Cable ties, stainless steel

Technical Information	
Locking technologies for metall cable ties	74
Short Circuit Test (SCT)	75
With ball-lock	
standard metal ties	76, 77
double wrapped	80
coated	81, 82
double wrapped, coated	83
With punch-locking mechanism	
high vibration resistance	84
With fold locking	
uncoated	85
coated	85, 86
Protective channel for stainless steel ties	
endless LFPC-Series	87



1.6 Fixing products for holes

Selection guide for fixing ties		88
Fixing ties for round holes		
	in the strap	90
		91, 92
	Soft Grip-Series	93
with arrowhead and disc	up to +240 °C, PEEK	94, 95
	releasable	96
	sealed	97, 98
	anti-slip	99
with arrowhead and wings		100
Fixing ties for oval holes		
with arrowhead and wings		101, 102
with arrowhead and disc		103
Fixing ties for round holes		
with arrowhead and wings	releasable	104
with arrowhead	without wings and disc	105
with arrowhead and disc	parallel routing	106
Fixing ties for oval holes		
with fir tree and disc		109

Fixing ties for round holes		
	releasable	110
	with stand-off	111
	FT3	112
	FT5	107, 113
		107, 108, 113, 114
with fir tree and disc	FT6	108, 115
	FT7	108, 115
	FT8	116
	FT9	116
	FT10	117
	with cover	118
	Soft Grip-Series	118

Fixing ties for oval holes		
with fir tree and disc		119

Fixing ties for round holes		
with deep hole anchor		120, 121

Fixing elements for round holes		
for cable ties	with arrowhead	122
	for distance routing	123
with fir tree	for automatic cable tying systems	124

Fixing elements		
for T-slotted aluminium profiles		125

Fixing elements for round holes		
with arrowhead	Wire push in clips	126
	Harness push in clips	127
with arrowhead and disc	for pipes and harnesses	128
with arrowhead	for cable ladders	129
	for pipes and harnesses	130

Fixing elements for oval holes		
with arrowhead	for pipes and harnesses	131

Fixing elements for round holes		
with fir tree	for pipes and harnesses	131
connectable	for pipes and harnesses	132
with fir tree	for pipes and harnesses	133

Fixing elements for oval holes		
with fir tree	for pipes and harnesses	133

Fixing elements for round holes		
with fir tree	for pipes and harnesses	134

Fixing elements for oval holes		
with arrowhead	for corrugated tubing	135

Fixing elements for round holes		
with fir tree	for corrugated tubing	136, 137
for cable ties	for walls	138
for cable ties	TY5-Series, rivet mount	139
rivets	TY-Series	140

Blind plugs		141



1.7 Fixing products for bundles

Bundling clips for round holes		
with arrowhead	sealed	142
	for distance routing	143
with fir tree		144
Bundling clips for oval holes		
with fir tree		144, 145
	for distance routing	146
Bundling clips for weld studs		
	lateral adjustment	147
	for distance routing	147
Bundling clips for edges		
with edge clips		148



1.8 Fixing products for bundle separation

For parallel routing		
twistable up to 90°	with coupler	149
twistable up to 360°		150
twistable 360°	Swivel mounts	151



1.9 Fixing products for self-adhesive fixing

Technical information		
Installation of self-adhesive mounts		152
Paste adhesive fixing element		
In-Line Ratchet P-Clamp	for fixing with paste or liquid adhesive	153
Paste adhesive mount		
round cable tie mount	for fixing with paste or liquid adhesive	154
High performance adhesive		
squared cable tie mount	for round and angled surfaces	155
squared cable tie mount with cable clip	for round and angled surfaces	156
squared cable tie mount with cable tie	for round and angled surfaces	157
squared cable tie mount	SolidTack-Series QM	158
Standard adhesive		
squared cable tie mount	Q-Mount-Series QMA	159
High performance adhesive		
squared cable tie mount	SolidTack-Series MB	160
Standard adhesive		
squared cable tie mount	MB-Series	161
High performance adhesive		
squared cable tie mount	SMB-Series, 360° rotation	162
squared cable tie mount set	MB-Series + S50ROS cable tie	163
Magnetic		
squared cable tie mount	MAGMB-Series	164

Standard adhesive		
rectangular self-locking base mount	for flat ribbon and round cables	165
rectangular cable tie mount	TY-Series	166
squared cable clip mount	RA-Series	167
Magnetic		
squared cable clip mount	MAGRA-Series	168
Standard adhesive		
squared cable clip mount	RB-Series	169
Magnetic		
squared cable clip mount	MAGR-BSeries	170
Standard adhesive		
squared cable tie mount	with flat cable clip	171
square base mount	with flexible cable clip (ALU)	172



1.10 Fixing products for connectors

Fixing ties		
	with connector clip	173
Connector clips		
for round holes	with fir tree	174



1.11 Fixing products for weld studs

Fixing ties for weld studs		
cable routing above the stud		175
cable routing alongside the stud		176
lateral adjustment		177, 178
	heavy duty applications	179, 180
parallel routing		181, 182, 183
multi-parallel routing		184
cable routing above the stud	for small cable diameters	185
Fixing elements for weld studs		
for cable ties		186, 187
for tubes and harnesses	with automatic locking feature	188



1.12 Fixing products for screws

Fixing ties for screws		
with mounting head		189
	HDM-Series	190
for heavy duty applications	parallel routing	191
		192
Fixing elements		
for multiple parallel routing	SRC-Series	193
Fixing ties for screws		
	Soft Grip-Series	194
Cable tie mount		
squared	MB-Series	195
	for food industry, detectable	196
rectangular	TY-Series	197
rectangular, self-locking	for flat ribbon and round cables	198
	for limited space	199, 201
	CTM-, KR-, MCKR-Series	200
rectangular	Stainless Steel mounts	202
	concave tying area	203
	for limited space	204, 205
for sideways fixing	LKM-, CL-, FH-Series	206
Clamps with elasticated loop	concave tying area	207
Strain relief clips		
	Klam-Klip (KK)	208
Fixing elements for heavy duty applications		
	Torque mounts	209, 210
	for parallel separation	211
	for edges	212
	for 3-way routing	213
		214
Ratchet P-Clamps	Accessories	218
Inline Ratchet Clamps		219
Aluminium cable clamps		220
Plastic cable clamps		221
Mounting plates		222



1.13 Fixing products for edges

Fixing ties for edges		
top and side fixing		223
		224, 225
0.5 - 2.5 mm		226
1.0 - 3.0 mm		227, 228, 229
3.0 - 6.0 mm		230, 231
6.0 - 8.0 mm		231
twistable		232
1.5 - 4.0 mm		233
1.0 - 3.0 mm	parallel routing	234
Fixing elements for edges		
Frame clamp-sets		235
Beam clamps		236
heavy duty applications	multi parallel routing	237
for tubes and harnesses		238
for automatic cable tying systems		239



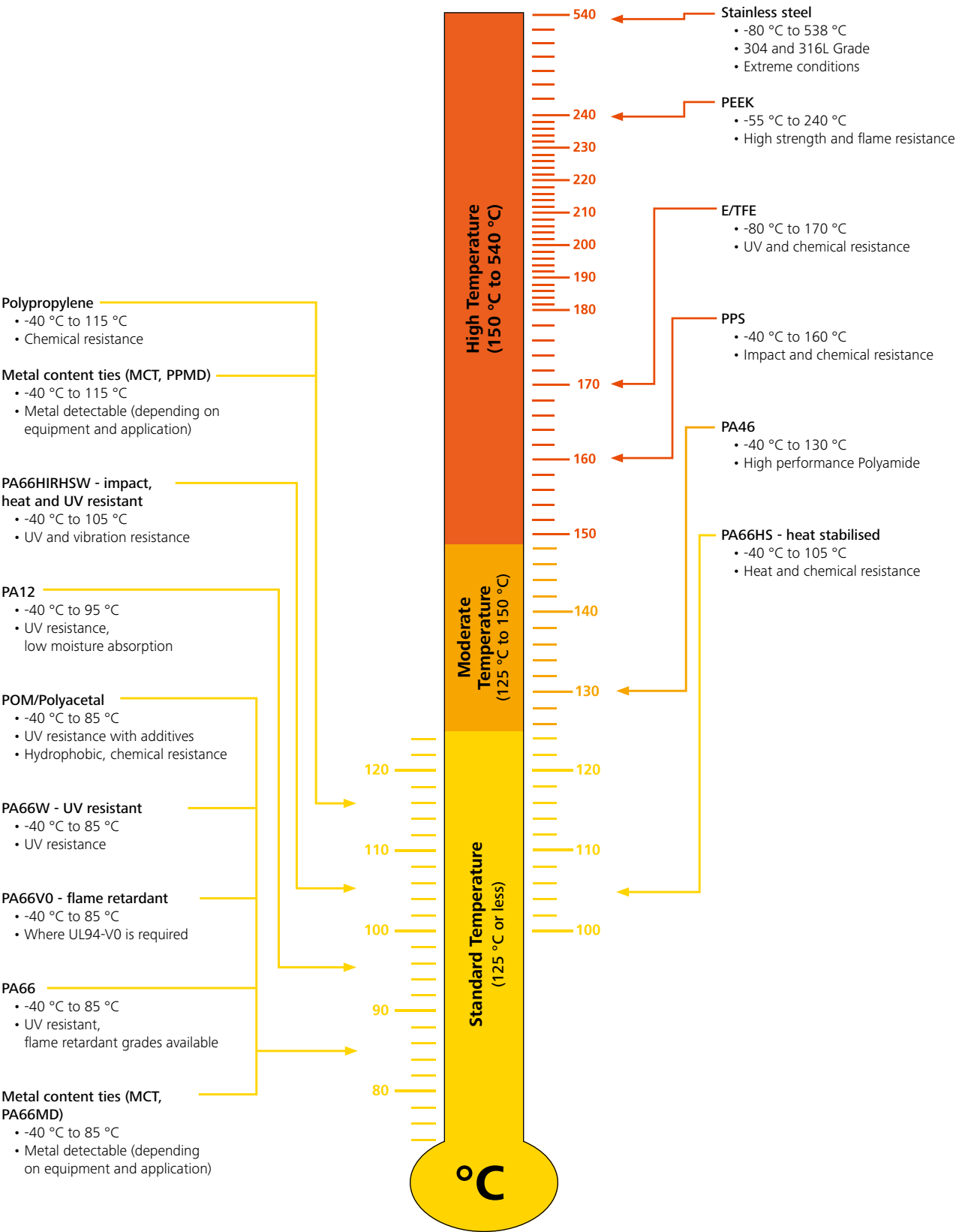
1.14 Fixing products for pipes and harnesses

Fixing ties with pipe clip		
twistable 360°		240, 241, 242
		243
twistable 360°	IAHC-Series	244
	for parallel routing	245
Fixing elements		
multi parallel routing		246, 247, 248
Snapper hose clips, SNP-Series		249



Operating temperature ranges of cable tie materials

This Material Selection Guide illustrates the minimum and maximum operating temperatures for cable ties according to the material from which we manufacture them. It gives an overview of materials HellermannTyton uses to manufacture cable ties. Please contact our sales team to check availability of products in your preferred material.



Introduction to the main locking technologies used for cable ties

HellermannTyton offers a wide range of cable ties for use in different applications. By constantly refining our products and satisfying the ever-changing demands of the market, various locking technologies have been developed. Below you will find a brief overview of three most common locking technologies and their characteristics.

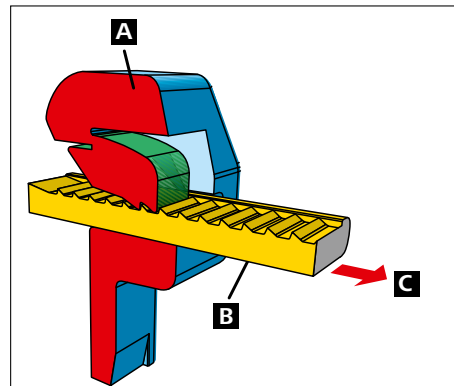
Cable ties with plastic pawls

This technology is used in 90 % of all polyamide (PA) cable ties applied by HellermannTyton. In order to cover a variety of applications, there are different variants of this system, for example: releasable versions, in-line versions, open head versions.

These are one-piece cable ties, the pawl is moulded as an integral part of the cable tie, thereby building in inherent strengths.

Locking technology

Positive locking is achieved by engaging the pawl with the strap serrations. This allows the cable tie to perform to the published minimum tensile strength, that is the loading that the cable tie can hold under application.



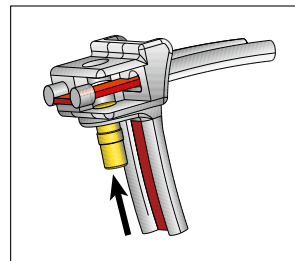
Locking technology of an outside serrated tie. A: Cable tie head B: Cable tie C: Direction of thread

KR series cable ties

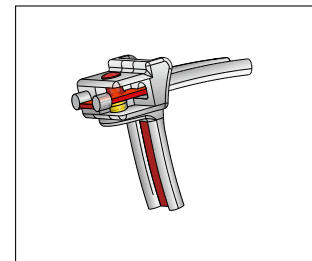
This cable tie is distinguished by its smooth strap and unique locking mechanism. With the KR series the chamfered head achieves an especially firm fit around the bundled material.

Locking technology

This locking technology takes advantage of the excellent deformation properties of polyamide (PA). Here, the glass fibre-reinforced locking pin (yellow) is forced into the strap by the use of an application tool - either the KR6/8 or KR8PNSE. The strap is deformed into the head of the tie by the application of the pin, thereby locking the cable tie in position and allowing the bundling of heavy loads.



The unlocked head (yellow) of a KR-tie.



The cable tie (red) is locked into place with the pin.

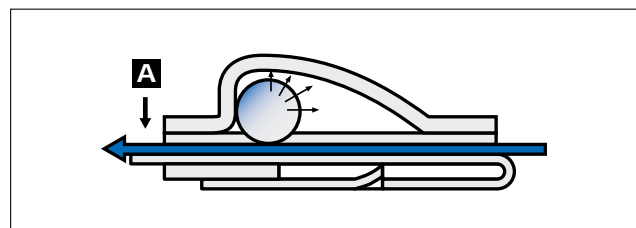
MBT series cable ties

Made of stainless steel grade 304 or 316L, the MBT range of cable ties has no serrations on the strap and is threaded parallel through the head, gliding under a metal ball-bearing locking mechanism. By using an appropriate application tool like our MK9SST the cable tie is easily and quickly tensioned, with the strap cut to a flush finish.

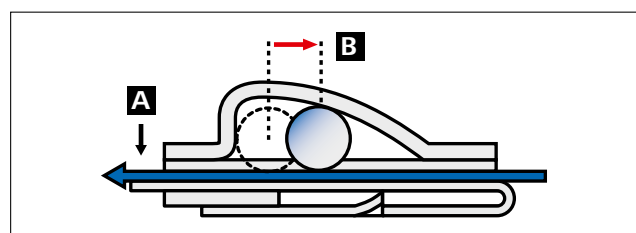
Locking technology

The strap is locked into the head via a ball bearing. The ball locks into the small end of the wedged shaped housing, forming a positive lock with strap.

For rigid objects such as metal pipes, we would recommend our protective channelling (LFPC) to be laid between the bundled object and tie strap. This not only provides protection against galvanic corrosion, but also ensures a better engagement with the bundle. The MBT locking technology keep the minimum tensile strength of up to 7,000 Newtons and standard strap lengths of up to 1.5 m.



1. Initial position, ball bearing moves freely. A: Cable tie (inserting)



2. Ball rebounds and wedges tie in place. A: Cable tie (tightening) B: Ball (wedged)

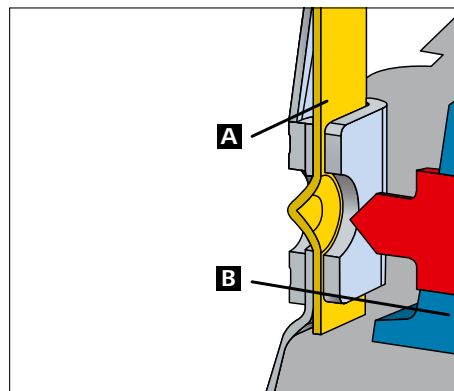
Introduction to the main locking technologies used for cable ties

MST series cable ties

MST cable ties are made of stainless steel 304. They offer similar features to MBT products but with a different head design and closure. Where space is tight the flat head allows for space savings. MST cable ties are not only weather-resistant but also highly resistant to heat, fire, and radiation. It can be used in challenging environments including indoor, outdoor and underground installations.

Locking technology

The punch-locking mechanism keeps the lock tight even in challenging areas with very high vibration such as on trains. Our MST application tools (MST6/MST9) have been specifically developed for tightening and cutting MST cable ties. This tool is mandatory to apply and lock these stainless steel cable ties properly.



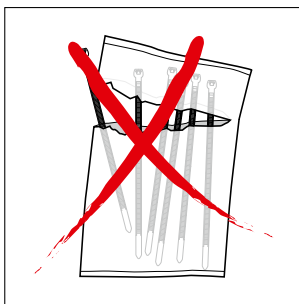
Punch-locking mechanism of the MST-Series. A: Cable tie
B: Application tool

Optimum storage conditions for cable ties made of Polyamide (PA)

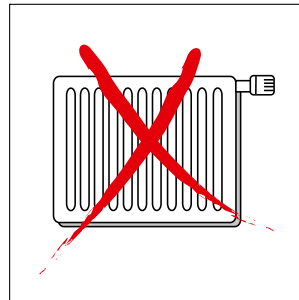
HellermannTyton cable ties, fastenings and fixings are manufactured from high-quality polyamide (PA). This industrial synthetic material is mainly processed using injection moulding, but can also be extruded. Polyamide is a hygroscopic material. This means that the material absorbs and loses moisture. For optimum handling of cable ties it is

important that the material is in a condition of equilibrium with a water content of approximately 2.5 %.

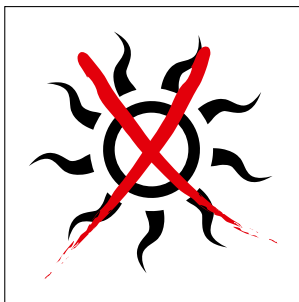
The packaging used by HellermannTyton ensures that the water content in the material remains constant. Therefore, it is important to store the products in their original packaging to preserve the quality of the ties.



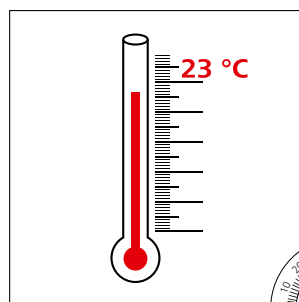
1. Once opened you should use the ties as quickly as possible.
2. Always store ties in the sealed plastic bag.



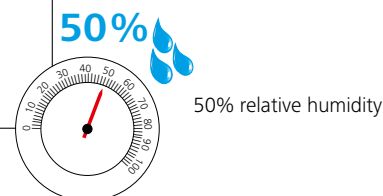
5. Store the product away from direct sources of heat.
6. Avoid contact with heat: for example, do not place on the radiators.

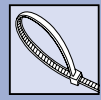


3. Do not expose the product to direct sunlight.
4. Do not store the product in sunlight; for example, on the windowsill.



7. The ideal storage conditions are those of the central European standard climate:
23 °C





Cable ties polyamide 6.6 standard

T-Series in PA66 natural and black

T-Series cable ties for bundling and securing of cables, pipes and hoses. These cable ties can be used for nearly all kind of applications.

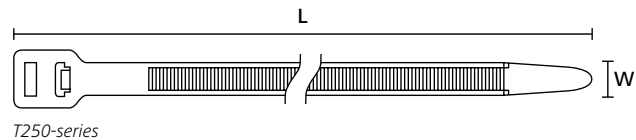
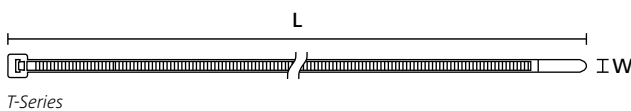
Features and benefits

- Available in a wide range of materials and sizes
- High tensile strength with very low insertion force
- Only high quality plastic is used meeting recycling targets
- Inside serrated cable ties for a strong hold onto bundles
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool



Standard T-Series cable ties – for almost any type of application.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18S	2.3	83.0	16.0	80	PA66	Natural (NA)	1000 pcs.	1-2;4-5;25	111-02809
T18R	2.5	100.0	22.0	80	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-01910
	2.5	100.0	22.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-01919
T18I	2.5	145.0	35.0	80	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-02370
	2.5	145.0	35.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-02319
T18L	2.5	205.0	50.0	80	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-02110
	2.5	205.0	50.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-02119
T25L	2.8	240.0	65.0	110	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-02500
	2.8	240.0	65.0	110	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-02519
T25LL	2.8	330.0	95.0	110	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-02619
T30R	3.5	150.0	35.0	135	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-03210
	3.5	150.0	35.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-03009
T30L	3.5	198.0	50.0	135	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-03410
	3.5	198.0	50.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-03419
T30LL	3.5	290.0	80.0	135	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-03500
	3.5	290.0	80.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-03529
T40R	4.0	175.0	40.0	180	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-01626
T50S	4.6	150.0	35.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05810
	4.6	150.0	35.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05819

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.
N = Minimum Loop Tensile Strength for Cable Ties (newton)

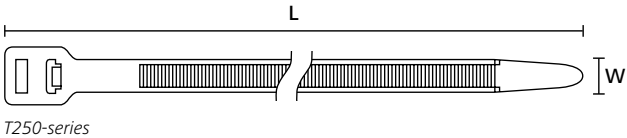
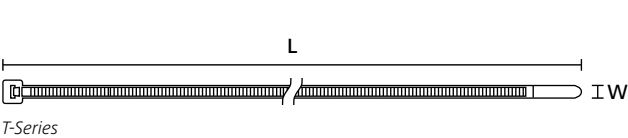


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties polyamide 6.6 standard

T-Series in PA66 natural and black



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T50R	4.6	200.0	50.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05000
	4.6	200.0	50.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05013
T50M	4.6	245.0	65.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-06200
	4.6	245.0	65.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-06201
T50I	4.6	300.0	85.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05210
	4.6	300.0	85.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05219
T50L	4.6	390.0	110.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05400
	4.6	390.0	110.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05409
T80R	4.7	205.0	55.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-08010
	4.7	205.0	55.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05019
T80I	4.7	305.0	85.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-08210
	4.7	305.0	85.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-08229
T80L	4.7	390.0	110.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05410
	4.7	390.0	110.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05419
T120S	7.6	225.0	55.0	535	PA66	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-12829
T120I	7.6	300.0	80.0	535	PA66	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12210
	7.6	300.0	80.0	535	PA66	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-12219
T150R	7.6	365.0	100.0	670	PA66	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-14810
	7.6	365.0	100.0	670	PA66	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-14819
T120R(E)	7.6	387.0	100.0	535	PA66	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12010
	7.6	387.0	100.0	535	PA66	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-12019
T120M	7.6	460.0	125.0	535	PA66	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12610
	7.6	460.0	125.0	535	PA66	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-12619
T120XM	7.6	600.0	175.0	535	PA66	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12701
	7.6	600.0	175.0	535	PA66	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-12704
T120L	7.6	760.0	225.0	535	PA66	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12403
	7.6	760.0	225.0	535	PA66	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-12429
T150M	8.9	530.0	150.0	780	PA66	Black (BK)	25 pcs.	1;6-7;9-10	111-00124
	8.9	530.0	150.0	780	PA66	Natural (NA)	25 pcs.	1;6-7;9-10	111-15619
T150L	8.9	820.0	245.0	780	PA66	Black (BK)	25 pcs.	1;6-7;9-10	111-15405
	8.9	820.0	245.0	780	PA66	Natural (NA)	25 pcs.	1;6-7;9-10	111-15419
T150XL	8.9	1095.0	330.0	780	PA66	Black (BK)	25 pcs.	1;6-7;9-10	111-15500
	8.9	1095.0	330.0	780	PA66	Natural (NA)	25 pcs.	1;6-7;9-10	111-15519

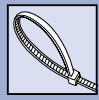
Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties polyamide 6.6 standard

T-Series in PA66 natural and black

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T150XLL	8.9	1325.0	405.0	780	PA66	Black (BK)	25 pcs.	1;6-7;9-10	111-15300
T250R	12.4	515.0	125.0	1115	PA66	Natural (NA)	25 pcs.	6-7;9-10	111-24803
T250M	12.4	565.3	150.0	1115	PA66	Black (BK)	25 pcs.	6-7;9-10	111-25001
	12.4	565.3	150.0	1115	PA66	Natural (NA)	25 pcs.	6-7;9-10	111-25002
T250I	12.4	730.0	203.0	1115	PA66	Natural (NA)	25 pcs.	6-7;9-10	111-25219
T250L	12.4	880.0	254.0	1115	PA66	Black (BK)	25 pcs.	6-7;9-10	111-24601
T250XL	12.4	1030.0	305.0	1115	PA66	Black (BK)	25 pcs.	6-7;9-10	111-25200
T250X	12.5	370.0	100.0	1115	PA66	Black (BK)	100 pcs.	6-7;9-10	111-25102

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties polyamide 6.6 standard

T-Series in PA66 coloured

Coloured T-Series cable ties are ideally suited for marking purposes. They can be used to secure and/or identify different kinds of bundles at the same time.

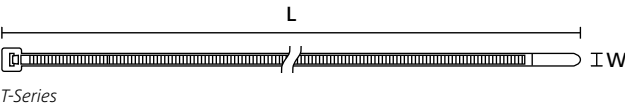
Features and benefits

- Available in a wide range of colours and sizes
- Strong cable tie to permanently mark or identify bundles
- Easy application either manually or with a processing tool
- Coloured T-Series cable ties provide an inside serration



T-Series cable ties – ideally suited for colour coding.

Material specifications: See Article-No. on our website.

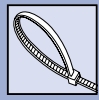


TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66	Blue (BU)	100 pcs.	1-2;4-5;25	116-01816
	2.5	100.0	22.0	80	PA66	Green (GN)	100 pcs.	1-2;4-5;25	116-01815
	2.5	100.0	22.0	80	PA66	Red (RD)	100 pcs.	1-2;4-5;25	116-01812
	2.5	100.0	22.0	80	PA66	Yellow (YE)	100 pcs.	1-2;4-5;25	116-01814
T30R	3.5	150.0	35.0	135	PA66	Blue (BU)	100 pcs.	1-2;4-5;25	111-03008
	3.5	150.0	35.0	135	PA66	Green (GN)	100 pcs.	1-2;4-5;25	111-03014
	3.5	150.0	35.0	135	PA66	Red (RD)	100 pcs.	1-2;4-5;25	111-03004
	3.5	150.0	35.0	135	PA66	Yellow (YE)	100 pcs.	1-2;4-5;25	111-03006
T50R	4.6	200.0	50.0	225	PA66	Blue (BU)	100 pcs.	1-2;4-7;25	111-04800
	4.6	200.0	50.0	225	PA66	Green (GN)	100 pcs.	1-2;4-7;25	111-04801
	4.6	200.0	50.0	225	PA66	Red (RD)	100 pcs.	1-2;4-7;25	111-04804
	4.6	200.0	50.0	225	PA66	Yellow (YE)	100 pcs.	1-2;4-7;25	111-04805
T50L	4.6	390.0	110.0	225	PA66	Blue (BU)	100 pcs.	1-2;4-7;25	111-05404
	4.6	390.0	110.0	225	PA66	Green (GN)	100 pcs.	1-2;4-7;25	111-05402
	4.6	390.0	110.0	225	PA66	Red (RD)	100 pcs.	1-2;4-7;25	111-05406
	4.6	390.0	110.0	225	PA66	Yellow (YE)	100 pcs.	1-2;4-7;25	111-05428
T80R	4.7	205.0	55.0	355	PA66	Blue (BU)	100 pcs.	1-2;4-7;25	116-08016
	4.7	210.0	55.0	355	PA66	Green (GN)	100 pcs.	1-2;4-7;25	116-08015
	4.7	210.0	55.0	355	PA66	Red (RD)	100 pcs.	1-2;4-7;25	116-08012
	4.7	210.0	55.0	355	PA66	Yellow (YE)	100 pcs.	1-2;4-7;25	116-08014

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties polyamide 6.6 standard

T-Series in PA66 coloured

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T80L	4.7	390.0	110.0	355	PA66	Blue (BU)	100 pcs.	1-2;4-7;25	116-05416
	4.7	390.0	110.0	355	PA66	Green (GN)	100 pcs.	1-2;4-7;25	116-05415
	4.7	390.0	110.0	355	PA66	Red (RD)	100 pcs.	1-2;4-7;25	116-05412
	4.7	390.0	110.0	355	PA66	Yellow (YE)	100 pcs.	1-2;4-7;25	116-05414
T150R(H)	7.6	365.0	100.0	670	PA66	Blue (BU)	100 pcs.	1;3;6-7;9-10;25	116-15016
	7.6	365.0	100.0	670	PA66	Red (RD)	100 pcs.	1;3;6-7;9-10;25	116-15012
	7.6	365.0	100.0	670	PA66	Yellow (YE)	100 pcs.	1;3;6-7;9-10;25	116-15014
T120R(E)	7.6	387.0	100.0	535	PA66	Green (GN)	100 pcs.	1;3;6-7;9-10;25	111-12001
	7.6	387.0	100.0	535	PA66	Red (RD)	100 pcs.	1;3;6-7;9-10;25	111-12002

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for outdoor use
(UV-resistant)

T-Series in PA66W/UV black

These inside serrated cable ties are made of UV-resistant Polyamide 6.6 (PA66W) and thus suitable for outdoor applications. UV stabilised cable ties resist UV radiation for a considerably longer period compared to standard PA66 cable ties. They can easily be used for bundling and securing cables, pipes and hoses especially in outdoor areas.

Features and benefits

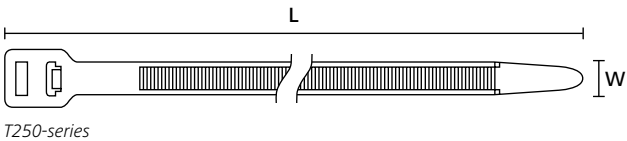
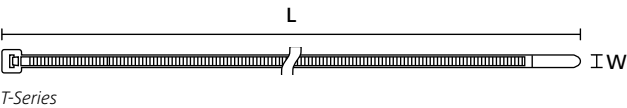
- UV-resistant black cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simple to insert due to bent tail



UV-resistant T-Series cable ties (PA66W/UV).

Specific part numbers according to
EN45545 available on request.

Material
specifications: See
Article-No. on our
website.



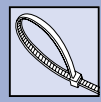
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-01960
T18I	2.5	145.0	35.0	80	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-02360
T18L	2.5	205.0	50.0	80	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-02160
T25LL	2.8	330.0	95.0	110	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-02660
T30R	3.5	150.0	35.0	135	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-03260
T30L	3.5	198.0	50.0	135	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-03460
T30LL	3.5	290.0	80.0	135	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-03570
T40R	4.0	175.0	40.0	180	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-01625
T50S	4.6	150.0	35.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05860
T50R	4.6	200.0	50.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-04889
T50M	4.6	245.0	65.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-06206
T50I	4.6	300.0	85.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05260
T50L	4.6	390.0	110.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05440

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for outdoor use (UV-resistant)

T-Series in PA66W/UV black

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T80R	4.7	205.0	55.0	355	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05060
T80I	4.7	305.0	85.0	355	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-08290
T80L	4.7	390.0	110.0	355	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05460
T120S	7.6	225.0	55.0	535	PA66W	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12830
T120I	7.6	300.0	80.0	535	PA66W	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12230
T150R(H)	7.6	365.0	100.0	670	PA66W	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-14860
T120R(E)	7.6	387.0	100.0	535	PA66W	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12060
T120M	7.6	460.0	125.0	535	PA66W	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12660
T120L	7.6	760.0	225.0	535	PA66W	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12430
T150M	8.9	530.0	150.0	780	PA66W	Black (BK)	25 pcs.	1;6-7;9-10	111-15660
T150L	8.9	820.0	245.0	780	PA66W	Black (BK)	25 pcs.	1;6-7;9-10	111-15460
T150XL	8.9	1095.0	330.0	780	PA66W	Black (BK)	25 pcs.	1;6-7;9-10	111-15502
T150XLL	8.9	1325.0	405.0	780	PA66W	Black (BK)	25 pcs.	1;6-7;9-10	111-15305
T250R	12.4	515.0	125.0	1115	PA66HIRHSUV	Black (BK)	25 pcs.	6-7;9-10	111-24805

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for temperatures up to + 105°C (heat stabilised)

T-Series in PA66HS natural and black

These inside serrated cable ties are made from heat stabilised Polyamide 6.6 (PA66HS). They can be applied in environments with continuous temperatures up to +105 °C. T-Series cable ties can be easily installed by hand or using an application tool to ensure consistency of installation.

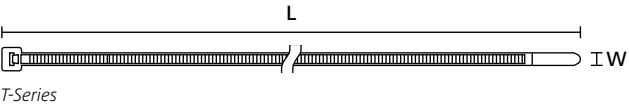
Features and benefits

- Heat stabilised cable ties (PA66HS) for temperatures up to +105 °C
- Available in a wide range of sizes to cover almost every application
- Inside serration provides a strong hold onto bundles
- Manual and/or pneumatic tools available for greater process reliability
- Commonly offered in natural and black, other colours available on request



Heat stabilised T-Series cable ties up to +105 °C.

Material specifications: See Article-No. on our website.



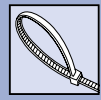
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-01950
	2.5	100.0	22.0	80	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-01959
T18I	2.5	145.0	35.0	80	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-02358
	2.5	145.0	35.0	80	PA66HS	Natural (NA)	1000 pcs.	1-2;4-5;25	111-02359
T18L	2.5	205.0	50.0	80	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-02049
	2.5	205.0	50.0	80	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-02159
T30ROS	3.4	145.0	35.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	118-04800
T30R	3.5	150.0	35.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-03050
	3.5	150.0	35.0	135	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-03259
T30L	3.5	198.0	50.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-03450
	3.5	198.0	50.0	135	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-03459
	3.5	198.0	50.0	135	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-03460
T30LL	3.5	290.0	80.0	135	PA66HS	Black (BK)	1000 pcs.	1-2;4-5;25	111-03660
	3.5	290.0	80.0	135	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-03569
T40R	4.0	175.0	40.0	180	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-03970
	4.0	175.0	40.0	180	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-01627
T50S	4.6	150.0	35.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-05850
	4.6	150.0	35.0	225	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05859
T50R	4.6	200.0	50.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-04950

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. For product specific approvals and specifications please refer to the website. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for temperatures up to + 105°C (heat stabilised)

T-Series in PA66HS natural and black

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T50ROS	4.6	200.0	50.0	225	PA66HS	Black (BK)	500 pcs.	1-2;4-7;25	118-05040
T50MOS	4.6	245.0	66.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	118-00018
T50I	4.6	300.0	85.0	225	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05259
	4.6	305.0	80.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-05250
T50L	4.6	390.0	110.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-05450
	4.6	390.0	110.0	225	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05436
T80R	4.7	205.0	55.0	355	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05059
T80I	4.7	305.0	85.0	355	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-08259
T80L	4.7	390.0	110.0	355	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-00388
	4.7	390.0	110.0	355	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05459
T150R(H)	7.6	365.0	100.0	670	PA66HS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-15050
	7.6	365.0	100.0	670	PA66HS	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-15069
T120R(E)	7.6	387.0	100.0	535	PA66HS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12050
	7.6	387.0	100.0	535	PA66HS	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-12059
T120M	7.6	460.0	125.0	535	PA66HS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-00153
T120XM	7.6	600.0	175.0	535	PA66HS	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12700
	7.6	600.0	175.0	535	PA66HS	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-12719
T120L	7.6	760.0	225.0	535	PA66HS	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12440
	7.6	760.0	225.0	535	PA66HS	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-12449
T150M	8.9	530.0	150.0	780	PA66HS	Black (BK)	25 pcs.	1;6-7;9-10	111-15609
T150L	8.9	820.0	245.0	780	PA66HS	Black (BK)	25 pcs.	1;6-7;9-10	111-15410
T150XL	8.9	1095.0	330.0	780	PA66HS	Black (BK)	25 pcs.	1;6-7;9-10	111-15510

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. For product specific approvals and specifications please refer to the website. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for higher impact resistant polyamide 6.6 ScanBlack

T-Series in PA66HIR(S) black

Impact resistant T-Series cable ties are manufactured from PA66HIR(S) – an impact modified material formulation. This high performance material offers limited brittleness sensitivity and a higher flexibility even at low temperatures. PA66HIR(S) cable ties meet increasing requirements like in the chemical, medical and/or automotive industry.

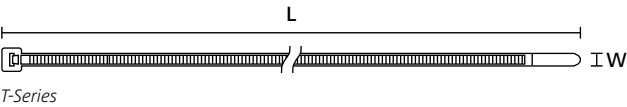
Features and benefits

- Impact resistant cable tie in black colour
- For bundling and securing cables, pipes and hoses
- Available in different sizes
- Higher flexibility especially in cold environments
- Limited brittleness sensitivity



Impact resistant T-Series cable tie (PA66HIR(S)).

Material specifications: See Article-No. on our website.

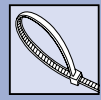


TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T50R	4.6	200.0	50.0	225	PA66HIR(S)	Black (BK)	100 pcs.	1-2;4-7;25	111-04890
T50I	4.6	300.0	85.0	225	PA66HIR(S)	Black (BK)	100 pcs.	1-2;4-7;25	111-00222
T50L	4.6	390.0	110.0	225	PA66HIR(S)	Black (BK)	100 pcs.	1-2;4-7;25	111-05441
T120I	7.6	300.0	80.0	535	PA66HIR(S)	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12203
T120R(E)	7.6	387.0	100.0	535	PA66HIR(S)	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-12032
T120L	7.6	760.0	225.0	535	PA66HIR(S)	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-12402

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties made from post-industrial recycled polyamide 6.6

T-Series in PA66HIRHS(REC) black

T-Series cable ties are ideal for bundling and securing cables, pipes and hoses. These cable ties can be used for nearly all kinds of applications, offering high performance along good thermal resistance. PIR range gives you the choice to make a sustainable difference in your cable management without compromising on performance.

Features and benefits

- Manufactured from Post Industrial Recycled (PIR) PA66
- Heat stabilised, impact modified material
- High tensile strength with very low insertion force
- Inside serrated cable ties for a strong hold onto bundles
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool



T-Series cable ties made from post-industrial recycled PA66 – heat stabilised and impact modified.



T-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-5;25	111-00000
T30R	3.5	150.0	35.0	135	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-5;25	111-03083
T50R	4.6	200.0	50.0	225	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-7;25	111-05018
T120R	7.6	387.0	105.0	535	PA66HIRHS(REC)	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-00447

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for higher fire-protection

T-Series in PA66V0 white

T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application especially where safety regulations are high and the reduction of smoke and dangerous gases is required. PA66V0 products are most critically used within public sector areas – particularly in the rail, construction and defence industry.

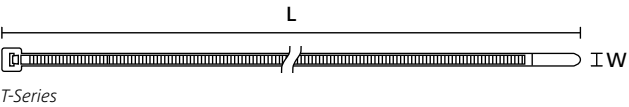
Features and benefits

- White cable tie for higher fire-protection
- Conform to low smoke generation requirements (UL94 V0)
- Low evolution of toxic gases and corrosive acids in event of a fire
- PA66V0 cable ties are available in different sizes
- High safety rating due to low fire hazard



Flame retardant cable tie made from PA66V0 material.

Material specifications: See Article-No. on our website.

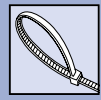


TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66V0	White (WH)	100 pcs.	1-2;4-5;25	111-91819
T18L	2.5	203.2	55.0	80	PA66V0	White (WH)	1000 pcs.	1-2;4-5;25	111-02043
T30R	3.6	150.0	35.0	135	PA66V0	White (WH)	100 pcs.	1-2;4-5;25	111-93019
T50R	4.6	200.0	50.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-7;25	111-95019
T50I	4.6	300.0	85.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-7;25	111-00317
T50L	4.7	390.0	110.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-7;25	111-05438
T120R(E)	7.6	387.0	100.0	535	PA66V0	White (WH)	100 pcs.	1;3;6-7;9-10;25	111-91210

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for temperatures up to +150 °C (5000 h) in polyamide 4.6

T-Series in PA46 natural and grey

These inside serrated cable ties are made from Polyamide 4.6 (PA46). They can be applied in environments with temperatures up to +195 °C (for 500 hours) which makes them suitable for applications where a broader temperature range is required. Polyamide 4.6 is a well known material in the automotive, railway or white goods area. An application tool is recommended to ensure greater process reliability while installing cable ties.

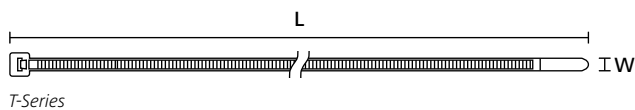
Features and benefits

- Cable tie for high temperature applications up to +150 °C (5000 h) and +195 °C (500 h)
- Available in different sizes to cover various bundle diameters
- Low smoke generation in the event of a fire
- PA46 is a moisture sensitive material
- Inside serrated cable tie offers strong hold around bundles
- Easy application either manually or with an application tool



T-Series cable ties – higher temperature resistance up to +150 °C for 5000 hours (PA46).

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA46	Natural (NA)	1000 pcs.	1-2;4-5;25	114-01879
T30R	3.5	150.0	35.0	135	PA46	Grey (GY)	100 pcs.	1-2;4-5;25	111-00264
	3.5	150.0	35.0	135	PA46	Natural (NA)	100 pcs.	1-2;4-5;25	114-03079
T50R	4.6	202.0	50.0	225	PA46	Grey (GY)	100 pcs.	1-2;4-7;25	111-00824
	4.6	202.0	50.0	225	PA46	Natural (NA)	100 pcs.	1-2;4-7;25	111-00525
T50I	4.6	300.0	85.0	225	PA46	Natural (NA)	100 pcs.	1-2;4-7;25	111-05220
T50L	4.6	390.0	110.0	225	PA46	Natural (NA)	100 pcs.	1-2;4-7;25	111-00526
T120R(E)	7.6	387.0	100.0	535	PA46	Grey (GY)	100 pcs.	1;3;6-7;9-10;25	111-00819
	7.6	387.0	100.0	535	PA46	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	114-12179

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for higher chemical resistance and temperatures of -80° to +170 °C

T-Series in E/TFE (Tefzel®) blue

E/TFE or Tefzel® cable ties are used when higher chemical resistance and/or temperatures up to +170 °C are required. These ties are most likely chosen for challenging applications in industries like food and beverage, aerospace, automotive or railway.

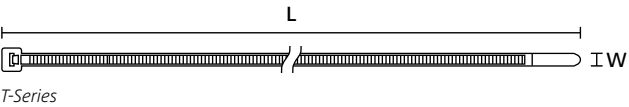
Features and benefits

- Blue cable tie offering high chemical resistance
- Suitable for applications with temperatures of -80° to +170 °C
- Resistant to radioactivity and UV light
- E/TFE is a non hydroscopic material, no moisture absorption
- Complying with UL94 V0 requirements



T-Series E/TFE cable ties – for higher chemical resistance up to +170 °C.

Material specifications: See Article-No. on our website.



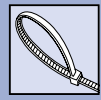
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	E/TFE	Blue (BU)	100 pcs.	2;5	111-00659
T30R	3.5	150.0	36.0	133	E/TFE	Blue (BU)	100 pcs.	1-2;4-5;25	111-00698
T50R	4.7	202.0	50.0	222	E/TFE	Blue (BU)	100 pcs.	1-2;4-7;25	111-00732
T50L	4.7	381.0	105.0	225	E/TFE	Blue (BU)	100 pcs.	1-2;4-7;25	111-00718
T120R	7.4	387.0	105.0	535	E/TFE	Blue (BU)	50 pcs.	1;3;6-7;9-10;25	111-01125

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In addition to Tefzel® from DuPont HellermannTyton also uses equivalent E/TFE raw material from other suppliers. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Polypropylene cable ties for higher chemical resistance and temperatures up to +115 °C

T-Series in PP natural and black

T-Series cable ties made from Polypropylene (PP) are less hydroscopic and offer a higher chemical resistance and temperature range compared to a standard Polyamide 6.6 (PA66) material. Cable ties from Polypropylene can withstand continuous operating temperatures up to +115 °C. These cable ties are used to bundle and secure cables, pipes and/or hoses.

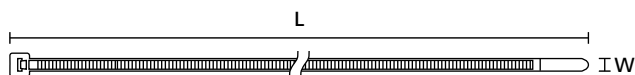
Features and benefits

- Polypropylene cable ties for higher chemical resistance
- Can withstand continuous operating temperatures up to +115 °C
- Different sizes available in black and natural colour
- Due to its low density PP cable ties can float on water
- Less hydroscopic material, almost no water absorption
- Polypropylene is a lightweight material due to its density
- The production of polypropylene generally requires less energy compared to other plastics



T-Series cable ties for higher chemical resistance and temperatures up to +115 °C (PP).

Material specifications: See Article-No. on our website.



T-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	19.0	36	PP	Black (BK)	100 pcs.	1-2;4-5;25	111-01917
	2.5	100.0	19.0	36	PP	Natural (NA)	1000 pcs.	1-2;4-5;25	111-01922
T30R	3.6	148.0	32.0	89	PP	Natural (NA)	100 pcs.	1-2;4-5;25	111-03017
T50R	4.6	202.0	44.5	110	PP	Black (BK)	100 pcs.	1-2;4-7;25	111-04928
	4.6	202.0	44.5	110	PP	Natural (NA)	100 pcs.	1-2;4-7;25	111-04931
T120R	7.6	387.0	104.0	270	PP	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-08313

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties made from sustainable bioplastic

T-Series in PA11 black

T-Series cable ties manufactured from PA11 have many technical features making them suitable for use in a variety of applications to fix and support cables, pipes and other elements. They offer an excellent resistance to chemicals in most challenging environments like offshore or on oil rigs and construction vehicles. In addition the very good UV resistance makes it a perfect choice for solar panel cable installations.

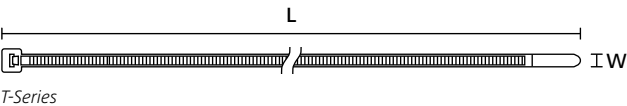
Features and benefits

- Made of Polyamide 11 – a sustainable bioplastic from vegetable oil
- Very good UV resistance and durability in outdoor applications
- Stable technical performance even at very low temperatures
- High resistance to chemicals including chlorides
- Low water absorption rate offers consistent technical performance



A sustainable T-Series cable tie with high resistance to chemicals and UV light.

Material specifications: See Article-No. on our website.



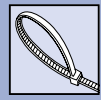
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA11	Black (BK)	100 pcs.	1-2;4-5;25	111-01718
T30R	3.5	150.0	35.0	130	PA11	Black (BK)	100 pcs.	1-2;4-5;25	111-01719
T50S	4.6	150.0	35.0	170	PA11	Black (BK)	100 pcs.	1-2;4-7;25	111-01720
T50R	4.6	200.0	50.0	170	PA11	Black (BK)	100 pcs.	1-2;4-7;25	111-01721
T50I	4.6	300.0	85.0	225	PA11	Black (BK)	100 pcs.	1-2;4-7;25	111-02217

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties in-between size to T-Series

LK-Series

For bundling and securing cables, pipes, hoses and other elements. These cable ties can be used for a countless number of applications. The LK-Series is similar to T-Series but offers in-between sizes to fit individual customer needs.

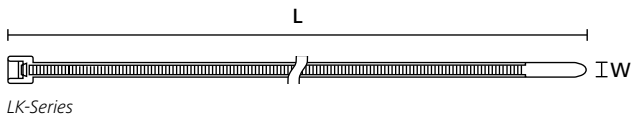
Features and benefits

- Inside serrated cable ties for a strong hold around bundles
- Various materials and sizes are available
- High tensile strength with very low insertion force
- Easy application either manually or with an application tool



LK-Series – in-between size to T-Series.

Material specifications: See Article-No. on our website.



LK-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
LK2A	4.6	270.0	73.0	225	PA66	Black (BK)	100 pcs.	1-2;4-5;25	111-60110
	4.6	270.0	73.0	225	PA66	Blue (BU)	100 pcs.	1-2;4-5;25	111-60104
	4.6	270.0	73.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	111-60119
	4.6	270.0	73.0	225	PA66	Red (RD)	100 pcs.	1-2;4-5;25	111-60106
	4.6	270.0	73.0	225	PA66	Yellow (YE)	100 pcs.	1-2;4-5;25	111-60108
	4.6	270.0	73.0	225	PA66HIR	Black (BK)	500 pcs.	1-2;4-5;25	111-00118
	4.6	270.0	73.0	225	PA66HIR(S)	Black (BK)	100 pcs.	1-2;4-5;25	111-00127
	4.6	270.0	73.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-60150
	4.6	270.0	73.0	225	PA66HS	Brown (BN)	100 pcs.	1-2;4-5;25	111-60136
	4.6	270.0	73.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	111-60160
LK2	4.8	120.0	28.0	135	PA66	Natural (NA)	200 pcs.	1-2;4-5;25	111-60219
LK5	13.2	535.0	150.0	1115	PA66	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-60510
	13.2	535.0	150.0	1115	PA66	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-60519
	13.2	535.0	150.0	1115	PA66HIR(S)	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-60501
	13.2	535.0	150.0	1115	PA66HS	Natural (NA)	50 pcs.	1;3;6-7;9-10;25	111-60559
	13.2	535.0	150.0	1115	PA66W	Black (BK)	50 pcs.	1;3;6-7;9-10;25	111-60560

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



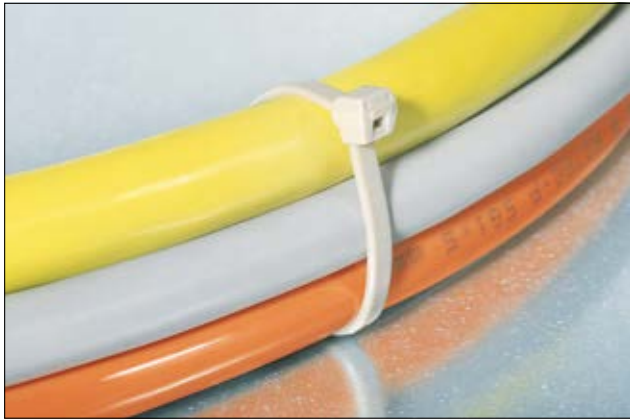
Cable ties for high temperature applications up to +240 °C

PEEK Ties, inside serrated

PEEK Ties have been designed for use in hazardous environments. Their suitability for high temperature applications makes them ideal for use in the drilling industry, railway, offshore or automotive industry. The excellent chemical and radium ray resistance is predestined for applications in medical engineering, chemical industry and power stations. Within the aerospace industry, PEEK ties are suitable due to their good ratio weight to tensile strength. Because of this combination of different properties, PEEK ties can replace metal solutions.

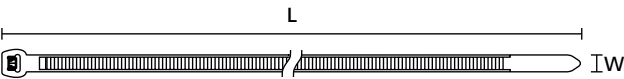
Features and benefits

- For high temperature applications from -55 °C up to +240 °C
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to curved head design
- Combines the performance of a metal tie with the ease of use of a polyamide cable tie
- Manual and/or pneumatic tools available for greater process reliability



The PEEK cable tie PT220 for high temperature applications.

Material specifications: See Article-No. on our website.



PEEK-Series

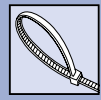
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Colour	Pack Cont.	Tools	Article-No.
PT220	4.7	220.0	8.0	56.0	380	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	111-01235

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with smart design

X-Series

The X-Series range of cable ties provides a new and improved design compared with standard cable ties, delivering a range of benefits and enhanced performance. With a new streamlined design and smaller head, the X-Series cable ties provide a superior fixing solution for tight applications, whilst also benefiting from a better grip around the bundle. This professional cable tie range is available in weather resistant and high impact / heat stabilised materials, ensuring these fixings consistently perform well both at high temperatures and in cold environments.

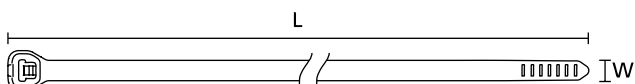
Features and benefits

- Inside serrated cable tie
- High tensile strength around cable bundles
- Smooth, rounded head design
- Space saving solution
- Improved ergonomic design
- Provides a secure fastening with no lateral movement



X-Series provides a superior fixing solution for tight applications.

Material specifications: See Article-No. on our website.



X-series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
X80R	4.7	200.0	50.0	355	PA66HIRHS	Black (BK)	100 pcs.	1-2;4-5;25	108-00004
X80I	4.7	300.0	84.0	355	PA66HIRHS	Black (BK)	100 pcs.	1-2;4-5;25	108-00018
X80L	4.7	385.0	110.0	355	PA66HIRHS	Black (BK)	100 pcs.	1-2;4-5;25	108-00028
X120R	7.7	369.0	100.0	535	PA66HIRHS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	108-00040
X250R	13.0	535.0	150.0	1115	PA66HIRHS	Black (BK)	50 pcs.	1;3;6-7;9-10;25	108-00050
	13.0	535.0	150.0	1115	PA66V	Black (BK)	50 pcs.	1;3;6-7;9-10;25	108-00052
X250I	13.0	715.0	205.0	1115	PA66HIRHS	Black (BK)	50 pcs.	1;3;6-7;9-10;25	108-00045

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for hose and gaiter

CTT-Series natural and black

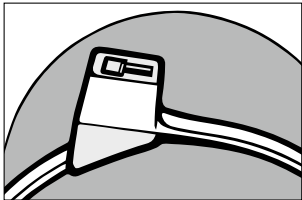
CTT is designed to secure pipes, hoses and gaiters where low pressures are being secured. These ties can be used in many different industries including automotive, white goods manufacturing, medical industry and construction.

Features and benefits

- Curved head design offers a good fit to the bundle
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool

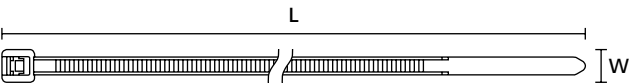


CTT ties installed on flexible gaiters.

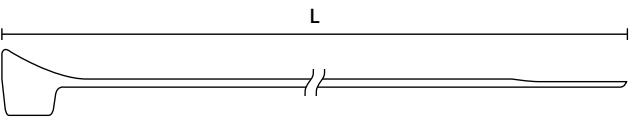


For secure fixing of round and solid shapes.

Material specifications: See Article-No. on our website.



CTT series



CTT Hose Ties

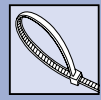
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
CTT20R	2.5	100.0	13.0	89	PA66HS	Black (BK)	1000 pcs.	1-2;4-5;25	112-51960
	2.5	100.0	13.0	90	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	112-51919
CTT60R	4.7	205.0	45.0	267	PA66	Black (BK)	100 pcs.	1-2;4-5;25	112-56019
	4.7	205.0	45.0	267	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	112-52112
CTT150L	8.3	784.0	230.0	535	PA66HS	Black (BK)	50 pcs.	1;3;10	112-00024

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for parallel routing

DH-Series

Double loop head ties are ideal for separation of two cable runs without the need for additional cable ties. Additionally these ties are widely used within the packaging industry. The first loop closes and secures the bag whilst the second loop can be made into a carrying handle (subject to weight).

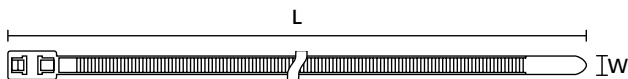
Features and benefits

- Possibility to separate bundles with only one cable tie
- Cable tie with two heads creating an inside and outside serrated loop
- Available in a wide range of materials
- Bundles can be of different diameter
- Maximum bundle diameter is a maximum combined bundle
- Easy application either manually or with a processing tool

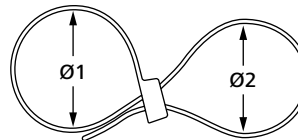


DH-Series cable ties for parallel routing.

Material specifications: See Article-No. on our website.



DH-Series



DH-Series maximum combined bundle diameter

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Min. Tensile Strength 2nd loop	Material	Colour	Pack Cont.	Tools	Article-No.
T50RDH	4.7	210.0	38.0	225	180 N	PA46	Grey (GY)	100 pcs.	1-2;4-7;25	117-05168
	4.7	210.0	38.0	225	180 N	PA66	Black (BK)	100 pcs.	1-2;4-7;25	117-05000
	4.7	210.0	38.0	225	180 N	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	117-05002
	4.7	210.0	38.0	225	180 N	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	117-05050
	4.7	210.0	38.0	225	180 N	PA66W	Black (BK)	500 pcs.	1-2;4-7;25	117-05060
T50IDH	4.7	305.0	76.2	225	180 N	PA66HS	Black (BK)	1000 pcs.	1-2;4-7;25	117-05350
	4.7	305.0	76.2	225	180 N	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	117-05360
T50LDH	4.7	395.0	100.0	225	180 N	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	117-00008

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for food industry, detectable

MCT-Series

The Metal Content Tie is a cable tie specifically designed for use in the food and pharmaceutical processing industries. A unique manufacturing process, involving the inclusion of a metallic pigment, enables even small 'cut-off' sections of the tie to be detected by standard metal-detecting equipment. Ideally suited for the installaton of cabling in and around the manufacturing process.

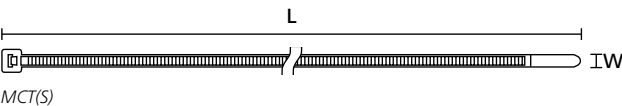
Features and benefits

- Total metal dispersion throughout the tie
- Can support quality assurance in the production of food stuffs, for example HACCP
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Metal detectable (detection level depending on specific application and equipment)



Our detectable MCT(S) cable ties are used in the food and pharmaceutical industry.

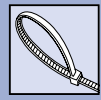
Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
MCT18R	2.5	100.0	22.0	80	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01225
MCT30R	3.5	150.0	35.0	135	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-00829
MCT50R	4.6	203.2	50.0	225	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-00830
MCT50L	4.7	380.0	110.0	225	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-00831
	4.7	380.0	110.0	225	PA66MD	Yellow (YE)	100 pcs.	1-2;4-5;25	111-01168
MCT120R	7.6	387.0	100.0	535	PA66MD	Blue (BU)	100 pcs.	1;3;6-7;9-10;25	111-01136

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties for food industry, detectable

MCTS-Series, corrosion resistant

Our MCTS cable ties have been specifically developed to be used in the food and beverage as well as in the pharmaceutical industry. A unique manufacturing process in combination with a unique material formulation is offering outstanding performance in line with high corrosion resistance. This makes the MCTS an ideal product even for very humid environments. In addition the MCTS ties manufactured from a polypropylene base material are offering very good chemical resistance.

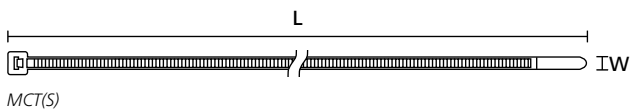
Features and benefits

- Total metal dispersion throughout the tie
- Can support quality assurance in the production of food stuffs, for example HACCP
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Metal detectable (detection level depending on specific application and equipment)
- MCTS ties have very good corrosion resistance



Our detectable MCT(S) cable ties are used in the food and pharmaceutical industry.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
MCTS100	2.5	100.0	22.0	60	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01341
MCTS150	3.5	153.0	36.0	110	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01342
	3.5	153.0	36.0	110	PA66MD	Mustard (MST)	100 pcs.	1-2;4-5;25	111-01381
MCTS200	4.7	202.0	50.0	150	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01343
	4.7	202.0	50.0	150	PA66MD	Mustard (MST)	100 pcs.	1-2;4-5;25	111-01382
	4.7	202.0	50.0	150	PA66MD	Russet (RUS)	100 pcs.	1-2;4-5;25	111-01385
MCTS300	4.8	301.0	80.0	150	PA66MD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01399
	4.8	301.0	80.0	150	PA66MD	Mint Green (MGN)	100 pcs.	1-2;4-5;25	111-01400
	4.8	301.0	80.0	150	PA66MD	Mustard (MST)	100 pcs.	1-2;4-5;25	111-01401
	4.8	301.0	80.0	150	PA66MD	Russet (RUS)	100 pcs.	1-2;4-5;25	111-01402

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties for food industry, detectable

MCTPP-Series

The Metal Content cable tie is designed for use in the food and pharmaceutical processing industries. The ties material include metallic pigments, so it enables even small 'cut-off's to be detected by standard metal-detecting equipment. Ideally suited for the installaton of cabling in and around the manufacturing process.

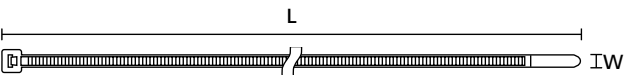
Features and benefits

- Manufactured from metal content Polypropylene
- High chemical and temperature resistance
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Metal detectable (detection level depending on specific application and equipment)
- Can support quality assurance in the production of food stuffs, for example HACCP

Material specifications: See Article-No. on our website.



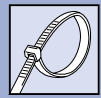
MCTPP ties have a high chemical and temperature resistance.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
MCTPP18R	2.4	100.0	22.0	85	PPMD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01664
MCTPP30R	3.5	150.0	35.0	130	PPMD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01665
MCTPP50R	4.6	203.2	50.0	150	PPMD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01666
MCTPP50L	4.6	390.0	110.0	150	PPMD	Blue (BU)	100 pcs.	1-2;4-5;25	111-01667
MCTPP120R	7.6	387.0	100.0	380	PPMD	Blue (BU)	100 pcs.	1;3;6-7;9-10;25	111-01668

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties for thin-walled bundles

OS-Series

OS-Series cable ties are used in many areas where thin-walled or soft insulation wires and cable are being installed, for instance automotive and electrical industry.

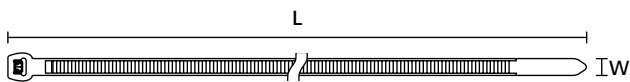
Features and benefits

- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head design
- Easy insertion combined with high tensile strength
- PA46 material for higher temperatures up to +195 °C (500 h)
- PA66V0 cable ties fulfill Limited Fire Hazard requirements
- Easy application either manually or with a processing tool



Outside serrated OS-Series cable tie with smooth surface to the bundle.

Material specifications: See Article-No. on our website.



OS-Series



The curved head design of the OS-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18ROS	2.5	100.0	20.0	80	PA66HS	Black (BK)	500 pcs.	1-2;4-5;25	118-04701
	2.5	100.0	20.0	80	PA66HS	Natural (NA)	1000 pcs.	1-2;4-5;25	118-00035
	2.5	100.0	20.0	80	PA66V0	White (WH)	100 pcs.	1-2;4-5;25	118-00079
T30ROS	3.4	145.0	35.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	118-04800
T30LOS	3.4	200.0	50.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	118-04900
	3.4	200.0	50.0	135	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	118-00044
	3.4	200.0	50.0	135	PA66V0	White (WH)	100 pcs.	1-2;4-5;25	118-00080
T50SOS	4.6	150.0	35.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	118-05850
T50ROS	4.6	200.0	50.0	225	PA46	Grey (GY)	500 pcs.	1-2;4-7;25	118-05078
	4.6	200.0	50.0	225	PA66HS	Black (BK)	500 pcs.	1-2;4-7;25	118-05040
	4.6	200.0	50.0	225	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	118-05059
	4.6	200.0	50.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	118-00127
	4.6	203.2	50.0	225	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-7;25	118-00149
T50MOS	4.6	245.0	66.0	225	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-5;25	118-00173
	4.6	245.0	66.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	118-00018
	4.6	245.0	66.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-5;25	118-00081
	4.6	245.0	66.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	118-00128
T50LOS	4.6	384.0	110.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	118-05900

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



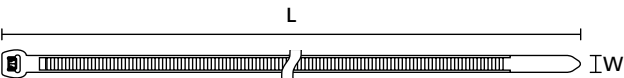
EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for thin-walled bundles

OS-Series



OS-Series

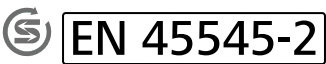


The curved head design of the OS-Series

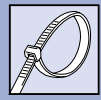
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T120ROS	7.6	385.0	105.0	535	PA66HIRHS(REC)	Black (BK)	100 pcs.	1;3;6-7;9-10;25	118-00174
	7.6	385.0	105.0	535	PA66HS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	118-00066
	7.6	385.0	105.0	535	PA66HS	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	118-00067
	7.6	385.0	105.0	535	PA66V0	White (WH)	100 pcs.	1;3;6-7;9-10;25	118-00082
	7.6	385.0	105.0	535	PA66W	Black (BK)	100 pcs.	1;3;6-7;9-10;25	118-00130

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties made from post-industrial recycled polyamide 6.6

OS-Series in PA66HIRHS(REC) black

OS-Series cable ties deliver high performance with resistance to abrasion, petrol and oil. Made from a more sustainable, durable polymer that requires no moisture conditioning, they are ideal for a wide range of workflows and applications even in tough conditions and demanding environments.

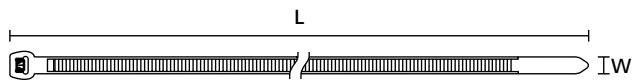
Features and benefits

- Manufactured from Post Industrial Recycled (PIR) PA66
- Heat stabilised, impact modified material
- Easy insertion combined with high tensile strength
- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head design
- Easy application either manually or with a processing tool



OS-Series cable ties made from post-industrial recycled PA66 – heat stabilised and impact modified.

Material specifications: See Article-No. on our website.



OS-Series



The curved head design of the OS-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T50ROS	4.6	203.2	50.0	225	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-7;25	118-00149
T50MOS	4.6	245.0	66.0	225	PA66HIRHS(REC)	Black (BK)	100 pcs.	1-2;4-5;25	118-00173
T120ROS	7.6	385.0	105.0	535	PA66HIRHS(REC)	Black (BK)	100 pcs.	1;3;6-7;9-10;25	118-00174

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for thin-walled bundles

S-Series, Polypropylene (PP)

S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO2 footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

Features and benefits

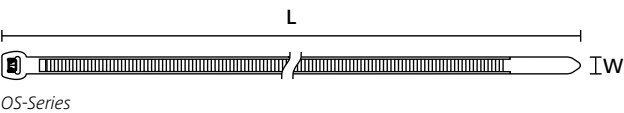
- The S50ROS features a significantly lower CO₂ footprint compared to cable ties made of standard material, in line with sustainability goals in various industries
- The outside serration design ensures gentle handling of sensitive cables and bundles, reducing the risk of damage during installation and maintenance
- With an anti-slip feature on the inside, the S50ROS prevents undesired lateral movement of cables and bundles, maintaining tidy and organized cable management within vehicles
- Resistant to various chemicals including salt and acid, the S50ROS is ideal for automotive applications where exposure to harsh environments is common, ensuring long-lasting performance and reliability



S-Series cable ties provide more sustainable and reliable bundling in harsh environments.

Please find more details on www.HellermannTyton.com/S50ROS

Material specifications: See Article-No. on our website.



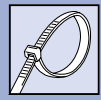
The curved head design of the OS-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
S50ROS	4.9	200.0	50.0	185	PP	Black (BK)	100 pcs.	5	118-00272
	4.9	200.0	50.0	185	PP	Black (BK)	1000 pcs.	5	118-00270

Recommended Tools: 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for high temperature applications up to +240 °C

PEEK Ties, outside serrated

PEEK Ties have been designed for use in hazardous environments. Their suitability for high temperature applications makes them ideal for use in the drilling industry, railway, offshore or automotive industry. The excellent chemical and radium ray resistance is predestined for applications in medical engineering, chemical industry and power stations. Within the aerospace industry, PEEK ties are suitable due to their good ratio weight to tensile strength. Because of this combination of different properties, PEEK ties can replace metal solutions.

Features and benefits

- For high temperature applications from -55 °C up to +240 °C
- Outside serrated cable tie with smooth surface to the bundle
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to curved head design
- Combines the performance of a metal tie with the ease of use of a polyamide cable tie
- Manual and/or pneumatic tools available for greater process reliability

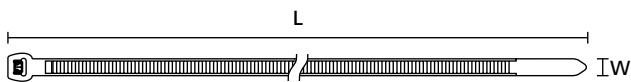


Outside serrated Cable Tie and Identification tag HFTP48 made from Peek.



A clearly better way of identifying cables and pipes with HFTP PEEK tags.

Material specifications: See Article-No. on our website.



PEEK-Series

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
PT2A		3.4	145.0	4.0	35.0	230	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	118-00032
PT3B		4.7	250.0	4.0	65.0	300	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	118-00116

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



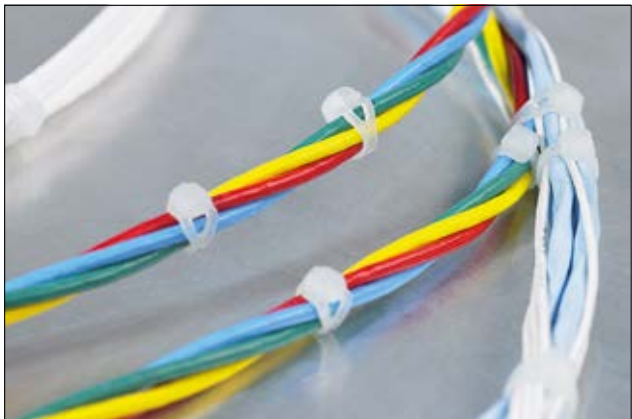
Cable ties with 90° angled head

V-Series

Due to its low profile head, V-Series outside serrated cable ties are perfectly suited for applications with restricted space, such as camera, alarm and automation systems (Remote I/O Systems). Where bundles are fed through a grommet or ductwork, V-Series provides a practical solution due to its unique rounded design.

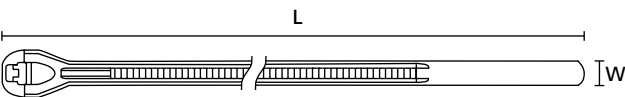
Features and benefits

- Outside serrated cable tie with smooth surface to the bundle
- The 90° angled head perfectly fits onto the bundle
- Rounded head design minimises the risk of damage to insulation, especially of parallel routed bundles
- Low profile head takes up less space above the bundle
- Easy insertion and high tensile strength
- Easy application either manually or with a processing tool

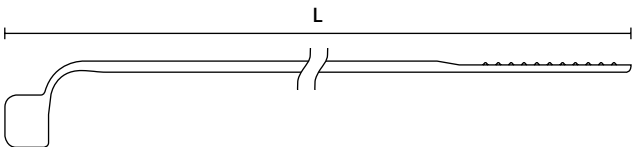


V-Series - the 90° angled head perfectly fits onto the bundle.

Material specifications: See Article-No. on our website.



V-Series



Where bundles are fed through a grommet or ductwork, V-Series provides a practical solution due to its unique rounded design.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
V150R	3.3	150.0	35.0	150	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	118-00089

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties with low profile head

PE-Series

These ties are particularly useful in areas with restricted space. The low profile design ensures that nothing snags on the heads. Coloured low profile cable ties are ideal for securing foam padding to playground equipment or as a simple means of identifying equipment.

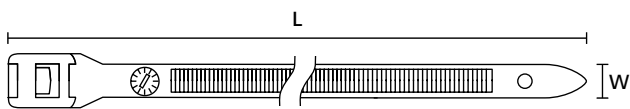
Features and benefits

- Outside serrated cable tie with a smooth surface to the bundle
- Coloured cable ties can be used for identification
- Broad contact area with the bundle minimises risk of damage
- Low profile head for ideal use in restricted spaces
- Parallel entry for optimal fit around circular bundles



PE400SH-Series - low head profile cable ties for secure fastening and identification in narrow spaces.

Material specifications: See Article-No. on our website.



PE-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
PE180	9.0	180.0	42.0	445	PA66HS	Black (BK)	100 pcs.	1;6-7;9-10	112-18061
	9.0	180.0	42.0	445	PA66HSW	Black (BK)	100 pcs.	1;6-7;9-10	112-18060
PE400SH	9.0	400.0	116.0	445	PA66	Blue (BU)	100 pcs.	1;6-7;9-10	112-18201
	9.0	400.0	116.0	445	PA66	Green (GN)	100 pcs.	1;6-7;9-10	112-18200
	9.0	400.0	116.0	445	PA66	Red (RD)	100 pcs.	1;6-7;9-10	112-18202
	9.0	400.0	116.0	445	PA66	Yellow (YE)	100 pcs.	1;6-7;9-10	112-18203
PE530	9.0	535.0	146.0	445	PA66HSW	Black (BK)	100 pcs.	1;6-7;9-10	112-53060

Recommended Tools: 1=MK10-SB, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

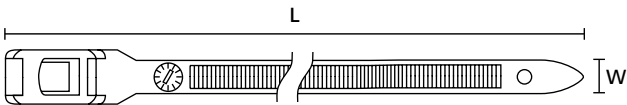
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



RPE-Series releasable



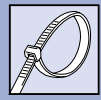
RPE-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Article-No.
RPE275	9.0	275.0	69.0	445	PA66HSW	Black (BK)	100 pcs.	112-27560
RPE350	9.0	350.0	92.0	445	PA66HSW	Black (BK)	100 pcs.	112-00006
	9.0	350.0	92.0	445	PA66HSW	Black (BK)	100 pcs.	112-35060

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with low profile head

LPH-Series

LPH cable ties are made of Polyamide 6.6 materials. The design with its serration on the outside provides a smooth surface to the bundle. Any damage to the insulation can be avoided. The flat head is ideal in areas with restricted space. They are mainly used within the electrical industry but the tough design is perfectly suited to a variety of indoor and outdoor applications.

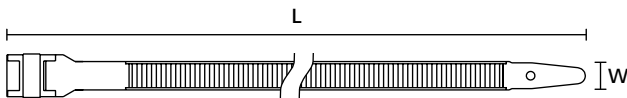
Features and benefits

- High impact modified cable ties are also available
- Good tensile strength with a single – or a double bridged head
- Outside serration allows for a smooth surface to the bundle
- Design protects against damage to cable insulation
- Low profile head for optimised use especially in restricted spaces
- Strap is threaded parallel through the low profile head

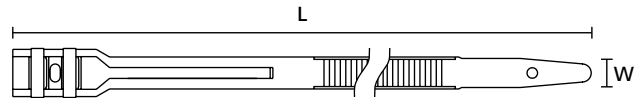


LPH-Series with a smooth surface to the bundle.

Material specifications: See Article-No. on our website.



LPH123, LPH175



LPH275, LPH350, LPH500 and LPH750

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
LPH175	9.0	175.0	40.0	310	PA66	Black (BK)	100 pcs.	1;6-7;9-10	112-00203
LPH275	9.0	265.0	62.0	480	PA66HIR(S)	Black (BK)	100 pcs.	1;6-7;9-10	112-00303
LPH350	9.0	355.0	92.0	480	PA66HIR(S)	Black (BK)	100 pcs.	1;6-7;9-10	112-00403
LPH500	9.0	505.0	140.0	540	PA66HIR(S)	Black (BK)	100 pcs.	1;6-7;9-10	112-00033
LPH750	9.0	752.0	220.0	540	PA66HIR(S)	Black (BK)	100 pcs.	1;6-7;9-10	112-00034

Recommended Tools: 1=MK10-SB, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with low profile head

SPH-Series

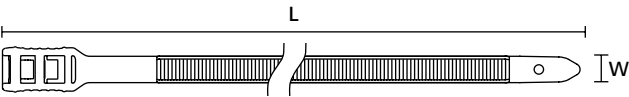
The low profile head cable ties from the SPH-Series meet a wide range of needs. They can be installed both indoors and outdoors, thanks to their UV resistance. They are particularly valued for cable tray installations as well as in the construction sector. These ties are also increasingly used in industrial applications.

Features and benefits

- Made from a blend of post-industrial and post-consumer recycled PA66
- Excellent UV resistance for long-term outdoor use (20 years)
- Outside serration design with an anti-slip feature on the inside to prevent lateral movement of sensitive cables and bundles
- Low profile head, ideal for use in narrow spaces
- Low insertion force enables quick, tool-free manual installation
- Pre-locking position supports secure placement before final installation
- Installer-friendly packaging: belt clip and multiple openings



Application of SPH-Series cable tie with LOK02.

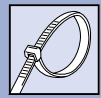


TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SPH175	9.0	185.0	42.0	500	PA66HIRUV(REC)	Black (BK)	100 pcs.	112-00082
SPH275	9.0	262.0	62.0	800	PA66HIRUV(REC)	Black (BK)	100 pcs.	112-00083
SPH350	9.0	350.0	92.0	800	PA66HIRUV(REC)	Black (BK)	100 pcs.	112-00084

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for strong hold on smooth bundles

Soft Grip-Series

Soft Grip cable ties are 2-component or “twin-shot” ties (that combine PA66HS with a soft TPE inner layer). It is designed for the flexible and easy bundling and fastening of smooth and sensitive bundles, such as pipes in vehicle fluid management applications. It has a pre-locking feature and can also be re-opened with a screwdriver. Soft Grip cable ties can be used in combination with specially developed mounts with standardised tie head retention and customisable footparts.

Features and benefits

- 2-component cable tie (PA66HS and TPE) assures high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements on the bundle, especially on smooth tubing
- Pre-locking feature holds the cable tie in place before it is tensioned
- Soft Grip cable tie can be removed with a screwdriver for maintenance
- EVO9 SG application tool with adjusted nose piece available

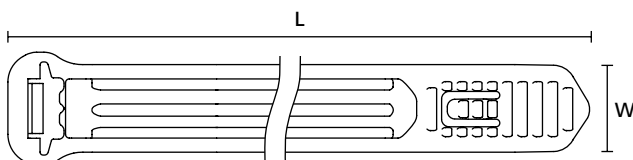


Soft Grip Cable Ties (2-component cable ties).



Soft Grip Cable Ties (2-component cable ties).

Material specifications: See Article-No. on our website.



SGT100S

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
SGT100S	12.7	140.0	25.4	315	PA66HIRHSUV TPE	Black (BK), Blue (BU)	500 pcs.	8	111-50001
	12.7	140.0	25.4	445	PA66HS TPE	Black (BK), Blue (BU)	500 pcs.	8	111-50000

Recommended Tools: 8=EVO9SG. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable tie locked by glass fibre pin

KR-Series, 1-Piece

This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

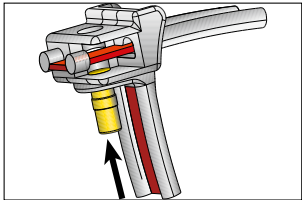
Features and benefits

- Cable tie without serration to avoid any damage to cables
- Strap is locked into place with a glass-fibre reinforced pin
- Very secure and vibration resistant fixing
- Available in various materials, colours and almost every length
- Cable ties from PA12 are highly resistant to chemicals, impact and UV light
- KR-ties up to 426 mm are made as one piece
- For assembly a special KR-tool is needed

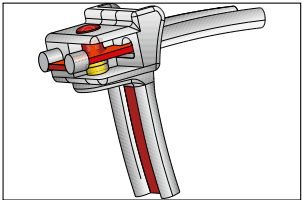
Material specifications: See Article-No. on our website.



KR-Series ties applied on a cable tray.

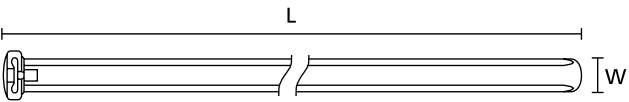


The unlocked head (yellow) of a KR-tie.



The cable tie (red) is locked into place with the pin.

Specific part numbers according to EN45545 available on request.



Cable tie KR-Series

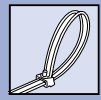
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR6/35	6.1	360.0	93.0	490	PA66	Natural (NA)	50 pcs.	11-13	121-63519
	6.1	360.0	93.0	490	PA66HS	Natural (NA)	50 pcs.	11-13	121-63555
	6.1	360.0	93.0	490	PA66UV	Black (BK)	50 pcs.	11-13	121-63560
KR8/21	8.0	210.0	47.0	785	PA66	Natural (NA)	50 pcs.	11-13	121-82119
	8.0	210.0	47.0	785	PA66HS	Natural (NA)	50 pcs.	11-13	121-82155
	8.0	210.0	47.0	785	PA66UV	Black (BK)	50 pcs.	11-13	121-82160
KR8/33	8.0	337.0	86.0	390	PA12	Black (BK)	50 pcs.	11-13	121-83380
	8.0	337.0	86.0	785	PA46	Grey (GY)	50 pcs.	11-13	121-83378
	8.0	337.0	86.0	785	PA66	Natural (NA)	50 pcs.	11-13	121-83319
	8.0	337.0	86.0	785	PA66HS	Natural (NA)	50 pcs.	11-13	121-83355
	8.0	337.0	86.0	785	PA66UV	Black (BK)	50 pcs.	11-13	121-83360
KR8/43	8.0	426.0	105.0	785	PA66HS	Black (BK)	50 pcs.	11-13	121-74360
	8.0	426.0	105.0	785	PA66HS	Natural (NA)	50 pcs.	11-13	121-74359

Recommended Tools: 11=KR6/8, 12=EVO-KR, 13=KR8PNSE. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)

EN 45545-2



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable tie locked by glass fibre pin

KR-Series, ultrasonic welded

This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

Features and benefits

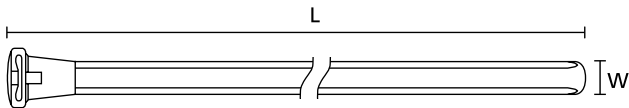
- Cable tie without serration to avoid any damage to cables
- Strap is locked into place with a glass-fibre reinforced pin
- Very secure and vibration resistant fixing
- Lengths over 500 mm have an ultrasonic welded head
- For assembly a special KR-tool is needed
- Available in various materials and colours



Cable Ties KR-Series.

Other dimensions are available on request.

Material specifications: See Article-No. on our website.



Cable tie KR-Series, ultrasonic welded

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR8/50	8.0	500.0	152.0	785	PA66	Natural (NA)	50 pcs.	11-13	121-05019
KR8/60	8.0	600.0	184.0	785	PA66	Natural (NA)	50 pcs.	11-13	121-06019
	8.0	600.0	184.0	785	PA66W	Black (BK)	50 pcs.	11-13	121-06060

Recommended Tools: 11=KR6/8, 12=EVO-KR, 13=KR8PNSE. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable tie locked by glass fibre pin

KR-Series, endless

This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

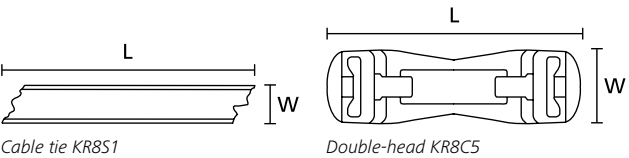
Features and benefits

- Cable tie without serration to avoid any damage to cables
- Strap is locked into place with a glass-fibre reinforced pin
- Very secure and vibration resistant fixing
- Endless strap (50 m per reel) and separate heads for large bundle diameters
- Offers high flexibility and can be cut to suit any bundle
- For assembly a special KR-tool is needed



KR-Series cable ties can be cut to any desired length and then be locked with separate cable tie heads.

Material specifications: See Article-No. on our website.

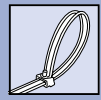


TYPE	Width (W)	Length (L)	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR8/S1	8.0	50.0 m	785	PA66HS	Natural (NA)	50.0 m	11;13	121-98151
	8.0	50.0 m	785	PA66W	Black (BK)	50.0 m	11;13	121-98160
KR8/C5	11.7	38.0	-	PA66HS	Natural (NA)	200 pcs.	11;13	121-58551
	11.7	38.0	-	PA66W	Black (BK)	200 pcs.	11;13	121-58560

Recommended Tools: 11=KR6/8, 13=KR8PNSE. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Endless cable ties with separate head and spacer

EL-TY-Series

These robust cable ties are particularly suitable for use with larger diameter cables, pipes and hoses. Designed originally for securing overhead catenary and cables, they are now used in many industries from the building sector, through to the chemical industry, to the installation of signs for traffic management. Separate spacers allow for a defined distance when bundling in parallel.

Features and benefits

- Made of very strong Polyacetal (POM)
- System consists of endless strap, spacers and heads
- Head includes stainless steel pawls for a proper fixation
- Very secure fixing and good resistance to ageing and UV light
- Suits any bundle diameter and reduces inventory

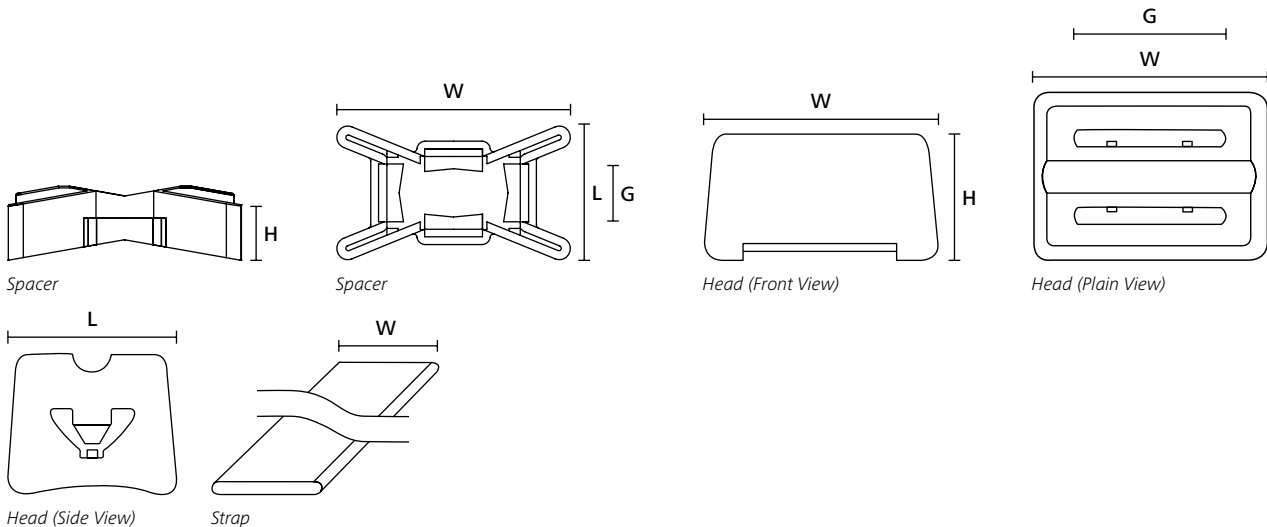
Material specifications: See Article-No. on our website.



EL-TY straps can be cut to suit any bundle.



Spacer.



TYPE	Width (W)	Length (L)	Height (H)	N	Strap Width max. (G)	Material	Colour	Content	Tools	Article-No.
TELS-1	12.7	15.2 m	-	1115	-	POM	Black (BK)	15m Strap, 30 Heads	6-7;9	111-30000
EL-TY (TELSH)	20.3	15.8	12.4	1115	12.7	POMUVSS	Black (BK)	25 Heads	6-7;9	111-31000
EL-TY (TELS-SPK2)	53.3	30.5	17.0	1115	12.7	PP	Black (BK)	50 Spacer	6-7;9	111-32000

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties inside serrated

RELK-Series up to 200 N loop tensile strength

Used in a wide range of industries these releasable and reusable ties are ideal where changes are anticipated. This includes temporary installation and the addition or removal of elements. These releasable cable ties are commonly used to fix stage equipment, for cable management at outdoor events or prototype harnessing work. The extended pawl is simply pushed down with a finger to release the strap.

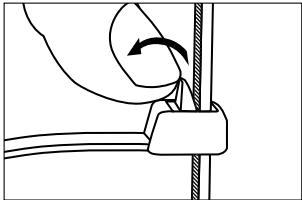
Features and benefits

- Releasable and reusable cable tie
- Available in black and natural colour
- Extended trigger for simple and quick release of ties
- RELK cable ties are inside serrated
- Different lengths are available

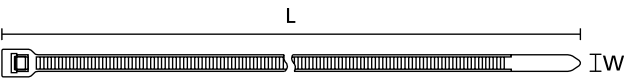
Material specifications: See Article-No. on our website.



RELK releasable cable ties for temporary bundling.



The closure function of the reopenable cable tie from the RELK-series.



RELK-, RLT-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
RELK2R	4.6	200.0	50.0	200	PA66	Natural (NA)	100 pcs.	115-02202
RELK2M	4.6	250.0	65.0	200	PA66	Black (BK)	100 pcs.	115-02000
	4.6	250.0	65.0	200	PA66	Natural (NA)	100 pcs.	115-06729
RELK2I	4.6	300.0	81.0	200	PA66	Black (BK)	100 pcs.	115-06760
	4.6	300.0	81.0	200	PA66	Natural (NA)	100 pcs.	115-02101
RELK2L	4.6	350.0	95.0	200	PA66	Black (BK)	100 pcs.	115-02300
	4.6	350.0	95.0	200	PA66	Natural (NA)	100 pcs.	115-06919

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties inside serrated, releasable

RLT-Series up to 670 N loop tensile strength

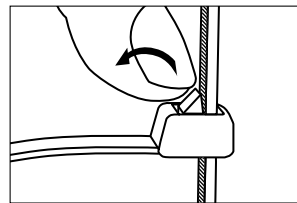
Used in a wide range of industries these releasable and reusable ties are ideal where changes are anticipated. This includes temporary installation and the addition or removal of elements. These releasable cable ties are commonly used to fix stage equipment, for cable management at outdoor events or prototype harnessing work. The extended pawl is simply pushed down with a finger to release the strap.

Features and benefits

- Releasable and reusable cable tie
- Multiple grades of PA66 for indoors, outdoors or at high temperatures
- Available in black and natural colour
- Extended trigger for simple and quick release of ties
- Inside serrated cable tie
- Different lengths available

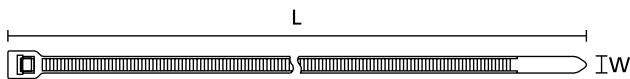


Releasable and reusable cable tie, RLT-Series.



The closure function of the reopenable cable tie from the RLT-series.

Material specifications: See Article-No. on our website.



RELK-, RLT-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
RLT120	7.6	340.0	90.0	535	PA66	Black (BK)	100 pcs.	111-70361
	7.6	340.0	90.0	535	PA66	Natural (NA)	100 pcs.	111-70319
RLT150	8.9	770.0	225.0	670	PA66	Black (BK)	50 pcs.	111-70110
	8.9	770.0	225.0	670	PA66	Natural (NA)	50 pcs.	111-70119
	8.9	770.0	225.0	670	PA66HS	Natural (NA)	50 pcs.	111-70159
	8.9	770.0	225.0	670	PA66W	Black (BK)	50 pcs.	111-70160

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties inside serrated with tuckaway

RT250-Series up to 1115 N loop tensile strength

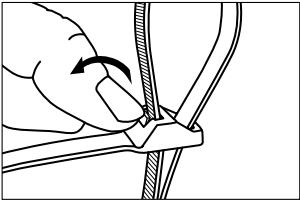
The RT250 is a releasable cable tie. Due to its minimum loop tensile strength of 1,115 N the cable tie is perfectly suited to fix larger and/or heavier bundles. RT250 can be opened and reused. UV-resistant cable ties manufactured from PA66W are recommended for outdoor applications. For shorter lengths REL250-Series can be offered.

Features and benefits

- Releasable and reusable cable tie
- Suitable for larger and/or heavier bundles
- Eyelet allows excess tail to be tucked neatly away
- Available in black and natural colour
- Extended trigger for simple and quick release of ties
- Protected trigger to avoid accidental release
- RT250 cable ties are inside serrated

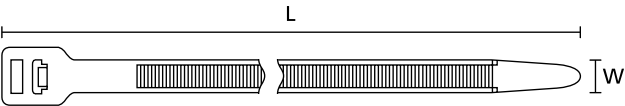


RT250 Cable Ties: Ideal for larger or heavier bundles these ties can be opened and reused.



The closure function of the reopenable cable tie from the RT250-series.

Material specifications: See Article-No. on our website.



RT250-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
RT250M	12.5	565.3	150.0	1115	PA66	Black (BK)	25 pcs.	131-75610
	12.5	565.3	150.0	1115	PA66	Natural (NA)	25 pcs.	131-75619
	12.5	565.3	150.0	1115	PA66W	Black (BK)	25 pcs.	131-75620
RT250XL	12.5	1030.0	305.0	1115	PA66	Black (BK)	25 pcs.	131-75510
	12.5	1030.0	305.0	1115	PA66	Natural (NA)	25 pcs.	131-75519

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties inside serrated with kickdown lever

REL-Series

The REL-Series is ideally used in applications where changes are anticipated and a tie needs to be opened and closed repeatedly. The release mechanism of an REL cable tie allows simple and quick opening with only one hand. UV resistant cable ties manufactured from PA66W are recommended for outdoor applications.

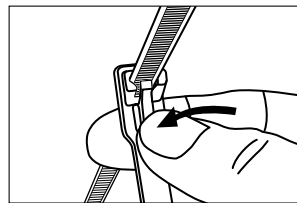
Features and benefits

- Releasable and reusable cable tie for medium-weight loads
- Extremely easy-to-operate release mechanism
- Opens simply and quickly with only one hand
- Also available in PA66W for outdoor applications
- REL cable ties have their serration on the inside

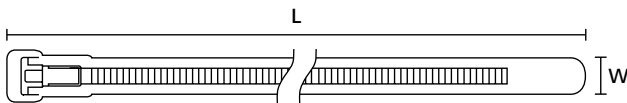
Material specifications: See Article-No. on our website.



Releasable and reusable cable tie, REL-Series.



The closure function of the reopenable cable tie from the REL-series.



REL-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
REL180	6.5	180.0	46.0	150	PA66	Black (BK)	100 pcs.	115-00027
REL100	6.7	100.0	21.0	180	PA66	Black (BK)	100 pcs.	131-21010
	6.7	100.0	21.0	180	PA66	Natural (NA)	100 pcs.	131-21019
REL140	7.6	150.0	35.0	200	PA66	Black (BK)	100 pcs.	131-21410
	7.6	150.0	35.0	200	PA66	Natural (NA)	100 pcs.	131-21419
REL250	7.6	250.0	68.0	200	PA66	Black (BK)	100 pcs.	131-22510
	7.6	250.0	68.0	200	PA66	Natural (NA)	100 pcs.	131-22519
	7.6	250.0	68.0	200	PA66W	Black (BK)	100 pcs.	131-22560

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties outside serrated for marking, releasable

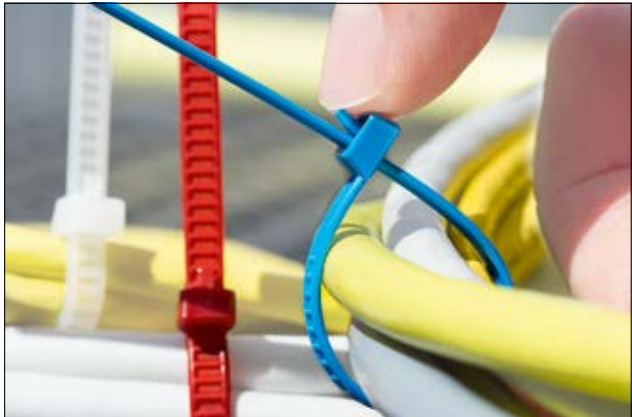
LR55-Series

Releasable cable ties of our LR55-Series offer some extra benefits. Their serration is on the outside of the cable tie. This will minimise the risk of damage to cables or other elements. Additionally LR55 cable ties are available in different colours – optimally suited for temporary identification within logistic, packaging, cable harness production or for testing purposes. The strap is released when pushing the extended pawl upwards. The risk of opening the cable tie accidentally is minimised.

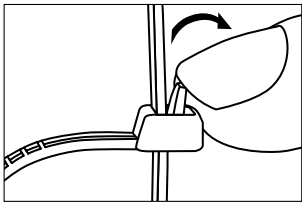
Features and benefits

- Releasable and reusable cable tie
- Various colours for applications needing colour coding
- Extended trigger for simple and quick release of ties
- Risk of accidental release is minimised
- Outside serration prevents damage to cable insulation

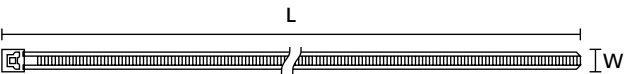
Material specifications: See Article-No. on our website.



Releasable and outside serrated LR55 cable ties are ideal suited for colour coding.



The closure function of the reopenable cable tie from the LR55-series.



LR55-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
LR55R	4.7	196.0	50.0	245	PA66	Green (GN)	25 pcs.	115-00005
	4.8	195.0	50.0	245	PA66	Blue (BU)	25 pcs.	115-00006
	4.8	196.0	50.0	245	PA66	Natural (NA)	25 pcs.	115-00008
	4.8	196.0	50.0	245	PA66	Red (RD)	25 pcs.	115-00003
	4.8	196.0	50.0	245	PA66	Yellow (YE)	25 pcs.	115-00004
	4.8	196.0	50.0	245	PA66HS	Black (BK)	25 pcs.	115-00002

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable tie outside serrated with lever lock

ORF-Series up to 135 N loop tensile strength

The ORF-Series with lever lock has been designed for easy removal and reuse without a knife or side cutter, but conveniently with a lever. The outside serration minimises the risk of damage to cables and other elements.

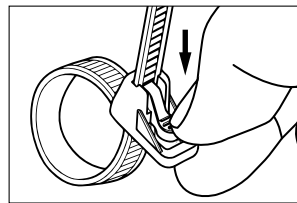
Features and benefits

- Designed for easy release with one-hand
- Suitable for temporary colour coding
- Gentle on the bundled material thanks to outside serration

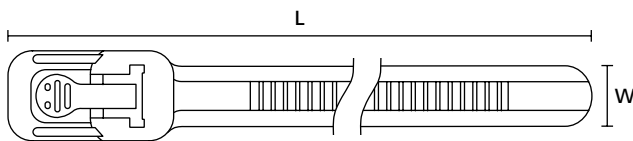
Material specifications: See Article-No. on our website.



Reusable ORF-Tie with lever lock.



The closure function of the reopenable cable tie from the ORF-series.



ORF-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
ORF150-S	4.7	150.0	36.0	135	PA66W	Black (BK)	100 pcs.	115-00161

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties without serration in flexible TPU

SRT-Series for industry quantities

The soft, flexible material makes these ties particularly suitable for use on sensitive wires, for instance fibre-optic cables. Additionally they are suitable for moving elements and vibrating applications. The double slotted head allows for parallel bundling.

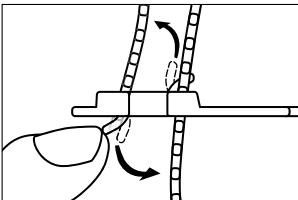
Features and benefits

- Elastic and flexible cable ties with rounded and smooth edges
- Releasable and reusable
- Double slotted head with fixation pawl
- Flexibility ensures steady and evenly distributed pressure
- Tight fixation even in vertical position: prevent sliding down or loosening bundle
- Suitable for moving elements and vibrating applications like windmills, machines, robotics, pulsating tubing and conduits
- Ideal use for temporary fixation for presentations, concerts, theatres, exhibitions
- Long lifetime when used indoors
- Remains flexible even at cold temperatures (-20 °C)

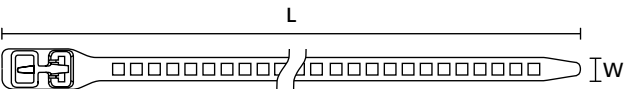
Material specifications: See Article-No. on our website.



The elasticity of the SOFTIX ties makes them suitable for use in many applications.



The closure function of the reopenable cable tie from the Softfix-series.



SRT- and SOFTFIX-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SRT1807	7.0	180.0	45.0	57	TPU	Black (BK)	50 pcs.	115-07189
SRT2607	7.0	260.0	70.0	57	TPU	Black (BK)	50 pcs.	115-07269
SRT26011	11.0	260.0	65.0	123	TPU	Black (BK)	50 pcs.	115-11269
SRT34011	11.0	340.0	90.0	123	TPU	Black (BK)	50 pcs.	115-11349
SRT58028	28.0	580.0	150.0	360	TPU	Black (BK)	10 pcs.	115-28589
SRT88028	28.0	880.0	240.0	360	TPU	Black (BK)	180 pcs.	115-28889

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties without serration in flexible TPU

SOFTFIX-Family

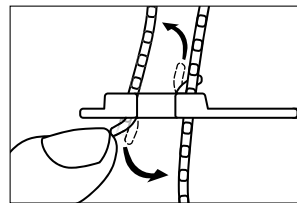
The soft, flexible material makes these ties particularly suitable for use on sensitive wires, for instance fibre-optic cables. Additionally they are suitable for moving elements and vibrating applications. The double slotted head allows for parallel bundling.

Features and benefits

- Elastic and flexible cable ties with rounded and smooth edges
- Releasable and reusable
- Double slotted head with fixation pawl
- Flexibility ensures steady and evenly distributed pressure
- Tight fixation even in vertical position: prevent sliding down or loosening bundle
- Suitable for moving elements and vibrating applications like windmills, machines, robotics, pulsating tubing and conduits
- Ideal use for temporarily fixation for presentations, concerts, theatres, exhibitions
- Long lifetime when used indoor
- Remains flexible even at cold temperatures (-20 °C)

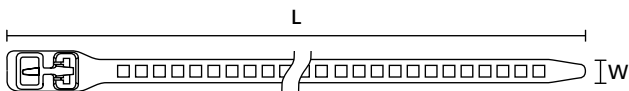


SOFTFIX ties available in small packaging units.



The closure function of the reopenable cable tie from the Softfix-series.

Material specifications: See Article-No. on our website.



SRT- and SOFTFIX-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SOFTFIX XS	7.0	180.0	45.0	57	TPU	Black (BK)	16 pcs.	115-07190
SOFTFIX S	7.0	260.0	70.0	57	TPU	Black (BK)	12 pcs.	115-07270
SOFTFIX M	11.0	260.0	65.0	123	TPU	Black (BK)	8 pcs.	115-11270
SOFTFIX L	11.0	340.0	90.0	123	TPU	Black (BK)	6 pcs.	115-11350
SOFTFIX XL	28.0	580.0	150.0	360	TPU	Black (BK)	3 pcs.	115-28590
SOFTFIX XXL	28.0	880.0	240.0	360	TPU	Black (BK)	3 pcs.	115-28898

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties inside serrated with one-hand release mechanism

REZ-Series

Thanks to its innovative head design, the REZ-Series cable ties can be released using only two fingers. By applying pressure to the integrated wings, the tie can be quickly and securely disengaged without damage. The REZ cable tie provides a reliable and reusable fastening solution suitable for a wide range of applications, especially in temporary setups and areas with limited accessibility.

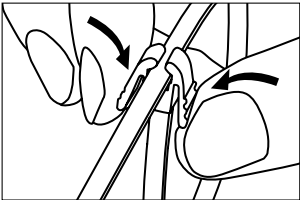
Features and benefits

- REZ-Series can be released and reused
- Unique head design for simple and rapid use
- Quick-release mechanism for one-hand operation
- Cable tie can be opened even when under tension
- Can still be released when working with gloves

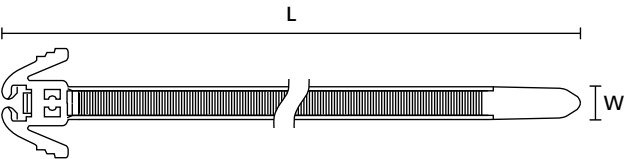
Material specifications: See Article-No. on our website.



Reopenable cable tie of the REZ-series.



The closure function of the reopenable cable tie from the REZ-series.



REZ-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Article-No.
REZ200	4.7	200.0	50.0	135	PA66	Black (BK)	100 pcs.	115-40200
	4.7	200.0	50.0	135	PA66	Fluorescent Pink (FLPK)	100 pcs.	115-00147
	4.7	200.0	50.0	135	PA66	Green (GN)	100 pcs.	115-00106
	4.7	200.0	50.0	135	PA66	Orange (OG)	100 pcs.	115-00132
REZ300	4.7	305.0	80.0	135	PA66	Black (BK)	100 pcs.	115-40300
	4.7	305.0	80.0	135	PA66	Fluorescent Pink (FLPK)	100 pcs.	115-00138
	4.7	305.0	80.0	135	PA66	Red (RD)	100 pcs.	115-00043

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties for food industry, detectable, reusable

MCT-Series releasable

The Metal Content Tie is a cable tie specifically designed for use in the food and pharmaceutical processing industries. A unique manufacturing process, involving the inclusion of a metallic pigment, enables even small 'cut-off' sections of the tie to be detected by standard metal-detecting equipment. Ideally suited for the installation of cabling in and around the manufacturing process. The MCTRELK ties do have a releasable function thus they can be reopened and reused.

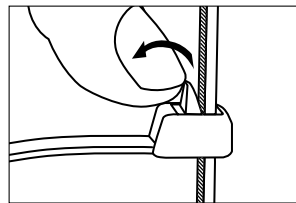
Features and benefits

- Total metal dispersion throughout the tie
- Can be reopened and reused
- Supports quality processes around the production of food stuffs
- Blue colour most common for easy visual detection
- Greatly reduces risk of contamination
- Metal detectable (detection level depending on specific application)

Material specifications: See Article-No. on our website.

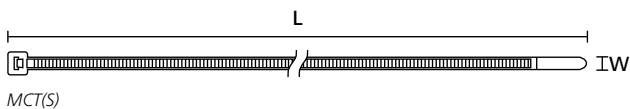


Detectable and reusable Cable Ties for temporary closure.



The closure function of the detectable and reusable cable ties.

Can support quality assurance in the production of food stuffs, for example HACCP.



TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
MCTRELK2M	4.6	250.0	65.0	225	PA66MD	Blue (BU)	100 pcs.	111-00937

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with quick release mechanism, parallel bundling

SpeedyTie

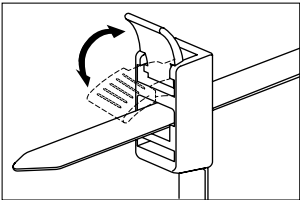
The versatility of the SpeedyTie means that it is suitable for a multitude of applications like electro installations, heating and ventilation, construction, exhibitions and trade fairs. Whether it is used for permanent or temporarily solutions the SpeedyTie is a very strong helping hand in every situation.

Features and benefits

- Releasable and reusable cable tie
- Bears loads of up to 888 N (approx. 90 kg)
- 750 mm long for use in a wide variety of applications
- Can be used for parallel bundling
- Easy to handle when wearing work gloves
- Available in signal yellow and in black

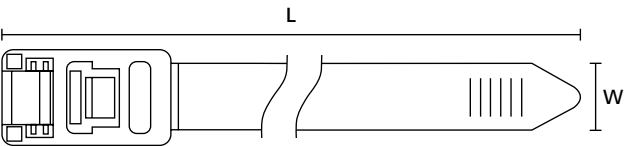


Excess tails can be neatly tucked away.



The closure function of the reopenable cable tie from the SpeedyTie-series.

Material specifications: See Article-No. on our website.



SpeedyTie

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SpeedyTie (RTT750HR)	13.0	752.0	210.0	888	PA66	Yellow (YE), Red (RD)	5 pcs.	115-00001
	13.0	752.0	210.0	888	PA66	Yellow (YE), Red (RD)	25 pcs.	115-00000
	13.0	752.0	210.0	888	PA66HIR(S)	Black (BK)	5 pcs.	115-00030

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Hook and loop ties

TEXTIE-Series

The TEXTIE-Series offers a soft bundling method and is ideal for use on telephone cables, optical fibre and network cables. These cable ties can be reopened and reused up to 400 times. A perfect solution for temporary installations and cable management for stage equipment, at outdoor events or for prototype harnessing. Also suitable for use in private or office applications. TEXTIE cable ties are available in various colours and can be used to colour-code cables and/or wires.

Features and benefits

- Quick and simple to use without tools
- Reusable up to 400 times
- Various colours for easy identification
- For indoor and outdoor use
- Can be attached to the bundle permanently
- Resistant to ageing, no corrosion

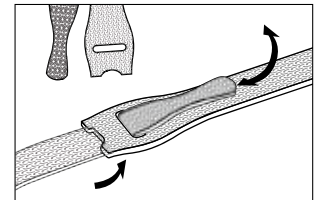
Material specifications: See Article-No. on our website.



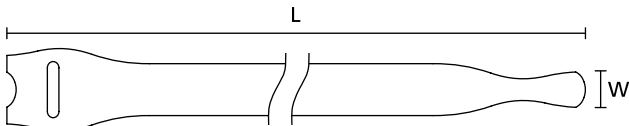
Due to the functional cable tie design the TEXTIE is fixed on the cable and cannot get lost.



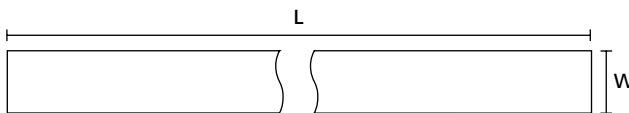
The TEXTIE-Series is available in different colours and lengths.



The closure function of the reopenable cable tie from the TextTie-series.



TEXTIE -Series S, M and L



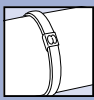
TEXTIE-Series 5 and 25 m

TYPE	Width (W)	Length (L)	Bundle Ø max.	Material Loop	Material Hook	Colour	Pack Cont.	Article-No.
TEXTIE S	12.5	150.0	45.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00012
TEXTIE M	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00013
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Blue (BU)	10 pcs.	130-00018
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Green (GN)	10 pcs.	130-00017
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Red (RD)	10 pcs.	130-00014
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	White (WH)	10 pcs.	130-00021
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Yellow (YE)	10 pcs.	130-00016
TEXTIE L	12.5	330.0	100.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00019
TEXTIE 5M	12.5	5000.0	-	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	1 pc.	130-00020
TEXTIE 25M	13.0	25000.0	-	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	1 pc.	130-00022

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Metal Ball Locking Cable Tie MBT-Series

A highly innovative solution from HellermannTyton

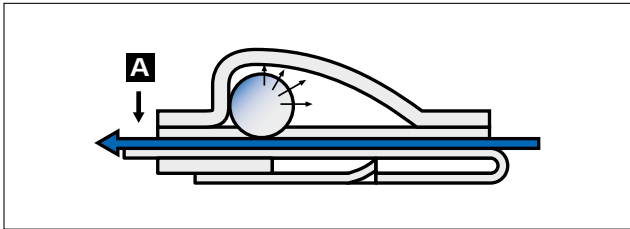
MBT series cable ties

Made of stainless steel grade 304 or 316L, the MBT range of cable ties has no serrations on the strap and is threaded parallel through the head, gliding under a metal ball-bearing locking mechanism. By using an appropriate application tool like our MK9SST the cable tie is easily and quickly tensioned, with the strap cut to a flush finish.

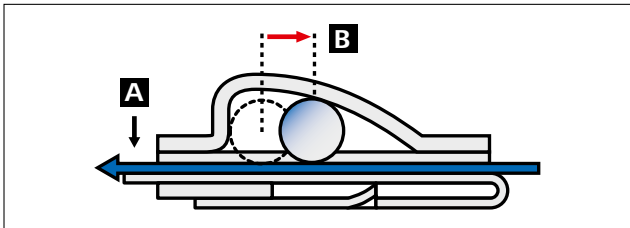
Locking technology

The strap is locked into the head via a ball bearing. The ball locks into the small end of the wedged shaped housing, forming a positive lock with strap.

For rigid objects such as metal pipes, we would recommend our protective channelling (LFPC) to be laid between the bundled object and tie strap. This not only provides protection against galvanic corrosion, but also ensures a better engagement with the bundle. The MBT locking technology keep the minimum tensile strength of up to 7,000 Newtons and standard strap lengths of up to 1.5 m.



1. Initial position, ball bearing moves freely. A: Cable tie (inserting)



2. Ball rebounds and wedges tie in place. A: Cable tie (tightening) B: Ball (wedged)

Locking Mechanism for Metal Cable Ties								
PRODUCT TYPE NAME	Type Name Meaning	Material Cable Tie	Material Coating	Punch-lock	Fold-lock	Ball-lock	Tensioning tools	Special feature
MBT	Metal Ball Ties	SS304, SS316L	–	–	–	Yes	≤ 12.3 mm KST-STG200 ≤ 16.0 mm MK9SST HDT16 ≤ 16.0 mm MK9PSST	Closed head for higher tensile strength, Fork end for easy assembly
MBT-XHD	Metal Ball Ties, Extra Heavy Duty	SS304, SS316L	–	–	–	Yes		Double loop for extreme high tensile strength
MBT-FC	Metal Ball Ties, Fully Coated	SS316L	Polyester	–	–	Yes		Polyester coating eliminates potential for contact corrosion between dissimilar materials
MBT-XHDFC	Metal Ball Ties, Extra Heavy Duty, Fully Coated	SS316L	Polyester	–	–	Yes		Polyester coating eliminates potential for contact corrosion between dissimilar materials
MST	Metal Steel Ties	SS304	–	Yes	–	–	= 5,9 mm MST6 = 8.9 mm MST9	Best Seller, classic standard product
MLT	Metal Locking Ties	SS316L	–	–	Yes	–	≤ 16.0 mm HDT16	Can be re-opened
MLT-C	Metal Locking Ties, Coated	SS316L	Polyester	–	Yes	–		Polyester coating eliminates potential for contact corrosion between dissimilar materials
LFPC	Low Flammability Protection Channel	Polyolefin (PO)	–	–	–	–	–	Protective channel for Stainless Steel ties to protect cable bundles chafing caused by vibrations and shocks



SCT – Short circuit test

The perfect alternative to cable cleats

Short Circuit Test (SCT)

MBT and AMT metal cable ties

Testobjects: Stainless steel cable ties from HellermannTyton

Productseries: MBT-, MBTXHD-, MBTUHD-Cable ties

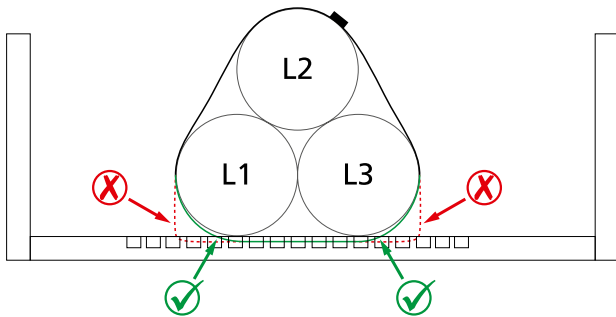
HellermannTyton's single and double wrap Metal Ball (MBT) and Buckle Ties (AMT) fully withstand the maximum force of short circuits in trefoil formation according to the results of laboratory tests performed using the parameters outlined in the IEC 61914 cable cleat standard.

The tests conducted by the NEFI High Power Laboratory in Norway – a member of the Scandinavian Association for Testing of Electric Power Equipment (SATS) – demonstrated that our MBT and AMT stainless steel cable ties resist the huge forces unleashed by power cables in the event of a short circuit, even when they are installed in a 'worst case' trefoil formation scenario (see drawing below).

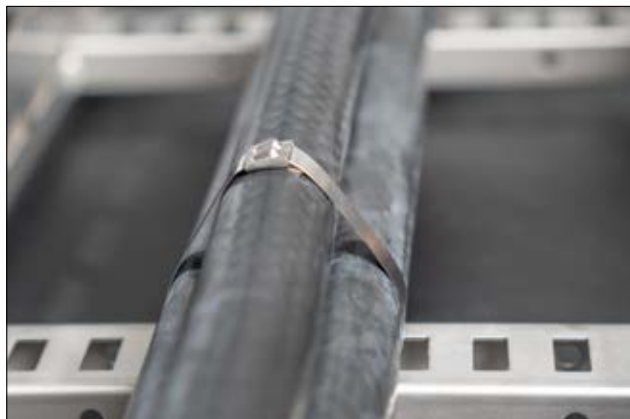
Construction of the HellermannTyton SCT

The MBT and AMT metal ties were insulated from the cable jackets with LFPC polyolefin protective channels as an added layer of protection.

Two different cable sizes, Ø 36 mm (300 mm²) and Ø 13 mm (50 mm²), each with 3 cables 8 m in length in trefoil formation, were tested with short circuit times between 0.2 and 0.5 seconds at various current levels with peak currents from 25,9 kA up to 77,8 kA.



Best practice for installation in trefoil formation. Ties should be bundled as closely as possible to the cables for a smooth loop and to avoid sharp edges.



Stainless steel metal ball cable ties mounted on a cable tray.

Results of the HellermannTyton SCT

- We ensure that our single and double wrap Metal Ball (MBT) and Buckle Ties (AMT) withstand a short circuit application
- We provide a viable fixing solution for low voltage cables
- We offer an cost-effective alternative to cable cleats

Advantages of using HellermannTyton stainless steel cable ties over cable cleats:

- Suitable for indoor and outdoor environments
- Very good heat and chemical resistance
- Due to the range of strap lengths and widths it is easy to choose a solution for every application
- Only one cable tie for many different cable diameters
- Lower installation costs
- Low inventory value and quicker installation time

Conclusion

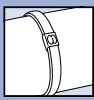
- With the SCT we have proven that our MBT and AMT cable ties are suitable for low and medium voltage cable and withstand a defined level of short circuit currents.

The stainless steel cable ties from HellermannTyton are a time saving solution with a low price and low installation cost.

Please note that the information provided here is no substitute for a suitability test of your individual application.

$$F_t = 0.17 \times i_p^2 / S$$

Formula for calculating maximum force on conductors according to IEC 61914.



Cable ties with ball-lock

MBT-Series, stainless steel 304

Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. MBT ties are also suitable for machine building, construction and in the outside area of radio technology. Additionally MBT ties are ideal for securing lighting in theatres and exhibition halls.

Features and benefits

- Cable ties MBT, made from stainless steel 304
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

Material specifications: See Article-No. on our website.

Can support quality assurance in the production of food stuffs, for example HACCP.

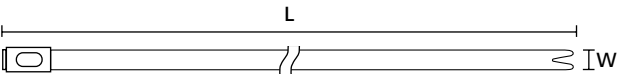


Stainless steel cable ties, uncoated, MBT_SS, MBT_HS.

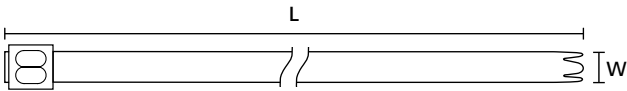


Stainless Steel Cable Ties, uncoated, MBT_XHS.

For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5SS	4.6	127.0	12.0	25.0	900	SS304	100 pcs.	15-18	111-93058
MBT8SS	4.6	201.0	17.0	50.0	900	SS304	100 pcs.	15-18	111-93088
MBT14SS	4.6	362.0	17.0	102.0	900	SS304	100 pcs.	15-18	111-93148
MBT20SS	4.6	521.0	17.0	152.0	900	SS304	100 pcs.	15-18	111-93208
MBT27SS	4.6	685.0	17.0	203.0	900	SS304	100 pcs.	15-18	111-93278
MBT33SS	4.6	838.0	17.0	254.0	900	SS304	100 pcs.	15-18	111-93338
MBT8HS	7.9	201.0	17.0	50.0	2000	SS304	50 pcs.	15-18	111-94088
MBT14HS	7.9	362.0	17.0	102.0	2000	SS304	50 pcs.	15-18	111-94148
MBT20HS	7.9	521.0	17.0	152.0	2000	SS304	50 pcs.	15-18	111-94208
MBT27HS	7.9	685.0	17.0	203.0	2000	SS304	50 pcs.	15-18	111-94278
MBT33HS	7.9	838.0	17.0	254.0	2000	SS304	50 pcs.	15-18	111-94338

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with ball-lock

MBT-Series, stainless steel 304

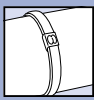
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Pack Cont.	Tools	Article-No.
MBT14XHS	12.3	362.0	17.0	102.0	2700	SS304	50 pcs.	15-18	111-95148
MBT20XHS	12.3	521.0	17.0	152.0	2700	SS304	50 pcs.	15-18	111-95208
MBT27XHS	12.3	681.0	17.0	203.0	2700	SS304	50 pcs.	15-18	111-95278
MBT33XHS	12.3	838.0	17.0	254.0	2700	SS304	50 pcs.	15-18	111-95338

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with ball-lock

MBT-Series, stainless steel 316L

Metal ties are predestined for all areas with requirements for high holding force, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industry and on oil platform as well as in mass transit, shipbuilding and mining industry. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally MBT ties are a good solution to fix lighting in theatres and exhibition halls.

Features and benefits

- MBT cable ties made from stainless steel 316L
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

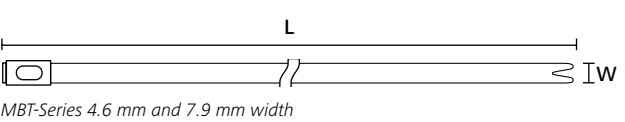


Stainless steel cable ties, uncoated, MBT_XH.

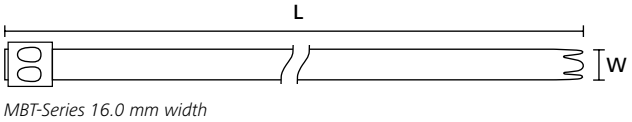
For hard, smooth surface applications, we recommend the use of our LFPC protective channels.

Material specifications: See Article-No. on our website.

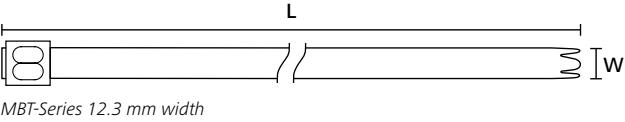
Can support quality assurance in the production of food stuffs, for example HACCP.



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 16.0 mm width



MBT-Series 12.3 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5S	4.6	127.0	12.0	25.0	900	SS316L	100 pcs.	15-18	111-93059
MBT8S	4.6	201.0	12.0	50.0	900	SS316L	100 pcs.	15-18	111-93089
MBT14S	4.6	362.0	12.0	102.0	900	SS316L	100 pcs.	15-18	111-93149
MBT20S	4.6	521.0	12.0	152.0	900	SS316L	100 pcs.	15-18	111-93209
MBT27S	4.6	685.0	12.0	203.0	900	SS316L	100 pcs.	15-18	111-93279
MBT33S	4.6	838.0	12.0	254.0	900	SS316L	100 pcs.	15-18	111-93339
MBT8H	7.9	201.0	12.0	50.0	2000	SS316L	50 pcs.	15-18	111-94089

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with ball-lock

MBT-Series, stainless steel 316L

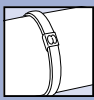
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT14H	7.9	362.0	12.0	102.0	2000	SS316L	50 pcs.	15-18	111-94149
MBT20H	7.9	521.0	12.0	152.0	2000	SS316L	50 pcs.	15-18	111-94209
MBT27H	7.9	685.0	12.0	203.0	2000	SS316L	50 pcs.	15-18	111-94279
MBT33H	7.9	838.0	12.0	254.0	2000	SS316L	50 pcs.	15-18	111-94339
MBT14XH	12.3	362.0	12.0	102.0	2700	SS316L	50 pcs.	15-18	111-95149
MBT20XH	12.3	521.0	12.0	152.0	2700	SS316L	50 pcs.	15-18	111-95209
MBT27XH	12.3	681.0	12.0	203.0	2700	SS316L	50 pcs.	15-18	111-95279
MBT33XH	12.3	838.0	12.0	254.0	2700	SS316L	50 pcs.	15-18	111-95339
MBT14UH	16.0	362.0	12.0	102.0	4100	SS316L	50 pcs.	15;17	111-01301
MBT20UH	16.0	521.0	12.0	152.0	4100	SS316L	50 pcs.	15;17	111-01302
MBT33UH	16.0	838.0	12.0	254.0	4100	SS316L	50 pcs.	15;17	111-01304
MBT43UH	16.0	1092.0	12.0	330.0	4100	SS316L	25 pcs.	15;17	111-01305
MBT49UH	16.0	1245.0	12.0	380.0	4100	SS316L	25 pcs.	15;17	111-01306

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Double wrap cable ties with ball-lock

MBTXHD- / MBTUHD-Series, stainless steel 316L

The double wrap ties of the MBT-series are used in applications where a fixing requires an extraordinary high tensile strength.

Features and benefits

- Stainless steel MBT ties with double wrap operation
- Wraps around the bundle and passes through the head twice
- Very high tensile strength to carry enormous applied loads
- Head with two locking balls
- Resistant to arduous conditions and environments

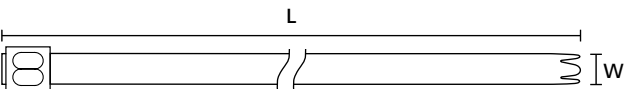
Material specifications: See Article-No. on our website.

Can support quality assurance in the production of food stuffs, for example HACCP.

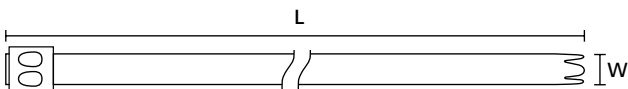


Double wrap stainless steel cable ties, uncoated, MBT_UHD.

For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Pack Cont.	Tools	Article-No.
MBT27XHD	12.3	681.0	17.0	100.0	5000	SS316L	50 pcs.	15-18	111-01307
MBT60XHD	12.3	1524.0	17.0	230.0	5000	SS316L	25 pcs.	15-18	111-01311
MBT27UHD	16.0	681.0	25.0	100.0	7000	SS316L	50 pcs.	15;17	111-01312
MBT33UHD	16.0	838.0	25.0	120.0	7000	SS316L	50 pcs.	15;17	111-01313

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with ball-lock and coating

MBT-FC-Series, stainless steel 316L

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

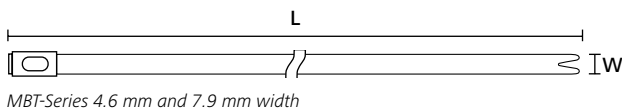
Features and benefits

- Fully coated MBT, made from type 316L stainless steel with polyester coating
- Non-releasable locking feature
- Coated cable tie with smooth edges
- Comfortable handling and installation
- Eliminates contact corrosion between dissimilar materials during application

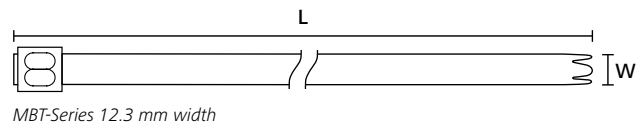


Stainless steel cable ties, coated, MBT_SFC, MBT_HFC.

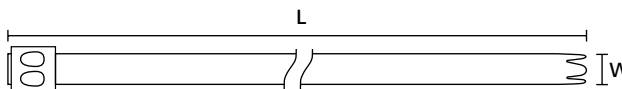
For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

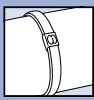
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5SFC	4.6	127.0	15.0	25.0	540	SS316L SP	100 pcs.	15-18	111-00288
MBT8SFC	4.6	201.0	17.0	50.0	540	SS316L SP	100 pcs.	15-18	111-00289
MBT14SFC	4.6	362.0	17.0	102.0	540	SS316L SP	100 pcs.	15-18	111-00290
MBT20SFC	4.6	521.0	17.0	152.0	540	SS316L SP	100 pcs.	15-18	111-00291
MBT27SFC	4.6	681.0	17.0	203.0	540	SS316L SP	100 pcs.	15-18	111-00292
MBT33SFC	4.6	838.0	17.0	254.0	540	SS316L SP	100 pcs.	15-18	111-00293
MBT8HFC	7.9	201.0	17.0	50.0	1020	SS316L SP	50 pcs.	15-18	111-00294
MBT14HFC	7.9	362.0	17.0	102.0	1020	SS316L SP	50 pcs.	15-18	111-00295
MBT20HFC	7.9	521.0	17.0	152.0	1020	SS316L SP	50 pcs.	15-18	111-00296

Recommended Tools: 15=MK9SST, 16=MK9PSSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)

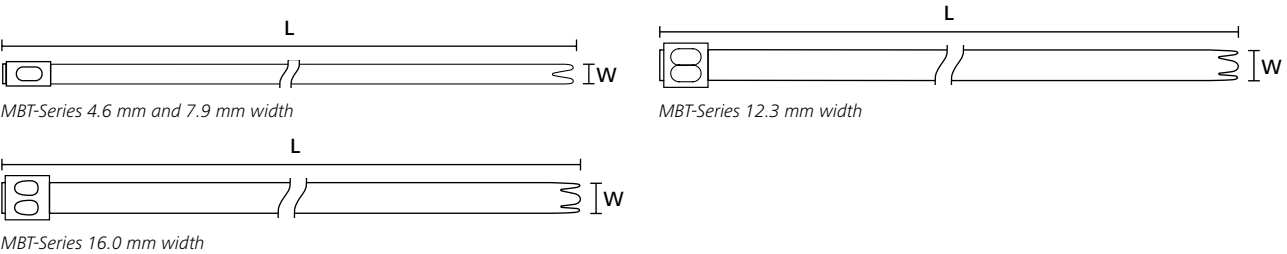


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with ball-lock and coating

MBT-FC-Series, stainless steel 316L



TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT27HFC	7.9	681.0	17.0	203.0	1020	SS316L SP	50 pcs.	15-18	111-00297
MBT33HFC	7.9	838.0	17.0	254.0	1020	SS316L SP	50 pcs.	15-18	111-00298
MBT14XHFC	12.3	362.0	17.0	102.0	1620	SS316L SP	50 pcs.	15-18	111-00299
MBT17XHFC	12.3	434.0	17.0	125.0	1620	SS316L SP	50 pcs.	15-18	111-01500
MBT20XHFC	12.3	521.0	17.0	152.0	1620	SS316L SP	50 pcs.	15-18	111-00300
MBT27XHFC	12.3	681.0	17.0	203.0	1620	SS316L SP	50 pcs.	15-18	111-00301
MBT33XHFC	12.3	838.0	17.0	254.0	1620	SS316L SP	50 pcs.	15-18	111-00302
MBT43XHFC	12.3	1092.0	17.0	330.0	1620	SS316L SP	25 pcs.	15-18	111-01503
MBT14UHFC	16.0	362.0	25.0	102.0	2500	SS316L SP	50 pcs.	15;17	111-01512
MBT17UHFC	16.0	434.0	25.0	125.0	2500	SS316L SP	50 pcs.	15;17	111-01513
MBT20UHFC	16.0	521.0	25.0	152.0	2500	SS316L SP	50 pcs.	15;17	111-01514
MBT23UHFC	16.0	575.0	25.0	168.0	2500	SS316L SP	50 pcs.	15;17	111-01515
MBT27UHFC	16.0	681.0	25.0	203.0	2500	SS316L SP	50 pcs.	15;17	111-01516
MBT33UHFC	16.0	838.0	25.0	254.0	2500	SS316L SP	50 pcs.	15;17	111-01518

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Double wrap cable ties with ball-lock and coating

MBTUHDFC-Series, stainless steel 316L

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

Features and benefits

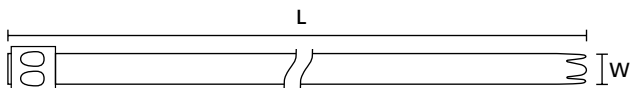
- MBT cable ties, made from stainless steel SS316L with a polyester coating
- Non-releasable locking feature
- Double wrap operation
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning



Stainless steel cable ties, coated, MBT_UHDFC.

For hard, smooth surface applications, we recommend the use of our LFPC protective channels.

Material specifications: See Article-No. on our website.



MBT-Series 16.0 mm width

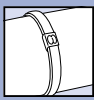
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT27UHDFC	16.0	681.0	25.0	100.0	5000	SS316L SP	50 pcs.	15;17	111-01521

Recommended Tools: 15=MK9SST, 17=HDT16. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable ties with punch-locking mechanism

MST-Series, stainless steel 304

Stainless steel cable ties are designed for fixing loads and cables securely in hazardous industrial environments such as railway carriages, jet engines, inside power plants or on offshore drilling platforms, where exposure to extremes of weather, saltwater and temperature are common. The MST-Series tie with its new punch-locking mechanism is an excellent choice especially for environments which require high resistance to vibrations.

Features and benefits

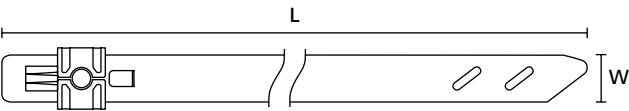
- MST-Series cable ties are made from stainless steel 304
- No loosening after bundling
- Corrosion and weather resistant
- Significantly improved vibration resistance
- Outstanding chemical resistance
- Space saving solution
- Safe cut-off (no sharp edges)
- High temperature resistant
- Non-burning



Stainless Steel Cable Ties MST-Series.

Can support quality assurance in the production of food stuffs, for example HACCP.

Material specifications: See Article-No. on our website.



MST tie

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MST200S	5.9	207.0	5.0	50.0	900	SS304	100 pcs.	19	111-01549
MST360S	5.9	360.0	5.0	100.0	900	SS304	100 pcs.	19	111-01550
MST500S	5.9	500.0	5.0	145.0	900	SS304	100 pcs.	19	111-01551
MST700S	5.9	700.0	5.0	205.0	900	SS304	100 pcs.	19	111-01552
MST360M	8.9	369.0	8.0	100.0	1500	SS304	50 pcs.	20	111-01631
MST500M	8.9	509.0	8.0	145.0	1500	SS304	50 pcs.	20	111-01632
MST700M	8.9	700.0	8.0	205.0	1500	SS304	50 pcs.	20	111-01633

Recommended Tools: 19=MST6, 20=MST9. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties with fold locking

MLT-Series, stainless steel 316L

The MLT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits.

Features and benefits

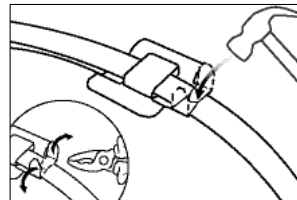
- Releasable stainless steel buckle tie
- Heavy duty type in stainless steel 316L
- Can be re-opened and re-used
- Available also with polyester coating which prevents corrosion between dissimilar materials



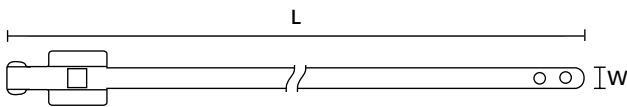
MLT-Series. Releasable stainless steel buckle tie with and without coating.

Material specifications: See Article-No. on our website.

For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



The closure function of the reopenable cable tie from the MLT-series.



MLT-Series

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MLT12SS5	5.0	330.0	20.0	90.0	420	SS316L	100 pcs.	17	111-94120
MLT24SS5	5.0	630.0	20.0	180.0	420	SS316L	100 pcs.	17	111-91400
MLT12SS10	10.0	330.0	25.0	90.0	850	SS316L	100 pcs.	17	111-95120

Recommended Tools: 17=HDT16. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

MLT-C-Series coated, stainless steel 316L

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MLT8SSC5	5.3	230.0	20.0	60.0	420	SS316L SP	100 pcs.	17	111-91000
MLT12SSC5	5.3	330.0	20.0	90.0	420	SS316L SP	100 pcs.	17	111-91121

Recommended Tools: 17=HDT16. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable ties with fold locking and coating

MLT-C-Series coated, stainless steel 316L

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	 N	Material	Pack Cont.	Tools	Article-No.
MLT16SSC5	5.3	430.0	20.0	120.0	420	SS316L SP	100 pcs.	17	111-91161
MLT12SSC10	10.3	330.0	25.0	90.0	850	SS316L SP	100 pcs.	17	111-91123
MLT16SSC10	10.3	430.0	25.0	120.0	850	SS316L SP	100 pcs.	17	111-91163
MLT24SSC10	10.3	630.0	25.0	180.0	850	SS316L SP	100 pcs.	17	111-91181

Recommended Tools: 17=HDT16. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Protective channel for stainless steel ties

LFPC-Series

When used in conjunction with the MBT, MST, MLT and AMT range of stainless steel cable ties this channel gives the cable protection against chafing, vibration and shock. Ideal for use in arduous conditions such as those found on board ships, oil rigs or in nuclear power stations.

Features and benefits

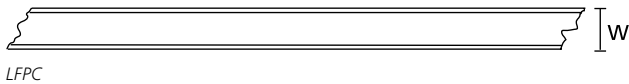
- LFPC channel, manufactured from Polyolefin
- Works with MBT-, MST-, MLT- and AMT-Series
- Smooth surface protects bundle against chafing caused by vibrations and shocks
- Can be cut from roll to any length
- Halogenfree
- Flame retardant

Material specifications: See Article-No. on our website.



Protective channel LFPC, polyolefin, black.

The fire protection properties of the material relate to the test performed on defined test samples. This is a test under laboratory conditions and not directly transferable to the product made from this material.



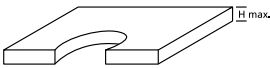
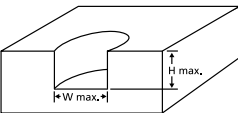
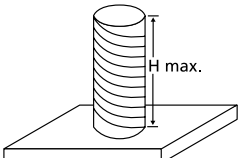
LFPC

TYPE	Width (W)	For Ties	Material	Pack Cont.	Article-No.
LFPC70	7.0	MBTS	PO	25 m	111-93000
LFPC83	8.3	MBTH	PO	25 m	111-00257
LFPC103	10.3	MBTH	PO	25 m	111-94000
LFPC129	12.9	MBTXH	PO	25 m	111-00253
LFPC132	13.2	MBTXH	PO	25 m	111-00254
LFPC150	15.0	MBTXH	PO	25 m	111-95000
LFPC163	16.3	AMT, MBTUH	PO	50 m	111-00255

All dimensions in mm. Subject to technical changes.



Selection guide for fixing ties

Application	Arrowhead	Fir Tree Mount	Rivet Wall Plug	Screw Mount	EdgeClip	Weld Stud Mount
	●	●		●		
		●	●	●		
					●	
						●



Arrowhead

This fixing tie is based on an arrowhead offering high extraction forces. The arrowhead is securely in place when a click can be heard and felt by the user.



Arrowhead with disc

The disc minimises the ingress of dust, dirt and water. Furthermore a safe fixation inside the drill hole is assured that withstands pressure from various directions.



Arrowhead with supporting wings

Arrowhead fixings with supporting wings offer good and stable fixation in drilled holes. The supporting wings generate additional pressure to assure a firm and secure fixing while taking up any variation in panel thickness. These ties are also suitable in high vibration applications.



Arrowhead without supporting wings

The arrowhead design ensures good fixation and takes up minimal space.



Fir Tree Mount

Fir Tree Mounts can be pushed into pre-punched holes easily in panels or threaded, blind holes based on the low insertion forces. The design is ideally suited for a wide range of sheet thicknesses. The disc on top of the fir tree covers the hole and minimises the ingress of dust, dirt and water.



Weld Stud Mount

Many of the HellermannTyton weld stud mounts can easily be attached by hand ("soft push"). The design offers very low insertion forces that require no tools. The mounts can be removed by twisting to the left.



Weld Stud Fixings with lateral adjustment

The special oval shape of these mounts provides a 5 - 6 mm lateral adjustment to cater for any misalignment of the stud or incorrect positioning of ties on the cables. The bundle can therefore be moved when mounted.



EdgeClip

The EdgeClips are specifically designed to bundle and guide cable and wires on edges. Cost intensive drill holes for fixing are no longer required. EdgeClips are easily mounted by hand, the integrated metal clamp, securely keeping the clips on the edge.



EdgeClip twistable

Ideally suited for fixations where bundles need to be flexibly guided. These EdgeClips are available with facilities for 90° or 360° rotation.



Cable and Hose Attachment

Excellent solution for subsequent attachment of pipes and wires to installed tubes.



Heavy Duty Application

These sturdy fixing ties can withstand vibrations. They are easy to apply and give a secure alignment to the bundle. There will be high tightening torque through metal bushing.



Two Piece Fixing Ties with Clip Coupler

The Coupler is an article to connect two cable ties for parallel bundling of tubes, harnesses or cables. Its design enables the cable ties to rotate up to 90° and allows flexible installations.



1-piece fixing ties with arrowhead, with disc in the strap

for round holes

These fixing ties are ideal for use in many different industries, including automotive, aerospace, rail and panel building.

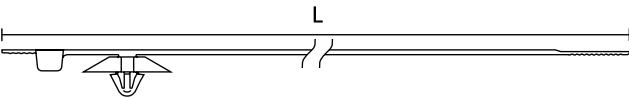
Features and benefits

- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressures from various directions and minimises access of dust and dirt
- Cable tie head always situated in defined position
- Bundle runs directly across fixing point
- Simple assembly due to tab at the end of the head

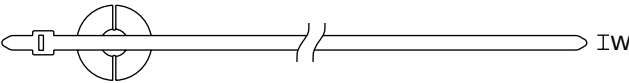


The 'tab' on the head of the tie makes it easy to locate and lift the head for assembly.

Material specifications: See Article-No. on our website.



T80RSFT

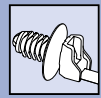


T80RSFT with flexible disc.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T80RSFT		5.7 - 6.3	1.0 - 3.5	4.6	190.0	45.0	355	PA66HS	BK	1-2;4-7;25	150-15493

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with arrowhead, with disc

for round holes

With a diverse range of fixing possibilities these ties are ideal for use in many different industries, including automotive, aerospace, white goods manufacture and panel building. This fastening solution is used to secure cable harnesses. We offer a variety of panel thicknesses and hole sizes to suit all kinds of application.

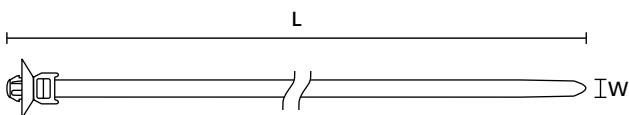
Features and benefits

- Easy to install without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressures from various directions and minimises ingress of dust and dirt
- Cable tie head always situated in a defined position
- KSFT-types with specially rounded arrowhead minimise the assembly height



The disc at the head of the T50S0SSFT6.5E protects the bore against dirt and splashes.

Material specifications: See Article-No. on our website.



T50S0SKSFT6.5S2-E

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
PT2ASFT6.5PT0.7-1.5-E		6.3 - 6.7	0.7 - 1.5	3.4	112.7	20.0	PEEK	BGE	1-2;4-5;25	126-00183
T50S0SSFT6.5E		6.3 - 6.7	1.9 - 2.5	4.6	158.8	30.0	PA66HS	BK	1-2;4-7;25	126-03102
T50S0SKSFT6.5E		6.3 - 6.7	0.7 - 1.3	4.6	156.0	35.0	PA66HS	BK	1-2;4-7;25	126-00081
T50S0SKSFT5S-E		4.8 - 5.2	0.7 - 1.3	4.6	156.0	35.0	PA66HS	BK	1-2;4-7;25	126-00099
T50S0SKSFT5.4E		5.2 - 5.6	0.7 - 1.3	4.6	156.0	35.0	PA66HS	BK	1-2;4-7;25	126-00075
T50S0SKSFT6.5S2-E		6.3 - 6.7	1.7 - 2.3	4.6	157.5	35.0	PA66HS	BK	1-2;4-7;25	126-00086
T50SST5		6.1 - 6.5	0.7 - 1.5	4.6	170.0	31.0	PA66	NA	1-2;4-7;25	126-02300
		6.1 - 6.5	0.7 - 1.5	4.6	170.0	31.0	PA66HS	BK	1-2;4-7;25	126-00017
T30S0S-AS-SFT6.5-E		6.5 - 7.0	0.8 - 1.5	3.5	126.4	25.0	PA66HS	BK	1-2;4-5;25	126-00255
T30S0SASSFT6.5x4.0E		6.5 6.5 x 4.0	2.4 - 3.0	3.5	126.7	25.0	PA66HS	BK	1-2;4-5;25	126-00341

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, MK7P, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



2-piece fixing ties with arrowhead, with disc

for round holes

Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear and white goods manufacturing.

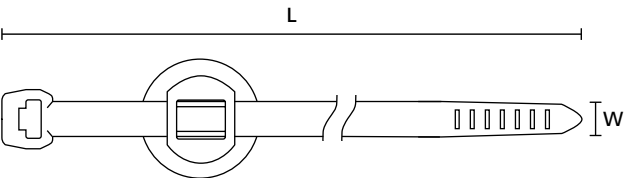
Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt

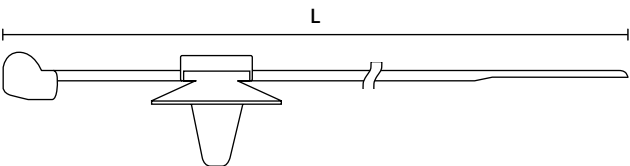


Being a two-piece assembly allows the tie head to be located in the most convenient position.

Material specifications: See Article-No. on our website.



T50ROSSFT6.5

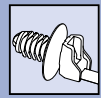


T50ROSSFT6.5 16-3

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50ROSSFT6.5-16-3		6.3 - 6.7	2.5 - 3.5	4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-37791
T50RSFT6.5 16-3		6.3 - 6.7	2.5 - 3.5	4.6	200.0	49.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-37792
T50SOSSFT6.5-D16-2		6.3 - 6.7	1.5 - 2.2	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-93130
T50RSFT6.5D18		6.5 - 6.8	0.4 - 1.6	4.6	200.0	45.0	200	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-37691
T50RSFT6.5		6.3 - 6.7	0.7 - 2.0	4.6	200.0	45.0	225	PA66HS	BK	1-2;4-7;25	156-01697

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for strong hold on smooth bundles

with arrowhead, with disc, for round holes

Soft Grip mounts are especially designed for use with Soft Grip ties. The versatile combinations provide a variety of flexible fastening options for fluid management / cooling systems in vehicles. The Soft Grip Series is a unique semi-customised part solution and designed to save time, money and development effort. The foot parts of the mounts can be adjusted to individual customer requirements.

In the event of maintenance, the cable tie can be easily removed using a screwdriver. Only the cable tie then needs to be replaced, not the whole fixing element.

Features and benefits

- Suitable for a variety of fastening requirements thanks to different foot parts (for holes, for studs, for screw fixings)
- Soft Grip cable ties assure high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements of the bundle, especially on smooth tubing
- Pre-locking feature holds the cable tie in place before it is tensioned
- Soft Grip cable ties can be removed with a screwdriver for maintenance
- EVO9SG application tool with adjusted nose piece available

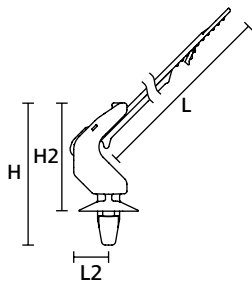


Soft Grip Cable Tie assembled with Soft Grip Mount for holes (arrowhead) and a hose for fluid management.



Soft Grip Cable Tie assembled with Soft Grip Mount for holes (arrowhead).

Material specifications: See Article-No. on our website.



SGT100SAHD6.552.0

TYPE	Hole Ø (FH)	Panel Thickness	Height (H)	Height (H2)	Length (L)	Length (L2)	Bundle Ø max.	Material	Colour	Tools	Article-No.
SGT100SAHD6.552.0	6.3 - 6.7	1.7 - 2.3	38.7	29.5	140.0	9.5	25.4	PA66HS TPE	BK, BU	8	156-04097

Recommended Tools: 8=EVO9SG. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



1-piece fixing ties for high temperature applications up to +240 °C

With arrowhead, with disc, for round holes

This fastening solution is especially suitable for high temperature areas like the engine bay or exhaust area. The outside serrated cable tie protects the insulation of cable bundles.

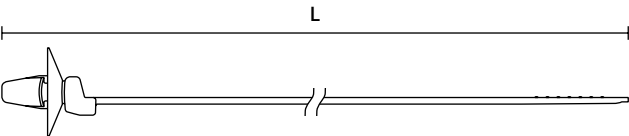
Features and benefits

- -55 °C to +240 °C operating temperature
- Excellent resistance against chemicals and gamma radiation
- Easy to install without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressures from various directions and minimises access of dust and dirt
- Cable tie head always situated in a defined position



One piece fixing tie with arrowhead, outside serrated.

Material specifications: See Article-No. on our website.



PT2ASFT6.5PT0.7-1.5-E

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
PT2ASFT6.5PT0.7-1.5-E		6.3 - 6.7	0.7 - 1.5	3.4	112.7	20.0	PEEK	BGE	1-2;4-5;25	126-00183

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, MK7P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



2-piece fixing ties for high temperature applications up to +240 °C

With arrowhead, with disc, for round holes

The ties with fixing element are ideal when the requirement for temperature or chemical resistance is very high. They are used for cable harnesses in the automotive industry.

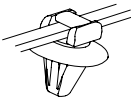
Features and benefits

- -55 °C to +240 °C operating temperature
- Excellent resistance against chemicals and gamma radiation
- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt



PEEK fixing ties can be used for small diameters from 1,0 mm.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50ROSP2SFT6.5		6.3 - 6.7	1.7 - 2.3	4.6	200.0	45.0	225	PA46 PEEK	GY, BGE	1-2;4-7;25	156-00456
PT2AP1SFT6.5		6.3 - 6.7	0.7 - 1.3	3.4	145.0	35.0	230	PEEK	BGE	1-2;4-5;25	156-01090
PT2AP2SFT6.5		6.3 - 6.7	1.7 - 2.3	3.4	145.0	35.0	230	PEEK	BGE	1-2;4-5;25	156-01091
PT2AP3SFT6.5		6.3 - 6.7	1.2 - 1.8	3.4	145.0	32.0	230	PEEK	BGE	1-2;4-5;25	156-01146

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing tie with arrowhead, with disc

for round holes, releasable

With a diverse range of fixing possibilities are ideal for use in many different industries, including automotive, aerospace and panel building.

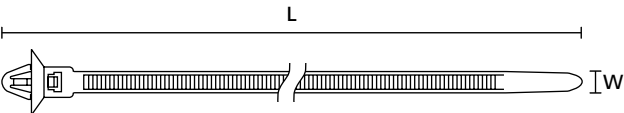
Features and benefits

- Easy to install without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressures from various directions and minimises access of dust and dirt
- Cable tie head always situated in a defined position
- Releasable and therefore reusable



RT50SD6.

Material specifications: See Article-No. on our website.



RT50SD6

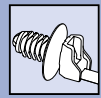
TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
RT50SD6		6.3 - 7.5	0.6 - 1.8	5.0	160.0	31.0	225	PA66HS	BK	1;3;6-7;9-10;25	111-85480

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties with arrowhead, with disc

for round holes, sealed

The parts are mainly used in the automotive industry. This fastening solution is used to secure cable harnesses e.g. in car doors. We offer a variety of panel thicknesses and hole sizes to suit all kinds of application. The seal protects the interior and surrounding cables among other things from splash water.

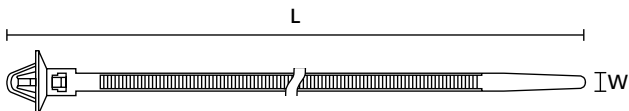
Features and benefits

- One-piece fixing ties with cellular rubber disc
- Especially suitable for door and tailgate harnesses used for car body applications
- Made from PA66 heat-stabilised material
- Cellular rubber disc minimises ingress of dust, dirt and splash water



The additional seal protects against the ingress of moisture.

Material specifications: See Article-No. on our website.



One piece fixing tie with arrowhead and disc, standard design

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T50SOSSFT6.5E-MS-MD		6.1 - 6.6 (hexagonal) 6.25 - 6.75	0.7 - 1.6	4.6	163.0	35.0	180	PA66HS	NA	1-2;4-7;25	126-00065
T50XCROSSFT6.5-E-MDL		6.1 - 6.6 (hexagonal) 6.25 - 6.75	1.2 - 2.1	4.6	200.0	45.0	200	PA66HS	BK	1-2;4-7;25	156-00379
T50SOSSFT6.5E-MDL		6.3 - 6.7	0.6 - 1.8	4.6	158.8	30.0	225	PA66HS	BK	1-2;4-7;25	156-00264
		6.3 - 6.7	0.6 - 1.8	4.6	158.8	30.0	225	PA66HS	GN	1-2;4-7;25	126-03100

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with arrowhead, with disc

for round holes, sealed

The parts are mainly used in the automotive industry. This fastening solution is used to secure cable harnesses e.g. in car doors. We offer a variety of panel thicknesses and hole sizes to suit all kinds of application. The seal protects the interior and surrounding cables among other things from splash water.

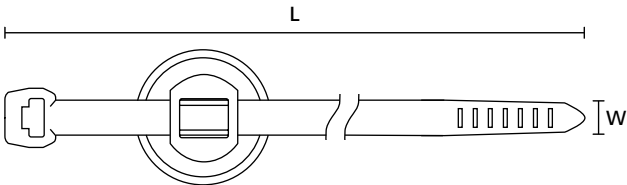
Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions
- Seal protects against splash water

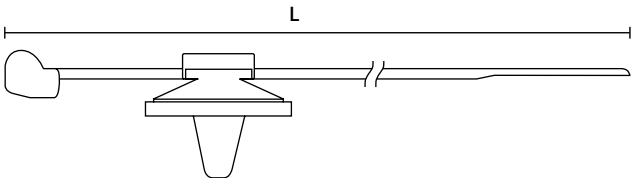


The additional seal protects against the ingress of moisture.

Material specifications: See Article-No. on our website.



T50ROSSFT6.5-16-2MOD-MD

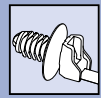


T50ROSSFT6.5-16-2MOD-MD

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T50ROSSFT6.5 16-3MD		6.1 - 7.0	2.5 - 3.0	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-37799
T50ROSSFT6.5S-16-2MD		6.3 - 6.7	0.7 - 1.2	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	155-42002
T50ROSSFT6.5-D16-2 MD		6.3 - 6.7	0.7 - 1.8	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-93100

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



1-piece fixing ties with arrowhead, with disc

for round holes

With a diverse range of fixing possibilities these ties are ideal for use in many different industries, including automotive, aerospace, white goods manufacture and panel building. This fastening solution is used to secure cable harnesses. We offer a variety of panel thicknesses and hole sizes to suit all kinds of application.

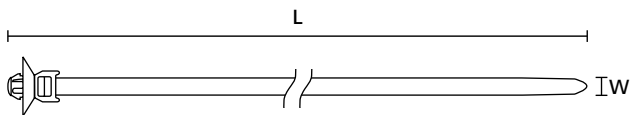
Features and benefits

- Easy to install without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressures from various directions and minimises ingress of dust and dirt
- Cable tie head always situated in a defined position



T30SOS-AS-SFT6.5x4E, 1 piece fixing tie with AntiSlip engraving for a round hole 6.5 mm or a square hole 6.5x4 mm.

Material specifications: See Article-No. on our website.



T50SOSKSFT6.5S2-E

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T30SOSASSFT6.5x4.0E		6.5 6.5 x 4.0	2.4 - 3.0	3.5	126.7	25.0	PA66HS	BK	1-2;4-5;25	126-00341

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, MK7P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



1-piece fixing ties with arrowhead, with wings

for round holes

For bundling and fixing of cable harnesses, pipes and hoses in many different industries, including automotive, aerospace, white goods manufacturing and panel building.

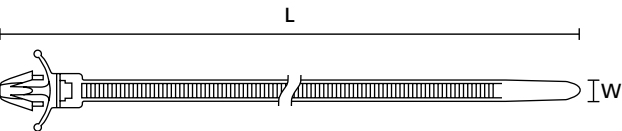
Features and benefits

- Easy to assemble without the need for a tool
- Cable tie head always situated in defined position
- Arrowhead simply locks into place
- Supporting legs provide a secure and firm fixing in areas where space is limited



A wide range of arrowhead fixing ties which are suitable for different panel thicknesses and hole diameters.

Material specifications: See Article-No. on our website.



T50SSL5

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T18RSF		4.65 - 4.85	0.8 - 3.0	2.5	100.0	16.0	80	PA66HS	NA	1-2;4-5;25	126-00416
		4.65 - 4.85	1.0 - 3.0	2.5	100.0	16.0	80	PA46	NA	1-2;4-5;25	126-00419
T50RSFM		6.0 - 6.6	0.7 - 3.0	4.6	205.0	45.0	225	PA66HS	BK	1-2;4-7;25	111-85720
T50SSL5		6.1 - 6.5	0.5 - 2.7	4.6	135.0	27.0	225	PA46	GY	1-2;4-7;25	111-85395
		6.1 - 6.5	0.5 - 2.7	4.6	135.0	27.0	225	PA66	NA	1-2;4-7;25	111-85339
		6.1 - 6.5	0.5 - 2.7	4.6	135.0	27.0	225	PA66HS	BK	1-2;4-7;25	126-02204
T50SSFMM		6.0 - 6.6	0.7 - 3.0	4.6	160.0	35.0	222	PA66	NA	1-2;4-7;25	111-85739
		6.0 - 6.6	0.7 - 3.0	4.6	160.0	35.0	222	PA66HS	NA	1-2;4-7;25	126-01104
		6.0 - 6.6	0.7 - 3.0	4.6	160.0	35.0	225	PA66	NA	1-2;4-7;25	126-00327
T50RSFM		6.0 - 6.6	0.7 - 3.0	4.6	205.0	45.0	225	PA66	NA	1-2;4-7;25	111-85729
T50SAH		6.0 - 6.6	0.7 - 3.0	4.6	160.0	25.0	225	PA66HS	BK	1-2;4-5;25	126-00163
		6.0 - 6.6	0.7 - 3.0	4.6	160.0	25.0	225	PA66HS	NA	1-2;4-5;25	155-41102
T50SL8		8.0	0.8 - 1.5	4.6	165.0	35.0	225	PA66	BK	2;4-5	126-01900

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with arrowhead, with wings

for oval holes

With a diverse range of fixing possibilities are ideal for use in many different industries, including automotive, aerospace, white goods manufacture and panel building.

Features and benefits

- Easy to assemble without the need for a tool
- Cable tie head always situated in defined position
- Arrowhead simply locks into place
- Supporting legs provide a secure and firm fixing in areas where space is limited
- Versions for oval holes feature anti-twist protection



A wide range of arrowhead fixing ties which are suitable for different panel thicknesses and hole diameters.

Material specifications: See Article-No. on our website.



T80RFT6X12

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T80RFT6X12		6.3 x 12.3	0.6 - 3.0	4.6	228.0	45.0	222	PA46	GY	1-2;4-7;25	150-48397
		6.3 x 12.3	0.6 - 3.0	4.6	228.0	45.0	222	PA66	BK	1-2;4-7;25	150-48396

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with arrowhead, with disc, for round holes

S50ROS series with fixing element

S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO2 footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt



S50ROS made from Polypropylene combined with our fir tree parts for round holes.

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
S50ROSSFT6.5	6.4 - 6.6	0.7 - 2.0	4.9	200.0	45.0	185	PP PA66HS	BK	5	156-03590

Recommended Tools: 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

2-piece fixing ties with arrowhead, with wings
for oval holes

Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Versions for oval holes feature anti-twist protection



T50RFT6OVAL for oval holes 6.3 x 12.2 mm.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50RFT6OVAL		6.3 x 12.2	0.6 - 3.0	4.6	202.0	45.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-37591
T50RFT62x122HR		6.3 x 12.2	0.6 - 3.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-7;25	156-00446

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with arrowhead, with disc

for oval holes

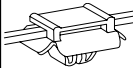
Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Versions for oval holes feature anti-twist protection



Our 2-Piece Fixing Tie T50RSFT725 ist specially designed for railway application with an fixing hole of 7 x 25 mm.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
One Click FERRO-T50ROSSFT725		7.0 x 50.0	1 - 2	4.6	200.0	50.0	225	PA66HS PA66W	BK	1-2;4-5;25	156-01577

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with arrowhead, with wings

for round holes, releasable

With a diverse range of fixing possibilities are ideal for use in many different industries, including automotive, aerospace and panel building.

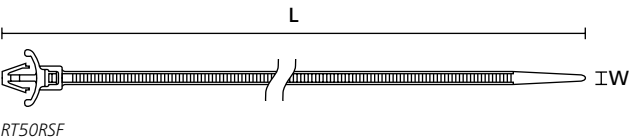
Features and benefits

- Easy to assemble without the need for a tool
- Cable tie head always situated in defined position
- Arrowhead simply locks into place
- Supporting legs provide a secure and firm fixing in areas where space is limited
- Releasable and therefor reusable



A wide range of arrowhead fixing ties which are suitable for different panel thicknesses and hole diameters.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
YQR10016		6.9 - 7.1	1.60 - 4.00	4.6	165.0	34.0	225	PA66	GY	1-2;4-5;25	126-03000
RT50RSF		7.8 - 8.2	0.8 - 2.5	4.6	215.0	50.0	225	PA66	BK	1-2;4-5;25	115-07010
RT50SFK		6.4 - 7.0	0.8 - 3.0	5.0	225.0	50.0	225	PA66	BK	1;3;6-7;9-10;25	115-06960

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties with arrowhead

without wings and disc, for round holes

The arrowhead design is usefull in areas with limited space.

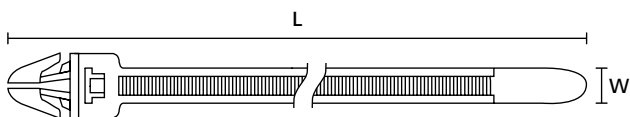
Features and benefits

- Easy to assemble without the need for a tool
- Fixing tie with arrowhead without wings
- Arrowhead simply locks into place
- Cable tie head always situated in defined position



The arrowhead design allows these fixing ties to be used in areas with limited space.

Material specifications: See Article-No. on our website.



T30RSF

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T30RSF		4.7 - 5.6	0.9 - 2.4	3.6	158.0	32.0	135	PA66	NA	1-2;4-5;25	126-00330
		4.7 - 5.6	0.9 - 2.4	3.6	158.0	32.0	135	PA66HS	BK	1-2;4-5;25	126-00329

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties with arrowhead, with disc

for round holes, for parallel routing

Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

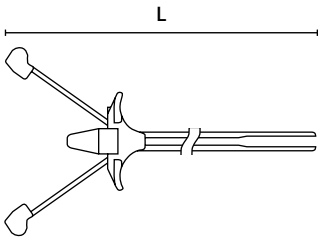
Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place

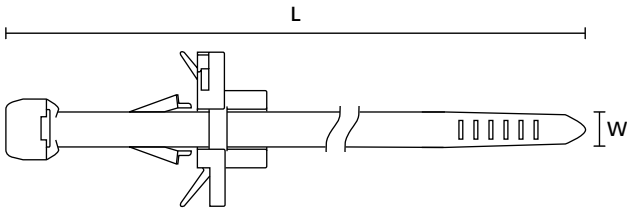


T50SOSDSFT6.5 for parallel routing.

Material specifications: See Article-No. on our website.



T50SOSDSFT6.5

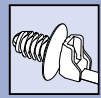


T50SOSDSFT6.5

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSDSFT6.5	6.3 - 6.7	0.7 - 1.5	4.6	150.0	15.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00133

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT5

Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

Features and benefits

- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Parts with an anti-slip engraving, such as the T30SOS-AS-FT5-E, to prevent the harness from slipping sideways



Fir tree foot parts can be used for a variety of panel thicknesses.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18RDP5		4.9 - 5.1	3.0 - 4.0	2.5	110.0	20.0	80	PA66	BK	1-2;4-5;25	150-55610
T30SOS-AS-FT5-E		4.8 - 5.2 M6	0.7 - 4.5	3.5	129.0	25.0	200	PA46	GY	1-2;4-5;25	157-00448

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT6D10E		5.8 - 6.2	0.8 - 5.5	4.6	32.0	200	PA46	GY	1-2;4-5;25	157-00028
		5.8 - 6.2	0.8 - 5.5	4.6	32.0	225	PA66HS	BK	1-2;4-5;25	157-00045
T50SOSFT6E2		6.3 - 7.0	0.6 - 4.2	4.6	35.0	180	PA66HS	BK	1-2;4-7;25	157-00085
T50SOSFT6LGE		6.3 - 7.0	0.7 - 7.0	4.6	35.0	180	PA66HS	BK	1-2;4-7;25	157-00228

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T30SOS-AS-FT6-E		6.3 - 6.7	0.6 - 4.0	3.5	25.0	200	PA66HS	BK	1-2;4-5;25	157-00243
T50SOSFT6E3		6.1 - 6.9	0.7 - 3.5	4.7	35.0	150	PA66HIRHS	BK	1-2;4-7;25	157-00241
T50SOSFT6E1		6.3 - 7.0	0.7 - 3.0	4.7	35.0	150	PA66HIRHS	BK	1-2;4-5;25	157-00033
		6.3 - 7.0	0.7 - 3.0	4.7	35.0	225	PA46	GY	1-2;4-5;25	157-00059
T50SOSFT6LG-E2		6.1 - 6.9 6.1 - 6.6 (hexagonal)	0.6 - 8.25	4.6	35.0	180	PA66HIRHS	BK	1-2;4-7;25	157-00242
T50SOSFT6LG-E4		6.3 - 7.0	0.8 - 7.0	4.9	31.0	200	PA66HS	BK	1;3;6-7;9-10;25	157-00237

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT7

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
FT220DP7		6.8 - 7.2	0.8 - 5.0	4.7	232.0	40.0	225	PA66	BK	1-2;4-5;25	150-01700

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT8

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT8E		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	PA46	GY	1-2;4-7;25	157-00115
		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	PA66HS	BK	1-2;4-7;25	157-00072

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with fir tree, with disc

for oval holes

Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

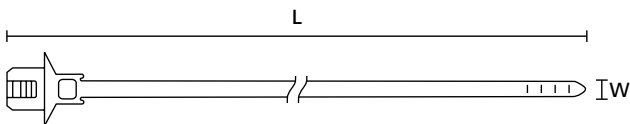
Features and benefits

- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Versions for oval holes feature anti-twist protection

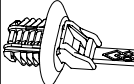


This 1-piece fixing tie with fir tree design for oval holes features anti-twist protection.

Material specifications: See Article-No. on our website.



1-piece fixing tie with fir tree, with disc, for oval holes

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50S05-AS-DFTOVAL-E		6.5 x 12.5	0.6 - 6.75	4.6	166.4	35.0	180	PA66HIRHS	BK	1-2;4-5;25	157-00414

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties with fir tree, with disc

for round holes, releasable

This fir tree design is ideal for use in thick panels and threaded, blind holes. The additional disc avoids the intrusion of dust and dirt.

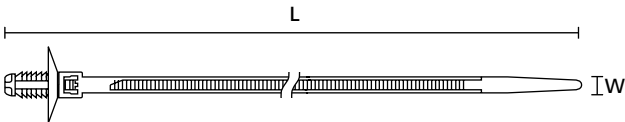
Features and benefits

- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Suitable for use within threaded holes
- Reusable - Less waste and less pollution of the environment



REL30SDP6.

Material specifications: See Article-No. on our website.



Reference for dimensions only.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
REL30SDP6		6.3 - 7.1	3.0 - 7.0	5.0	170.0	31.0	135	PA66	BK	1;3;6-7;9-10;25	150-55500

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties with fir tree, with disc, with stand-off, for round holes

With offset 12.5 and 25.0 mm

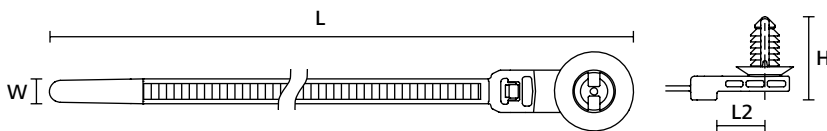
Features and benefits

- Bundling and fixing solution
- Ideal combination of materials and design
- Different positions of the fixing anchor are available to fit installation space



Designed for optimal spacing: the integrated stand-off in this 1-piece fixing tie ensures secure cable routing while preventing contact with surfaces, ideal for high-performance applications.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Article-No.
T50ROSFT825SO		7.6 - 8.4	0.6 - 6.0	5.1	245.1	50.0	225	PA66HIRHSUV	BK	157-00196
T50ROSFT6SO12.5A		6.1 - 7.0 6.35	0.6 - 6.65	5.1	215.9	50.0	225	PA66HIRHS	GY	157-00130
		6.1 - 7.0 6.35	0.6 - 6.65	5.1	215.9	50.0	225	PA66HIRHSUV	BK	157-00145
T50ROSFT6SO25A		6.1 - 7.0 6.35	0.6 - 6.65	5.1	230.0	50.0	225	PA66HIRHS	GY	157-00119
T50ROSFT8SO25A		7.6 - 8.4	0.6 - 6.65	5.1	230.0	50.0	225	PA66HIRHS	GY	157-00120
T50ROSFT6SO25B		6.1 - 7.0 6.35	0.6 - 6.65	4.7	230.0	50.0	225	PA66HIRHSUV	BK	157-00169
T50ROSFTM6SO25B		M6	0.6 - 5.5	4.6	230.0	50.0	222	PA66HIRHSUV	BK	157-00172
T50ROSFTM6SO12.5B		M6	0.6 - 6.65	4.6	215.9	50.0	222	PA66HIRHSUV	BK	157-00131
T50ROSFT6SO25R		6.1 - 7.0 6.35	0.6 - 8.25	5.1	237.7	50.0	225	PA66HIRHSUV	BK	157-00164

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT3

Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

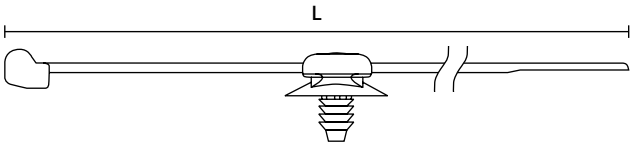
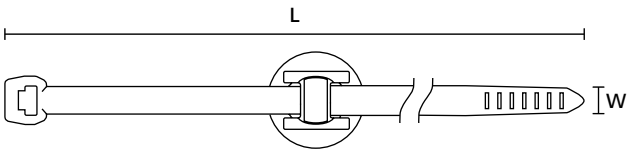
Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes



These fir tree fixings can also be used in threaded, blind holes.

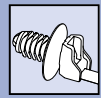
Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18RFT3		M3	1.5 - 3.0	2.5	20.0	80	PA66HSUV	BK	1-2;4-5;25	156-00338

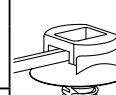
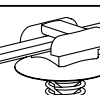
Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT5

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T18RFT5		4.5 - 5.0	0.7 - 3.0	2.5	100.0	22.0	80	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01225
T30RFT5		4.5 - 5.0	0.7 - 3.0	3.5	150.0	34.0	135	PA46	GY	1-2;4-5;25	156-01316
		4.5 - 5.0	0.7 - 3.0	3.5	150.0	35.0	135	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-55850
T50SOSFT5		4.5 - 5.0	0.7 - 3.0	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-06200
T50RFT5		4.5 - 5.0	0.7 - 3.0	4.6	200.0	45.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00025
T50SOSFT5SD		4.5 - 5.0	0.7 - 3.0	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00432

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
PT2AFT6LG		6.4 - 7.1	0.75 - 6.0	3.4	145.0	35.0	PEEK PA46	BGE, GY	1-2;4-5;25	156-01336
T30RFT6LG		6.5 - 7.0	0.75 - 6.0	3.5	150.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-31090
T50ROSFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31099
T50RFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31091
T80IFT6LG		6.5 - 7.0	0.75 - 6.0	4.7	305.0	75.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31096
T30RFT6SD		6.4 - 7.1	0.75 - 3.0	3.5	150.0	35.0	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-52690
T50ROSFT6SD		6.4 - 7.1	0.75 - 3.0	4.6	200.0	45.0	PA46	GY	1-2;4-7;25	156-00085
		6.4 - 7.1	0.75 - 3.0	4.6	200.0	46.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-05902

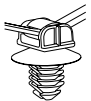
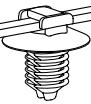
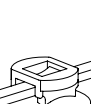
Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 8=EVO9SG, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



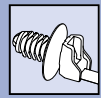
2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T50RFT6LGSD-HEX		6.25 - 6.75 6.1 - 6.6 (hexagonal)	0.7 - 5.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-01705
T50SFT6LG1SD		6.5 - 7.0	0.6 - 6.0	4.6	160.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00154
T30RFT6		6.4 - 7.1	0.75 - 3.0	3.5	150.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-77950
T50ROSFT6		6.4 - 7.1	0.75 - 3.0	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00076
T50RFT6		6.4 - 7.1	0.75 - 3.0	4.6	202.0	45.0	PA46	GY	1-2;4-7;25	156-01693
		6.4 - 7.1	0.75 - 3.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-77941
SGT100SFT6.7		6.3 - 7.0	0.6 - 4.2	12.7	140.0	25.4	PA66HS TPE PA66HIRHS	BK	8	156-03268

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 8=EVO9SG, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT7

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T30RFT7		6.5 - 7.0	0.8 - 7.0	3.5	150.0	35.0	PA66HS	BK	1-2;4-5;25	156-00057
T50RFT7		6.5 - 7.0	0.8 - 7.0	4.6	202.0	45.0	PA66HS	BK	1-2;4-7;25	111-85871
T50IFT7		6.5 - 7.0	0.8 - 7.0	4.6	300.0	85.0	PA66HS	BK	1-2;4-7;25	150-00700
T50RFT7HD		6.2 - 7.2	0.8 - 7.0	4.6	202.0	50.0	PA46	BN	1-2;4-7;25	156-00457

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.

2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT8

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
S50ROSFT8GSD		M10 8.0 - 8.5	1.5 - 4.0	4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03587
S50ROSFT8		7.7 - 8.0	0.8 - 6.0	4.9	200.0	45.0	185	PP PA66HS	BK	5	156-03581
T50RFT8		7.7 - 8.0	0.8 - 6.0	4.6	202.0	45.0	225	PA66HS	BK	1-2;4-7;25	111-85880
T50RFT8GSD		8.0 - 8.5	1.5 - 4.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-7;25	156-00235
		8.0 - 8.5	1.5 - 4.0	4.6	202.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	133-00034

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT9

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T120IFT9		9.0 - 10.6	5.0 - 11.0	7.6	300.0	80.0	535	PA66HIR(S)	BK	1;3;6-7;9-10;25	156-00200
T120RFT9A		8.7 - 9.2	1.0 - 6.5	7.6	380.0	105.0	535	PA66HIRHSUV	BK	1;3;6-7;9-10;25	156-00067
WSSFT9A		8.7 - 9.2	1.0 - 6.5	12.7	228.0	57.0	535	PA66HIRHSUV	BK	3;5-7;9-10	156-00068
T120RFT9B		8.7 - 9.2	1.0 - 15.8	7.6	380.0	105.0	535	PA66HS PA66HIRHSUV	BK	1;3;6-7;9-10;25	156-00071

Recommended Tools: 1=MK10-SB, 3=MK21, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

2-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT10

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
S50ROSFT10		9.7 - 10.0	0.8 - 5.0	4.9	200.0	45.0	PP PA66HS	BK	5	156-03585
T50RFT10		9.7 - 10.0	0.8 - 5.0	4.6	200.0	45.0	PA66HS	BK	1-2;4-7;25	111-85810
T50ROSFT10		9.7 - 10.0	0.8 - 5.0	4.6	200.0	45.0	PA66HS	BK	1-2;4-7;25	156-00120

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-Pieces Fixing Ties with Fir Tree, with cover

2-Pieces Fixing Ties with Fir Tree, with cover, for round holes

Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust, dirt and water
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes



Two piece fixing tie with fir tree for round holes and with side offset.

Material specifications: See Article-No. on our website.

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	 N	Material	Colour	Article-No.
T50RSOC13.9FT6.5	6.1 - 6.9 M8 x 1.25 Threaded 6.1 - 6.6 (hexagonal)	0.7 - 3.0	4.6	202.0	45.0	225	PA66HIRHS	BK	156-03276

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for strong hold on smooth bundles

Fir tree parts FT6

Soft Grip mounts are especially designed for use with Soft Grip ties. The versatile combinations provide a variety of flexible fastening options for fluid management / cooling systems in vehicles. The Soft Grip Series is a unique semi-customised part solution and designed to save time, money and development effort. The foot parts of the mounts can be adjusted to individual customer requirements. In the event of maintenance, the cable tie can be easily removed using a screwdriver. Only the cable tie then needs to be replaced, not the whole fixing element.

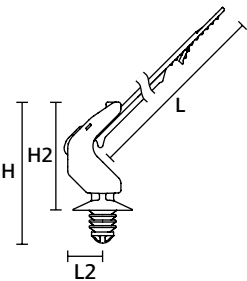
Features and benefits

- Suitable for a variety of fastening requirements thanks to different foot parts (for holes, for studs, for screw fixings)
- Soft Grip cable ties assure high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements of the bundle, especially on smooth tubing
- Pre-locking feature holds the cable tie in place before it is tensioned
- Soft Grip cable ties can be removed with a screwdriver for maintenance
- EVO9SG application tool with adjusted nose piece available



Soft Grip Cable Tie assembled with Soft Grip Mount for holes (arrowhead) and hoses for fluid management.

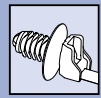
Material specifications: See Article-No. on our website.



SGT100SFT6.7

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
SGT100SFT6.7		6.3 - 7.0	0.6 - 4.2	12.7	140.0	25.4	PA66HS TPE PA66HIRHS	BK	8	156-03268

Recommended Tools: 8=EVO9SG. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



2-piece fixing ties with fir tree, with disc, for oval holes

S50ROS series with fixing element

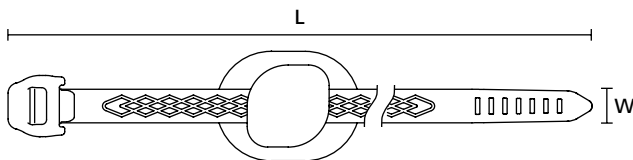
S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO2 footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- DOP versions for oval holes feature anti-twist protection



Material specifications: See Article-No. on our website.



TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
S50ROS1DOP62x122	6.2 x 12.2	0.6 - 6.0	4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03586

Recommended Tools: 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties with deep hole anchor, with disc, for round holes

Deep hole anchor **T30SOSASDHA6x11E**

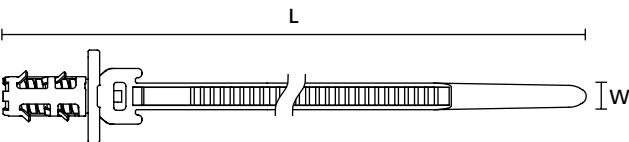
Features and benefits

- 1-piece fixing tie with deep hole anchor for secure installation in blind holes, with or without thread
- High pull-off forces enabled by integrated metal clamp
- Tool-free assembly simplifies installation and saves time
- Integrated disc compensates for pressure from various directions
- Disc design minimizes ingress of dust and dirt for enhanced durability



One piece fixing tie for round blind holes.

Material specifications: See Article-No. on our website.



T30SOSASDHA6x11E

TYPE	Hole Ø (FH)	Width (W)	Length (L)	Bundle Ø max.	 N	Material	Colour	Article-No.
T30SOSASDHA6x11E	5.9 - 6.1	3.5	128.6	25.0	200	PA66HS	BK	126-00429

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with deep hole anchor, with disc, for round holes

Deep hole anchor DHA5.5 - DHA8.4

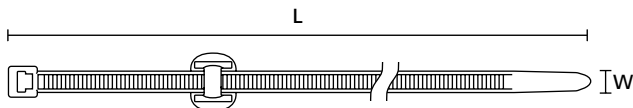
Features and benefits

- Pre-assembled 2-piece fixing tie with deep hole anchor
- The high 'pull off' forces are due to the integrated metal clamp
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt
- Suitable for use within blind holes with or without thread



T50RDHA8.4x20-PA46 for blind hole applications and with higher temperature requirements, include transportation cap to protect the harness during transportation.

Material specifications: See Article-No. on our website.



Fixing tie with deep hole anchor

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50RDHA5.5x15		5.4 - 5.6	15.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-5;25	156-01203
T50RDHA8.4x20		8.3 - 8.5	20.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-5;25	156-01155

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Arrowhead cradle

SF/TM-Series

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

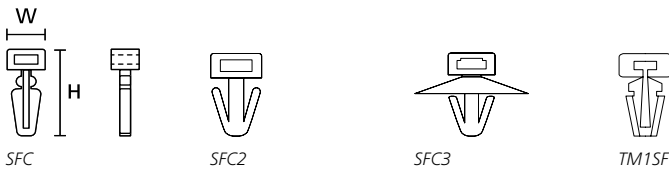
Features and benefits

- Arrowhead fixing for use in pre-drilled or punched holes
- Ideal for applications with limited space and restricted access
- Parts with disc protect against dirt and dust



TM1SF for secure fixing of cables into pre-drilled or pre-punched holes.

Material specifications: See Article-No. on our website.



TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Article-No.
SFC2	6.0	0.80 - 1.00	6.0	-	14.5	5.3	PA66	Natural (NA)	151-02000
SFC	6.0	3.00 - 3.20	11.0	18.0	18.0	5.3	PA66	Natural (NA)	151-01600
SFC3	6.3	0.80 - 1.80	22.0	15.5	15.5	8.6	PA66	Black (BK)	151-01907
	6.3	0.80 - 1.80	22.0	15.5	15.5	8.6	PA66	Natural (NA)	151-01909
TM1SF	6.3	3.40 - 3.40	10.2	15.8	15.6	5.0	PA66	White (WH)	151-40119

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fixing elements with fir tree, for distance routing

Saddle mount

These heavy duty fixing offers excellent performance for ship building and the truck and construction vehicle industries.

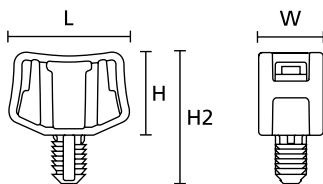
Features and benefits

- For parallel routing of four bundles
- Secure alignment to the bundle due to H-design
- For cable ties up to 13.0 mm wide
- Pre-fixing of tie with integrated nose



The mount can secure up to four separate bundles, providing parallel spacing between the frame rail and adjacent bundles.

Material specifications: See Article-No. on our website.



Fir Tree Saddle Mounts

TYPE	Hole Ø (FH)	Panel Thickness	Strap Width max. (G)	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
S3STM50	12.7 - 13.7	1.9 - 13.0	13.0	127.0	22.0	50.0	35.0	55.0	PA66HIRHS	Black (BK)	100 pcs.	151-29500

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Automatic bundling

Fir tree clips for automatic cable tying systems

Features and benefits

- Clips to fix cables and harnesses in the automotive and white goods industries
- Optimized for use automatic cable tying systems
- Easy to apply
- The fixing elements can be tied automatically with Autotool System

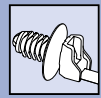


Fixing elements for automatic bundling.

Can be used with Automatic Cable Tying Systems on page 596.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Material	Colour	Article-No.
ATS62x122-2DOP90		6.2 x 12.2	0.6 - 6.0	PA66HIRHS	Black (BK)	102-67040
ATS62x122-2DOP		6.2 x 12.2	0.6 - 6.0	PA66HIRHS	Black (BK)	102-67042
ATSFT5LG		4.5 - 5.0	0.7 - 8.0	PA66HIRHS	Black (BK)	102-67050
ATSFT6		6.3 - 7.0	0.75 - 3.0	PA66HIRHS	Black (BK)	102-67067
ATSFT6LG		6.5 - 7.1	0.6 - 6.0	PA66HIRHS	Black (BK)	102-67062
ATSFT8GSD		8.0 - 8.5	1.5 - 4.0	PA66HIRHS	Black (BK)	102-67081

All dimensions in mm. Subject to technical changes.



Fixing elements for T-slotted aluminium frames

ACFM-Series

The Aluminium Clip Frame Mounts (ACFM-Series) are specifically designed for use with aluminium construction profiles. Installation and handling is seamless - simply twist the mounts 90 degrees to secure them firmly into position at the desired positions along the profile. These mounts can also be loosened and repositioned easily for quick adjustment and the ongoing maintenance of cables. The range of aluminium frame mounts are suitable for use with various aluminium construction profiles from a range of manufacturers.

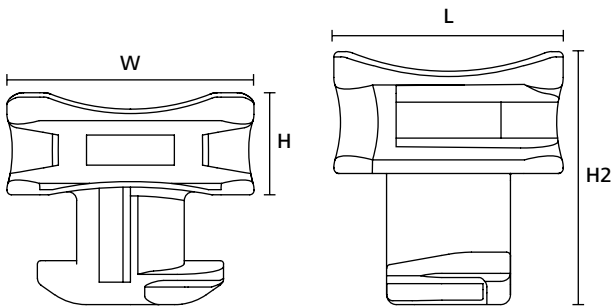
Features and benefits

- Quick and easy to install (quarter-turn fixing)
- 2-way cable tie entry, allowing cables to be fixed lengthways or sideways to the profile
- Curved design ensures that cables are supported centrally to the mount
- Secure fixing once installed
- Suitable for cable ties up to 8 mm wide



The Aluminium Clip Frame Mounts (ACFM) are special designed for Aluminium Construction Profiles.

Material specifications: See Article-No. on our website.



TYPE	Panel Thickness	Groove Width	Width (W)	Length (L)	Height (H)	Height (H2)	Product Family	Material	Colour	Pack Cont.	Article-No.
ACFM4W8PT2.2	2.2	8.0	22.5	17.5	9.3	15.0	For Bosch Rexroth Strut profiles slot 8	PA66/6HIRHS	Black (BK)	500 pcs.	151-03176
ACFM8W6.2PT2.75	2.8	6.2	22.5	17.5	9.3	15.3	For ITEM 6 frame	PA66/6HIRHS	Black (BK)	500 pcs.	151-03248
ACFM1W13PT3.5	3.5	13.0	22.5	17.5	13.3	20.8	For Ziegler profile 13	PA66/6HIRHS	Black (BK)	500 pcs.	151-02942
ACFM5W8PT4,5	4.5	8.0	22.5	17.5	9.3	17.3	For ITEM 8 frame	PA66/6HIRHS	Black (BK)	500 pcs.	151-03192
ACFM7W10PT5.3	5.3	10.0	22.5	17.5	9.3	18.6	For ITEM10 frame	PA66/6HIRHS	Black (BK)	500 pcs.	151-03193
ACFM2W10PT6	6.0	10.0	22.5	17.5	9.3	19.3	For Bosch Rexroth Strut profiles slot 10	PA66/6HIRHS	Black (BK)	500 pcs.	151-02858

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Wire push in clips

WPC-Series

With the increased complexity of electronic and electrical installations the use of WPC Clips enables cables to be installed using a minimum amount of space. A perfect solution for the frame/rails of controll cabinets or the white goods industry.

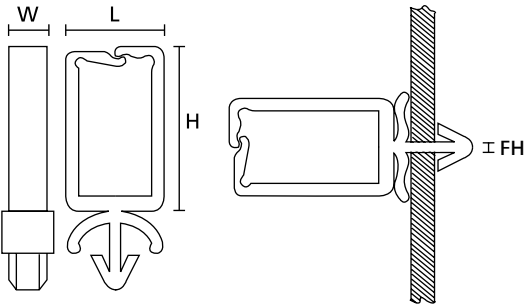
Features and benefits

- Accept single or multiple wires
- Simply push wires into place
- Arrowhead design for simple and secure installation
- Access to panel only needed from one side



WPC – Wire Push In Clip.

Material specifications: See Article-No. on our website.



WPC Wire Push In Clip (side view, front view, in application)

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
WPC5		4.7	0.80 - 4.00	5.3	15.0	12.7	PA66	Natural (NA)	151-75059
WPC10		4.7	0.80 - 4.00	5.3	15.0	17.7	PA66	Natural (NA)	151-75109
WPC15		4.7	0.80 - 4.00	5.3	15.0	22.7	PA66	Natural (NA)	151-75159
WPC20		4.7	0.80 - 4.00	5.3	15.0	27.7	PA66	Natural (NA)	151-75209

All dimensions in mm. Subject to technical changes.



Fixing elements with arrowhead for round holes

Harness push in clips, HC-Series

This fixing element is pressed into a hole manually and locks into place with an audible click. Cable bundles can be applied afterwards.

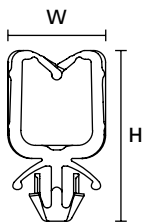
Features and benefits

- Accept single or multiple wires
- Simply push wires into place
- Arrowhead design for simple and secure installation
- Access to panel only needed from one side
- Harness clip made of polypropylene (PP) offers a lower CO₂ footprint compared to PA66 making it a more sustainable choice without compromising on performance



Harness clip made of polypropylene with arrow head for round holes 6.3 mm.

Material specifications: See Article-No. on our website.



HC10.5WPM6.3

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
HC10.5WPM6.3	6.1 - 6.6	1.0 - 3.0	9.5	16.7	19.8	PP	Black (BK)	151-03957

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fixing elements for tubes and harnesses

KSFT6.5OC with low arrowhead

This fixing elements can be used ideally everywhere where space saving work is necessary. In case of maintenance, the tubes and harnesses can be exchanged.

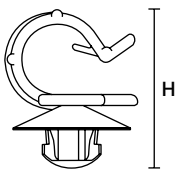
Features and benefits

- Fixing part with rounded arrowhead to minimise assembly height
- Ideal for applications where space is limited
- Simply clip on a wire or hose
- Bundle diameter is defined
- Suitable for post-installation of bundles



The very low arrowhead is specially designed for narrow installation spaces.

Material specifications: See Article-No. on our website.



KSFT6.5 OC 7-9

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Attach to Ø	Height (H)	Material	Colour	Article-No.
KSFT6.5OC1-3		6.3 - 6.7	2.30 - 2.70	1.0 - 3.0	14.4	PA66HIRHS	Black (BK)	151-01843
KSFT6.5OC7-9		6.3 - 6.7	2.30 - 2.70	7.0 - 9.0	21.6	PA66HIRHS	Black (BK)	151-01844

All dimensions in mm. Subject to technical changes.

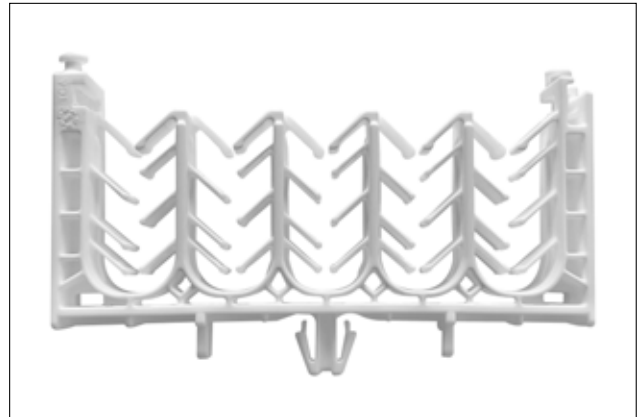


LadderClamp

for installation on cable ladders

Features and benefits

- Time saving
- Quick installation
- Ergonomic installation saves the installers shoulders
- No waste
- Fix the cables in place
- Reusable
- No tool needed
- Fits to cable ladders of brand MP-bolagen and Wibe
- Ladder clamp made of polypropylene (PP) offers a lower CO₂ footprint compared to PA66 making it a more sustainable choice without compromising on performance



Material specifications: See Article-No. on our website.

TYPE	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
LC5-8-10SFT8.5	15.0	95.0	85.0	PP	White (WH)	151-04121

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fixing elements for tubes and harnesses with automatic locking feature

with arrowhead, for round holes

Offering a simple and secure method of attaching cables to panels. Originally designed for the automotive industry, these products are used in a wide range of applications with sheet metal panels across various industries.

Features and benefits

- Push and click closure for fixing of wires
- Clip is clicked into a specific hole
- AHC()SS und AHC()SB can be pushed onto a 5.0 mm stud

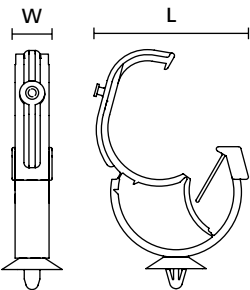


Automatic Harness Clip closed.



Automatic Harness Clip open.

Material specifications: See Article-No. on our website.



AHC-Series

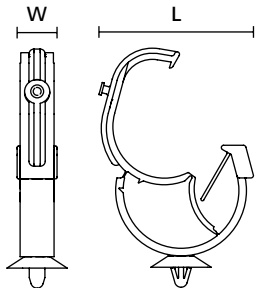
TYPE	Drawing	Panel Thickness	Bundle Ø max.	Disc Ø	Width (W)	Length (L)	Material	Colour	Article-No.
IAHC4AH		0.5 - 2.5	36.0	24.0	13.5	53.0	PA66HIRHS	Black (BK)	151-00382
AHC1AH		0.7 - 2.2	13.0	20.0	10.0	26.2	PA66HIRHS	Black (BK)	151-02874
AHC2AH		0.7 - 2.2	20.0	20.0	10.0	32.5	PA66HIRHS	Black (BK)	151-02881

All dimensions in mm. Subject to technical changes.



Fixing elements for tubes and harnesses with automatic locking feature

with arrowhead, for oval holes



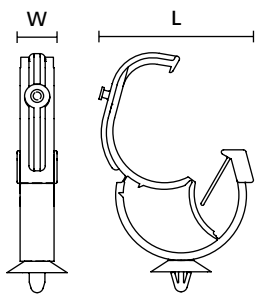
AHC-Series

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Bundle Ø max.	Disc Ø	Width (W)	Length (L)	Material	Colour	Article-No.
AHC2BH		6.2 x 12.2	0.7 - 2.2	20.0	20.0	10.0	32.5	PA66HIRHS	Black (BK)	151-02882
AHC3BHR		6.2 x 12.2	0.7 - 3.0	28.0	24.0	14.0	47.4	PA66HIRHS	Black (BK)	151-00370
AHC45BHG2		6.2 x 12.2	1.0 - 3.0	37.5	22.0	14.0	50.0	PA46	Grey (GY)	151-01377

All dimensions in mm. Subject to technical changes.

Fixing elements for tubes and harnesses with automatic locking feature

with fir tree for round holes



AHC-Series

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Bundle Ø max.	Disc Ø	Width (W)	Length (L)	Material	Colour	Article-No.
AHC25FT6LG		6.4 - 7.0	0.7 - 4.0	22.0	20.0	10.0	34.5	PA66HIRHS	Black (BK)	151-01198
AHC223FT6LG		6.4 - 7.0	0.7 - 4.0	23.0	20.0	10.0	35.0	PA66HIRHS	Black (BK)	151-01078

All dimensions in mm. Subject to technical changes.



Fixing elements for tubes and harnesses with automatic locking feature, connectable

IAHC-Series, connectable

Offering a simple and secure method of attaching cables to panels. Originally designed for the automotive industry, these products are used in a wide range of applications with sheet metal panels across various industries.

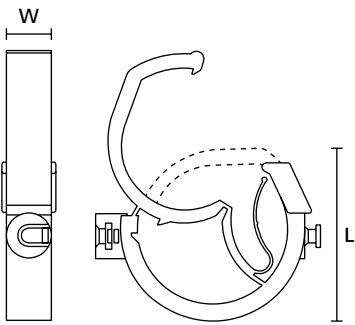
Features and benefits

- Push and click closure
- Coupling elements of the IAHC variants allow parts to connect
- IAHC()T can only be connected with another IAHC element
- Vibration resistant, rattlefree and secure hold of bundle
- In case of maintenance easy replacement of bundle possible
- 360 degree rotatable for guiding bundles in different directions



IAHC()AH in combination with an IAHC()T.

Material specifications: See Article-No. on our website.



IAHC()T

TYPE	Drawing	Bundle Ø max.	Width (W)	Length (L)	Material	Colour	Article-No.
IAHC1T		13.0	10.0	23.0	PA66HIRHS	Black (BK)	151-02883
IAHC3T		28.0	10.0	40.0	PA66HIRHS	Black (BK)	151-02884
IAHC4T		36.0	13.5	47.0	PA66HIRHS	Black (BK)	151-00207
IAHC5T		45.0	13.5	57.0	PA66HIRHS	Black (BK)	151-00195

All dimensions in mm. Subject to technical changes.



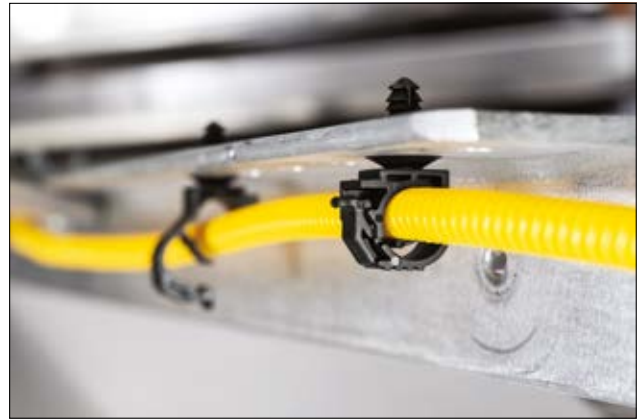
Fixing elements for tubes and pipes

with fir tree for round holes and cover, LOC-Series

These clips offer fast and easy bundling of convoluted tubes and pipes, especially for the automotive industry.

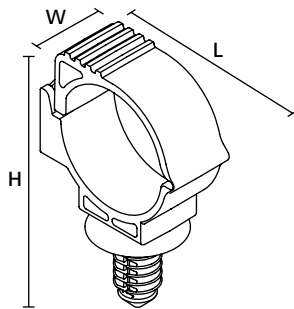
Features and benefits

- For fixing and bundling convoluted tubes and pipes
- Vibration resistant, rattle-free and secure hold of bundle
- In case of maintenance easy replacement of bundle possible



The locking clamps of the LOC-Series offer fast and easy bundling of convoluted tubes and pipes.

Material specifications: See Article-No. on our website.



Reference drawing for dimensions only

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
LOC10-14FT6LG		6.1 - 6.6 (hexagonal) 6.1 - 7.0	0.6 - 8.25	14.0	12.0	34.9	57.8	PA66HIRHSUV	Black (BK)	151-01166
LOC15-19FT6LG		6.1 - 6.6 (hexagonal) 6.1 - 7.0	0.6 - 8.25	19.0	12.0	31.6	47.5	PA66HIRHSUV	Black (BK)	151-01022

All dimensions in mm. Subject to technical changes.

with fir tree for oval holes and cover, LOC-Series

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
LOC15-19FTOVAL		6.2 x 12.2 6.5 x 12.5 6.5 x 13.0 7.0 x 12.0	0.6 - 6.75	19.0	12.0	31.6	49.5	PA66HIRHSUV	Black (BK)	151-01049
LOC5-9FTOVAL		6.2 x 12.2 6.5 x 12.5 6.5 x 13.0 7.0 x 12.0	0.6 - 6.75	9.0	12.0	25.5	34.2	PA66HIRHSUV	Black (BK)	151-01306

All dimensions in mm. Subject to technical changes.



Fixing elements for tubes and hanneses

with fir tree

This Fixing Element is pressed into a hole by hand and locked into place with a hearable click. Cable bundles can be applicated afterwards.

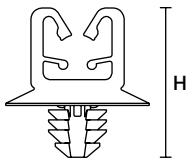
Features and benefits

- Easy to install without the need for a tool
- Types with disc cover the hole and protect against dirt and dust ingress
- Rattlefree and secure hold of bundles due to retaining collar
- Suitable for post-installation of bundles
- Easy replacement of bundles in case of maintenance



The HC48FT6 is designed for Bundle diameter 4.3 - 5.2 mm.

Material specifications: See Article-No. on our website.



HC48FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Attach to Ø	Height (H)	Material	Colour	Article-No.
HC48FT5		4.5 - 5.0	0.7 - 3.0	4.3 - 5.2	21.0	PA66HIRHS	Black (BK)	151-01405
HC48FT6		6.5 - 7.0	0.7 - 2.8	4.3 - 5.2	20.8	PA66HIRHS	Black (BK)	151-00680
CTCFT6		6.3 - 6.7	0.7 - 4.5	15.0	18.5	PA66HIRHS	Black (BK)	151-00783

All dimensions in mm. Subject to technical changes.



Fixing elements for corrugated tubing, with arrowhead

for round and oval holes

These clamps are used in the automotive industry, in the production of cable harnesses and in the electrical industry. Their quick and easy mounting is the reason for their universal success wherever corrugated tubing and pipes have to be fixed quickly and securely.

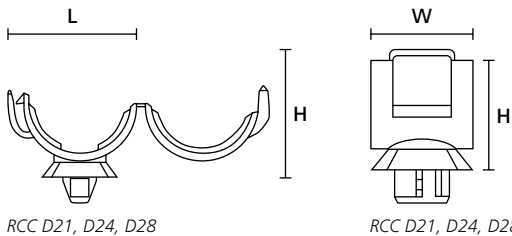
Features and benefits

- Clamps for corrugated tubing for a variety of nominal diameters
- Arrowhead simply locks into place
- Tube is guided accurately by clicking
- Axial slipping is prevented by the inside profile of the clamp



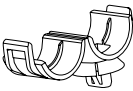
Simple and secure installation of pipes or hoses to panels.

Material specifications: See Article-No. on our website.



RCC D21, D24, D28

RCC D21, D24, D28

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Nominal Ø	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
RCC D21		6.2 x 12.2	0.7 - 2.5	21.0	22.0	31.0	30.0	PA66HIRHS	Black (BK)	150-92300
RCC D24		6.2 x 12.2	0.7 - 2.5	24.0	22.0	33.0	33.0	PA66HIRHS	Black (BK)	151-02266

All dimensions in mm. Subject to technical changes.



Fixing elements for corrugated tubing, with fir tree

CTC-Series

CTC clamps are used for example in the automotive, harness making, electrical industry and wherever corrugated tubing has to be quickly and firmly fixed.

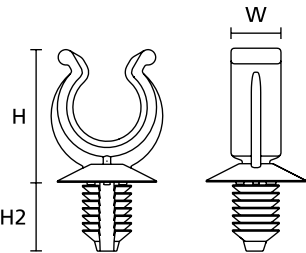
Features and benefits

- CTC clamps for a variety of nominal diameters
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Tube is guided accurately by clicking
- Axial slipping is prevented by the inside profile of the clamp



The tubing is clicked into the CTC clamp and is held firmly.

Material specifications: See Article-No. on our website.



CTC-Series

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Nominal Ø	Disc Ø	Width (W)	Height (H)	Height (H2)	Material	Colour	Article-No.
CTC10FT6LG		6.5 - 7.0	0.75 - 6.0	10.0	16.0	8.0	21.4	11.1	PA66HIRHS	Black (BK)	151-00018
CTC13FT6LG		6.5 - 7.0	0.75 - 6.0	13.0	16.0	8.0	25.2	11.1	PA66HIRHS	Black (BK)	151-00019
CTC4.5FT6LG		6.5 - 7.0	0.75 - 6.0	4.5	16.0	8.0	16.1	11.1	PA66HIRHS	Black (BK)	151-14314
CTC7.5FT6LG		6.5 - 7.0	0.75 - 6.0	7.5	16.0	8.0	18.6	11.1	PA66HIRHS	Black (BK)	151-14313
CTC10FT6		6.5 - 7.0	0.75 - 3.0	10.0	16.0	8.0	21.4	7.5	PA66HIRHS	Black (BK)	151-14311
CTC13FT6		6.5 - 7.0	0.75 - 3.0	13.0	16.0	8.0	25.2	7.5	PA66HIRHS	Black (BK)	151-14312
CTC7.5FT9		8.7 - 9.0	3.0 - 5.0	7.5	23.0	8.0	19.9	12.2	PA66HIRHS	Black (BK)	155-31602
CTC10FT9		8.7 - 9.0	3.0 - 5.0	10.0	23.0	8.0	22.7	12.2	PA66HIRHS	Black (BK)	155-17801
CTC22FT9		8.7 - 9.0	3.0 - 5.0	22.0	23.0	8.0	37.7	12.2	PA66HIRHS	Black (BK)	155-25201

All dimensions in mm. Subject to technical changes.



Fixing elements for corrugated tubing, with fir tree

for round and oval holes

These clamps are used for example in the automotive industry, harness making, electrical industry and wherever corrugated tubing has to be quickly and firmly fixed.

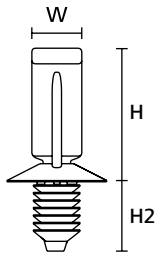
Features and benefits

- Clamps for a variety of nominal diameters
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Tube is guided accurately by clicking
- Axial slipping is prevented by the inside profile of the clamp



CNCTC8FT6.5LG Clamps.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Nominal Ø	Width (W)	Height (H)	Height (H2)	Material	Colour	Article-No.
CNCTC8FT6.5LG		6.5 - 6.7	1.0 - 6.0	7.0	10.0	32.5	11.4	PA66HIRHS	Black (BK)	151-01038
LC9FTOVAL		6.2 x 12.2 6.5 x 12.5 6.5 x 13.0 7.0 x 12.0	0.6 - 6.75	14.4	10.0	37.7	13.2	PA66HIRHS	Black (BK)	151-01880

All dimensions in mm. Subject to technical changes.



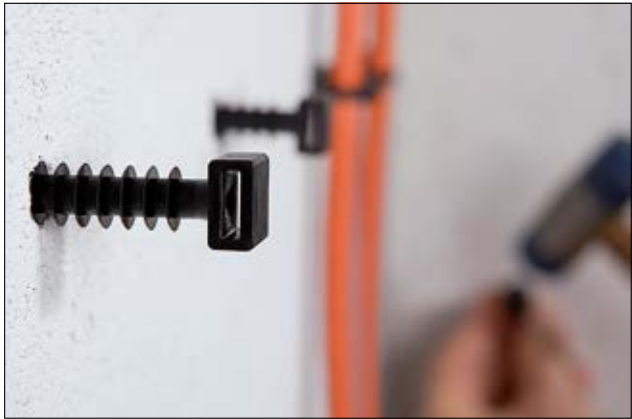
Fixing base

LOK-Series

The LOK mounts, in conjunction with a cable tie, can be used either indoors or outdoors for a diverse range of applications from holding climbing plants, to securing cables running between buildings.

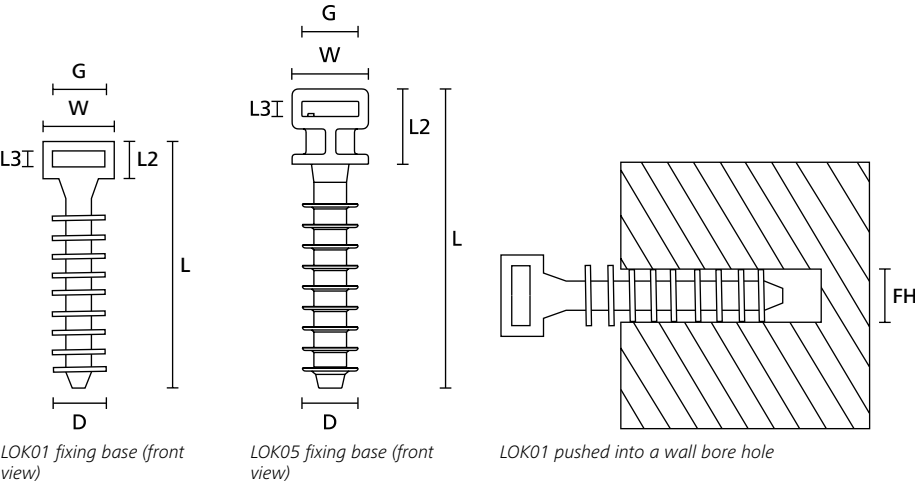
Features and benefits

- LOK01 – LOK05 usable with any cable ties up to 9 mm wide
- Suitable for a wide range of materials, including concrete, brick, block and wood
- Installed by knocking into 7 mm or 8 mm diameter hole
- LOK01B is designed for soft brickwork and 6 mm holes
- Elongated head of LOK05 for setting bundles at a distance from brickwork



LOK01 fixing bases for indoor and outdoor use.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Length (L2)	Length (L3)	Ø (D)	Strap Width max. (G)	Hole Ø (FH)	Material	Colour	Article-No.
LOK01B	12.0	30.0	6.5	2.5	7.2	9.0	6.0	PA6HIR	Black (BK)	151-80500
LOK01	12.0	44.0	6.5	2.5	9.2	9.0	7.0 - 8.0	PA66W	Black (BK)	151-80110
LOK05	12.0	49.0	12.5	2.5	9.2	9.0	7.0 - 8.0	PA6HIR	Black (BK)	151-80700

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Rivet mount

TY5-Series

The TY Fixings are ideal for use where a high pull out force is required (eg. in the aircraft industry). The two piece 'wedge' ensures that once installed the mounts will not come away from the panel. Particularly designed for areas with restricted access.

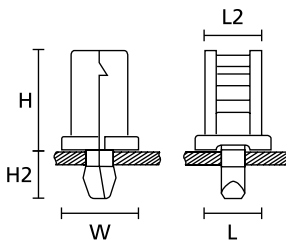
Features and benefits

- Quick installation
- Two-piece wedge
- Easy insertion
- Firmly fixes wide variety of cable ties



Rivet Mount TY5 is usable with a wide variety of our cable ties.

Material specifications: See Article-No. on our website.



TY5K1 Rivet Mount

TYPE	Drawing	Width (W)	Length (L)	Length (L2)	Height (H)	Height (H2)	Strap Width max. (G)	Hole Ø (FH)	Panel Thickness	Material	Colour	Article-No.
TY5K1		14.8	15.0	11.0	18.3	9.5	5.4	5.0 - 5.3	1.00 - 3.00	PA66HS	Natural (NA)	152-51059
TY5K2		12.0	14.0	10.0	7.8	9.5	5.5	4.9 - 5.3	1.00 - 5.00	PA66HS	Natural (NA)	152-11209
TY5K3/5		22.0	18.0	14.0	10.0	9.5	9.3	4.9 - 5.3	1.00 - 5.00	PA66HS	Natural (NA)	152-11359
TY5K3		22.0	18.0	14.0	10.0	12.5	9.3	5.9 - 6.4	2.0 - 8.0	PA66HS	Natural (NA)	152-11309
TY5K4		22.0	14.0	10.0	175.0	12.5	4.7	5.9 - 6.4	2.0 - 8.0	PA66HS	Natural (NA)	152-11409
TY5K5		17.8	18.0	11.0	38.3	9.5	5.8	5.0 - 5.3	1.00 - 3.00	PA66HS	Natural (NA)	152-55059

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Plastic rivets

TY-Series

These simple-to-use plastic rivets are ideal for improving productivity in the working environment, saving time and money over more conventional fixing methods - ideal for fixing panels or components to panels in a wide range of industries from automotive to panel building.

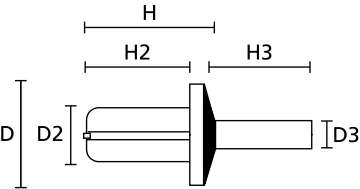
Features and benefits

- One Piece
- Simply push pin into body of rivet
- TY3P1 and TY8P1 pins inserted using rivet placement tool



Plastic Rivet TY8P1 in application.

Material specifications: See Article-No. on our website.



Plastic Rivet TY3P1 / 8P1

TYPE	Height (H)	Height (H2)	Height (H3)	Ø (D)	Ø (D2)	Ø (D3)	Material	Colour	Article-No.
TY3P1	7.5	6.0	5.3	6.0	3.0	1.7	PA66	Natural (NA)	241-11319
TY8P1	10.0	8.0	7.5	8.0	4.0	2.6	PA66	Black (BK)	241-11810
	10.0	8.0	7.5	8.0	4.0	2.6	PA66	Natural (NA)	241-11819

All dimensions in mm. Subject to technical changes.



Blind plugs

for round holes

Our Plugs were developed especially for the automotive industry. Application in trunks, doors, wheel housing and dash panels. Whenever needed to secure a hole against dirt or dust. Sometimes even used for optical reasons.

Features and benefits

- Easy assembly without the need of a tool
- Disc covers the hole and minimises ingress of dust, dirt and water
- Type "TRIM PLUG 5" with additional retainer to fix panel or cover



Blindplugs are available in different dimensions and materials.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Material	Colour	Article-No.
TRIM PLUG 5		5.0	4.0 - 4.5	PA66HIR	Natural (NA)	151-00333
PLUG5.5		5.0 - 5.5	2.5 - 26.0	PA6HIR	Grey (GY)	151-00401
PLUGFT6XL		6.5 - 7.0	0.7 - 18.0	PA66HIR	Black (BK)	241-00002
		6.5 - 7.0	0.7 - 18.0	PA66HIR	Grey (GY)	241-00001

All dimensions in mm. Subject to technical changes.



Bundling clips, with arrowhead

for round holes

Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes.

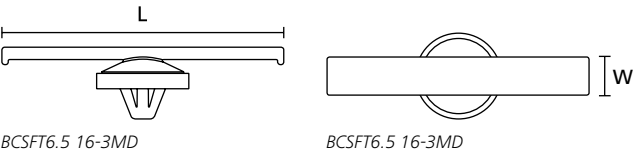
Features and benefits

- Easy to install without the need for a tool
- Cable tie head always situated in defined position
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- ATS fixing elements can be applied with Autotools ATS Flex or CPK Hybrid



L to R: BundlingClip with OmegaClip, BundlingClip with seal, BundlingClip LRJ1.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Material	Colour	Article-No.
ATSBCSFT6.5		6.3 - 6.7	2.3 - 3.3	39.0	PA66HIRHS	Black (BK)	102-69066
ATSBCKSFT6.5		6.3 - 6.7	0.7 - 1.3	39.0	PA66HIRHS	Black (BK)	102-69067
ATSBC2KSFT6.5		6.3 - 6.7	1.7 - 2.3	39.0	PA66HIRHS	Black (BK)	102-69068
ATSBCOWSFT6.5		6.3 - 6.7	2.3 - 3.3	39.0	PA46	Grey (GY)	102-69080
ATSBCSFT6.5PT2.3-3.3		6.3 - 6.7	2.3 - 3.3	39.0	PA46	Grey (GY)	102-69089

All dimensions in mm. Subject to technical changes.

Bundling clips with arrowhead for round holes, sealed

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Material	Colour	Article-No.
BCSFT6.5 16-3MD		6.3 - 6.7	1.5 - 3.0	55.0	PA66HIRHS	Black (BK)	155-11601
ATSBCSFT6.5-MD		6.3 - 6.7	2.0 - 3.0	39.0	PA66HIRHS	Black (BK)	102-69065

All dimensions in mm. Subject to technical changes.



Bundling clips with arrowhead for round holes

for distance routing

Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes. These parts are used in the automotive industry for assembly of cable harnesses.

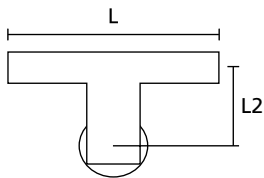
Features and benefits

- Easy to install without the need for a tool
- Arrowhead simply locks into place
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Versions for oval holes feature anti-twist protection

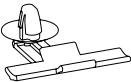


StandOff Clips allow cable looms to be routed at a set distance from the punched holes.

Material specifications: See Article-No. on our website.



Stand Off Clip SOC

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Length (L2)	Material	Colour	Article-No.
STAND-OFF-CLIP-2		6.5 - 6.8	0.4 - 1.6	40.0	25.0	PA66HIRHS	Black (BK)	155-01600

All dimensions in mm. Subject to technical changes.



Bundling clips with fir tree

for round holes

Widespread used in cable harness production; a quick and easy means of fixing cables and wires securely in various parts of cars.

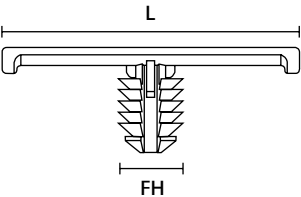
Features and benefits

- Easy to install without the need for a tool
- One fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Holding tabs prevent the tie slipping sideways
- ATS fixing elements can be tied automatically with the ATS3080 tool



Bundling Clips with fir tree for a variety of applications with a wide range of panel thicknesses and drilled holes.

Material specifications: See Article-No. on our website.



TC4FT6LG

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Material	Colour	Article-No.
TC4FT6LG		6.3 - 7.0	0.6 - 5.1	37.0	PA66HIRHS	Black (BK)	151-00215
ATSBCFT6LG		6.3 - 7.0	0.6 - 5.1	39.0	PA66HIRHS	Black (BK)	102-67066

All dimensions in mm. Subject to technical changes.

for oval holes

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Material	Colour	Article-No.
WICKELCLIP-VDS		6.3 x 9.0 6.3 x 10.0	0.6 - 2.5	40.0	PA66HIRHS	Black (BK)	155-16301

All dimensions in mm. Subject to technical changes.



Bundling clips with fir tree

for oval holes

The ATSDBCFT62x122 in combination with our ATS Flex is a perfect match for the automatization of a HV harnesses.

Features and benefits

- Effortless, tool-free installation – can be mounted easily by hand without the need for tools
- Flexible attachment options – compatible with both cable ties and adhesive tape
- Oval base geometry – ensures defined cable routing and provides reliable anti-twist protection for secure positioning



Our ATSDBCFT62x122 is specially made for the automatization of HV harnesses.



ATSDBCFT62x122.

Material specifications: See Article-No. on our website.

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
ATSDBCFT62X122	6.2 x 12.2	0.7 - 4.5	11.0	56.0	25.0	PA66HIRHS	Black (BK)	151-04379

All dimensions in mm. Subject to technical changes.



Bundling clips with fir tree for oval holes

for distance routing

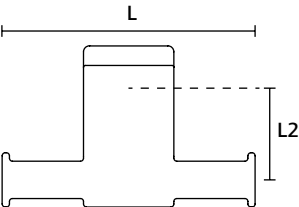
Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes.

Features and benefits

- Easy to install without the need for a tool
- One fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Disc covers the hole to prevent dust and dirt gaining access
- Bundle runs in a set distance to the hole



Material specifications: See Article-No. on our website.



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L2)	Material	Colour	Article-No.
ATSBCSOC6.2x12.2		6.0 x 12.2	0.6 - 6.0	15.0	PA66HIRHS	Black (BK)	151-01882

All dimensions in mm. Subject to technical changes.



Bundling Clips for Weld Studs, lateral adjustment

Bundling Clips for Weld Studs, lateral adjustment

Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes. These parts are used in the automotive industry for assembly of cable harnesses.

Features and benefits

- Easily mounted onto the bundling bar using cable ties or adhesive tape
- Enables lateral adjustment for flexible positioning on the mounting surface
- Low-profile version for tight spaces, and elevated version for enhanced grip and secure positioning on weld studs



The slim line BC series is particularly compact and flexible.

TYPE	Drawing	Stud Ø	Length (L)	Material	Colour	Article-No.
BC30		5.0	55.0	PA66HIRHS	Black (BK)	151-00016
BCUWS5-D5-25		5.0	50.0	PA66HIRHS	Natural (NA)	151-00851

All dimensions in mm. Subject to technical changes.

Bundling clips for weld studs

for distance routing

Features and benefits

- Compatible with cable ties or adhesive tape – for flexible bundling options
- Suitable for automation – can be processed with the ATS (Autotool System) for efficient assembly
- Tool-free installation – can also be easily mounted by hand
- Defined spacing to the bundle – allows for slight distance between clip and harness to avoid pressure or abrasion



Bundling clip, for stud 5 mm. The article is designed for our ATS flex but it could be use also with cable ties or tapes.

TYPE	Stud Ø	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
ATSBC60SOC20SB55	T5	31.0	60.0	16.2	PA66HIRHS	Black (BK)	102-68368

All dimensions in mm. Subject to technical changes.



Bundling clips

for edges

EdgeClips are used in the automotive industries and electrical industries and when it is impossible to drill holes or no other fixing points are available.

Features and benefits

- Easy assembly, just shuffle manually
- Designed for edges of 1 - 3 and 1.5 - 4 mm
- Integrated metal clamp holds clip firmly in place
- Clamp consists of double tempered steel spring
- ATS fixing elements can be tied automatically with tools ATS3080, AT2000 or AT2000CPK



Cables and leads can be fastened with a cable tie or adhesive tape to the bars of the mounting element.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
EC14		1.0 - 3.0	10.0	40.0	12.4	PA66HIRHS	Black (BK)	151-03404
ATSBCEC35		1.5 - 4.0	9.0	39.0	13.2	PA66HIRHS	Black (BK)	102-68355
ATSBCEC36		1.5 - 4.0	9.0	39.0	16.0	PA66HIRHS	Black (BK)	102-68365
		1.5 - 4.0	15.0	39.0	13.2	PA46	Grey (GY)	102-68366
ATSBCEC37		1.5 - 4.0	9.0	39.0	14.2	PA66HIRHS	Black (BK)	102-68375
ATSBCEC38		1.5 - 4.0	13.2	39.0	14.2	PA66HSW	Black (BK)	102-68385

All dimensions in mm. Subject to technical changes.



2-piece fixing ties for parallel separation

twistable up to 90°

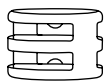
Features and benefits

- Pre-assembled 2-piece fixing tie with coupler
- Cable tie head can be moved after bundling
- Easy addition of cables after assembly
- For parallel routing of bundles that can be twisted 90° even after installation

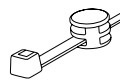


T50RCOUPLER for parallel routing.

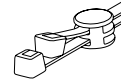
Material specifications: See Article-No. on our website.



Coupler



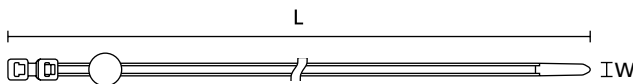
T-Series SINGLECOUPLER



T-Series with Coupler



S-Series with Coupler



Cable Ties with Coupler

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50RCOUPLER	4.6	202.0	47.0	225	PA46	GY	1-2;4-7;25	156-00382
T50RSINGLECOUPLER	4.6	202.0	47.0	225	PA66HIRHS	BK	1-2;4-5;25	156-01134
T50RCOUPLER	4.6	202.0	47.0	225	PA66HIRHS PA66HIR(S)	BK	1-2;4-7;25	156-00276
S50ROSCoupler	4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03594
T120RCOUPLER	7.6	390.0	105.0	535	PA46	GY	1;3;6-7;9-10;25	156-02416
	7.6	390.0	105.0	535	PA66HIRHS	BK	1;3;6-7;9-10;25	156-00275

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for parallel separation

twistable up to 360°

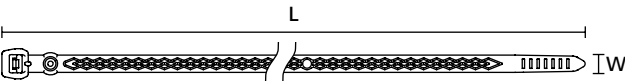
Features and benefits

- Pre-assembled, 2-piece fixing tie for quick and efficient installation
- Integrated anti-slip serration prevents cables and cable harnesses from slipping sideways
- Enables cables to be added easily even after initial installation
- Enables parallel routing with 360° rotation to compensate for movement - ideal for use in dynamic or vibration-prone environments



Our T50S0SASVCD-SO17 is a 360° twistable fixing tie with an anti-slip serration on the inside, designed to prevent undesired lateral movement of cables and harnesses.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50S0SASVCD-SO17		4.6	155.0	35.0	200	PA66HIRHS	BK	1-2;4-5;25	156-03119

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable tie mount for parallel routing, twistable 360°

DSWS-Series

These fixing element for parallel routing can be used where bundles need separation from each other combined with the necessary functionality to support moving harnesses.

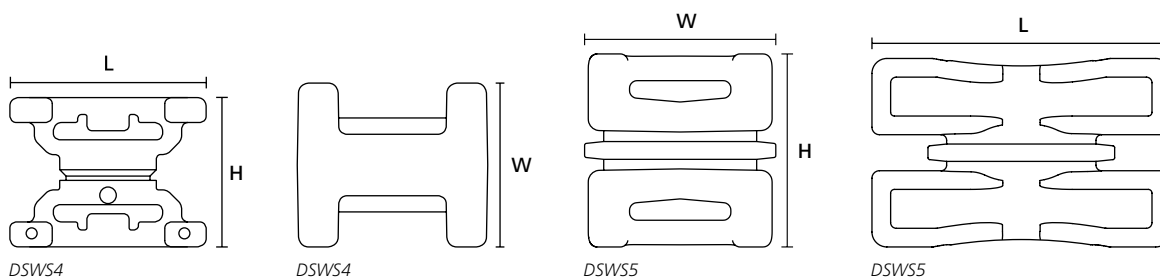
Features and benefits

- For parallel routing of bundles that can be twisted 360° even after setting
- Secure alignment to the bundle due to H-design
- Cable tie head can be moved after bundling
- For cable ties up to 12.7 mm wide
- For post-installation of bundles



The spacers can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Bundle Ø min.	Bundle Ø max.	Strap Width max. (G)	Width (W)	Length (L)	Height (H)	Material	Colour	Pack Cont.	Article-No.
DSWS4		6.0	76.0	12.7	20.3	23.6	18.0	PA66HS POM	Black (BK)	50 pcs.	151-00644
		6.0	76.0	12.7	20.3	23.6	18.0	PA66HS POM	Black (BK)	2200 pcs.	151-06500
DSWS5		16.0	152.0	12.7	25.4	40.6	23.6	PA66HS PA46	Black (BK)	50 pcs.	151-06502

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



**Information and installation instructions
for self-adhesive mounting bases**

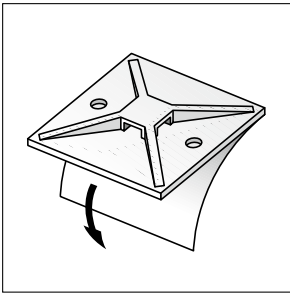
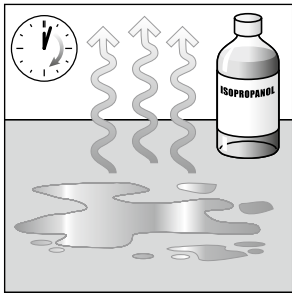
HellermannTyton uses different types of adhesives for self-adhesive bases: acrylate and synthetic rubber. These differ in the operating temperature range and the 'pull off' force of the adhesive. Synthetic rubber has an excellent initial grip, allowing for almost immediate use.

Acrylate adhesive has less initial grip, so there might be a need to wait for a few hours before use (depending on the surface), but has a higher, "pull off" force than synthetic rubber. This enables a permanent fixing lasting months or even years.

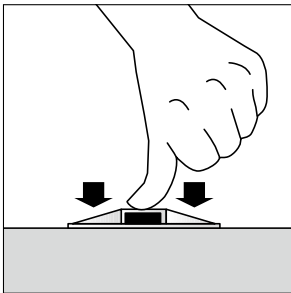
Instructions for use



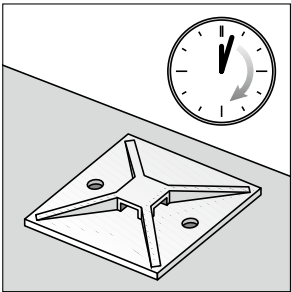
1. The surface must be dry, free from dust, oil, oxides, parting agents and other impurities. The surface to be glued should be cleaned using a clean cloth and isopropanol/water (50/50). When using other appropriate cleaning agents, ensure that they do not attack the surface nor leave any residues. After cleaning allow the surface to air-dry completely.



2. Peel off protective backing and ensure the adhesive area is not touched.



3. Press down firmly on the base with the thumbs for several seconds.



4. Depending on the type of adhesive, wait for several minutes (synthetic rubber) or hours (acrylate) so that the adhesive can bond completely with the surface.

We will be happy to send you on request an up-to-date technical datasheet for whichever adhesive you are using.



Fixing elements for use with paste adhesive

In-Line Ratchet P-Clamp

The In-line Ratchet P-Clamp family offers versatility when managing wires, cables and hoses. The robust design and durable materials make it ideal for heavy duty applications, both indoors and out. The adjustable clamp can be closed by hand to the desired diameter. The release feature allows easy and nondestructive removal of cables simply by using a flat-head screwdriver. In this way, the clamp can be reused or serviced without removing it from the mounting surface.

Features and benefits

- One-piece ratchet closure allows for easy installation during pre- or final assembly
- Easy release feature simplifies quick adjustments and maintenance
- Impact modified, heat and UV stabilized PA66 provides long-term durability, indoors and out
- Can even be installed onto uneven surfaces
- Use with paste adhesive on the base to ensure a strong bond with the mounting surface



In-Line Ratchet P-Clamp for use with paste adhesive (IRCAPMB6CC).



In-Line Ratchet P-Clamp for use with paste adhesive (IRCCPMB6CC).



In-Line Ratchet P-Clamp for use with paste adhesive (IRCDPMB6CC).

Material specifications: See Article-No. on our website.

MATERIAL	Polyamide 6.6, high impact modified, heat and UV-stabilised (PA66HIRHSUV), Polyamide 6.6/6, high impact modified, heat stabilised (PA66/6HIRHS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 HB



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Material	Colour	Pack Cont.	Article-No.
IRCAPMB6CC	6.2	13.7	44.8	34.8	42.8	PA66HIRHSUV PA66/6HIRHS	Black (BK)	100 pcs.	151-04326
IRCBPMB6CC	12.7	19.5	44.2	34.8	42.7	PA66HIRHSUV PA66/6HIRHS	Black (BK)	100 pcs.	151-04328
IRCCPMB6CC	19.4	36.0	44.2	34.8	42.7	PA66HIRHSUV PA66/6HIRHS	Black (BK)	100 pcs.	151-04330
IRCDPMB6CC	19.4	36.0	62.3	34.8	74.8	PA66HIRHSUV PA66/6HIRHS	Black (BK)	100 pcs.	151-04332

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Paste adhesive mount

PMB mount for uneven surfaces

PMB-Series offers a fixing solution wherever screw fixing is not allowed. Due to the design the mounts can even be installed onto uneven surfaces. PMB paste mounts are used in the railway industry as well as in the renewable energy industry. Further applications are in the electrical industry and the production of switching cabinets. PMB-Series is suitable for fixings with paste/liquid adhesive.

Features and benefits

- PMB-Series for fixings with paste / liquid adhesive
- Mount geometry offers a good form closure with cured adhesive
- Can even be installed onto uneven surfaces
- PMB6 can also be applied in combination with hot-melt adhesive, as mount is made of heat resistant PA66
- PMB3 is made of flame-retardant material PA666V0

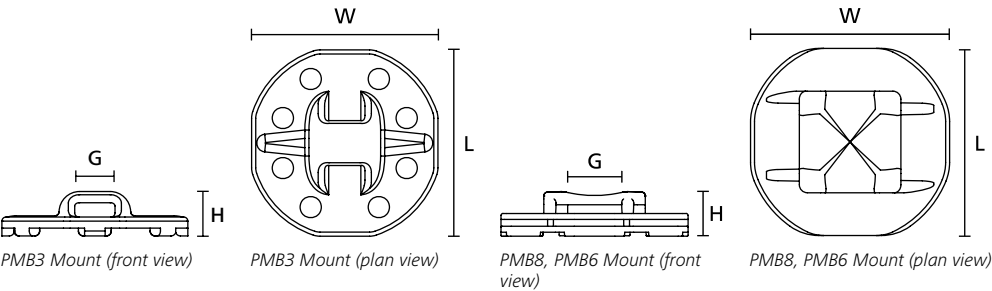


Our PMB mount (paste mount adhesive) as an adhesive fastening for a strong hold, even overhead.



Our PMB-series size comparison – suitable for tighter spaces and areas where a strong, vibration-resistant hold is required.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
PMB3	22.6	22.6	5.4	4.7	PA666V0	Black (BK)	100 pcs.	151-02575
PMB6	33.0	31.0	9.0	8.5	PA66/6HIRHS	Black (BK)	100 pcs.	151-04322
PMB8	47.0	50.0	11.2	13.0	PA66/6HIRHS	Black (BK)	100 Bag	151-03196

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable tie mounts with high performance adhesive

FlexTack-Series FMB for round and angled surfaces

FlexTack cable tie mounts can be successfully applied to a variety of high- and low-energy surfaces such as glass, metals (including painted, varnished or powder-coated surfaces) as well as plastics. FlexTack provides a reliable fixing solution where it is impractical to use screws or bolts. The unique design in combination with the special acrylate adhesive makes professional cable management easy.

Features and benefits

- Flexible mount for round and angled surfaces
- FMB mounts with homogeneous system of acrylic adhesive
- Allows greater design freedom and offers uniform stress distribution along with weight reduction
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off
- FlexTack cable tie mounts are also suitable for high energy surfaces like metal or glass.



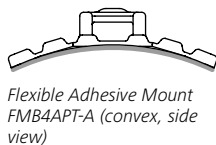
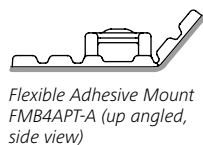
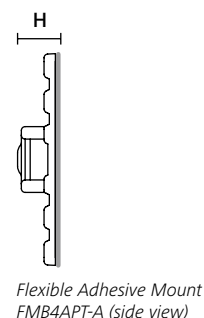
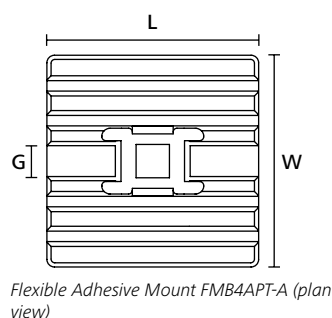
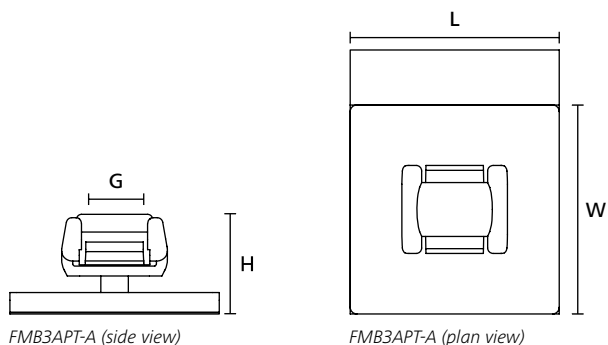
Flexible cable tie mount, FlexTack in use on a concave surface.

MATERIAL	Polyamide 6.6, high impact modified, heat and UV-stabilised (PA66HIRHSUV)	Polyamide 6.6, heat stabilised (PA66HS)
Adhesive	Acrylate with base of acrylic foam	
Operating Temperature	-40 °C to +90 °C	
Flammability	UL 94 HB (excluding adhesive)	UL 94 V2 (excluding adhesive)

For more information on the types of adhesive please see page 152.

HF ✓

RoHS ✓



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
FMB3APT-A	19.0	19.0	8.9	5.0	PA66HIRHSUV	Black (BK)	100 pcs.	151-04426
FMB4APT-A	28.0	28.0	6.3	5.4	PA66HS	Black (BK)	100 pcs.	151-02219

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Flexible mounts with cable clip, self-adhesive

FlexTack-Series FMB for round and angled surfaces

FlexTack cable tie mounts can be successfully applied to a variety of high- and low-energy surfaces such as glass, metals (including painted, varnished or powder-coated surfaces) as well as plastics. FlexTack provides a reliable fixing solution where it is impractical to use screws or bolts. The unique design in combination with the special acrylate adhesive makes professional cable management easy.

Features and benefits

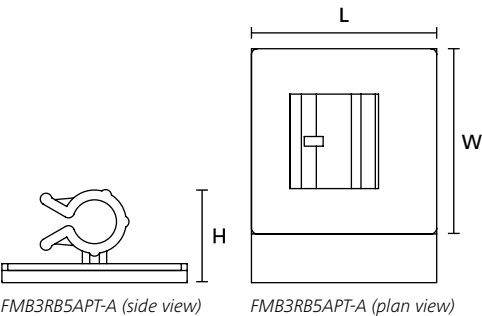
- Flexible mount for round and angled surfaces
- One-piece self adhesive mount for quick and easy installation
- Can be used without cable ties offering process optimization
- Designed to hold wires, cables or hoses
- FMB mounts with homogeneous system of acrylic adhesive
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off



Self adhesive one piece fixing clips FMB3RB5APT-A

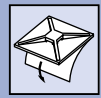
MATERIAL	Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +90 °C
Flammability	UL 94 V2 (excluding adhesive)

For more information on the types of adhesive please see page 152.



TYPE	Width (W)	Length (L)	Height (H)	Bundle Ø max.	Material	Colour	Pack Cont.	Article-No.
FMB3RB5APT-A	19.0	19.0	8.3	5.3	PA66HIRHS	Black (BK)	500 pcs.	151-03878

All dimensions in mm. Subject to technical changes.



1-Piece Fixing Tie with Self Adhesive Socket

FlexTack-Series FMB for round and angled surfaces

FlexTack One-Piece Fixing tie can be applied to a variety of high- and low-energy surfaces such as glass, metals (including painted, varnished or powder-coated surfaces) as well as plastics. FlexTack provides a reliable fixing solution where it is impractical to use screws or bolts. The unique design in combination with the special acrylate adhesive makes professional cable management easy.

Features and benefits

- Flexible Mount for round and angled surfaces
- FMB mounts with homogeneous system of acrylic adhesive
- Allows greater design freedom and offers uniform stress distribution along with weight reduction
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off
- FlexTack Cable tie mounts are also suitable for high energy surfaces like metal or glass.

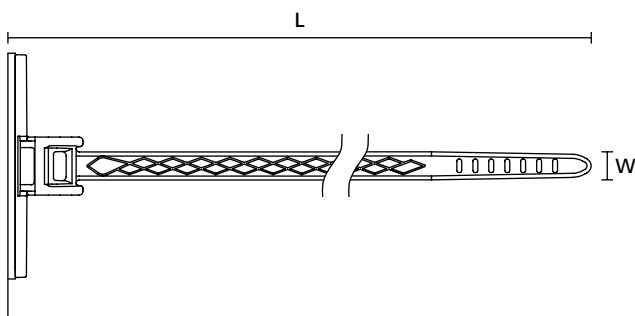


1-Piece FlexTack adhesive mount for round and angled surfaces

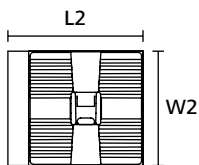
MATERIAL	Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +90 °C
Flammability	UL 94 V2 (excluding adhesive)

For more information on the types of adhesive please see page 152.

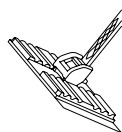
RoHS ✓



T30SOSASFMB4APT-A-E



T30SOSASFMB4APT-A-E



T30SOSASFMB4APT-A-E

TYPE	Width (W)	Length (L)	Width (W2)	Length (L2)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
T30SOSASFMB4APT-A-E	3.5	120.0	28.0	28.0	25.0	180	PA66HIRHS	BK	500 pcs.	126-00450

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Cable tie mounts with high performance adhesive

SolidTack-Series QM

Q-mounts are ideally suited for holding cable ties in place. They would perfectly fit to all applications where a reliable and durable fixation is required. With its SolidTack adhesive Q-mounts offer an innovative fixing solution especially for low energy surfaces or if drilling a hole is not possible. Suitable for a wide range of applications on varnished or plastic or metal surfaces in many areas like electrical cabinet, railway, aerospace, automotive and agriculture machinery.

Features and benefits

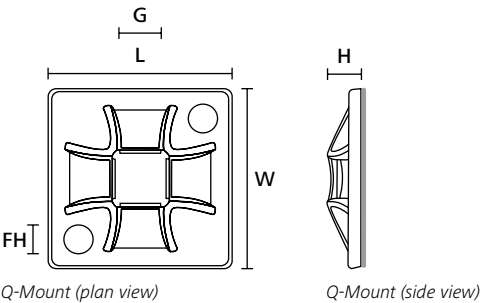
- Q-mounts with homogeneous system of acrylic adhesive
- Perfect for combination with T-Series cable tie
- Very good initial adhesion, increases with time
- Innovative fixing solution for high and low energy surfaces
- Q-Mount base locks the cable tie in vertical position, means the hands are free to apply cables



SolidTack-Series QM - Cable Tie Mounts with high performance adhesive; screwable or self adhesive versions. Perfect for combination with T-series cable ties.

MATERIAL	Polyamide 6.6 (PA66)	Polyamide 4.6 (PA46)
Adhesive	Acrylate with base of acrylic foam	Acrylic foam with high-temperature performance
Operating Temperature	-40 °C to +85 °C	-40 °C to +130 °C
Flammability	UL 94 V2 (excluding adhesive)	

For more information on the types of adhesive please see page 152.



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
QM20APT-HT	20.0	20.0	3.7	5.5	PA46	Grey (GY)	100 pcs.	151-03847
QM30APT-A	30.0	30.0	4.5	5.1	PA66	Black (BK)	100 pcs.	151-02974
	30.0	30.0	4.5	5.1	PA66	White (WH)	100 pcs.	151-02973

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable tie mounts Q-Series

Q-Mount Series QMA, self-adhesive

Q-mounts are ideally suited for holding cable ties in place. They would perfectly fit to all applications where a reliable and durable fixation is required. Self adhesive versions of our Q-Mounts are suitable for applications where using screws, nuts, bolts or drilling holes to fix cables is problematic, or not the first choice.

Features and benefits

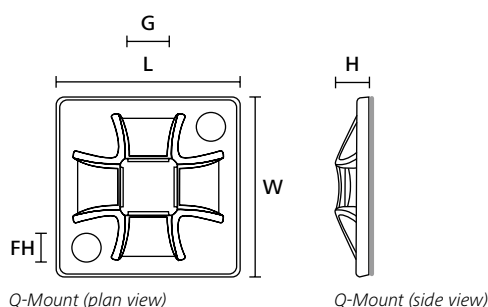
- Screwable or self adhesive versions
- Perfect for combination with T-Series cable ties
- 4-way entry for cable ties
- Adhesive with high pull-off force
- Locks cable tie in vertical position, means the hands are free to apply cables



SolidTack-Series QM - Cable Tie Mounts with high performance adhesive; screwable or self adhesive versions. Perfect for combination with T-series cable ties.

For more information on the types of adhesive please see page 152.

MATERIAL	Polyamide 6.6 (PA66)
Adhesive	Synthetic rubber with base of polyethylene foam
Operating Temperature	-40 °C to +60 °C
Flammability	UL 94 V2 (excluding adhesive)



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
QM20A	20.0	20.0	3.7	4.0	PA66	Black (BK)	100 pcs.	151-10914
	20.0	20.0	3.7	4.0	PA66	Natural (NA)	100 pcs.	151-10904
QM30A	30.0	30.0	4.5	5.1	PA66	Black (BK)	100 pcs.	151-10915
	30.0	30.0	4.5	5.1	PA66	Natural (NA)	100 pcs.	151-10905
QM40A	40.0	40.0	5.5	8.4	PA66	Black (BK)	50 pcs.	151-10916
	40.0	40.0	5.5	8.4	PA66	Natural (NA)	50 pcs.	151-10906

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable tie mounts with high performance adhesive

SolidTack-Series MB

SolidTack MB Series mounts have a square design and are fairly common in areas like electrical cabinet, railway, aerospace, automotive and agriculture machinery. The premium self-adhesive bonds well on high and low-energy surfaces like plastics, metal, varnish or paint and is suitable for a wide range of applications.

Features and benefits

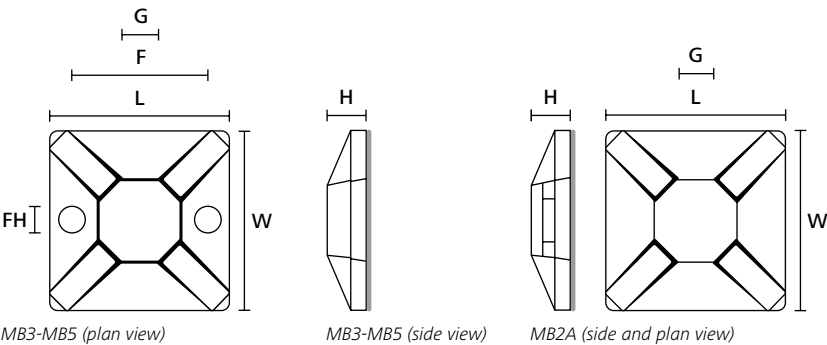
- MB mounts with homogeneous system of acrylic adhesive
- Very good initial adhesion, increases with time
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off



SolidTack MB Series mounts with square design - screwable, self-adhesive - suitable for a wide range of applications like fastening of cables in the automotive machinery.

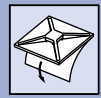
For more information on the types of adhesive please see page 152.

MATERIAL	Polyamide 6.6 (PA66)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
MB2APT-A	13.0	13.0	4.1	2.7	PA66	Black (BK)	100 pcs.	151-02243
MB3APT-A	19.0	19.0	3.8	4.4	PA66	Black (BK)	100 pcs.	151-02244
	19.0	19.0	3.8	4.4	PA66	White (WH)	100 pcs.	151-02978
MB4APT-A	28.0	28.0	4.7	5.6	PA66	Black (BK)	100 pcs.	151-02245
	28.0	28.0	4.7	5.6	PA66	White (WH)	100 pcs.	151-02246
MB5APT-A	38.0	38.0	6.4	10.0	PA66	Black (BK)	100 pcs.	151-02247

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable tie mounts

MB-Series square design, self-adhesive

Where speed, simplicity and a firm fixing base are required these self adhesive clips are ideal. Particularly suitable for use in control cabinets, telecoms equipment or domestic appliances where the use of holes, screws, or nuts and bolts is impractical or undesirable.

Features and benefits

- Simple to instal
- Excellent security, particularly in areas of high vibration
- Maximum surface area with adhesive to achieve high pull-off force
- 4-way entry for cable tie for quicker and more flexible installation



MB-Series Mounts with square design.

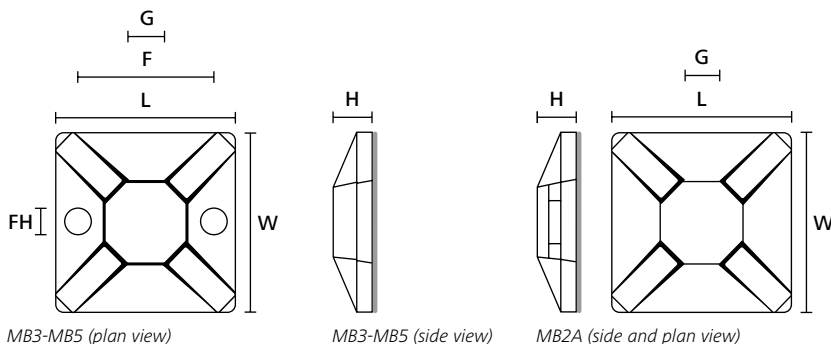
For more information on the types of adhesive please see page 152.

MATERIAL	Polyamide 6.6 (PA66)
Adhesive	Synthetic rubber with base of polyethylene foam
Flammability	UL 94 V2 (excluding adhesive)

HF ✓

RoHS ✓

RoHS ✓



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Operating Temperature	Pack Cont.	Article-No.
MB2A	13.0	13.0	4.1	2.7	PA66	BK	-40 °C to +60 °C	50 pcs.	151-01800
	13.0	13.0	4.1	2.7	PA66	WH	-40 °C to +60 °C	100 pcs.	151-01802
MB3A	19.0	19.0	3.8	4.1	PA66	BK	-40 °C to +60 °C	100 pcs.	151-28320
	19.0	19.0	3.8	4.1	PA66	WH	-40 °C to +60 °C	100 pcs.	151-28349
MB4A	28.0	28.0	4.7	5.4	PA66	BK	-40 °C to +60 °C	100 pcs.	151-28412
	28.0	28.0	4.7	5.4	PA66	WH	-40 °C to +60 °C	100 pcs.	151-28469
MB5A	37.7	37.7	7.1	8.9	PA66	BK	-18 °C to +66 °C	100 pcs.	151-28602
	37.7	37.7	7.1	8.9	PA66	WH	-18 °C to +66 °C	100 pcs.	151-28529

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. N = Minimum Loop Tensile Strength for Cable Ties (newton) * Plastic box



Cable tie mounts with high performance adhesive

SMB-Series, 360° rotation

Engineered for dynamic applications with moving parts, this innovative mount provides a reliable cable management solution where cables and bundles need to flex. Its 360° rotatable head ensures full adjustability, while the self-aligning feature allows for precise placement, making it ideal for environments that demand flexibility.

Features and benefits

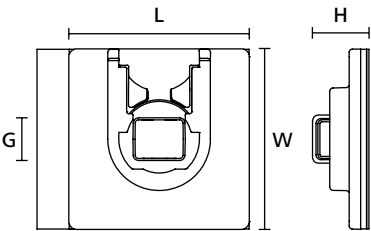
- Cable tie mount with 360° rotation
- Self-aligning function for easy installation of cables
- Ideal for moving parts & where cables need to flex in application
- Suitable for use within electrical cabinets & enclosures
- Compatible with cable ties up to a 4.8mm wide strap
- High strength synthetic rubber adhesive suitable for both high and low energy surfaces

For more information on the types of adhesive please see page 152.



Self-adhesive cable tie mount with 360° rotatable design.

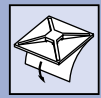
MATERIAL	Polyamide 6.6, heat stabilised (PA66HS), Acryl (A)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +90 °C
Flammability	UL 94 V2 (excluding adhesive)



SMB4APT-A (plan & side view)

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
SMB4APT-A		28.0	28.0	8.4	4.8	PA66HS A	Black (BK)	50 pcs.	151-03334

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable tie mounts with high performance adhesive

SolidTack-Series MB with S-Series Cable Tie

S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO₂ footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

Features and benefits

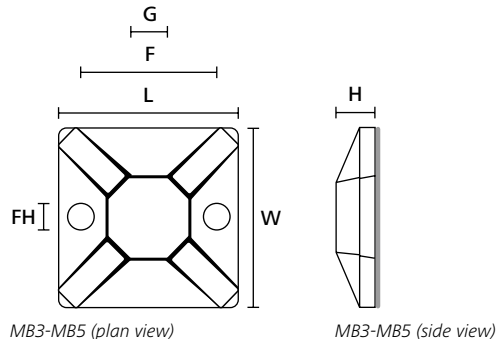
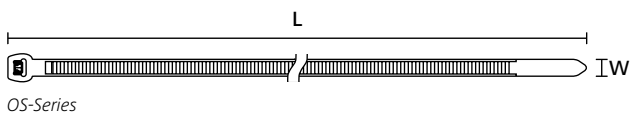
- The S50ROS features a significantly lower CO₂ footprint compared to cable ties made of standard material, in line with sustainability goals in various industries
- The outside serration design ensures gentle handling of sensitive cables and bundles, reducing the risk of damage during installation and maintenance
- With an anti-slip feature on the inside, the S50ROS prevents undesired lateral movement of cables and bundles, maintaining tidy and organized cable management within vehicles
- MB mounts with homogeneous system of acrylic adhesive
- Very good initial adhesion, increases with time
- Innovative fixing solution for high and low energy surfaces



MATERIAL	Polypropylene (PP), Polyamide 6.6 (PA66)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +85 °C

RoHS ✓

For more information on the types of adhesive please see page 152.



TYPE	Width (W)	Length (L)	N	Material	Colour	Pack Cont.	Tools	Article-No.
S50ROSMB4APT-A-SET	4.9	200.0	185	PP PA66	Black (BK)	500 pcs.	5	156-03592

Recommended Tools: 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable tie mounts

MAGMB-Series square design, magnetic

Magnetic Mounts and Clips are innovative solutions designed to meet the demands of modern cable management and mounting needs. Combining ease of use with versatility, they offer a practical and efficient alternative to traditional mounting methods. Whether in dynamic work environments or temporary setups, these mounts and clips provide advantages that set them apart from other options.

Features and benefits

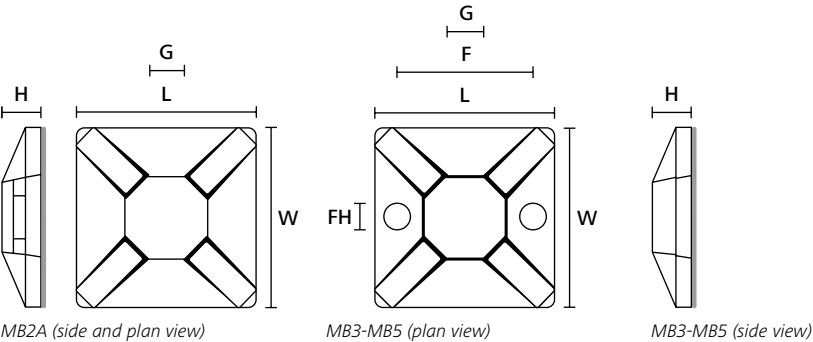
- Quick to install and easy to adjust once fitted (reusable)
- Flexible neodymium magnet with adhesive backing
- 4-way entry for cable tie for quicker and more flexible installation
- Ideal for use on steel surfaces where it is not possible to drill holes
- Suitable for challenging surfaces like slightly dirty areas where adhesives fail



MAGMB-Series magnetic mounts enable easy, drill-free cable organization.

MATERIAL	Polyamide 6.6 (PA66), Neodymium alloy R5 (NDFEBR5)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)

HF✓ RoHS✓

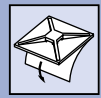


TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
MAGMB2	13.0	13.0	4.1	2.7	PA66 NDFEBR5	Black (BK)	50 pcs.	151-04461
MAGMB3	19.0	19.0	4.3	4.1	PA66 NDFEBR5	Black (BK)	25 pcs.	151-04462

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Flat ribbon and round cable mounts

FKH-Series, self-adhesive

FKH mounts are designed to retain flat ribbon and round cables commonly used in information technology applications, in entertainment electronics or for connecting sensors. As each installation scenario is individual, FKH mounts are available in different dimensions and can be supplied as self adhesive and/or screwable versions.

Features and benefits

- One-piece fixing mount for flat ribbon and round cables
- Increased mounting area ensures proper bonding
- Quick and easy installation
- Can be released and re-used easily
- Cable is gently fastened due to soft wings

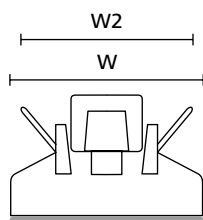


Perfect solution to route cables along the office desk.

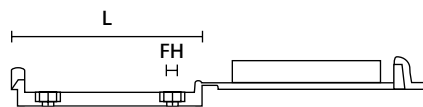
For more information on the types of adhesive please see page 152.

MATERIAL	Polyamide 6.6, high impact modified (PA66HIR)
Adhesive	Acrylate with base of polyurethane foam
Operating Temperature	-40 °C to +80 °C
Flammability	UL 94 HB (excluding adhesive)

RoHS



Flat Ribbon Cable Mount (front view)



Flat Ribbon Cable Mount (side view)

TYPE	Width (W2)	Hole Ø (FH)	Width (W)	Length (L)	Material	Colour	Pack Cont.	Article-No.
FKH25A	22.0	3.1	25.0	31.0	PA66HIR	Black (BK)	100 pcs.	151-15250
FKH30A	22.0	3.1	25.0	35.0	PA66HIR	Black (BK)	100 pcs.	151-15300
FKH50A	22.0	3.1	25.0	56.5	PA66HIR	Black (BK)	100 pcs.	151-15500
FKH80A	22.0	3.1	25.0	86.0	PA66HIR	Black (BK)	100 pcs.	151-15800

All dimensions in mm. Subject to technical changes.



Cable tie mounts

TY-Series rectangle design, self-adhesive

Where speed, simplicity, and a firm fixing base are required these self adhesive clips are ideal. Particularly suitable for use in control cabinets, telecoms equipment or domestic appliances where the use of holes, screws, or nuts and bolts is impractical or undesirable.

Features and benefits

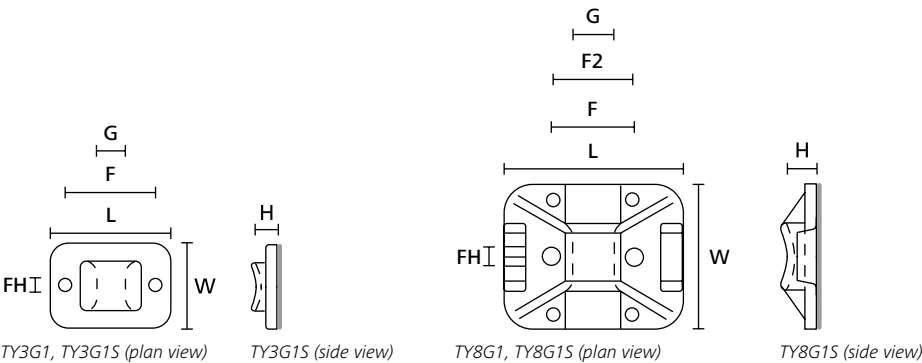
- 2-way mounting base for safe guiding of cables and conduits
- Suitable for applications with minimal space
- Mounted before cable installation

For more information on the types of adhesive please see page 152.



TY-Series selfadhesive mounts with rectangle design.

MATERIAL	Polyamide 6.6 (PA66)	Polyamide 6.6, UV-resistant (PA66W)
Adhesive	Acrylate with base of polyurethane foam	
Operating Temperature	-40 °C to +85 °C	
Flammability	UL 94 V2 (excluding adhesive)	



TYPE	Drawing	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
TY8G1S		25.0	32.0	5.5	8.0	PA66	Natural (NA)	100 pcs.	151-11819
		25.0	32.0	5.5	8.0	PA66W	Black (BK)	100 pcs.	151-11810
TY3G1S		14.0	20.0	3.7	4.0	PA66	Natural (NA)	100 pcs.	151-11319
		14.0	20.0	3.7	4.0	PA66W	Black (BK)	100 pcs.	151-11310

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Mounts with cable clip, self-adhesive

RA-Series

These mounts are ideal for use in applications which are difficult to access or for areas where self adhesive is the only possible fixing method and fixing holes would be unacceptable. The self adhesive mounts can be used without cable ties. Offering process optimization in industries like automotive, bus and truck, construction vehicles or industrial building.

Features and benefits

- One-piece self adhesive mount for quick and easy installation
- Can be used without cable ties offering process optimization
- Designed to hold wires, cables or hoses
- Different sizes for various bundle diameters available
- Two types of adhesive can be offered

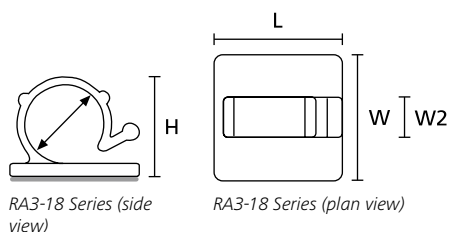
For more information on the types of adhesive please see page 152.



Self adhesive one piece fixing mounts RA6 (l) and RB5 (r).

MATERIAL	Polyamide 6.6 (PA66)	
Adhesive	Acrylate with base of acrylic foam	Synthetic rubber with base of polyethylene foam
Operating Temperature	-40 °C to +85 °C	-40 °C to +60 °C
Flammability	UL 94 V2	UL 94 V2 (excluding adhesive)

RoHS



RA3-18 Series (side view)

RA3-18 Series (plan view)

TYPE	Width (W)	Width (W2)	Length (L)	Height (H)	Bundle Ø max.	Operating Temperature	Material	Colour	Pack Cont.	Article-No.
RA3	13.0	5.0	13.0	5.0	3.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13018
RA6	19.0	5.0	19.0	9.0	6.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13019
RA6APT-A	19.0	5.0	19.0	9.0	6.0	-40 °C to +85 °C	PA66	Black (BK)	100 pcs.	151-03393
	19.0	5.0	19.0	9.0	6.0	-40 °C to +85 °C	PA66	Natural (NA)	100 pcs.	151-13405
RA9	19.0	7.5	19.0	12.5	9.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13020
RA9APT-A	19.0	7.5	19.0	12.5	9.0	-40 °C to +85 °C	PA66	Black (BK)	100 pcs.	151-03396
RA13	25.0	10.0	25.0	16.5	13.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13021
RA13APT-A	25.0	10.0	25.0	16.5	13.0	-40 °C to +85 °C	PA66	Natural (NA)	100 pcs.	151-13201
RA18	28.5	10.0	28.5	23.0	18.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13119
RA18APT-A	28.5	10.0	28.5	23.0	18.0	-40 °C to +85 °C	PA66	Black (BK)	100 pcs.	151-03607

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Mounts with cable clip, magnetic

MAGRA-Series

Magnetic mounts and clips are innovative solutions designed to meet the demands of modern cable management and mounting needs. They combine ease of use with versatility, offering a practical and efficient alternative to traditional mounting methods. Whether in dynamic work environments or temporary setups, these mounts and clips provide advantages that set them apart from other options on the market.

Features and benefits

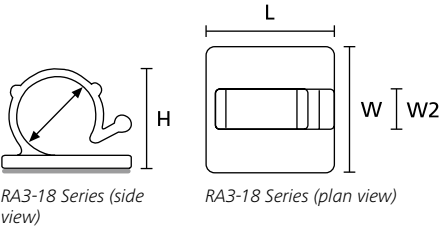
- Quick to install and easy to adjust once fitted (reusable)
- Flexible neodymium magnet with adhesive backing
- Can be used without cable ties offering process optimization
- Different sizes for various bundle diameters available
- Designed to hold wires, cables or hoses
- Ideal for use on steel surfaces where it is not possible to drill holes
- Suitable for challenging surfaces like slightly dirty areas where adhesives fail



MAGRA-Series magnetic mounts with clips – reusable, removable, and no drilling required.

MATERIAL	Polyamide 6.6 (PA66), Neodymium alloy R5 (NDFEBR5)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)

HF✓ RoHS✓

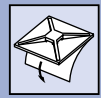


TYPE	Width (W)	Length (L)	Height (H)	Bundle Ø max.	Material	Colour	Pack Cont.	Article-No.
MAGRA3	13.0	13.0	5.0	3.0	PA66 NDFEBR5	Black (BK)	50 pcs.	151-04466
MAGRA6	19.0	19.0	9.0	6.0	PA66 NDFEBR5	Black (BK)	25 pcs.	151-04468
MAGRA9	19.0	19.0	12.5	9.0	PA66 NDFEBR5	Black (BK)	25 pcs.	151-04467
MAGRA13	25.0	25.0	16.5	13.0	PA66 NDFEBR5	Black (BK)	15 pcs.	151-04465

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Mounts with cable clip, self-adhesive

RB-Series

RB-Series self adhesive mounts offer greater routing freedom and also reduce the risk of corrosion compared to screw fixing mounts. They are ideally suited for tool-free installation and can be re-opened and reused easily when cables need to be replaced. These mounts can be used without the need for additional cable ties. Offering process optimization in a variety of applications.

Features and benefits

- Flat design to use in applications with limited space
- One-piece self adhesive mount for quick and easy installation
- Can be used without cable ties offering process optimization
- Different sizes for various bundle diameters available
- Cost effective with easy application on smooth, clean surfaces



Self adhesive one piece fixing mounts RB20 (l) and RB14 (r).

For more information on the types of adhesive please see page 152.

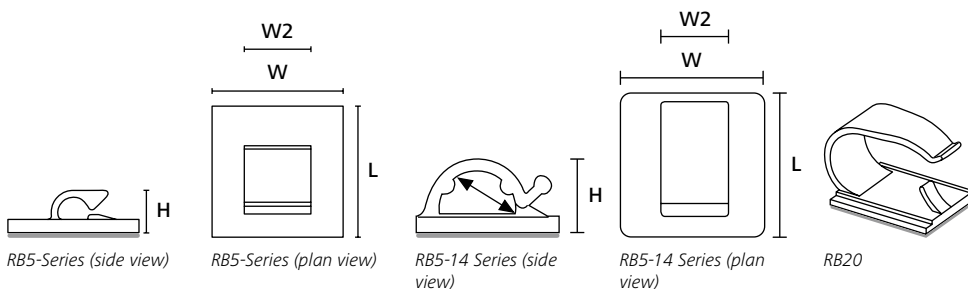
MATERIAL	Polyamide 6.6 (PA66)		Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)
Adhesive	Acrylate with base of acrylic foam	Synthetic rubber with base of polyethylene foam	
Flammability	UL 94 V2 (excluding adhesive)		UL 94 HB

RoHS ✓

HF ✓

RoHS ✓

RoHS ✓



TYPE	Width (W)	Width (W2)	Length (L)	Height (H)	Bundle Ø max.	Operating Temperature	Material	Colour	Pack Cont.	Article-No.
RB5	19.0	9.7	19.0	6.0	5.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-14059
RB5APT-A	19.0	9.7	19.0	6.0	5.0	-40 °C to +85 °C	PA66	Black (BK)	50 pcs.	151-14006
RB8	25.0	12.7	25.0	11.5	8.0	-40 °C to +60 °C	PA66	Black (BK)	100 pcs.	151-13601
	25.0	12.7	25.0	11.5	8.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-13606
RB20	27.0	18.0	33.0	25.0	20.0	-40 °C to +60 °C	PA66HIRHS	Black (BK)	100 pcs.	151-00831
RB14	27.4	23.0	33.2	16.0	14.0	-40 °C to +60 °C	PA66	Black (BK)	200 pcs.	151-00502
	27.4	23.0	33.2	16.0	14.0	-40 °C to +60 °C	PA66	Natural (NA)	100 pcs.	151-00505
RB14APT-A	33.2	23.0	27.4	16.0	14.0	-40 °C to +85 °C	PA66	Black (BK)	200 pcs.	151-03606

All dimensions in mm. Subject to technical changes.



Mounts with cable clip, magnetic

MAGR-B-Series

Magnetic mounts and clips are innovative solutions designed to meet the demands of modern cable management and mounting needs. They combine ease of use with versatility, offering a practical and efficient alternative to traditional mounting methods. Whether in dynamic work environments or temporary setups, these mounts and clips provide advantages that set them apart from other options on the market.

Features and benefits

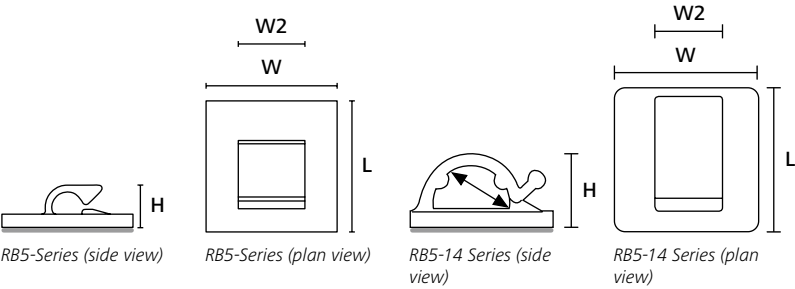
- Flat design to use in applications with limited space
- Quick to install and easy to adjust once fitted (reusable)
- Flexible neodymium magnet with adhesive backing
- Can be used without cable ties offering process optimization
- Different sizes for various bundle diameters available
- Designed to hold wires, cables or hoses
- Ideal for use on steel surfaces where it is not possible to drill holes
- Suitable for challenging surfaces like slightly dirty areas where adhesives fail



MAGR-B-Series magnetic mounts with clips offer flexible cable management solutions.

MATERIAL	Polyamide 6.6 (PA66), Neodymium alloy R5 (NDFEBR5)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)

HF ✓ RoHS ✓

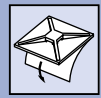


TYPE	Width (W)	Length (L)	Height (H)	Bundle Ø max.	Material	Colour	Pack Cont.	Article-No.
MAGR B5	19.0	19.0	6.0	5.0	PA66 NDFEBR5	Black (BK)	25 pcs.	151-04463
MAGR B8	25.0	25.0	11.5	8.0	PA66 NDFEBR5	Black (BK)	15 pcs.	151-04464

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self Adhesive Clips

TY8H1(S) with flat design

Ideal for holding ribbon cables in computer equipment, gaming machines or domestic appliances.

Features and benefits

- Designed to hold cables, tubes or conduits without cable tie
- Simply screwed or stuck (TY8H1S) onto panel
- Side gripping fingers exert firm hold but allow for easy cable removal

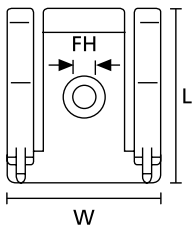
For more information on the types of adhesive please see page 152.



Self adhesive mount for flat cables, TY8H1.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)
Adhesive	Acrylate with base of polyurethane foam

RoHS



TY8H1S

TYPE	Drawing	Height (H)	Width (W)	Hole Ø (FH)	Length (L)	Bundle Ø max.	Material	Colour	Pack Cont.	Article-No.
TY8H1S		6.5	23.0	3.2	26.0	3.0	PA66	Natural (NA)	100 pcs.	151-12819

All dimensions in mm. Subject to technical changes.



Mounts with flexible cable clip, self-adhesive

SAC-Series

These clips are ideal for use in applications which are difficult to access, or for areas where a self adhesive solution is the only possible fixing method and holes would be unacceptable. Typical applications include domestic appliances and trailers.

Features and benefits

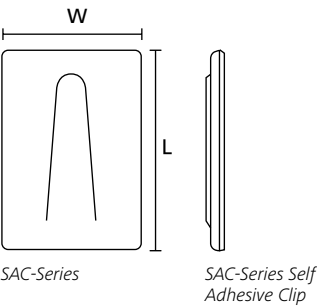
- Bendable metal tongue for any shape or configuration of wires or cables
- Cost effective with easy application on smooth, clean surfaces

For more information on the types of adhesive please see page 152.



Bendable tongue allows for a variety of sizes per clip.

MATERIAL	Steel (ST)
Adhesive	Acrylate with base of polyethylene foam
Operating Temperature	-40 °C to +60 °C



TYPE	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Pack Cont.	Article-No.
SAC1	20.0	30.0	4.0	ST	White (WH)	100 pcs.	151-00100
SAC2	25.0	35.0	8.0	ST	White (WH)	100 pcs.	151-00200
SAC3	31.0	43.0	12.0	ST	White (WH)	100 pcs.	151-00300

All dimensions in mm. Subject to technical changes.



2-piece fixing tie with connector clip

Connector clip family

These two piece fixing ties with connector clips have been designed for electronic cables and cable sets used in the automotive industry. The connector are pushed onto the connector clip and hold firmly in place.

Features and benefits

- Easy, tool-free assembly for efficient installation
- Pre-assembled cable tie with connector clip for quick handling
- Connector can be removed without damage – ideal for maintenance or repositioning
- Rattle-free mounting ensures secure and noise-free fixation, even under vibration
- Made from PP/PA66HIRHS: combines sustainability benefits of PP (lightweight, chemically resistant) with the robustness and heat stability of PA66HIRHS



Material specifications: See Article-No. on our website.

TYPE	Width (W)	Length (L)	Bundle Ø max.	Width (W2)	N	Type of connection	Material	Colour	Article-No.
S50ROSCC11B	4.9	200.0	45.0	10.9	185	USCAR11	PP PA66HIRHS	BK	156-03261
S50ROSCC11A	4.9	200.0	45.0	24.9	185	USCAR11	PP PA66HIRHS	BK	156-03259

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Connector clips for round holes

with fir tree

The connector clips used here have been designed for electronic cables and cable sets used in the automotive industry. These parts are related to a connector and then secured to a surface depending on the requirement.

Features and benefits

- Connector easily installed by simply pushing into place
- Connection can be released non-destructive
- One fir tree foot part can be used for a variety of panel thicknesses
- Disc covers the hole to prevent dust and dirt gaining access
- For twist protection: Variants with additional stick

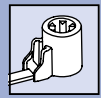


Connector Clips are available for many different connector types and fixing varieties.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Type of connection	EWCAP standard	Article-No.
CC11FT6.5E3		6.1 - 6.9 6.1 - 6.6	0.6 - 5.0	10.9	25.8	19.6	PA66HIRHS	BK	USCAR11	EWCAP-005-11	151-04254
CC11FT6.5FT5-2		6.1 - 6.9 4.8 - 5.2	0.6 - 5.5	18.0	30.5	19.4	PA66HIRHS	BK	USCAR11	EWCAP-005-11	151-03961
CC11FT6.5FT5		6.1 - 6.9 4.8 - 5.2	0.6 - 5.5	18.0	30.5	19.4	PA66HIRHS	BK	USCAR11	EWCAP-005-11	151-03963
CC7FT6.5E3		6.1 - 6.9 6.1 - 6.6	0.6 - 5.0	7.5	25.4	21.1	PA66HIRHS	BK	USCAR7	EWCAP-005-7	151-04285
CC7FT6.5LGE3		6.1 - 6.9 6.1 - 6.6	0.6 - 10.0	16.5	25.4	26.3	PA66HIRHS	BK	USCAR7	EWCAP-005-7	151-04283

All dimensions in mm. Subject to technical changes.



1-piece fixing ties for weld studs

For cable routing above the stud

Primarily designed for use in the automotive industry, these parts can be used in a wide variety of applications where weld studs or ISO bolts are used and cables need to be bundled and secured.

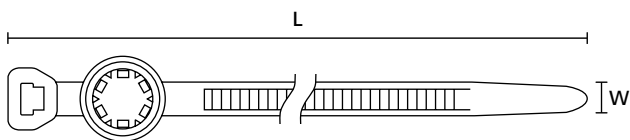
Features and benefits

- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Bundle runs directly above weld stud with defined stand-off from the panel



The T50SSBS50T-E / T50SSBS60T-E allows very precise routing of cable bundles.

Material specifications: See Article-No. on our website.



T50SSBS60T-E

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SSBS50T-E		5.0	4.6	160.0	35.0	200	PA66HS	BK	1-2;4-7;25	155-30602
T50SSBS60T-E		6.0	4.6	160.0	35.0	200	PA66HS	BK	1-2;4-7;25	157-00083

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Since the bundled cables lie directly above or on the weld stud, care must be taken to ensure that the length of the weld stud does not exceed the height of the sheath. To avoid damage, we recommend a maximum weld stud length of 16.5 mm. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for weld studs

For cable routing alongside the stud

Primarily designed for use in the automotive industry, these parts can be used in a wide variety of applications where weld studs or ISO bolts are used and cables need to be bundled and secured.

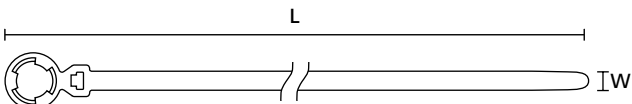
Features and benefits

- Cable tie head always situated in defined position
- Easy to install without the need for a tool
- Bundles are routed very close to stud



T50SOSSBD-M8/10.

Material specifications: See Article-No. on our website.



T50SOSSBD-M8/M10

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSSBU-M6		M6	5.7	175.0	30.0	150	PA66HSUV	GY	1;3;6-7;9-10;25	157-00065
T50SOSSBD-M8		M8	5.7	175.0	30.0	150	PA66HSW	BK	1;3;6-7;9-10;25	157-00039
T50SOSSBD-M10		M10	5.7	175.0	30.0	150	PA66HSW	BK	1;3;6-7;9-10;25	157-00040
T50SOSSBU-M8		M8	5.7	175.0	30.0	150	PA66HSW	GY	1;3;6-7;9-10;25	157-00066
T50SOSSBU-M10		M10	5.7	175.0	30.0	150	PA66HSW	GY	1;3;6-7;9-10;25	157-00067

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for weld studs, lateral adjustment

T50SOSWSP5E-2 for 5 mm studs, retainer height 3.5 mm

Primarily designed for use in the automotive industry, these parts can be used in a wide variety of applications where weld studs or ISO bolts are used and cables need to be bundled and secured.

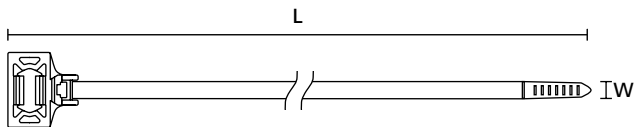
Features and benefits

- Cable tie head always situated in defined position
- Easy to install without the need for a tool
- Provides 5 – 6 mm lateral adjustment
- Very low profile, stackable design
- For parallel routing of several bundles



T50SOSWSP5E-2, parallel installation using two fixing ties.

Material specifications: See Article-No. on our website.



T50SOSWSP5E-2

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSWSP5E-2		5.0, 6.0	4.6	162.6	35.0	225	PA66HS	BK	1-2;4-5;25	133-01553

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for weld studs

with stand-off, on the stud

Features and benefits

- Offset bolt design with flat geometry enables the retrofitting of an additional, higher fastening bracket for bolts - ideal for flexible integration into complex assemblies
- Anti-slip serration on the inside prevents lateral cable movement and ensures a secure and vibration-resistant hold
- Developed for demanding and space-constrained environments



T50SOSAS-Series offset stud mount cable ties are ideally suited for parallel routing (e. g. in combination with SB5-6 mounts).

Material specifications: See Article-No. on our website.

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Article-No.
T50SOSASSO20AP5E		M5, M6, T5, T6	4.6	179.2	35.0	225	PA66HS	BK	157-04016
T50SOSASSO12.5AP5E		M5, M6, T5, T6	4.6	171.8	35.0	225	PA66HS	BK	157-04018
T50SOSASSO25AP5E		M5, M6, T5, T6	4.6	184.2	35.0	225	PA66HS	BK	157-04020

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for weld studs, for heavy duty applications

WS-Series for threaded studs

Wide strap stud-mounted cable ties are primarily designed for use in the automotive or truck industry.

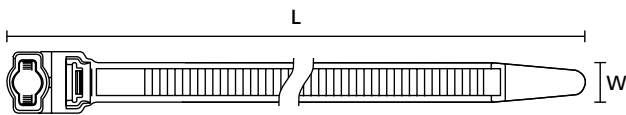
Features and benefits

- Very flexible strap provides minimum pinching of soft hoses and convoluted tubing
- Low profile head for compact bundling
- Clamping rails to increase grip on round bundles
- Flexible hinge



The wide strap stud mount cable tie minimises pinching on soft bundles.

Material specifications: See Article-No. on our website.



Wide strap heavy duty stud mount cable ties

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
WSS8MM		8.0	12.7	246.4	57.1	535	PA66HIRHSW	BK	6-7;9-10	157-00034
WSI8MM		8.0	12.7	322.6	82.5	535	PA66HIRHSUV	BK	6-7;9-10	157-00035

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for weld studs, for heavy duty applications

for parallel routing

Primarily designed for use in the automotive industry, these parts can be used in a wide variety of applications where weld studs or ISO bolts are used and cables need to be bundled and secured.

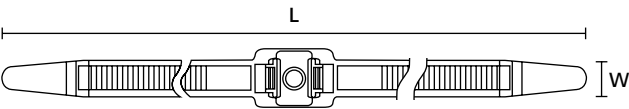
Features and benefits

- Parallel separation between hoses, wires, cables and tubing
- Abrasion protection
- Optional mounting hole for securing bundles along the Chassis of trucks, trails and heavy duty equipment



DCT products are made for parallel routing of harnesses with stud fixing.

Material specifications: See Article-No. on our website.

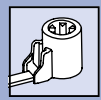


Dual Clamp Ties (DCT)

TYPE	Stud Ø	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
DCT11	M6	12.7	487.7	58.0	667	PA66HIRHSUV	BK	6-7;9-10	115-31100
DCT9	M6	12.8	331.0	33.0	667	PA66HIRHSUV	BK	6-7;9-10	115-00034

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for weld studs

for parallel routing

Widely used for securing cables pipes and hoses in the automotive and truck building industries, the mounting base is simply pushed onto a 5 mm diameter stud or bolt.

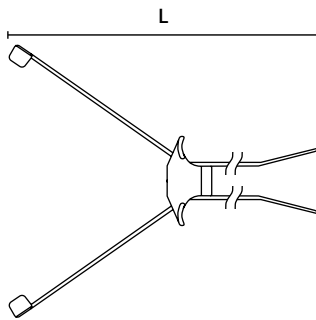
Features and benefits

- Pre-assembled 2-piece fixing tie with stud retainer
- For parallel routing of cables, hoses or harnesses
- Cable tie head can be moved after bundling
- Easy to install without the need for a tool
- For 5 mm studs or 5 mm ISO threaded studs
- Made from PP/PA66HIRHS: combines sustainability benefits of PP (lightweight, chemically resistant) with the robustness and heat stability of PA66HIRHS – perfect for demanding automotive environments



Parallel fixation of two cables and keeps the bundles close to the cables.

Material specifications: See Article-No. on our website.



DSBS5

TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SDSB55		5.0	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-56193
T50RODSBS55		5.0	4.6	200.0	45.0	222	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-56199
S50RODSBS55		5.0	4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03588
S50RODSBS5-6H		T5, T6, M5, M6	4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03077
T50SDSB5-6H		T5, T6, M5, M6	4.6	160.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-03295
T50SDSB5-6		T5, T6, M5, M6	4.6	160.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-03293

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for strong hold on smooth bundles

for weld studs, for parallel routing

Soft Grip mounts are especially designed for use with Soft Grip ties. The versatile combinations provide a variety of flexible fastening options for fluid management / cooling systems in vehicles. The Soft Grip Series is a unique semi-customised part solution and designed to save time, money and development effort. The foot parts of the mounts can be adjusted to individual customer requirements. In the event of maintenance, the cable tie can be easily removed using a screwdriver. Only the cable tie then needs to be replaced, not the whole fixing element.

Features and benefits

- Suitable for a variety of fastening requirements thanks to different foot parts (for holes, for studs, for screw fixings)
- Soft Grip cable ties assure high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements of the bundle, especially on smooth tubing
- Pre-locking feature holds the cable tie in place before it is tensioned
- Soft Grip cable ties can be removed with a screwdriver for maintenance
- EVO9SG application tool with adjusted nose piece available

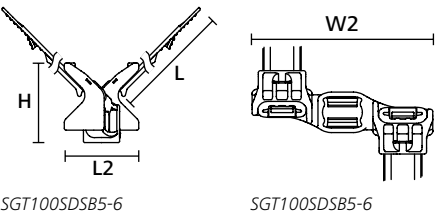


The Soft Grip Tie in combination with the Soft Grip Mount for studs (weld studs) for parallel guidance of hoses in fluid management.



Soft Grip Cable Tie assembled with Soft Grip Mount for studs (weld stud).

Material specifications: See Article-No. on our website.



TYPE	Stud Ø	Width (W2)	Length (L)	Length (L2)	Height (H)	Bundle Ø max.	Material	Colour	Tools	Article-No.
SGT100SDSB5-6	M5, M6, T5, T6	59.8	140.0	27.6	29.5	25.4	PA66HS TPE PA66HIRHS	BK, BU	8	156-04098

Recommended Tools: 8=EVO9SG. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



Fixing ties for weld studs

multi parallel routing, outside serrated

With our new “WAVE FIXING” products, we meet the increasing demand of parallel cable routing for electric vehicles.

Features and benefits

- Oval housing for welding studs enables tolerance compensation during assembly
- Supports a wider range of cable diameters for parallel bundling
- Cable tie head can be repositioned for ideal alignment with the cable bundle
- ‘Soft-push’ design enables effortless, tool-free manual assembly by hand
- Integrated retaining rib secures corrugated cables (e.g. protective conduits) and provides additional stability and protection in dynamic environments



Material specifications: See Article-No. on our website.

TYPE	Stud Ø	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Article-No.
T50ROSCTMD26SB5-6	M5, M6, T5, T6	30.0	78.0	26.0	225	PA66HS PA66HIRHS	BK	156-03240

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Fixing ties for weld studs

multi parallel routing, outside serrated

With our new “WAVE FIXING” products, we meet the increasing demand of parallel cable routing for electric vehicles.

Features and benefits

- For weld stud diameters, suitable for M5, M6, T5, T6
- Tolerances can be adjusted with an oval welding stud barrel
- A more varied selection of cable diameters can be bundled in parallel
- The cable tie head can be positioned in optimum bundle position
- “Soft-push” design for easy manual, tool free assembly



Fixing tie for cable bundles/for stud, outside serrated, 8.0-26.0mm



Multiple routing fixing tie for studs, outside serrated, for bundle diameters of 8.0-26.0mm.

Material specifications: See Article-No. on our website.

TYPE	Stud Ø	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Article-No.
T50ROSCTM16D26SB5-6	M5, M6, T5, T6	30.0	100.0	26.0	225	PA66HS PA66HIRHS	BK	156-03242

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-Piece Fixing Ties for Weld Studs

on the stud

Primarily designed for use in the automotive industry, these parts can be used in a wide variety of applications where 5mm weld studs or 5mm ISO bolts are used and cables need to be bundled and secured

Features and benefits

- Pre-assembled with integrated cable tie and weld stud mounting foot for quick and solid installation
- Low insertion force (~30 N or less) supports ergonomic and worker-friendly installation - ideal for high-volume production lines
- Enables secure bundling of very small diameters, starting at a diameter of just 1.0 mm
- Designed for sustainable workflows by reducing operator strain and minimising rework



Pre-assembled two-piece fastening tie with weld stud foot — enables quick, secure mounting on 5 and 6 mm bolts with insertion forces below 30 N.

Material specifications: See Article-No. on our website.

TYPE	Stud Ø	Length (L)	Bundle Ø max.	N	Material	Colour	Article-No.
T50RSBD5-6SD	T5, T6, M5, M6	202.0	45.0	225	PA66HS PA66HIRHS	BK	156-03416

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Fixing elements for weld studs

SB-Series

Many industries (but specifically the automotive market) are using weld studs as the standard method of attaching components. Simply hammered onto the stud these parts provide ideal fixing bases for attaching cables, pipes or hose.

The use of weld studs avoids the problems with holes (ingress of moisture, corrosion etc).

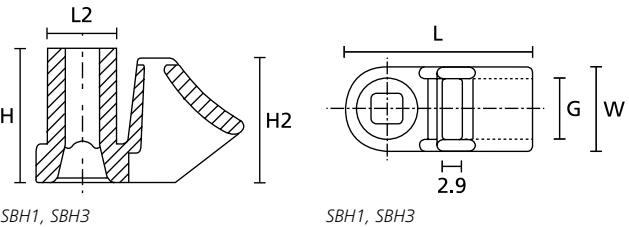
Features and benefits

- Simple and quick method of fixing
- SBH1 and SBH3 allow cables to run across the panel



SBH2 allow cables to run at 90° to the panel.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Stud Ø	Width (W)	Length (L)	Length (L2)	Height (H)	Height (H2)	Strap Width max. (G)	Material	Colour	Article-No.
SBH1		5.0	12.5	26.8	9.0	13.9	15.9	8.5	PA66	Black (BK)	151-02260
SBH3		5.0	12.5	26.8	9.0	18.0	15.9	8.5	PA66	Black (BK)	151-02279
SBH2		5.0	12.5	26.8	9.0	14.0	12.5	8.5	PA66	Black (BK)	151-26250

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Fixing elements for weld studs

CT-Series

In areas with limited space these mounting bases allow the cable to be slightly offset from the fixing stud, and can be installed in the equipment prior to the cable installation. A major cost saving can be made using these products as they will allow the use of many different sizes of standard cable ties without the need to stock a wide range of specific fixing ties.

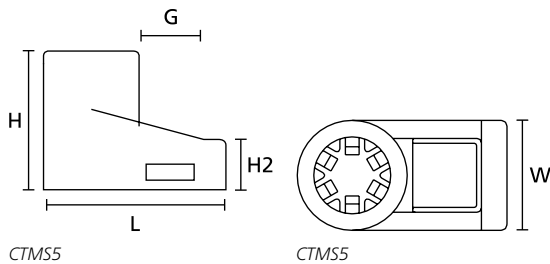
Features and benefits

- Ideal for cable ties up to 4.8 mm wide
- Simply pushed by hand onto an ISO or Fir Tree stud



Fixing Element CTMS5 allows bundles to be routed alongside the stud.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Height (H)	Height (H2)	Stud Ø	Strap Width max. (G)	Material	Colour	Article-No.
CTMS5	10.0	19.0	14.5	5.3	5.0	5.0	PA66	Black (BK)	151-03301

Recommended Tools: 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Fixing elements for tubes and harnesses with automatic locking feature

for weld studs

Offering a simple and secure method of attaching cables to panels. Originally designed for the automotive industry, these products are used in a wide range of applications with sheet metal panels across various industries.

Features and benefits

- Push and click closure for fixation of wires
- AHC()SS und AHC()SB can be pushed onto a 5.0 mm stud

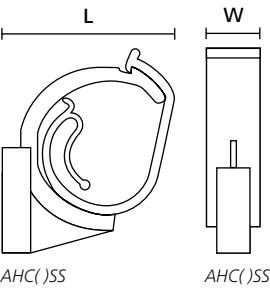


Automatic Harness Clip closed.



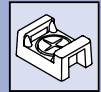
Automatic Harness Clip open.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Stud Ø	Bundle Ø max.	Width (W)	Length (L)	Material	Colour	Article-No.
AHC3SB		5.0	28.0	10.0	43.0	PA66HIRHS	Black (BK)	151-00372

All dimensions in mm. Subject to technical changes.



1-piece fixing ties with mounting head for screws

M-Series

This range of one piece cable ties have a built in mounting hole and once fastened around the cables the bundle can be simply secured to the panel with a screw or bolt. The tie is fitted to the panel first and then the cables can be added.

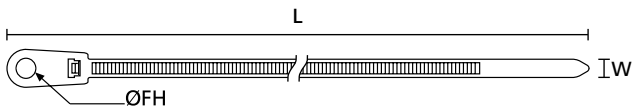
Features and benefits

- One-piece bundling and fixing tie
- Quick and easy installation



The mounting head ties can be easily screwed onto a panel.

Material specifications: See Article-No. on our website.



T(MR Series with Mounting Head for Screw fixing

TYPE	Hole Ø (FH)	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18MR	3.1	2.5	110.0	20.0	80	PA66	BK	1-2;4-5;25	113-01810
	3.1	2.5	110.0	20.0	80	PA66	NA	1-2;4-5;25	113-01819
T30MR	4.3	3.5	160.0	32.0	135	PA66	BK	1-2;4-5;25	113-03010
	4.3	3.5	160.0	32.0	135	PA66	NA	1-2;4-5;25	113-03019
T50MR	5.4	4.7	215.0	45.0	225	PA66	BK	1-2;4-7;25	113-05010
	5.4	4.7	215.0	45.0	225	PA66	NA	1-2;4-7;25	113-05019
	5.4	4.7	215.0	45.0	225	PA66W	BK	1-2;4-7;25	113-05060
T50ML	5.5	4.7	390.0	100.0	225	PA66	NA	1-2;4-7;25	113-05419
T120MR	6.5	7.6	395.0	102.0	535	PA66	BK	1;3;6-7;9-10;25	113-12020
	6.5	7.6	395.0	102.0	535	PA66	NA	1;3;6-7;9-10;25	113-12029
	6.5	7.6	395.0	102.0	535	PA66W	BK	1;3;6-7;9-10;25	113-12060

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for heavy duty applications, for screws

HDM-Series

Used in the automotive and truck industry for harness fixing in the engine body, these parts offer solutions in many other industrial applications with difficult environment.

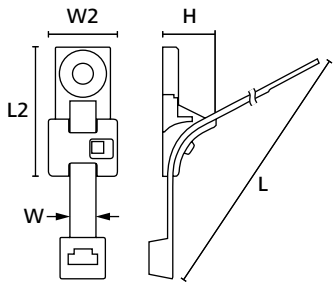
Features and benefits

- Pre-assembled 2-piece fixing tie
- Cable tie head can be moved after bundling
- Secure alignment to the bundle due to H-design
- A suitable alternative for metal clamps
- Withstands vibrations and displacement forces
- High tightening torque through metal bushing



These HDM (Heavy duty mount) are suitable for assembling on screws.

Material specifications: See Article-No. on our website.



HDM with cable tie (L = length of the tie "flat")

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Mounting Screw Type	Bundle Ø max.	Material	Colour	Tools	Article-No.
T50RHDM6	4.6	20.0	200.0	37.5	16.0	M6 Screw	50.0	PA66HIRHS	BK	1-2;4-7;25	156-00410
T50RHDM8	4.6	20.0	200.0	37.5	16.0	M8 Screw	50.0	PA66HIRHS	BK	1-2;4-7;25	156-00412
T120SHDM8	7.6	20.0	225.0	37.5	15.6	M8 Screw	55.0	PA46	GY	1;3;6-7;9-10;25	156-00429
T120RHDM6	7.6	20.0	390.0	37.5	16.0	M6 Screw	105.0	PA46	GY	1;3;6-7;9-10;25	156-00407
	7.6	20.0	390.0	37.5	16.0	M6 Screw	105.0	PA66HIRHS	BK	1;3;6-7;9-10;25	156-00406
T120RHDM8	7.6	20.0	390.0	37.5	16.0	M8 Screw	105.0	PA46	GY	1;3;6-7;9-10;25	156-00409
	7.6	20.0	390.0	37.5	16.0	M8 Screw	105.0	PA66HIRHS	BK	1;3;6-7;9-10;25	156-00408
X120RHDM65x160	7.7	32.0	369.0	40.2	15.5	M6 Screw	100.0	PA66HIRHS	BK	1;6-7;9-10;25	156-01466

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



2-piece fixing ties for heavy duty applications, for screws

DHDM-Series for parallel routing

Used in the automotive and truck industry for harness fixing in the engine body, these parts offer solutions in many other industrial applications with difficult environment.

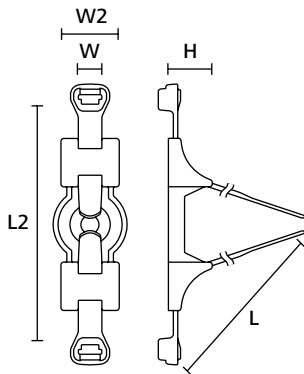
Features and benefits

- Pre-assembled 2-piece fixing tie
- Cable tie head can be moved after bundling
- Secure alignment to the bundle due to H-design
- A suitable alternative for metal clamps
- Withstands vibrations and displacement forces
- High tightening torque through metal bushing



DHDM (Double heavy duty mount) for parallel routing of bundles.

Material specifications: See Article-No. on our website.



DHDM with cable tie (L = length of the tie "flat")

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Mounting Screw Type	Bundle Ø max.	Material	Colour	Tools	Article-No.
T120ROSDHDM6	7.6	25.4	385.0	59.4	15.5	M6 Screw	105.0	PA66HS PA66W	BK	1;3;6-7;9-10;25	156-01485
X120RDHDM6	7.7	25.4	369.0	59.4	15.5	M6 Screw	100.0	PA66HIRHS PA66W	BK	3;5-7;9-10	156-01096
X120RDHDM8	7.7	25.4	369.0	59.4	15.5	M8 Screw	100.0	PA66HIRHS	BK	3;5-7;9-10	156-01097

Recommended Tools: 1=MK10-SB, 3=MK21, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



2-Piece Fixing tie for to screw

S50ROS series with CPC-fixing element

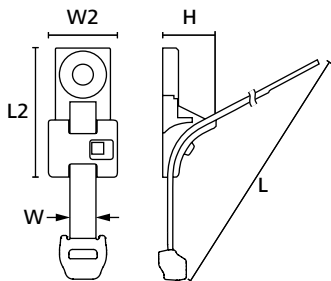
S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO2 footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

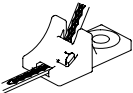
Features and benefits

- Pre-assembled 2-piece fixing tie with srew mount
- Cable tie head can be moved after bundling
- The S50ROS features a significantly lower CO₂ footprint compared to cable ties made of standard material, in line with sustainability goals in various industries
- The outside serration design ensures gentle handling of sensitive cables and bundles, reducing the risk of damage during installation and maintenance
- With an anti-slip feature on the inside, the S50ROS prevents undesired lateral movement of cables and bundles, maintaining tidy and organized cable management within vehicles
- For srew fixation M6
- Resists vibration and displacement forces and provides reliable performance in dynamic environments
- High torque due to integrated metal bushing for improved stability



Material specifications: See Article-No. on our website.



TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	 N	Mounting Screw Type	Material	Colour	Tools	Article-No.
S50ROSCPCM6		20.0	200.0	45.0	185	M6 Screw	PP PA66HIRHS	BK	5	156-03593

Recommended Tools: 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Screwed Ratchet Clamp

for multiple parallel cable routing

The Screwed Ratchet Clamp can be used wherever cables are to be laid in parallel. The clamp can be mounted both horizontally and vertically. In the second assembly step the cables can be inserted. The component can be used to fix various cables or cable combinations as it can be filled in a range from 25 to 150 mm.

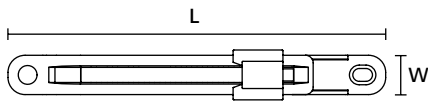
Features and benefits

- Cables and tubes can be bundled in parallel
- Can be opened and closed with one hand and without tools due to lever on the sliding element
- Re-openable, thus cables can be exchanged and added when required
- Can be screwed vertically or horizontally depending on the equipment
- After being screwed the locking cover/ lever is pushed onto the cable
- Allows a flexible accommodation of the cables with regards to the number of cables to be routed

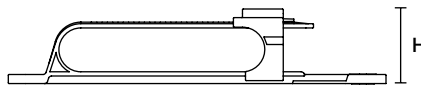


Screwed Ratchet Clamp SRC150M8 for parallel bundling of cables and tubes.

Material specifications: See Article-No. on our website.



SRC150M8 (top view)



SRC150M8 (side view)

TYPE	Hole Ø (FH) max.	Width (W)	Length (L)	Height (H)	Bundle Ø max.	Material	Colour	Article-No.
SRC150M8	8.0	33.0	250.0	49.4	29.0	PA6GF30	Black (BK)	156-02742

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for strong hold on smooth bundles for screws

Soft Grip mounts are especially designed for use with Soft Grip ties. The versatile combinations provide a variety of flexible fastening options for fluid management / cooling systems in vehicles. The Soft Grip Series is a unique semi-customised part solution and designed to save time, money and development effort. The foot parts of the mounts can be adjusted to individual customer requirements. In the event of maintenance, the cable tie can be easily removed using a screwdriver. Only the cable tie then needs to be replaced, not the whole fixing element.

Features and benefits

- Suitable for a variety of fastening requirements thanks to different foot parts (for holes, for studs, for screw fixings)
- Soft Grip cable ties assure high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements of the bundle, especially on smooth tubing
- Pre-locking feature holds the cable tie in place before it is tensioned
- Soft Grip cable ties can be removed with a screwdriver for maintenance
- EVO9SG application tool with adjusted nose piece available

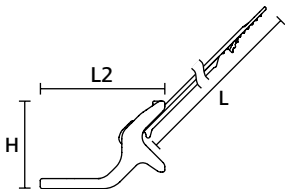


Soft Grip Cable Tie assembled with Soft Grip Mount for screw fixing e.g. for fluid management / air conditioning pipes.



Soft Grip Cable Tie assembled with Soft Grip Mount for screw fixing.

Material specifications: See Article-No. on our website.



SGT100SM60

TYPE	Mounting Screw Type	Height (H)	Length (L)	Length (L2)	Bundle Ø max.	Material	Colour	Tools	Article-No.
SGT100SM60	M6 Screw	29.7	140.0	42.0	25.4	PA66HS TPE PA6GF30	BK, BU	8	156-04096

Recommended Tools: 8=EVO9SG. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



Screw fixing cable tie mounts

MB-Series square design, screwable

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from Agriculture to Truck manufacture, they offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 8mm wide.

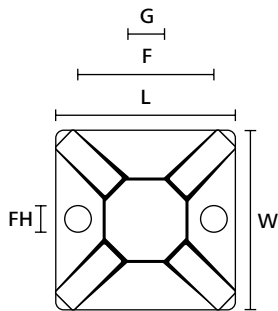
Features and benefits

- Screwable or self-adhesive versions
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Maximum surface area with adhesive to achieve high pull-off force
- 4-way entry for cable tie for quicker and more flexible installation



MB-Series Mounts with square design.

Material specifications: See Article-No. on our website.



MB3-MB5 (plan view)



MB3-MB5 (side view)

TYPE	Width (W)	Length (L)	Hole Ø (FH)	Strap Width max. (G)	Fixing Hole Centres (F)	Material	Colour	Pack Cont.	Article-No.
MB3	19.0	19.0	3.1	4.1	13.2	PA66	White (WH)	100 pcs.	151-28359
MB4	28.0	28.0	4.0	5.4	20.0	PA66	White (WH)	100 pcs.	151-28479
MB5	37.7	37.7	4.8	8.9	25.3	PA66	White (WH)	100 pcs.	151-00324

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable tie mounts for food industry, detectable

MCMB-Series, screwable

MCMB mounts are ideally suited for holding MCT-Series cable ties in position, even in areas of high vibration such as food manufacturing equipment and automated packaging machines.

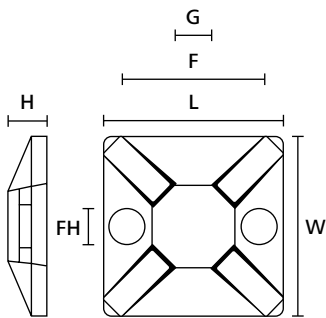
Features and benefits

- Distinctive blue colour for easy visual detection
- Simple to install with a screw or bolt
- Provides a secure fixing solution for routing cables, tubes and hoses
- 4-way entry for the cable tie leads to a quicker and more flexible installation
- Magnetic detectable – perfect for use with food and pharmaceutical grade detection equipment
- Total metal dispersion provides consistent detectability, even for small cut-off pieces
- Greatly reduces risk of contamination within food products
- Can support quality assurance in the production of food stuffs, for example HACCP



Detectable fixing solution containing of MCMB mount and MCT cable tie.

Material specifications: See Article-No. on our website.



MCMB Mount (side and plan view)

TYPE	Width (W)	Length (L)	Hole Ø (FH)	Strap Width max. (G)	Fixing Hole Centres (F)	Material	Colour	Pack Cont.	Article-No.
MCMB4	28.0	28.0	4.0	4.7	20.0	PA66MD	Blue (BU)	100 pcs.	151-01170

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



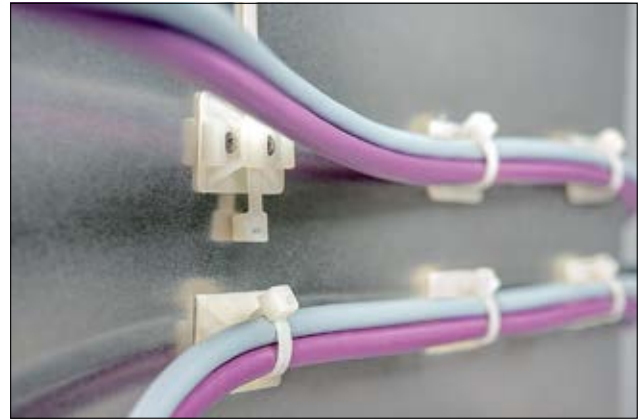
Screw fixing cable tie mounts

TY-Series rectangle design, screwable

These products are designed for simple yet robust installation in a wide variety of applications. TY-Series mounts with a rectangular design are commonly used in telecoms equipment, switchgear and control cabinets. With its small and compact design TY3G1 offers an easy and rapid assembly for many different applications.

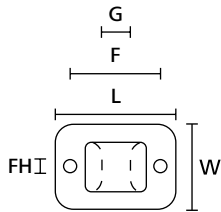
Features and benefits

- Screwable or self-adhesive versions
- Concave design to support larger diameter cables and bundles
- 2-way mounting base for safe guiding of cables and conduits
- Suitable for applications with minimal space
- Mounted before cable installation
- Usable with standard cable ties



TY-Series mounts with rectangle design.

Material specifications: See Article-No. on our website.



TY3G1, TY3G1S (plan view)



TY3G1 (side view)

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Fixing Hole Centres (F)	Material	Colour	Pack Cont.	Article-No.
TY3G1		14.0	20.0	3.7	2.2	4.0	15.0	PA66	Natural (NA)	100 pcs.	151-21319

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Flat ribbon and round cable mounts

FKH-Series, screw fixing

The FKH mounts are designed to retain flat ribbon cables. Ideal for use in computer equipment, gaming machines and domestic appliances. As each installation scenario is individual, FKH mounts are available in different dimensions and can be supplied as self adhesive and/or screwable versions.

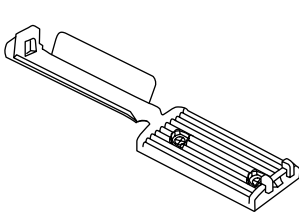
Features and benefits

- One-piece fixing mount for flat ribbon cables
- Increased mounting area offers high strength
- Quick and easy installation
- Can be released and re-used easily
- Flat cable is gently fastened due to soft wings

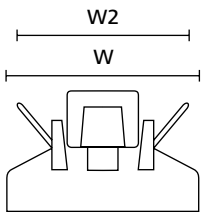


Based on extremely soft wings any flat cable is gently fastened.

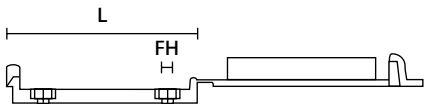
Material specifications: See Article-No. on our website.



Fixing can be realised with M3/ M5 screws or acrylic adhesive backing



Flat Ribbon Cable Mount (front view)



Flat Ribbon Cable Mount (side view)

TYPE	Width (W)	Width (W2)	Length (L)	Hole Ø (FH)	Material	Colour	Pack Cont.	Article-No.
FKH25	25.0	22.0	31.0	3.1	PA66HIR	Black (BK)	100 pcs.	151-16250
FKH30	25.0	22.0	35.0	3.1	PA66HIR	Black (BK)	100 pcs.	151-16300
FKH50	25.0	22.0	56.5	3.1	PA66HIR	Black (BK)	100 pcs.	151-16500
FKH80	25.0	22.0	86.0	3.1	PA66HIR	Black (BK)	100 pcs.	151-16800

All dimensions in mm. Subject to technical changes.



Screw fixing cable tie mounts CTQM for limited space

CTQM-series

CTQM mounts are the ideal choice for applications that require reliable, permanent mounting - especially in confined or space-restricted environments.

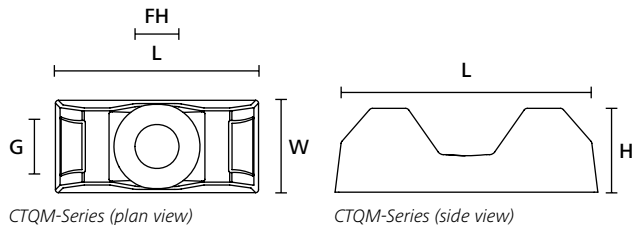
Features and benefits

- 2-way mounting base for safe guiding of cables and conduits
- For cable ties up to 5 mm width
- Uses screw with countersunk head (max. $\varnothing$ of head: 8.0 mm)
- Pre-assembly feature in combination with cable tie
- Holds the cable tie in vertical mounting position



CTQM 2-way entry, screwable.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Height (H)	Hole $\varnothing$ (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
CTQM5	9.5	21.0	6.7	4.5	5.0	PA66	Black (BK)	100 pcs.	151-10930
	9.5	21.0	6.7	4.5	5.0	PA66	Natural (NA)	100 pcs.	151-10920

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Screw fixing mounts

Cable tie mounts with curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacturing. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 8.3 mm width.

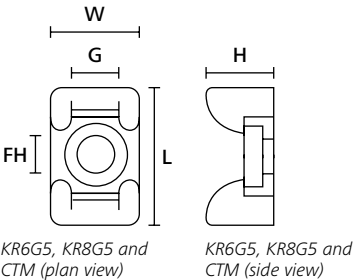
Features and benefits

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Mounts are available in various sizes and materials



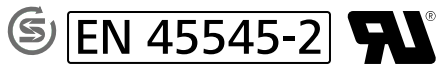
Cable Tie Mounts KR6G5, KR8G5 and CTM.

Material specifications: See Article-No. on our website.

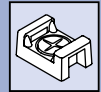


TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
CTM0	9.4	14.7	6.9	3.8	5.0	PA66	Black (BK)	100 pcs.	151-30300
	9.4	14.7	6.9	3.8	5.0	PA66	White (WH)	100 pcs.	151-30303
CTM1	9.4	14.7	6.9	4.8	5.0	PA66	Black (BK)	100 pcs.	151-30400
	9.4	14.7	6.9	4.8	5.0	PA66	White (WH)	100 pcs.	151-30404
KR6G5	11.8	17.8	8.8	4.5	6.4	E/TFE	Blue (BU)	100 pcs.	151-00653
MCKR6G5	11.8	17.8	8.8	4.5	6.4	PA66MD	Blue (BU)	100 pcs.	151-00950
KR6G5	12.0	18.0	9.0	4.5	6.0	PA66	Natural (NA)	100 pcs.	151-24619
	12.0	18.0	9.0	4.5	6.0	PA66W	Black (BK)	100 pcs.	151-24660
	12.0	18.0	9.0	4.5	6.0	PP	Black (BK)	100 pcs.	151-03286
KR8G5	14.3	24.8	12.1	6.5	8.3	E/TFE	Blue (BU)	100 pcs.	151-00654
MCKR8G5-5	14.5	25.0	12.0	5.1	8.3	PA66MD	Blue (BU)	100 pcs.	151-01020
KR8G5	14.5	25.0	12.0	6.5	8.0	PA66	Natural (NA)	100 pcs.	151-24819
	14.5	25.0	12.0	6.5	8.0	PA66HS	Black (BK)	100 pcs.	151-24850
CTM2	15.5	21.8	9.4	4.6	7.9	PA66	Black (BK)	100 pcs.	151-30500
	15.5	21.8	9.4	4.6	7.9	PA66	White (WH)	100 pcs.	151-30504
CTM3	15.5	21.8	9.4	5.1	7.9	PA66	Black (BK)	100 pcs.	151-30600
	15.5	21.8	9.4	5.1	7.9	PA66	White (WH)	100 pcs.	151-30605
CTM4	15.8	21.8	9.4	6.4	7.9	PA66	Black (BK)	100 pcs.	151-30700
	15.8	21.8	9.4	6.4	7.9	PA66	White (WH)	100 pcs.	151-30703

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Screw fixing mounts

CTAM-Series for applications where space is limited

The CTAM series offers a range of mounting solutions that combine ease of installation with durability. Designed for a wide range of applications, these mounts are particularly valued in telecommunications equipment, switchgear and control cabinets. Thanks to their robust design, they are also a proven choice in the aerospace and railroad industries.

MCCTAM mounts (MC = Metal Content) are specially designed for use in hygiene-sensitive areas such as the food industry. Due to the integrated metal content, they can be detected by standard metal detection systems, which reduces the risk of contamination. They hold the MCT series cable ties securely in place, even in high vibration environments such as food processing machines and automated packaging lines.

All products in this range are screw-fastened, ensuring a stable and durable fastening even under dynamic loads.

Features and benefits

- Suitable for applications with minimal space
- Mounted before cable installation and in line with cable
- 4-way entry design for use in line or at 90° angle to cable run
- Available in different sizes and materials

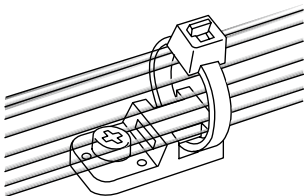


CTAM mounts for applications with limited space.

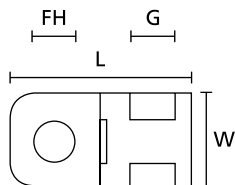


Detectable fixing solution containing of MCCTAM1 mount and MCTS cable tie.

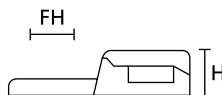
Material specifications: See Article-No. on our website.



CTAM-Series in application



CTAM-Series (plan view)



CTAM-Series (side view)

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
CTAM1	10.2	20.4	5.1	4.3	5.0	PA66	White (WH)	100 pcs.	151-31103
CTAM2	10.2	20.4	5.1	5.2	5.0	PA66	White (WH)	100 pcs.	151-31203
CTAM1	10.2	20.5	5.5	4.3	5.0	PEEK	Beige (BGE)	100 pcs.	151-00757
CTAM2	10.2	20.5	5.5	5.1	5.0	PEEK	Beige (BGE)	100 pcs.	151-00758
MCCTAM1	10.3	20.7	5.1	4.3	5.2	PA66MD	Blue (BU)	100 pcs.	151-00997

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Stainless steel P-mount to screw

Stainless steel 316L mounts

Suitable for the secure fixing of cables, tubing, conduits and pipes within the most arduous of environments. Providing a complete fastening and fixing solution when used in conjunction with stainless steel ties up to 10.0 mm width. SSPC metal cable tie mounts are ideal for use within shipbuilding, oil and gas (offshore), industrial machinery and vehicles, food and beverage, power, renewable energy or process industries.

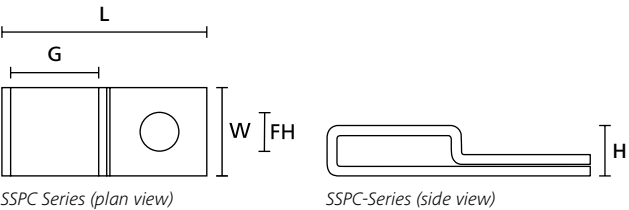
Features and benefits

- 2-way fixing for metal cable ties
- High performance stainless steel 316L material
- Heavy duty design
- Robust and durable solution
- Resistant to a range of chemicals in challenging environments
- Quick and easy to install
- Safe and secure solution for cables, tubing, conduits and pipes



Stainless Steel P-Mount SSPC for use in arduous environments.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
SSPC4	10.2	23.0	4.5	4.2	10.0	SS316L	Metal (ML)	100 pcs.	151-00837
SSPC5	10.2	23.0	4.5	5.3	10.0	SS316L	Metal (ML)	100 pcs.	151-00838
SSPC6	10.2	23.0	4.5	6.3	10.0	SS316L	Metal (ML)	100 pcs.	151-00839

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Screw fixing mounts

LKC-, NY- and LOK-series with overlapping curved design

Designed specifically for holding heavier cable bundles, these mounting bases can be used in many industries from agriculture to truck manufacturing. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 13 mm width.

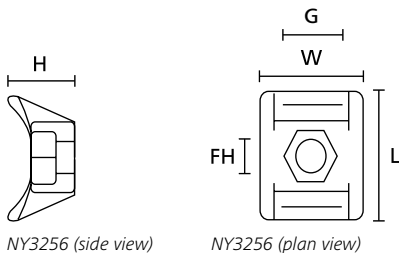
Features and benefits

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration



LOK02 fixing base application.

Material specifications: See Article-No. on our website.



NY3256 (side view)

NY3256 (plan view)

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
LKC		17.0	25.0	13.5	5.5	8.0	PA66	Black (BK)	100 pcs.	151-27010
		17.0	25.0	13.5	5.5	8.0	PA66	Natural (NA)	100 pcs.	151-27019
LKCSF1		19.0	40.0	16.8	6.0	13.0	PA66	Natural (NA)	100 pcs.	151-27219
		19.0	40.0	16.8	6.0	13.0	PA66	Black (BK)	100 pcs.	151-27202
NY3256		12.0	13.5	7.8	3.1	8.0	PA66	Natural (NA)	1000 pcs.	151-25219
LOK02		14.0	21.0	18.0	5.1	9.0	PA6HIR	Black (BK)	100 pcs.	151-80210

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Screw fixing mounts

MB-Series curved design, screwable

These cable tie mounts are very small in their overall size. They are designed for simple yet robust installation particularly in areas with high vibrations and/or limited space. They are a common fixing method for telecoms equipment, switchgear and control cabinets.

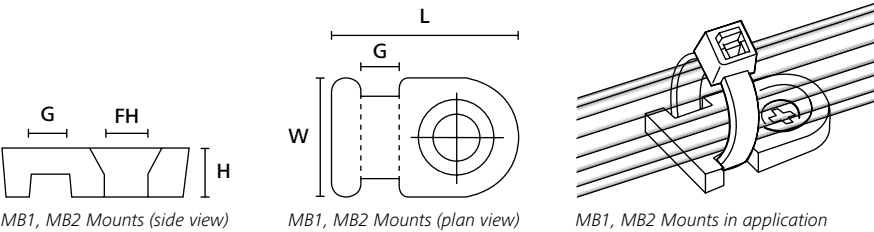
Features and benefits

- Small overall size for areas with limited mounting space
- Simple to install with a screw, bolt or rivet
- Excellent security, particularly in areas of high vibration
- Single hole fixing with two-way entry for cable tie



TY- (l) and MB-Series (r) with curved design, screwable.

Material specifications: See Article-No. on our website.

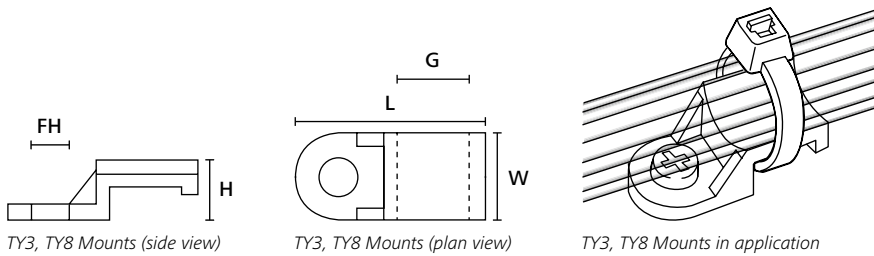


TYPE	Width (W)	Length (L)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
MB1	8.0	12.5	2.9	2.6	PA66	Natural (NA)	100 pcs.	151-28119
MB2	12.5	20.5	5.0	5.0	PA66	Black (BK)	100 pcs.	151-28210
	12.5	20.5	5.0	5.0	PA66	White (WH)	100 pcs.	151-28219

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.


TY-Series curved design, screwable


TYPE	Width (W)	Length (L)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
TY8F1	10.0	22.5	4.5	8.0	PA66	Natural (NA)	1000 pcs.	151-02157

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Screw fixing mounts

LKM / CL / FH with curved design for sideways fixing

In areas with limited space these mounting bases allow the cable to be offset from the fixing hole, and can be installed in the equipment prior to the cable installation. A major cost saving can be made using these products as they will allow the use of many different sizes of standard cable ties without the need to stock a wide range of specific fixing ties.

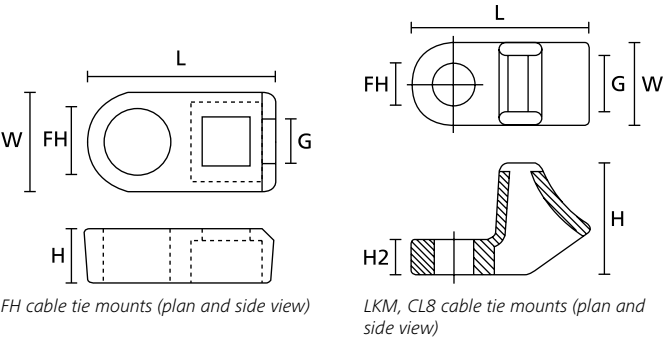
Features and benefits

- Small overall size for areas with limited mounting space
- Screwable mounts for fixing cable sideways
- Ideal for securing large, heavier bundles
- Suitable for cable ties up to 8 mm width



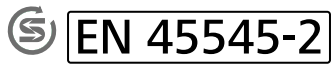
LKM, CL8 and FH cable tie mounts for applications with limited space.

Material specifications: See Article-No. on our website.



TYPE	Width (W)	Length (L)	Height (H)	Height (H2)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
FH18	7.1	13.3	4.0	-	3.7	2.5	PA66	Natural (NA)	500 pcs.	151-61119
FH30	9.5	17.9	4.7	-	5.5	3.5	PA66	Natural (NA)	500 pcs.	151-61319
LKM	12.0	27.0	16.0	5.0	6.0	7.6	PA66	Black (BK)	100 pcs.	151-26301
	12.0	27.0	16.0	5.0	6.0	7.6	PA66	Natural (NA)	100 pcs.	151-26304
CL8	12.5	27.3	16.0	5.0	6.5	8.0	PA66	Natural (NA)	100 pcs.	151-02258
	12.5	27.3	16.0	5.0	6.5	8.0	PA66W	Black (BK)	100 pcs.	151-02259

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Clamps with elastical loop

Cradle clamp

Simple and versatile method of bundling cables. These clamps consist of two parts. The clamping base for mounting onto a panel and the elastical loop.

Features and benefits

- 2-piece fixing system consisting of a clamping base (C-part) and a reusable retaining ring (R-part)
- Allows cables to be added or removed after installation without tools
- Elastic loop enables quick and secure cable fastening by simply stretching over the clamp
- Suitable for dynamic environments where rework or maintenance is required
- Reopenable and reusable design supports sustainable cable management solutions
- Space-saving and simple method for routing and bundling cables on control panels

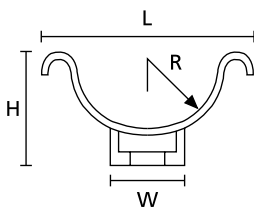


Cradle clamp - 2-piece fixing part consisting of clamp and retaining ring. The simple and versatile method of bundling cables.

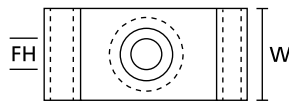


2-Piece fixing cradle clamp.

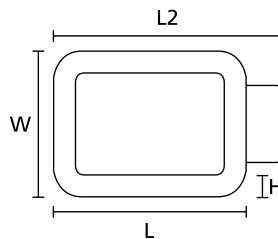
Material specifications: See Article-No. on our website.



Cradle clamp (front view)



Cradle clamp (plan view)



Retaining ring R1 - 3

TYPE	Width (W)	Length (L)	Length (L2)	Height (H)	Radius (R)	Hole Ø (FH)	Material	Colour	Article-No.
C1	12.7	22.0	-	14.0	6.3	4.8	PA6HIR	Black (BK)	201-10010
C2	12.7	35.0	-	18.0	11.0	4.8	PA6HIR	Black (BK)	201-10020
C3	12.7	48.0	-	25.0	17.5	4.8	PA6HIR	Black (BK)	201-10030
R1	23.8	16.0	22.0	3.2	-	-	PVC	Black (BK)	201-20010
R2	23.8	22.0	29.0	3.2	-	-	PVC	Black (BK)	201-20020
R3	23.8	33.0	39.0	3.2	-	-	PVC	Black (BK)	201-20030

All dimensions in mm. Subject to technical changes.



Strain relief clips

Klam-Klip (KK)

Strain relief clips for gripping cables up to 8.5 mm bundle diameter. Strain relief clip is simply attached to mounting surface with an M4 fixing screw.

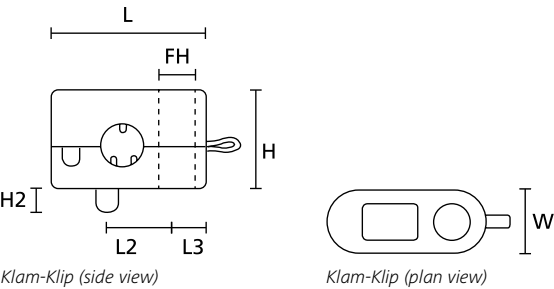
Features and benefits

- Simple 1-screw fixing to guide and secure leads
- Two halves of the clip are linked to ensure no loss of parts during re-wiring
- Anti-rotation pin prevents leads from twisting



Strain relief Klam-Klip in application.

Material specifications: See Article-No. on our website.

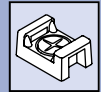


TYPE	Width (W)	Length (L)	Height (H)	Height (H2)	Hole Ø (FH)	Bundle Ø min.	Bundle Ø max.	Material	Colour	Article-No.
KK1	8.8	22.0	14.0	3.5	5.0	4.5	5.7	PA6HIR	Black (BK)	234-10100
KK2	8.8	22.0	14.0	3.5	5.0	5.5	6.7	PA6HIR	Black (BK)	234-10200
KK3	8.8	22.0	14.0	3.5	5.0	6.5	7.7	PA6HIR	Black (BK)	234-10300
KK4	8.8	22.0	14.0	3.5	5.0	7.5	8.5	PA6HIR	Black (BK)	234-10400

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Harness clip for heavy duty applications, for screws or threaded bolts

Standard torque mounts

These heavy duty mounts (HDM) have been primarily designed for use in the automotive and truck industry. Nowadays they can be found in a variety of applications requiring heavy duty mounting in areas like the railway, defence and/or agriculture industry.

Features and benefits

- Design offers secure alignment to the bundle
- Possible replacement of cushion clamps and/or metal clamps
- Eliminates the needs for multiple sized fix diameter clamps
- For heavy duty cable ties up to 12.7 mm width
- High tightening torque
- Easy maintenance of bundle by simply changing the cable tie



Heavy Duty Mounts HDM-Series, patent number US5820083.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
HDM19		19.3	36.3	16.7	4.7	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00134
HDM25		19.3	36.3	16.7	6.2	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00437
HDM312		19.3	36.3	16.7	7.8	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00439

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Medium torque mounts

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
HDM321		24.0	46.0	20.7	8.31	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-07100
HDM401		24.0	46.0	20.7	10.29	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-07300
HDM501		24.0	46.0	20.7	12.7	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-07500
CTMM6B		24.0	38.0	15.7	6.1	13.5	PA66HIRHS ST	Black (BK)	250 pcs.	151-03309
CTMSBM8		23.9	38.0	16.0	8.0	13.5	PA66HIRHS	Black (BK)	250 pcs.	151-03417
CTMM8		24.0	38.0	16.0	8.2	13.5	PA6GF30	Black (BK)	250 pcs.	151-03953
CTMM8B		24.0	38.0	15.7	8.1	13.5	PA66HIRHS ST	Black (BK)	250 pcs.	151-03333

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Harness clip for heavy duty applications, for screws or threaded bolts

High torque mounts

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
HDM320		25.0	47.0	20.7	8.31	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-02094
HDM400		25.0	47.0	20.7	10.29	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-01224
HDM500		25.0	47.0	20.7	12.7	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-02096
HDM375BDM4W-R		34.1	89.0	25.2	10.29	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-02104

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Two way saddle mount for heavy duty applications, for parallel separation

for screws or studs

Heavy duty saddle mounts can be installed between two bundles to separate them and prevent chafing and wear. Fastened to a frame rail or mounting bracket, the special profile on the saddle mount provides a tight circumferential loop on large and small bundles. The saddle mount is an ideal assistant in many applications within the railway, truck and agricultural vehicle construction as well as in the ship building industry.

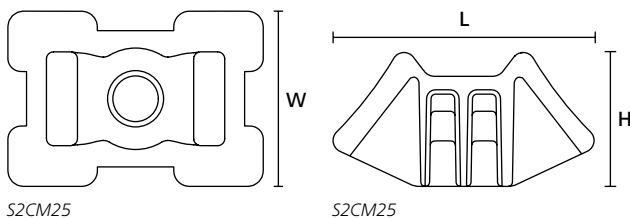
Features and benefits

- For parallel routing of different bundles to avoid wear and chafing
- Offers secure alignment to the bundle
- Can be used in combination with heavy duty cable ties
- Easy maintenance of bundle by simply changing the cable tie
- S2HM25 can be used with hex head screws 6.35



This saddle mount is installed between two bundles to separate them and prevent chafing and wear.

Material specifications: See Article-No. on our website.



S2CM25

S2CM25

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
S2CM25		30.0	45.0	23.0	6.0 6.35	13.5	PA66HIRHS	Grey (GY)	500 pcs.	151-29400
S2HM25		30.0	45.0	23.0	6.0 6.35	13.5	PA66HIRHSUV	Black (BK)	500 pcs.	151-29403
DCTMM8		23.9	52.0	15.5	8.3	13.5	PA6GF30	Black (BK)	150 pcs.	151-03955
DCTMM6B		23.9	52.0	15.5	M6	13.5	PA66HIRHS ST	Black (BK)	100 pcs.	151-04125
DCTMSBM8		23.9	52.0	15.5	8.3	13.5	PA66HIRHS	Black (BK)	150 pcs.	151-03954
DCTMM8B		23.9	52.0	15.5	M8	13.5	PA66HIRHS ST	Black (BK)	150 pcs.	151-04446

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Harness clip for heavy duty applications, for screws or threaded bolts for edges

SA-Series

This axial oval mount stands off bundles from frame rails and cross members to prevent them from rubbing and chafing. They can be perfectly used in combination with heavy duty cable ties up to 12.7 mm width – ideal to securely fix cables and wires in the railway and shipbuilding industry as well as in truck and agricultural vehicle construction.

Features and benefits

- Guides bundles securely above sharp edges
- For threaded bolts or screws
- Can be used in combination with heavy duty cable ties
- For cable ties up to 12.7 mm width



Axial oval mounts stand off bundles from frame rails and cross members to prevent them from rubbing and chafing.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
SAM83		26.0	34.0	35.0	8.0	12.7	PA66HIRHS	Grey (GY)	500 pcs.	151-29600
SAOM82		26.0	34.0	35.0	8.0	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-29701
SAM320B-R		25.0	29.9	44.9	8.31	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-02099
SAM400B-R		25.0	29.9	44.9	10.29	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-02102

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Heavy duty mounts for 3-way routing

for screws or studs

These 3-way routing saddle mounts are designed to secure up to three bundles for multiple routing and reduce chaving or wear to those bundles. Applicable for various applications within the OEM, mass transit, defence or heavy truck and automotive markets.

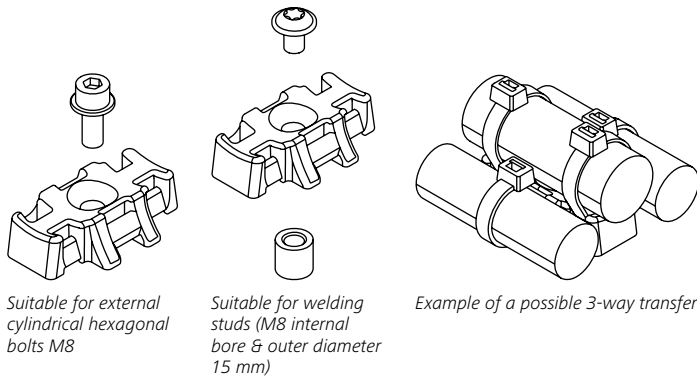
Features and benefits

- For parallel routing of bundles
- Secure alignment to the bundle due to H-design
- Easy maintenance of bundle by simply changing cable tie
- Cable tie head can be moved after bundling



S3SB15CBM8 and S3CBM8.

Material specifications: See Article-No. on our website.



Suitable for external cylindrical hexagonal bolts M8

Suitable for welding studs (M8 internal bore & outer diameter 15 mm)

Example of a possible 3-way transfer

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
S3CBM8		46.0	70.0	18.6	9.0	PA6GF30	Black (BK)	500 pcs.	151-01040
S3SB15CBM8		46.0	70.0	18.6	9.0	PA6GF30	Black (BK)	500 pcs.	151-01010
S3SBM8		46.0	70.0	18.0	9.0	PA66HIRHS	Black (BK)	500 pcs.	151-02092

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Ratchet P-Clamp

The Ratchet P-Clamp family offers versatility when managing wires, cables and hoses. The robust design and durable materials make it ideal for heavy duty applications, both in- and outdoors. The one-piece adjustable clamp can be closed by hand to the desired diameter. The release feature provides easy and nondestructive removal of cables simply by using a flat-head screwdriver. This nondestructive release allows the clamp to be reused without removing or replacing any bolts or screws. The Ratchet P-Clamp is offered in four sizes and multiple mounting configurations.

Features and benefits

- One-piece ratchet closure design allows for easy installation during pre- or final assembly
- Multiple configurations handle a wide range of diameters and applications, reducing part inventory
- Clamp interior is designed to guide and center bundle to reduce pinching
- Easy release feature allows for quick adjustments and maintenance
- Impact modified, heat and UV stabilized PA66 provides long-term durability, in- and outdoors
- Steel mounting plate tolerates high torque mounting and is treated to resist chemicals and salt spray

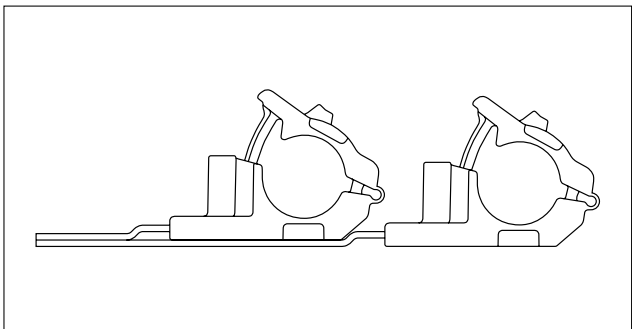


Ratchet P-Clamp - A more versatile way to mount and clamp cables.

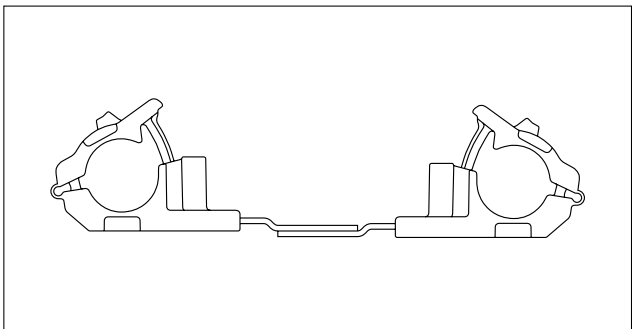
Multiple configurations

The wiring schemes in heavy duty applications become more complex day after day. Using a single mounting point, you can combine Ratchet P-Clamps to match the number, position and diameters of the wires or bundles inherent to today's wire management challenges. You will see

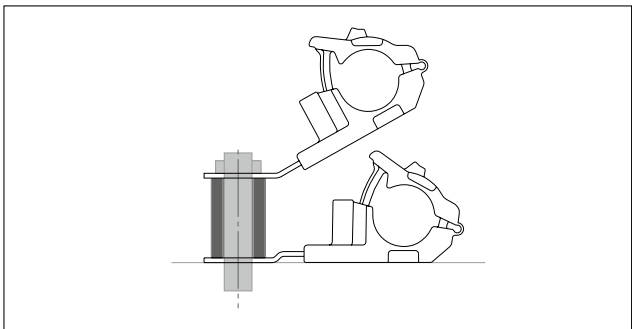
below just a few of the nearly endless number of configurations you can arrange by mixing Ratchet P-Clamps of varying sizes and different mounting plates.



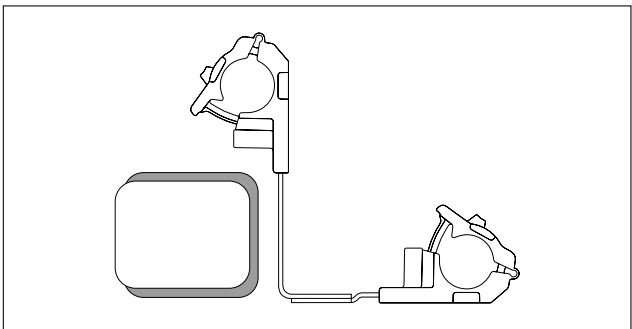
You can piggy-back Ratchet P-Clamps by using different length mounting plates to secure parallel cable configurations.



Ratchet P-Clamp mounting plates are shaped to allow face-to-face positioning. By using different length mounting plates, you can vary the distance between bundles and take advantage of the optimal routing path.



Add a spacer between Ratchet P-Clamps to speed installation and maintenance of stacked wire bundles.



90° angle mounting plates enable you to work around obstacles and protect wire from contacting moving parts.



For bundle diameters from 6.2 mm to 13.7 mm, A-Series

TYPE	Drawing	Width (W)	Length (L2)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCA180LM6		34.9	134.1	6.2	13.7	6.5	101.5	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01639
RCA180MM6		34.9	105.1	6.2	13.7	6.5	72.5	Medium	PA66HIRHSUV ST ZN	Black (BK)	151-01638
RCA180SM6		34.9	83.1	6.2	13.7	6.5	50.5	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01637
RCA180SM8		34.9	83.1	6.2	13.7	8.31	50.5	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01416
RCA90LM8		34.9	96.8	6.2	13.7	8.31	24.9	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01437
RCA90SM6		34.9	68.8	6.2	13.7	6.5	24.9	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01643

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



For bundle diameters from 12.7 mm to 19.5 mm, B-Series

TYPE	Drawing	Width (W)	Length (L2)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCB180SM6		34.9	83.1	12.7	19.5	6.5	52.8	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01645
RCB180SM8		34.9	83.1	12.7	19.5	8.31	52.8	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01440
RCB180SM10		34.9	83.1	12.7	19.5	10.29	52.8	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01390
RCB180SM12		34.9	83.1	12.7	19.5	12.95	52.8	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01441
RCB90LM8		34.9	96.8	12.7	19.5	8.31	26.7	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01460
RCB90SM6		34.9	68.8	12.7	19.5	6.5	26.7	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01651
RCB90SM8		34.9	68.8	12.7	19.5	8.31	26.7	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01457

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



For bundle diameters from 19.4 mm to 36.0 mm, C-Series

TYPE	Drawing	Width (W)	Length (L2)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCC180LM6		34.9	154.0	19.4	36.0	6.5	113.3	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01655
RCC180SM6		34.9	103.0	19.4	36.0	6.5	62.3	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01653
RCC180SM8		34.9	103.0	19.4	36.0	8.31	62.3	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01474
RCC90LM6		34.9	129.2	19.4	36.0	6.5	39.9	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01660
RCC90LM8		34.9	129.2	19.4	36.0	8.31	39.9	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01495
RCC90SM6		34.9	101.2	19.4	36.0	6.5	39.9	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01659
RCC90SM8		34.9	101.2	19.4	36.0	8.31	39.9	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01492

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

For bundle diameters from 36.0 mm to 51.0 mm, D-Series

TYPE	Drawing	Width (W)	Length (L2)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCD180SM8		34.9	115.5	36.0	51.0	8.31	70.0	Short	PA66HIRHSUV ST ZN	Black (BK)	151-01499
RCD90LM8		34.9	116.7	36.0	51.0	8.31	42.4	Long	PA66HIRHSUV ST ZN	Black (BK)	151-01521

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Ratchet P-Clamp Accessories

Protection inserts

Soft material inserts snap precisely into the body of the clamp to provide an enhanced level of protection for applications with movement, high vibration or soft cable bundles. An integrated rib on the top of the insert prevents a lateral displacement of the corrugated tube, for e.g. acceleration. This provides secure fastenings of a corrugated tube with vertical and horizontal alignment.

Features and benefits

- Soft inserts (for A - D Series) for an additional level of protection
- Torque support for defined contact pressure
- Use of manual processing Tool EVO possible
- CT-Insert offers low fire hazard and is conform to low smoke generation requirements (UL94 V0)
- CT-Insert offers low evolution of toxic gases and corrosive acids in event of an fire

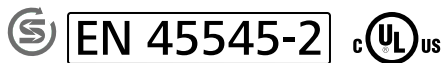


Ratchet P-Clamps soft inserts offering an additional level of protection.

Material specifications: See Article-No. on our website.

TYPE	Width (W)	Bundle Ø min.	Bundle Ø max.	Description	Material	Colour	Article-No.
RCINSERTA	13.1	3.2	10.7	For A-Series	TPE	Black (BK)	151-01530
RCINSERTB	20.0	8.7	15.5	For B-Series	TPE	Black (BK)	151-01531
RCINSERTC	33.8	15.4	32.0	For C-Series	TPE	Black (BK)	151-01532
RCD-CT-INSERT	34.9	34.0	47.0	For convoluted tubes, D-Series	PA666V0	Black (BK)	151-02964
RCINSERTD	50.8	32.0	47.0	For D-Series	TPE	Black (BK)	151-01533

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Ratchet P-Clamp accessories

Tension tab

The Tension Tab enables installers to apply a specific clamp tension when used with manual processing Tool of the EVO Series hand tools.

Features and benefits

- For pre-determined clamp pressure, a tension tab is available
- Tension tab for use with our EVO-Series hand tools
- Built-in channel on Ratchet P-Clamp makes using Tension Tabs quick and easy



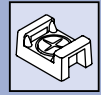
Tension tab can be used to ensure specific tension.

TYPE	Material	Colour	Article-No.
RCTT	PA66HIRHSUV	Black (BK)	151-01529

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heavy duty cable clamps

screwable, Inline Ratchet Clamps

The Inline Ratchet Clamp family is a perfect fit when facing space constraints or where offset mounting options are not ideal. Easily twists onto existing threaded rods, eliminating the need for additional hardware. The robust design and durable materials make it ideal for heavy duty applications, both in- and outdoors. The one-piece adjustable clamp can be closed by hand to the desired diameter. The release feature provides easy and nondestructive removal of cables simply by using a flat-head screwdriver. This allows the clamp to be reused without removing or replacing any bolts or screws.

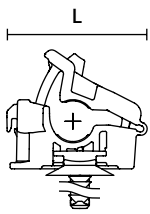
Features and benefits

- Building on the Ratchet P-Clamp family, the Center Mount Ratchet Clamp (CMRC) family offers fast and versatile installation of lines, hoses and cables
- Designed for applications where space is limited or when a staggered mounting option is not ideal
- Depending on the variant, the CMRC can be screwed on with an M6/M8/M10 screw or attached to an M8 threaded bolt
- The variants for bolt attachment enable time-saving installation with a reliable hold



The Inline Ratchet Clamp family is a perfect fit when facing space constraints.

Material specifications: See Article-No. on our website.



In-Line Ratchet P-Clamp

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Bundle Ø min.	Bundle Ø max.	Material	Colour	Article-No.
CMRCBLM6	35.1	86.1	30.4	6.3	12.7	19.6	PA66HIRHSUV	Black (BK)	151-03540
CMRCCSMM6	35.1	125.3	30.4	-	19.3	36.1	PA66HIRHSUV	Black (BK)	151-03555
CMRCCSMM8	35.1	125.3	30.4	-	19.3	36.1	PA66HIRHSUV	Black (BK)	151-03556
CMRCCLM6	35.1	125.3	30.4	6.3	19.3	36.1	PA66HIRHSUV	Black (BK)	151-03550
CMRCCHM6	35.1	125.3	30.4	7.1	19.3	36.1	PA66HIRHSUV	Black (BK)	151-03547
CMRCDHM10	35.1	149.7	30.4	11.2	36.1	50.8	PA66HIRHSUV	Black (BK)	151-03560

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Aluminium P-Clamps

Alu-P-Clamp with / without chloroprene insert

Manufactured from a high quality aluminium, these metal P-Clamps provide flexibility whilst providing a permanent fixing in the most arduous of environments. The addition of a chloroprene insert provides the cable or pipe bundle with a high degree of protection against vibration, reducing noise and also providing electrical isolation. They are commonly used in caravan construction, the defence and railway industry as well as in the renewable energy sector.

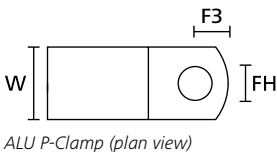
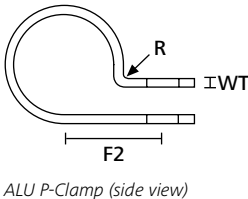
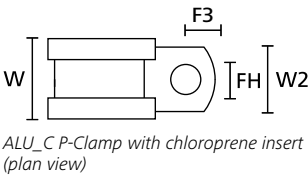
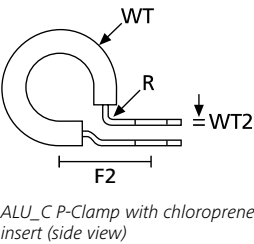
Features and benefits

- Simple and secure pipe or cable fixation
- Can be combined with chloroprene rubber for vibration resistance
- Ideal for use in high temperature applications
- Suitable for applications needing strength of metal components



P-Clamps manufactured in polyamide, aluminium or aluminium with a chloroprene insert.

Material specifications: See Article-No. on our website.

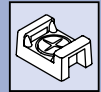


TYPE	Drawing	Wall (WT2)	Hole Ø (FH)	Fixing Hole Centres (F2)	Fixing Hole Centres (F3)	Bundle Ø max.	Material	Colour	Article-No.
ALU4C		0.8	5.2	11.6	5.5	3.2	AL CR	Black (BK)	211-15040
ALU6C		0.8	5.2	13.4	5.5	6.4	AL CR	Black (BK)	211-15060
ALU8C		0.8	5.2	15.0	5.5	9.5	AL CR	Black (BK)	211-15080
ALU12C		1.3	5.2	19.9	5.5	15.9	AL CR	Black (BK)	211-15120
ALU16C		1.3	5.2	23.1	5.5	22.2	AL CR	Black (BK)	211-15160
ALU19C		1.3	5.2	25.5	5.5	27.0	AL CR	Black (BK)	211-15190
ALU23C		1.6	5.2	29.4	5.5	33.3	AL CR	Black (BK)	211-15230
ALU4		-	5.2	11.6	5.5	6.4	AL	Natural (NA)	211-10040
ALU6		-	5.2	13.4	5.5	9.5	AL	Natural (NA)	211-10060

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Plastic P-Clamps

HP-Series

For permanent or semi-permanent cable fixings this range of plastic P-Clamps can be used in many industries. Their light weight makes them particularly suitable for use in areas such as aircraft and aerospace where minimising weight, but retaining a strong fixing, is vitally important.

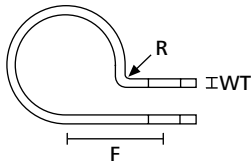
Features and benefits

- Manufactured from Polyamide
- Good temperature resistance and high strength
- Wide range of sizes for every application
- Can be used without cable ties



P-Clamps H1P - H18P in different dimensions.

Material specifications: See Article-No. on our website.



P-Clamp H1P - H18P (side view)



P-Clamp H1P - H18P (plan view)

TYPE	Hole Ø (FH)	Fixing Hole Centres (F)	Bundle Ø max.	Material	Colour	Article-No.
H1P	4.2	8.5	3.2	PA66HS	Black (BK)	211-60000
H2P	4.2	9.5	5.0	PA66HS	Black (BK)	211-60001
H3P	4.2	10.0	6.5	PA66HS	Black (BK)	211-60002
H4P	4.2	10.0	8.0	PA66	Natural (NA)	211-60049
	4.2	10.0	8.0	PA66HS	Black (BK)	211-60003
H5P	4.2	11.0	9.5	PA66	Natural (NA)	211-60059
	4.2	11.0	9.5	PA66HS	Black (BK)	211-60004
H6P	4.2	13.0	11.0	PA66	Natural (NA)	211-60069
	4.2	13.0	11.0	PA66HS	Black (BK)	211-60005
H7P	4.2	14.0	12.5	PA66HS	Black (BK)	211-60006
H8P	4.2	15.0	14.0	PA66HS	Black (BK)	211-60007
H9P	4.2	16.0	16.0	PA66HS	Black (BK)	211-60008
H10P	4.2	17.0	17.5	PA66HS	Black (BK)	211-60009
H11P	4.2	18.0	19.0	PA66	Natural (NA)	211-60119
H12P	4.2	19.0	20.5	PA66	Natural (NA)	211-60129
H13P	5.2	20.5	22.0	PA66	Natural (NA)	211-60139
H14P	5.2	21.5	24.0	PA66	Natural (NA)	211-60149
H15P	5.2	23.0	25.5	PA66	Natural (NA)	211-60159
H16P	5.2	24.0	28.5	PA66	Natural (NA)	211-60169
H18P	5.2	27.5	35.0	PA66	Natural (NA)	211-60189

All dimensions in mm. Subject to technical changes.



EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



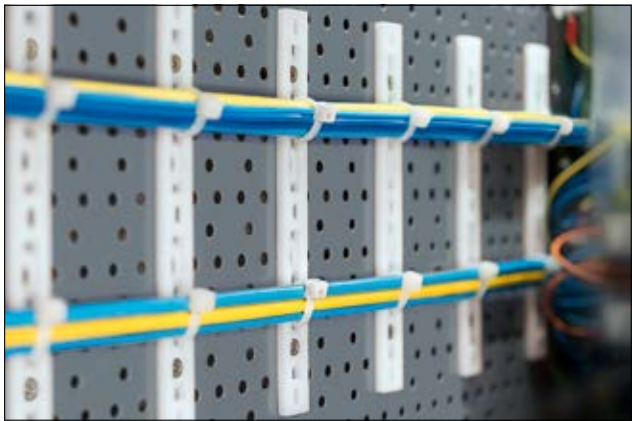
Mounting plates for screw fixing

MP-Series for parallel bundling

Many applications require each cable run to be firmly held in place but to be held separately from adjacent cable runs (example - control cabinets, machinery and military systems). The MP series of mounts can achieve this.

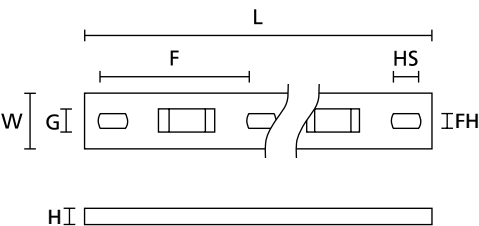
Features and benefits

- Allow multiple cables to run in parallel
- Simple to fix with two screws
- Cables are fixed by using a cable tie through any combination of the available slots

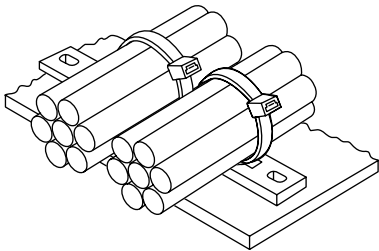


Screwable mounting plate MSMP.

Material specifications: See Article-No. on our website.



Mounting plates MP and MSMP (plan and side view)



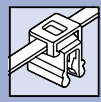
Mounting plates in application

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	No. of bundles	Material	Colour	Pack Cont.	Article-No.
MP2M3	12.7	76.2	3.2	3.7	5.2	2	PA66	Natural (NA)	100 pcs.	151-24219
MP3M3	12.7	108.0	3.2	3.7	5.2	3	PA66	Natural (NA)	100 pcs.	151-24319
MP4M3	12.7	139.8	3.2	3.7	5.2	4	PA66	Natural (NA)	100 pcs.	151-24419
MSMP6/6	15.7	243.0	5.3	3.8	7.6	6	PA66	Natural (NA)	100 pcs.	151-25619
MSMP5/10	15.8	204.5	5.3	5.1	7.6	5	PA66	Natural (NA)	100 pcs.	151-25519
MSMP4	15.9	167.0	5.2	5.1	8.2	4	PA66	Natural (NA)	500 pcs.	150-83499

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties for edges

EdgeClip-Series

The S50SOSEC1.5-4.0 mm is a one-piece fastening tie for edges, designed for fast and secure cable bundling directly on panel edges. It is suitable for edge thicknesses from 1.5 to 4.0 mm and can be mounted both parallel and perpendicular to the edge - offering a high degree of flexibility during installation.

The integrated PFAS-free spring steel clamp ensures a firm hold on various edge geometries without the need for additional fasteners. The product can be installed easily by hand or automatically. Ergonomic and controlled installation to protect workers and increase efficiency meets USCAR installation force requirements.

Made from sustainable polypropylene (PP) and featuring an anti-slip engraving, the S50SOSEC supports secure cable routing even in the event of vibrations while contributing to a reduced environmental footprint.

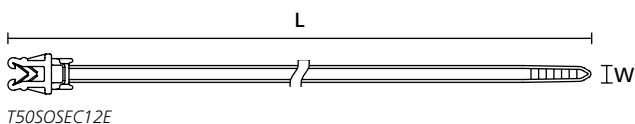
Features and benefits

- Can be installed straight or perpendicular to the edge
- PFAS-free spring steel clip
- Made from PP – lightweight, chemically resistant, and with a 55% lower carbon footprint compared to PA66
- Can be attached by hand and can also be automated with our tools
- Anti-slip engraving prevents the cable from moving during vibrations or transportation
- Ergonomic design with a 55% lower assembly force and ≤ 30 N compared to similar products – supports employee health, improves ease of use, and enhances assembly efficiency
- Meets USCAR mounting force requirements for safe and standardized installations



Ergonomically designed one-piece fastening tie with 100% PFAS-free EdgeClip and anti-slip engraving — allows ≤ 30 N insertion forces for efficient processing, can be rotated around the cable, yet stays securely fixed in position along the harness.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Article-No.
S50SOSEC1.5-4TVE		1.5 - 4.0	5.5	160.0	30.0	200	PP C75S	BK, SR	126-00465
S50SOSEC1.5-4.0SVE		4.0 - 1.5	5.5	157.0	30.0	200	PP C75S	BK, SR	126-00471

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



1-piece fixing ties for edges

EdgeClip series

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. Once the cable tie is fastened around the cables the EdgeClip is presented ready for attaching to the panel. Widely used within the automotive and panel building industries these cable ties and EdgeClips save time and money.

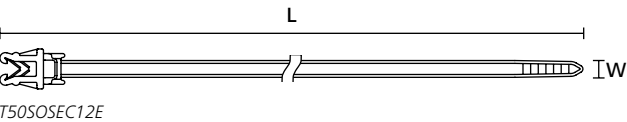
The silver-grey clamp, the heart of our EdgeClips, consists of doubletempered spring steel in accordance with DIN EN 10132-4 C75S. The spring steel gives the clamp both the necessary rigidity to provide high pull-off forces and also sufficient flexibility for various possible applications.

The double coating is applied initially with a zinc plate system followed by inorganic surface sealing. Naturally, no chromium (VI) is used in this process. The clamp therefore complies with the current EU Directive 200/53/EC on end of life vehicles and the prohibition on heavy metals. The refined spring-steel clamp also fulfils the requirements for resistance to salt spray stipulated in DIN EN ISO 9227 NSS (min. 840 h without corrosion of base metal) and DIN EN ISO 6270-Z-CH (min. 720 h without corrosion of base material).

This solution has therefore been approved by many OEMs for exposed installation locations, e.g. in engine compartments and the running-gear area.

Features and benefits

- Easy assembly, just clip on per hand
- For edges of 1 - 3 mm, 1.5 - 4 mm, 3 - 6 mm, 4 - 6 mm or 6 - 8 mm
- Integrated metal clamp holds clip firmly in place
- Clamp consists of double tempered steel spring
- Ideal for applications where holes or adhesives are not suitable



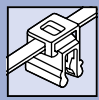
1-Piece Fixing Tie T50SOSEC12 can be pushed easily on edges.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSEC12E		1.0 - 3.0	4.6	160.0	35.0	150	PA46	GY	1-2;4-7;25	126-00253
		1.0 - 3.0	4.6	160.0	35.0	180	PA66HS	BK	1-2;4-7;25	148-00200
T50SOSEC13E		1.0 - 3.0	4.6	160.0	35.0	180	PA66HS	BK	1-2;4-7;25	126-00000
T40XEC5SP-E		1.0 - 3.0	4.0	85.0	15.0	178	PA66HS	BK	1-2;4-5;25	133-00059

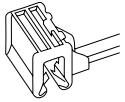
Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



1-piece fixing ties for edges

EdgeClip series

TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSEC34E		1.0 - 3.0	4.6	155.0	35.0	180	PA66HS	BK	1-2;4-7;25	126-00426
T50SOSEC20-E		3.0 - 6.0	4.6	150.0	35.0	180	PA66HS	BK	1-2;4-5;25	126-00235

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for edges

EdgeClip-Series, 0.5 - 2.5 mm, top fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where adhesives will fail due to temperature problems. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry. These EdgeClips are specially designed for applications where space is limited such as in mirrors and headlights.

Features and benefits

- For flat edges
- For thin edges 0.5 - 2.5 mm
- Small housing for limited space
- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling



T30ROSEC0.5-2,5SPV for application on thin edges.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T30ROSEC0.5-2.5TP-SD		3.4	145.0	30.0	133	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01543
T30ROSEC0.5-2.5TPVA		3.4	145.0	30.0	133	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01542

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

EdgeClip-Series, 0.5 - 2.5 mm, side fixing

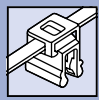
TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T30ROSEC0.5-2.5SP-SVA		3.4	145.0	30.0	133	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01797
T30ROSEC0.5-2.5SP-SVB		3.4	145.0	30.0	133	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01546

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm, top fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

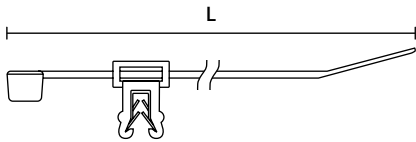
Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 - 3 mm



Edge Clip 10 (EC10) fitted onto a plastic panel to hold a Ø 6 mm harness.

Material specifications: See Article-No. on our website.



Fixing Tie with Edge Clip

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T30REC4A		3.6	148.0	33.0	135	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-76090
T50SOSEC4A		4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-76093
T50ROSEC4A		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-76099
		4.6	200.0	45.0	225	PA66W	BK	1-2;4-7;25	156-00570
T50REC4A		4.6	202.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-76091
S50ROSEC4A		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03575
T30REC4B		3.6	148.0	35.0	135	PA66HS PA66HIRHS	BK	1-2;4-5;25	150-76080
T50SOSEC4B		4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00109
T50ROSEC4B		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-76079
S50ROSEC4B		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03580
		4.9	200.0	45.0	185	PP PA66HIRHS	BK, BN	5	156-03589

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)

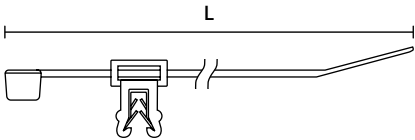


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm, top fixing



Fixing Tie with Edge Clip

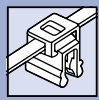
TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18REC10SD		2.5	100.0	22.0	80	PA66HS PA66HIRHS	BK	1-2;4-5;25	155-38304
T50SOSEC10		4.6	150.0	31.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00015
T50ROSEC10		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-05904
S50ROSEC10		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03574
T18REC9SD		2.5	100.0	22.0	80	PA66HS PA66HIRHS	BK	1-2;4-5;25	155-37104
T50SOSEC9SD		4.6	150.0	31.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00019
T50ROSEC9		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-05903
T50REC9		4.6	202.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-01280
S50ROSEC9		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03579

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm, side fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 – 3 mm



T50ROSEC23 - the cable bundle runs parallel with the edge.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T30REC5A		3.6	148.0	33.0	135	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-00003
T50SOSEC5A		4.6	150.0	31.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-40593
T50ROSEC5A		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-40591
S50ROSEC5A		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03573
T50SOSEC5B		4.6	150.0	31.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-40583
T50REC5B		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-40582
T50ROSEC5B		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-40581
S50ROSEC5B		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03583
T18REC21		2.5	100.0	18.0	80	PA66W PA66HIRHS	BK	1-2;4-5;25	156-01231
T50SOSEC21		4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00017
T50ROSEC21		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00010
T80REC21		4.7	205.0	55.0	355	PA66HS PA66HIRHS	NA, BK	1-2;4-5;25	156-01728
S50ROSEC21		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03572
T50ROSEC22		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00011
S50ROSEC22		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03582

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-piece fixing ties for edges

EdgeClip-Series, 3.0 - 6.0 mm, top fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- For minimum bundle diameters of 1 mm
- For edges of 3 – 6 mm

Other combinations between cable tie and foot part available on request.



Fixing Tie with EdgeClip for thick edges.

Material specifications: See Article-No. on our website.

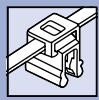
TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18ROSEC19		2.5	100.0	20.0	80	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-04600
T50SOSEC19		4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-04601
T50ROSEC19		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-04602
S50ROSEC19		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03578
T50SOSEC20		4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00016
T50ROSEC20		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00020
S50ROSEC20		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03577

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



EdgeClip series, 3.0 - 6.0 mm, side fixing

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50ROSEC23		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00006
S50ROSEC23		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03576
T50ROSEC24		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00007
S50ROSEC24		4.9	200.0	45.0	185	PP PA66HIRHS	BK	5	156-03584

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

2-piece fixing ties for edges

EdgeClip-Series, 6.0 - 8.0 mm, top fixing

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50ROSEC6-8		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-02700

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for edges

EdgeClip-Series, twistable

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where adhesives will fail due to temperature problems. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

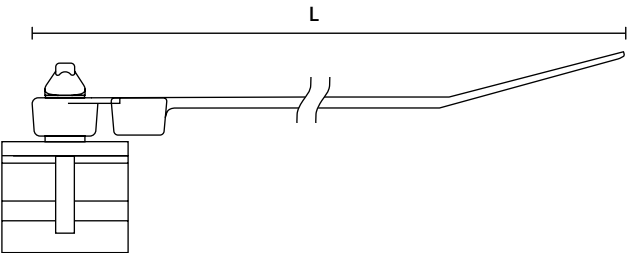
Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Easy to assemble by hand
- Cable tie head can be moved after bundling
- For edges of 1 – 2.5 mm or 1 – 3 mm
- Can be rotated to the desired position



EdgeClip CBTO50R, rotatable 90°.

Material specifications: See Article-No. on our website.

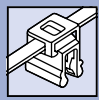


CBT30MR

TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
CBT30MR		1.0 - 2.5	3.5	160.0	32.0	135	PA66HS POM	BK	1-2;4-5;25	156-00049
CBTO50R		1.0 - 3.0	4.6	202.0	47.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-01601
CBTOS50RSTUD5		1.0 - 3.0	4.6	202.0	47.0	225	PA66HS PA66HIRHS	BK	1-2;4-5;25	156-00380

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



3-piece fixing ties for edges

EdgeClip-Series, 1.5 – 4 mm

These cable ties and EdgeClip assemblies are ideal for parallel routing use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

Features and benefits

- Pre-assembled 3-piece fixing tie with EdgeClip
- For parallel routing of two harnesses
- For minimum bundle diameters of 2 mm
- For edges of 1.5 – 4 mm



TYPE	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Article-No.
T50ROSDEC1.5-4SP	1.5 - 4.0	4.6	200.0	50.0	225	PA66HS PA66HIRHS	BK	156-03291

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm

Features and benefits

- 2-piece fastening ties for edges for secure parallel routing of cable bundles
- Equipped with an integrated plastic side support for increased stability and surface contact
- Improved mechanical load distribution thanks to the additional molded support structure
- Designed for reliable hold during vibrations and movements
- Can be pushed onto the edge by hand
- Ideal for use in the automotive industry and in high-performance environments with demanding thermal and mechanical conditions thanks to the PA46

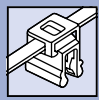


Efficient edge mounting - the EdgeClip ensures reliable cable routing along the panel edges without drilling.



TYPE	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	 N	Material	Colour	Article-No.
T50ROSDEC1-3SP	1.0 - 3.0	4.6	200.0	12.4	225	PA46	GY	156-03960

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Fixing elements for edges

for edges of 6.0 - 17 mm

Our Frame Clamp is useable for edges 6 - 17 mm. You can use this mount with cable ties or with the Fixing SFTP to route cables or harnesses. This article is perfectly made for heavy duty applications. With our EVO9 cable tie tool is the application very easy. The EVO9 tool ensures that the same tightening force is used each time the component is fitted, and the high-performance adhesive also supports the very good fit of the Frame Clamp.

Features and benefits

- For edges 6 - 17 mm
- for cables ties up to 8.3 mm width
- Recording suitable for Fixing SFTP
- For multiple routing



TYPE	Panel Thickness	Width (W)	Height (H)	Material	Colour	Article-No.
FrameClampBS-SET	6.0 - 17.0	28.0	61.6	PA6GF15	Black (BK)	151-04249

Recommended Tools: 7=EVO9i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Heavy duty harness clips

Beam clamps / Wedge clips

Primarily designed for use in the automotive/truck industry, these parts can be used in a wide variety of industries and applications where bundles need mounting. These heavy duty harness clips help to fix and secure cables, lines and hydraulic lines in truck, agriculture and railway vehicle construction, as well as in the ship building industry and industrial buildings.

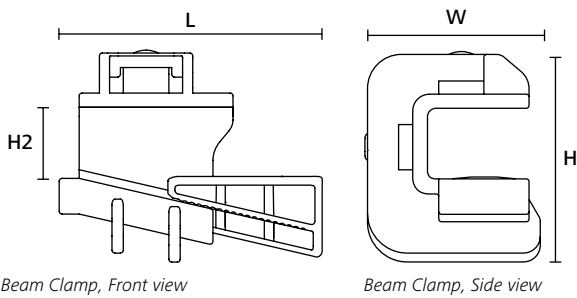
Features and benefits

- Easy to install
- No damage to surfaces
- Easy maintenance of bundle by simply changing cable tie
- Cable tie head can be moved after bundling
- Applicable to a wide range of panel thicknesses



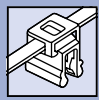
Two-piece ratcheting wedge design allows for easy, positive-locking size adjustment.

Material specifications: See Article-No. on our website.



TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Height (H)	Height (H2)	Material	Colour	Article-No.
Beam Clamp D		5.5 - 7.0	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-00886
Beam Clamp B		7.0 - 8.5	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-00822
Beam Clamp C		8.5 - 10.5	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-00823
Beam Clamp D with foam		5.5 - 7.0	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-01188
Beam Clamp B with foam		7.0 - 8.5	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-01186
Beam Clamp C with foam		8.5 - 10.5	28.6	46.2	36.7	12.5	PA6GF30	Black (BK)	151-01187

All dimensions in mm. Subject to technical changes.



Heavy Duty EdgeClip

HDEC-Series for heavy duty applications

The new Heavy Duty EdgeClips are specifically designed for high-load applications in challenging environments such as truck manufacturing, wind energy systems, and industrial installations including steel construction and structural beams. Installation can be carried out using either a dead blow hammer or, for the HDEC-Pre versions, water pump or channel lock pliers, offering flexibility on-site. The design allows for parallel routing of up to three cables and lines, supporting organized and efficient cable management even under demanding conditions.

Features and benefits

- PFAS-free metal clamp for environmentally conscious applications
- Supports up to three cable ties for secure multi-cable bundling
- Compatible with five panel thicknesses: 6–8 mm, 8–10 mm, 10–12 mm, 12–14 mm, and 14–16 mm
- Heavy-duty design ensures reliable performance in demanding environments



2-piece edge clip for heavy duty 14-16mm assembled

TYPE	Panel Thickness	Width (W)	Length (L)	Height (H)	Height (H2)	Material	Colour	Article-No.
HDEC6-8	6.0 - 8.0	30.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03628
HDEC6-8-PRE	6.0 - 8.0	30.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03631
HDEC8-10	8.0 - 10.0	31.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03627
HDEC8-10-PRE	8.0 - 10.0	31.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03632
HDEC10-12	10.0 - 12.0	33.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03626
HDEC10-12-PRE	10.0 - 12.0	33.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03633
HDEC12-14	12.0 - 14.0	35.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03629
HDEC12-14-PRE	12.0 - 14.0	35.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03634
HDEC14-16	14.0 - 16.0	37.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03630
HDEC14-16-PRE	14.0 - 16.0	37.0	40.0	36.0	23.0	PA6GF30 C75S	Black (BK)	156-03635

All dimensions in mm. Subject to technical changes.



Fixing elements for tubes and harnesses, for edges

EdgeClip-Series

EdgeClips are used in the automotive industry and electrical industries and when it is impossible to drill holes or no other fixing points are available.

Features and benefits

- Releasable fixing elements with EdgeClip
- Low-vibration routing of bigger bundle diameters
- Clips to be pushed onto an edge
- To be closed single handed, a snap can be felt
- Bundles can be released at any time
- EC27: fixing element enables usage of smaller bundle diameter
- EC41: for parallel guidance of two bundles



EdgeClip cable and tube clips are suitable for the low-vibration routing of cables and tubes with larger bundle diameters.

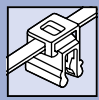
Material specifications: See Article-No. on our website.

TYPE	Drawing	Panel Thickness	Attach to Ø	Material	Colour	Article-No.
EC27		1.0 - 3.0	15.0 - 22.0	PA66HIRHS	Black (BK)	151-00161
HCEC3.0SP-C		1.0 - 3.0	12.0 - 15.0	PA66HIRHS	Black (BK)	151-01863
EC1-3TL7OTP		1.0 - 3.0	6.5 - 8.5	PA66HIRHS	Black (BK)	151-02588
EC1-3SPDHC6-7		1.0 - 3.0	5.8 - 6.8	PA11 C75S	Black (BK)	151-04387
		1.0 - 3.0	5.8 - 6.8	PA66HSUV	Black (BK)	151-03846
		1.0 - 3.0	5.8 - 6.8	PA66HSUV	Black (BK)	151-04010
DLOC12EC3-6TP		3.0 - 6.0	11.8 - 12.4	PA66HIRHS	Black (BK)	151-04199
EC1-3SVDHC6-7		1.0 - 3.0	5.8 - 6.8	PA11 C75S	Black (BK)	151-04529
		1.0 - 3.0	5.8 - 6.8	PA66HSUV MET	Black (BK)	151-04209
		1.0 - 3.0	5.8 - 6.8	PA66HSUV MET	Black (BK)	151-04455

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Automatic bundling

EdgeClip-Series for automatic cable tying systems

Clips to fix cables and harnesses in the automotive and white goods industry.

Features and benefits

- Optimized for use automatic cable tying systems
- Easy to apply
- The fixing elements can be tied automatically with Autotool System ATS



Automized clip application.

Can be used with Automatic Cable Tying Systems on page 596.

TYPE	Drawing	Panel Thickness	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
ATSEC38		1.5 - 4.0	16.4	15.0	14.5	PA66HIRHS	Black (BK)	102-68380
ATSEC37		1.5 - 4.0	16.4	15.0	14.7	PA66HIRHS	Black (BK)	102-68370
ATSEC35		1.5 - 4.0	10.0	15.0	18.9	PA66HIRHS	Black (BK)	102-68350
ATSEC36		1.5 - 4.0	10.1	15.0	19.0	PA66HIRHS	Black (BK)	102-68360
ATSEC19		3.0 - 6.0	14.0	14.8	18.5	PA66HIRHS	Black (BK)	102-68390

All dimensions in mm. Subject to technical changes.



2-Piece fixing ties with pipe clip, twistable 360° for multiple routing

Features and benefits

- Simply clip on a wire or hose
- Fixing clip offers full 360° rotation
- Routed cable can move in any direction in relation to the fixing point
- Inside serrated cable tie
- Made from PP/PA66HS: combines sustainability benefits of PP (lightweight, chemically resistant) with the robustness and heat stability of PA66HS



T50SVC5 rotates in any direction.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø		Material	Colour	Tools	Article-No.
T50SVC4S		4.7	155.0	35.0	3.8 - 4.2	225	PA66HS PP	BK, NA	1-2;4-7;25	156-00318

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-Piece Fixing Ties with Pipe Clip, twistable 360° for multiple routing

These inside serrated fixing ties provide the opportunity to attach a wire or hose to an existing harness. Offering a full 360 degrees rotation, the wire/hose can be oriented in any direction in relation to the main harness.

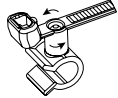
Features and benefits

- Simply clip on a wire or hose
- Fixing clip offers full 360° rotation
- Routed cable can move in any direction in relation to the fixing point
- Inside serrated cable tie
- Made from PP/PA66HIRHS: combines sustainability benefits of PP (lightweight, chemically resistant) with the robustness and heat stability of PA66HIRHS



T50SVC5 rotates in any direction.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø	N	Material	Colour	Tools	Article-No.
T50SVC6.5		4.7	155.0	35.0	6.5 - 8.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00155

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with pipe clip

twistable 360°

These inside serrated fixing ties provide the opportunity to attach a wire or hose to an existing harness. Offering a full 360 degrees rotation, the wire/hose can be oriented in any direction in relation to the main harness.

Features and benefits

- simply clip onto a wire or hose
- Fixing clip offers full 360° rotation
- Routed cable can move in any direction in relation to the fixing point
- Inside serrated cable tie
- Ideally used in the Automotive Industry



Cable tie combined with a 360° rotatable open clip that allows compensating movements and can be retrofitted to an already installed cable harness.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Attach to Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SVCOC10-14		10.0 - 14.0	4.7	155.0	35.0	222	PA46	GY	1-2;4-7;25	156-01045
T50SVCOC19-24.5		19.0 - 24.5	4.7	155.0	35.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00136

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with pipe clip

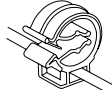
for multiple routing

Features and benefits

- Ideal for adding cables to pre-assembled cable harnesses.
- The open clip design makes it easy to insert additional cables
- Flexible cable routing - parallel or reverse cable routing
- The integrated retaining tab holds the cables securely in the clip and helps to reduce rattling and vibration noises



Material specifications: See Article-No. on our website.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø	N	Material	Colour	Tools	Article-No.
T50ROC1B		4.6	202.0	45.0	4.0 - 10.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00306

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with automatic harness clip

IAHC-Series

Features and benefits

- The cables activate the lock when they are pressed into the clamp, which enables quick, tool-free installation
- The free rotation between the clamp and the cable tie enables flexible positioning and optimised installation, even in difficult installation situations
- Supports different installation directions for maximum design flexibility
- IAHC = interconnectable automatic harness clip for multiple routing of cables and wires



T120R cable tie assembled with an IAHC.

Material specifications: See Article-No. on our website.

TYPE	Drawing	Attach to Ø	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50RIAHC1TICR		3.0 - 13.0	4.6	200.0	45.0	225	PA66HIRHS	BK	1-2;4-5;25	156-03377

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



2-piece fixing ties with fir tree

for parallel routing

This Fixing Element is pressed into a hole by hand and locked into place with a hearable click. Cable bundles can be applicated afterwards.

Features and benefits

- Pre-assembled 2-piece element with cable clip and cable tie for round holes
- For parallel routing of cables, hoses or harnesses
- Easy to install without the need for a tool
- Cable bundles can be applicated afterwards
- For direct fixation
- Removable
- ERGO optimized footpart design, for reduced assembly forces



Two piece fixing tie with fir tree for round holes and with harness clip for cables 11.0 - 15.0mm.

Material specifications: See Article-No. on our website.

TYPE	Hole Ø (FH)	Attach to Ø	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Article-No.
T50SHC11-15FT6.5	6.1 - 7.0 6.35	1.0 - 30.0, 11.0 - 15.0	0.5 - 3.5	4.6	160.0	30.0	225	PA66HS PA66HIRHS	BK	156-03281

All dimensions in mm. Subject to technical changes. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Fixing elements for tubes and harnesses

for multiparallel routing

The clips are used to guide HV cables, harnesses and tubes. The products are designed to offer high stability within the application. The ratchet closure makes it possible to guide different cable diameters in parallel.

Features and benefits

- 2-way clip for bundling and securing cables, for oval holes
- For parallel / multiple routing
- can be used without cable ties due to clip function
- Ratchet function allows for different cable diameters
- Clip can be opened for maintenance purposes without damaging the clip



Fixing element for parallel routing of two harnesses or tubes (12.2 - 18.0mm).

Material specifications: See Article-No. on our website.

TYPE	Hole Ø (FH)	Panel Thickness	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
DHC12.2-18.2FTOVAL	6.2 x 12.2	0.6 - 5.0	12.2	18.2	20.0	93.0	46.0	PA46	Grey (GY)	151-02966
	6.5 x 12.5									
	6.5 x 12.2									
	6.2 x 12.2	0.6 - 5.0	12.2	18.2	20.0	93.0	46.0	PA66HIRHS	Black (BK)	151-02965
	6.5 x 12.5									
	6.5 x 12.2									

All dimensions in mm. Subject to technical changes.



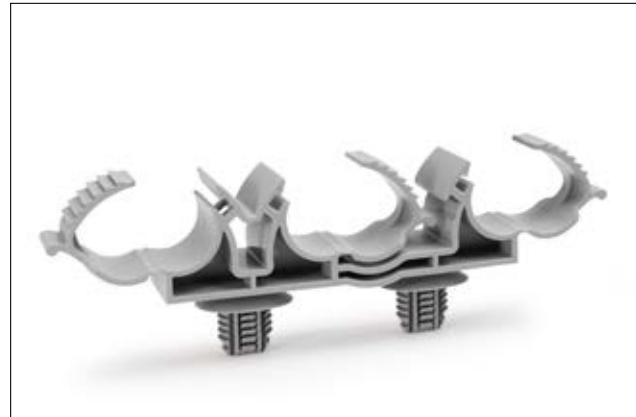
Fixing elements for tubes and harnesses

for multiparallel routing

The clips are used to guide HV cables, harnesses and tubes. The products are designed to offer high stability within the application. The ratchet closure makes it possible to guide different cable diameters in parallel.

Features and benefits

- 3-way clip for bundling and securing cables, for oval holes
- For parallel / multiple routing
- can be used without cable ties due to clip function
- Ratchet function allows for different cable diameters
- Clip can be opened for maintenance purposes without damaging the clip



Fixing element for parallel routing of three harnesses or tubes (12.2 - 18.2 mm).

Material specifications: See Article-No. on our website.

TYPE	Hole Ø (FH)	Panel Thickness	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
THC12.2-18.2FTOVAL	6.2 x 12.2 6.5 x 12.5 6.5 x 12.2	0.6 - 5.0	12.2	18.2	20.0	139.0	46.0	PA46	Grey (GY)	151-02968
	6.2 x 12.2 6.5 x 12.5 6.5 x 12.2	0.6 - 5.0	12.2	18.2	20.0	139.0	46.0	PA66HIRHS	Black (BK)	151-02967

All dimensions in mm. Subject to technical changes.



Fixing elements for multiple routing

with connecting element

Features and benefits

- Quick and easy installation
- Secure cable management and strain relief
- Adaptable design for various cable sizes and types
- Competitive pricing and long-term cost savings
- Minimize cable damage and safety hazards, ensuring reliable and long-lasting solar installations
- Affordable upfront costs and reduced maintenance expenses over the products lifecycle
- Reduce installation time, while optimizing project efficiency and labor costs
- Made from bio-based PA11, derived from castor oil, this solution combines high performance with a significantly reduced environmental footprint

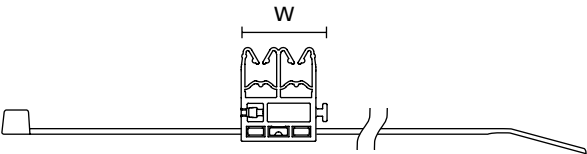


QwicGrip, paired with a cable tie, offers dependable and efficient cable management for solar panels.



New innovative QwicGrip for fastening to e.g. solar rails with cable ties.

Material specifications: See Article-No. on our website.



This innovative new Qwicgrip can be easily combined with cable ties from our portfolio that are up to 8.8 mm wide.

TYPE	Width (W)	Height (H)	Bundle Ø min.	Bundle Ø max.	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
QGDHC5.2-8.0M	23.0	25.1	5.2	8.0	8.8	PA11	Black (BK)	50 pcs.	151-04089
	23.0	25.1	5.2	8.0	8.8	PA66W	Black (BK)	50 pcs.	151-04088

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Snapper hose clips for tubes and harnesses

SNP-Series

Our SNP range can be used as an alternative to metal hose clamps. Snapper can be used in markets as diverse as automotive, agriculture, white goods, venting systems, pumps and hydraulic systems to medical engineering.

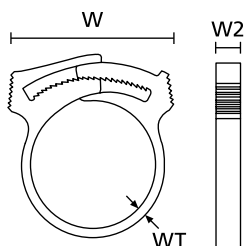
Features and benefits

- Releasable and reusable plastic hose clamps
- Self-locking
- Releasable by giving a lateral movement to the 'head'
- Installation by hand possible
- Installation with processing tool for a secure tensioning
- For higher operating temperatures: Glass Filled PA66



SNP - Snapper Hose Clips range.

Material specifications: See Article-No. on our website.



SNP - Snapper Hose Clip (front view)

SNP Clip (side view)

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W) min.	Width (W) max.	Width (W2)	Wall (WT)	Material	Colour	Article-No.
SNP2(E)	8.7	10.0	17.00	21.00	6.0	1.50	POM	Natural (NA)	191-10029
SNP3(E)	10.0	11.4	19.00	25.00	6.0	1.80	POM	Natural (NA)	191-10039
SNP4(E)	10.8	12.3	19.00	23.00	6.0	1.80	POM	Natural (NA)	191-10049
SNP6(E)	12.0	13.7	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10069
SNP8(E)	13.7	15.3	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10089
SNP10(E)	15.0	16.8	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10109
SNP12(E)	16.8	18.4	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10129
SNP14(E)	18.1	19.9	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10149
SNP16	19.3	21.5	19.00	24.00	6.0	1.90	POM	Natural (NA)	191-10169
SNP20(E)	22.7	24.7	20.00	26.00	6.0	1.80	POM	Natural (NA)	191-10209

All dimensions in mm. Subject to technical changes.



2.1 Heat Shrink Tubing

Product Selection	
Size Overview	252
The right Heat Shrink Tube	254
Heatshrinkable Tubing Overview	255
Thin wall	
ShrinKit 321 Basic - black, 3:1, cut pieces in compact kit	259
ShrinKit 321 Universal Basic, 3:1, coloured pieces in compact kit	260, 261
ShrinKit 321 Universal, 3:1, coloured pieces in large size reusable kit	262
HIS-PACK, 2:1, mini-reel in dispenser pack	265, 266
HIS Service Station, bundles	268
HIS-3, 3:1, mini-reel in dispenser pack	269, 270
HIS-3 BAG, 3:1, pre-cut pieces in blister bag	274, 275
TREDUX-Display	276
TREDUX, 1 m lengths	277, 278
LVR, 2:1, PVC	281
TL27, 2:1, halogen free	282
TCN20, 2:1, self extinguishing	283
TCN20 overexpanded, 3:1, self extinguishing	284
HFT-A, 2:1, flexible and coloured, self extinguishing	285
TF21, 2:1, flexible and coloured	288, 289, 290
TF24, 2:1, flexible and transparent; VG	291
TF31, 3:1, flexible and coloured	292, 293, 294
TF34, 3:1, flexible and transparent, VG	295
TR27, 2:1, halogen free and highly flame retardant	312
TK20, 2:1, PVDF semi-rigid in 1.2 m lengths	317
TFE2, 2:1, PTFE	318
TFE4, 4:1, PTFE	319
Thin wall with adhesive liner	
ShrinKit 321-A Basic, 3:1, cut pieces in large size reusable kit	263
ShrinKit 321-A, 3:1, adhesive lined cut pieces in compact kit	264
HIS-A, 3:1, tubing in dispenser pack	272
TA32, 3:1, 1.2 m lengths	296
TA42, 4:1, 1.2 m lengths	297
EPS-300, 3:1, on reel	298
EPS-400, 4:1, on reel	299
LVRK-L, cable repair kit	304
TA37, 3:1, Halogen free and flame retardant	313
SA47-LA, 4:1, 1.2 m lengths	314
TX46, 4:1, high temperature adhesive, self-extinguishing, 1.2 m lengths	315

Medium wall	
MU47, 4:1, 1 m lengths	303
SE28, 2:1, Elastomer	316
Medium wall with adhesive liner	
TREDUX MA47, 4:1, 1 m lengths	279
MA40, 4:1, flame retardant	300
MA47, 4:1, 1 m lengths	301, 302
MA47 Kit, 4:1, 1 m lengths in a Kit	302
RMS, Cable Repair Sleeves	305, 306
Thick wall with adhesive liner	
TREDUX HA47, up to 4:1, 1 m lengths	280
LVK, straight-through joint	307
LVK-C, straight-through joint with connectors	308
HA40, 4:1, flame retardant	309
HA47, 3.5:1, 1 m lengths	310
HA67, 6:1, 1.2 m length	311



2.2 Heat Shrink Moulded Shapes

Product Selection		
Low Profile Boots and Bulbous Boots Product Overview		320
Material Information		
Material Specifications		322
Adhesive Specifications		323
Low Profile Boots and Transitions		
Convolute Boots	Helashrink 313C Series, with adapter lip	324
Shim Boots	Helashrink 313E Series, without adapter lip	325
Straight Boots	Helashrink 313F Series, with adapter lip	326
Right Angle Boots	Helashrink 333F Series, with adapter lip, 90° angle	327
Transition Boots	Helashrink 412H Series, side breakout	328
	Helashrink 492H Series, 1 to 2 cables	329
	Helashrink 573H Series, 1 to 3 cables	330



Bulbous Boots and Transitions

Bottle Shapes	Helashrink 150 Series, with rib, VG	331, 332
	Helashrink 100 Series, with rib, MIL	333
	Helashrink 100 Series, without rib	334
	Helashrink 170 Series, with rib, VG	336
	Helashrink 190 Series, with external ribs, VG	337
Long Outlet Shape	Helashrink 130 Series, with rib, low profile, VG	335
2-Way Outlet Shapes	Helashrink 200 Series, low profile	338
	Helashrink 200 Series, VG	339
3-Way Outlet Shapes	Helashrink 200 Series, in line, low voltage	353
	Helashrink 300 Series, VG	340
4-Way Outlet Shapes	Helashrink 400 Series, VG	341
	Helashrink 400 Series, in line, low voltage	354
5-Way Outlet Shapes	Helashrink 500 Series, in line, low voltage	355
	Helashrink 1100 Series, with rib, VG	342
Right-Angle Shapes	Helashrink 1100 Series, with rib, MIL	343
	Helashrink 1100 Series, without rib	344
	Helashrink 1100 Series, with rib, low profile, VG style/MIL style	345
	Helashrink 1100 Series, with rib, low profile, high ratio, VG	346
	Helashrink 1200 Series, VG	347
T-Shapes	Helashrink 1200 Series, Offset, VG	348
Angled T-Shapes	Helashrink 1300 Series, 30° & 45° angle, VG	349
Angle Shapes	Helashrink 1800 Series, with rib, 30°, 45°, 60° angle	350
	Helashrink 1800 Series, 45° angle	351
	Helashrink 1800 Series, 45° angle	352
Locating Bushes	Helashrink 1760, 1790, 1820 Series	356
End Caps		
Low Voltage	Helashrink PEC Series, pinched	357
	Helashrink 1600 Series	358
Adhesives for Heat Shrinkable Moulded Shapes		
Hot Melt Tape	HMT200A	359
Two-Component Adhesive	V9500	360



2.3 Insulating Tubing

Chloroprene tubing and grommets

Helsyn H	361, 362
Helsyn TH - thin wall	362, 363
Installation aid for tubing and grommets	
Hellerine	364



Overview of Applications for Heat Shrink Tubing

When selecting the correct heat shrink tubing size, it is important to bear in mind the 80:20 rule. The heat shrink tubing must shrink by at least 20 % and not more than 80 % of its complete shrinkage capacity

to achieve the right result. In our overview of applications you will find the best heat shrink tube for every cable diameter. The 80:20 rule has of course been taken into account in the table.

Heat Shrinkable Tubing with a shrink ratio of 2:1

LVR, HFT-A, TL27, TF21, TF24, TK20, TFE2, TR27, TCN20, SE28

Shrink ratio 2:1 Size mm		Cable/ Wire Diameter
1.2/0.6		0.7 mm
		1.1 mm
3.2/1.6	2.4/1.2	1.4 mm
		1.9 mm
	4.8/2.4	2.2 mm
		2.9 mm
6.4/3.2	9.5/4.7	3.8 mm
		4.3 mm
	19.1/9.5	5.7 mm
		5.8 mm
12.7/6.4	38.1/19.1	7.7 mm
		8.6 mm
	76.2/38.1	11.4 mm
		15.2 mm
25.4/12.7		17.2 mm
		22.9 mm
		30.5 mm
		34.3 mm
50.8/25.4		45.7 mm
		61.0 mm
		68.6 mm
		91.4 mm

Heat Shrinkable Tubing with a shrink ratio of 3:1

With the optimal shrink ratio of 3:1, you can cover a wide range of applications with just a few sizes. This leads to reduced stock expenditure and requires less space. 3:1 heat shrink tubes: TREDUX, TF34, TF31, EPS-300, TCN20 overexpanded, TA32, TA37

Shrink ratio 3:1 Size mm		Cable/ Wire Diameter
1.5/0.5		0.7 mm
		1.3 mm
6/2	3/1	1.4 mm
		2.6 mm
		2.8 mm
		5.2 mm
18/6	12/4	5.6 mm
		8.4 mm
	24/8	10.4 mm
		11.2 mm
40/13		15.6 mm
		18.4 mm
		20.8 mm
		34.6 mm

Conversion from imperial to metric

Inch	1/32"	3/64"	1/16"	5/64"	3/32"	1/8"	3/16"	1/4"	3/8"
mm	0.8	1.2	1.6	2.0	2.4	3.2	4.8	6.4	9.5
Inch	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"
mm	12.7	15.9	19.1	25.4	31.8	38.1	50.8	76.2	101.6

4:1 and 6:1 heat shrink tubing is able to shrink down to 1/4 or 1/6 of its original supplied diameter. The higher shrink ratio allows 4:1 and 6:1 tubing to cover a large substrate and enables the tubing to fit over

large objects, like connectors and shrink down onto much smaller cable jackets.

Heat Shrinkable Tubing with a shrink ratio of 4:1

TREDUX MA47, TREDUX HA47, TA42, EPS-400, MA40, MA47, MU47, LVRK-L, RMS, LVK, LVK-C, HA40, HA47, SA47-LA, TX46, TFE4

Shrink ratio 4:1 Size mm			Cable/ Wire Diameter	
4/1	8/2		1.6 mm	
			3.2 mm	
			3.4 mm	
12/3		16/4	4.8 mm	
			6.4 mm	
			6.8 mm	
			9.6 mm	
	10.2 mm			
	12.8 mm			
32/8	24/6		13.6 mm	
				20.4 mm
			52/13	20.8 mm
	27.2 mm			
	44.2 mm			

Heat Shrinkable Tubing with a shrink ratio of 6:1

HA67

Shrink ratio 6:1 Size mm				Cable/ Wire Diameter	
19.0/3.2				6.4 mm	
	33.0/5.5			11.0 mm	
					14.8 mm
		44.4/7.4			15.8 mm
50.8/8.3				69.8/11.7	16.8 mm
			23.3 mm		
			27.5 mm		
		31.5 mm			
	88.9/17.1			37.0 mm	
				42.2 mm	
119.4/22.9				42.3 mm	
				58.2 mm	
			74.5 mm		
	235/40			79.0 mm	
			100.1 mm		
			196.0 mm		

The Right Heat Shrink Tube

The 80:20 rule means that a heat shrink tube should shrink by a maximum of 80 % and a minimum of 20 %.

For example:

A cable with a diameter of 5mm is to be wrapped in heat shrink tubing. In theory both sizes 6/2 and 12/4 would be suitable, since the required diameter of 5mm lies within the shrink range of both tube sizes.

Size 6/2

Maximum shrink (100 %)



Total shrinkage of 4 mm (6 mm – 2 mm)

Optimum shrinkage max. (80 %)



Shrinkage of 3.2 mm (4 mm x 0.8)

Optimum shrinkage min. (20 %)



Shrinkage of 0.8 mm (4 mm x 0.2)

Size 6/2 has a range of application of between 2.8 mm and 5.2 mm and is therefore suitable for the cable diameter of 5 mm.

Size 12/4

Maximum shrink (100 %)



Shrinkage of 8 mm (12 mm – 4 mm)

Optimum shrinkage max. (80 %)



Shrinkage of 6.4 mm (8 mm x 0.8)

Optimum shrinkage min. (20 %)



Shrinkage of 1.6 mm (8 mm x 0.2)

The smallest application diameter of size 12/4 is 5.6 mm. This size is therefore unsuitable for a cable diameter of 5 mm.

Calculator tool for Heat Shrink Tubing

The calculator tool for heat shrink tubing is a selection guide for shrink tubing sizes based on the object to be covered. Fill in your specification and the calculator presents the right tubing size according to the 80:20 rule. Find more information under

www.HellermannTyton.com/heatshrink-calculator

The calculator tool also checks if the heat shrink tubing you have chosen is suitable for your application. For example you can find the heat shrink tubing with the Product Search on the www.HellermannTyton.com website.

Heat Shrinkable Tubing Overview

TYPE	Packaging Type	Variant	Material	Shrink Ratio	Operating Temperature	Dimension (mm)	Colour	Specifications	Page
ShrinKit 321 Basic		Thin-Wall	PO-X	3:1	-55 °C to +135 °C		Black		259
ShrinKit 321 Universal Basic		Thin-Wall	PO-X	3:1	-55 °C to +135 °C		Black, Blue, Green-Yellow, Red, White		260, 261
ShrinKit 321 Universal		Thin-Wall	PO-X	3:1	-55 °C to +135 °C		Black, Blue, Green-Yellow, Red, Transparent		262
ShrinKit 321-A Basic		Thin-Wall Hot melt adhesive	PO-X	3:1	-55 °C to +110 °C		Black, Transparent		263
ShrinKit 321-A		Thin-Wall Hot melt adhesive	PO-X	3:1	-55 °C to +110 °C		Black, Transparent		264
HIS-PACK		Thin-Wall	PO-X	2:1	-55 °C to +125 °C	1.2 - 25.4	Black, Blue, Green-Yellow, Red, Transparent	2, 3	265, 266, 267
HIS-3		Thin-Wall	PO-X	3:1	-55 °C to +135 °C	1.6 - 25.4	Black, Blue, Green-Yellow, Red, Transparent	2, 3	269, 270, 271
HIS-A		Thin-Wall Hot melt adhesive	PO-X	3:1	-55 °C to +125 °C	3.0 - 24.0	Black, Transparent	2, 3	272, 273
HIS-3 BAG		Thin-Wall	PO-X	3:1	-55 °C to +135 °C	1.6 - 12.7	Black, Blue, Brown, Green-Yellow, Grey, Red, Transparent	2, 3	274, 275
TREDUX		Thin-Wall	PO-X	2:1, 3:1	-55 °C to +135 °C	1.5 - 101.6	Black, Green-Yellow	2, 3	277, 278
TREDUX MA47		Medium-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	12.0 - 95.0	Black		279
TREDUX HA47		Thick-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	19.0 - 85.0	Black		280
LVR		Thin-Wall	PVC	2:1	-20 °C to +80 °C	2.4 - 25.4	Black		281
TL27		Thin-Wall	PO-X	2:1	-70 °C to +135 °C	1.2 - 50.8	Black		282
TCN20		Thin-Wall	PO-X	2:1	-55 °C to +125 °C	1.2 - 50.8	Black	2, 3	283
TCN20 overexpanded		Thin-Wall	PO-X	3:1	-55 °C to +125 °C	2.4 - 38.0	Black	2, 3	284

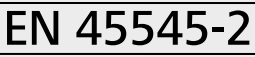
Heat Shrinkable Tubing Overview

TYPE	Packaging Type	Variant	Material	Shrink Ratio	Operating Temperature	Dimension (mm)	Colour	Specifications	Page
HFT-A		Thin-Wall	PO-X	2:1	-55 °C to +135 °C	1.2 - 102.0	Black, Blue, Green-Yellow, Red, White, Yellow	3, 9, 10, 11	285
TF21		Thin-Wall	PO-X	2:1	-55 °C to +135 °C	1.2 - 101.6	Black, Blue, Green-Yellow, Red, White, Yellow	3, 9	288, 289, 290
TF24		Thin-Wall	PO-X	2:1	-55 °C to +135 °C	1.2 - 101.6	Transparent	10, 11	291
TF31		Thin-Wall	PO-X	3:1	-55 °C to +135 °C	1.5 - 40.0	Black, Blue, Green, Green-Yellow, Red, White, Yellow	3, 9	292, 293, 294
TF34		Thin-Wall	PO-X	3:1	-55 °C to +135 °C	1.5 - 40.0	Transparent		295
TA32		Thin-Wall Hot melt adhesive	PO-X	3:1	-55 °C to +125 °C	3.0 - 40.0	Black	3, 9	296
TA42		Thin-Wall Hot melt adhesive	PO-X	4:1	-55 °C to +125 °C	4.0 - 52.0	Black	9	297
EPS-300		Thin-Wall Hot melt adhesive	PO-X	3:1	-55 °C to +125 °C	3.0 - 40.0	Black		298
EPS-400		Thin-Wall Hot melt adhesive	PO-X	4:1	-55 °C to +125 °C	4.0 - 32.0	Black		299
MA40		Medium-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	8.0 - 55.0	Black	4	300
MA47		Medium-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	8.0 - 140.0	Black		301
MU47		Medium-Wall	PO-X	up to 4:1	-55 °C to +110 °C	12.0 - 140.0	Black		303
LVRK-L		Shrink Cast	PO-X	4:1	-55 °C to +125 °C	24.0 - 24.0	Black		304
RMS		Shrink Cast Hot melt adhesive	PO-X	up to 4.5:1	-40 °C to +120 °C	43.0 - 185.0	Black		305, 306
LVK		Shrink Cast Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C		Black		307
LVK-C with connectors		Shrink Cast Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C		Black		308

Heat Shrinkable Tubing Overview

TYPE	Packaging Type	Variant	Material	Shrink Ratio	Operating Temperature	Dimension (mm)	Colour	Specifications	Page
HA40		Thick-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	9.0 - 92.0	Black	4	309
HA47		Thick-Wall Hot melt adhesive	PO-X	up to 4:1	-55 °C to +110 °C	9.0 - 180.0	Black		310
HA67		Thick-Wall Hot melt adhesive	PO-X	6:1	-55 °C to +110 °C	19.0 - 119.4	Black		311
TR27		Thin-Wall	PO-X	2:1	-40 °C to +105 °C	3.2 - 50.8	Black	12	312
TA37		Thin-Wall Hot melt adhesive	PO-X	3:1	-40 °C to +105 °C	3.2 - 120.0	Black	12	313
SA47-LA		Thin-Wall EVA hot melt adhesive	PO-X	4:1	-40 °C to +125 °C	5.75 - 52.0	Black, Transparent		314
TX46		Thin-Wall Hot melt adhesive	PO-X	4:1	-40 °C to +150 °C	7.6 - 32.0	Black		315
SE28		Standard-Wall	POA	2:1	-75 °C to +150 °C	3.2 - 102.0	Black	10,11	316
TK20		Thin-Wall	PVDF	2:1	-55 °C to +175 °C	1.2 - 50.8	Transparent	9, 10,11	317
TFE2		Thin-Wall	PTFE	2:1	-65 °C to +260 °C	0.86 - 11.94	Transparent		318
TFE4		Thin-Wall	PTFE	4:1	-65 °C to +260 °C	1.98 - 31.80	Transparent		319

CERTIFICATION / SPECIFICATION

1	2	3	4	5	6
					
7	8	9	10	11	12
					

Please refer to the Approvals Overview for further information, see page 620.

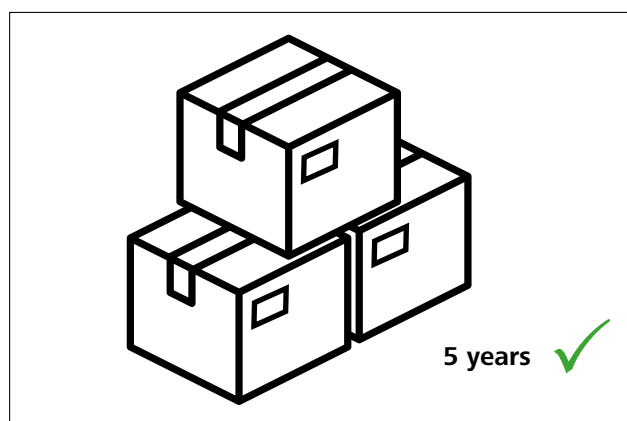
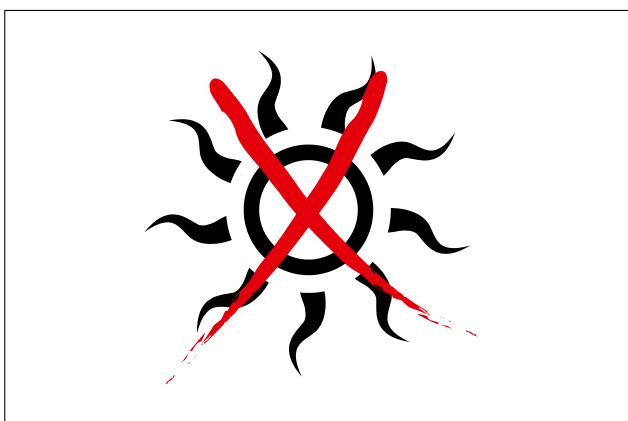
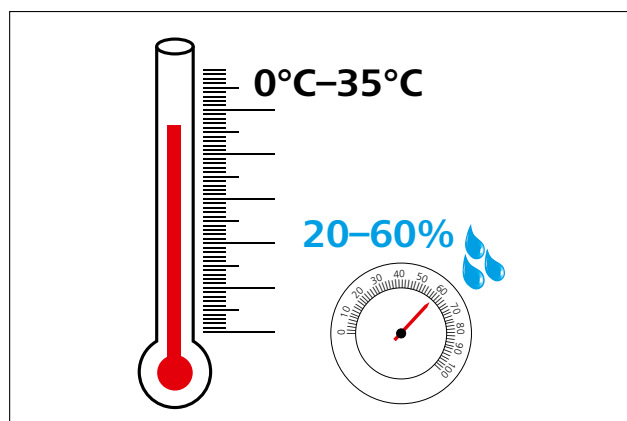
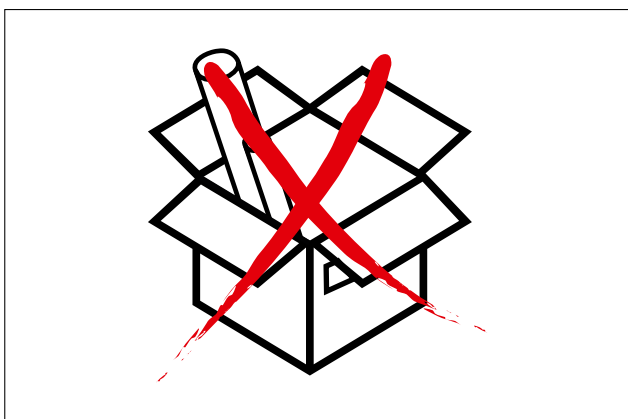
Storage Instructions for Heat Shrinkable Tubing**Storage Conditions / Environment:**

- Store in the original packaging
- Storage Temperature: 0°C to +35°C
- Humidity: 20% to 60%
- Keep away from direct sunlight

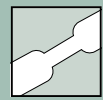
Recommended maximum storage time: 5 years

When stored properly, the product properties remain intact beyond the specified storage duration.

This applies to heat shrink tubing with an inner adhesive layer concerning the tubing material. However, the inner adhesive performance may be affected if the storage duration is significantly exceeded.



Instructions apply to our heat-shrink tubing unless otherwise stated. For VG products respective storage requirements apply.



Heat shrinkable tubing 3:1 in a kit

ShrinkKit 321 Basic - 220 pcs. - black

The compact and handy kit belongs to the basic equipment for every assembler. Its ideal shrink ratio of 3:1 replaces many differently sized tubing.

Features and benefits

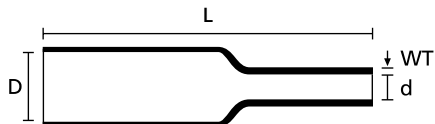
- Compact and handy kit
- Black tubing
- Available in a wide size range of 1.5 mm to 18.0 mm
- 220 precut pieces in five sizes



ShrinkKit 321 Basic - 220 pcs 3:1 heat shrink assortment.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Longitudinal Change After Shrinkage	+5%/-10% max.
Dielectric Strength	20 kV/mm
Self extinguishing	Yes
Insulation Class	B (VDE 0530)

RoHS ✓



Heat Shrink Tubing 3:1



COMP.	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Colour	Content	Article-No.
1	1,5	0,5	35,0	0,45	Black (BK)	50 pcs.	380-03001
2	6,0	2,0	35,0	0,70	Black (BK)	30 pcs.	
3	3,0	1,0	35,0	0,55	Black (BK)	25 pcs.	
4	6,0	2,0	35,0	0,70	Black (BK)	15 pcs.	
5	6,0	2,0	35,0	0,70	Black (BK)	15 pcs.	
6	3,0	1,0	35,0	0,55	Black (BK)	25 pcs.	
7	1,5	0,5	35,0	0,45	Black (BK)	50 pcs.	
8	18,0	6,0	80,0	0,80	Black (BK)	5 pcs.	
8	12,0	4,0	80,0	0,70	Black (BK)	5 pcs.	

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 3:1 in a kit

ShrinkKit 321 Universal Basic - 177 pcs. - coloured

With ShrinkKit 321 HellermannTyton has set a new standard in heat shrink tubing: ShrinkKit tubings cover many applications with their ideal shrink ratio of 3:1.

Features and benefits

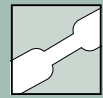
- Compact and handy kit
- Black and coloured tubing
- Available in a wide size range of 3 mm to 18.0 mm
- 177 precut pieces in five sizes



ShrinkKit 321 Universal Basic - 177 pcs 3:1 heat shrink assortment.

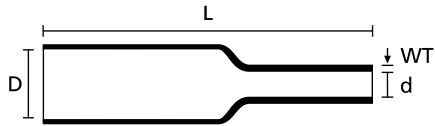
MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Longitudinal Change After Shrinkage	+5%/-10% max.
Dielectric Strength	20 kV/mm
Self extinguishing	Yes
Insulation Class	B (VDE 0530)

RoHS ✓



Heat shrinkable tubing 3:1 in a kit

ShrinkKit 321 Universal Basic - 177 pcs. - coloured



Heat Shrink Tubing 3:1

COMP.	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Colour	Content	Article-No.
1	12,0	4,0	35,0	0,70	Black (BK)	12 pcs.	380-03005
2	6,0	2,0	80,0	0,70	Blue (BU)	5 pcs.	
	6,0	2,0	80,0	0,70	Red (RD)	5 pcs.	
	6,0	2,0	80,0	0,70	White (WH)	5 pcs.	
	12,0	4,0	80,0	0,70	Black (BK)	2 pcs.	
	12,0	4,0	80,0	0,70	Blue (BU)	2 pcs.	
	12,0	4,0	80,0	0,70	Red (RD)	2 pcs.	
3	6,0	2,0	35,0	0,70	Blue (BU)	10 pcs.	
	6,0	2,0	35,0	0,70	Red (RD)	10 pcs.	
	6,0	2,0	35,0	0,70	White (WH)	10 pcs.	
4	9,0	3,0	35,0	0,70	Green-Yellow (GNYE)	15 pcs.	
5	9,0	3,0	35,0	0,70	Black (BK)	20 pcs.	
6	3,0	1,0	35,0	0,55	Black (BK)	10 pcs.	
	3,0	1,0	35,0	0,55	Blue (BU)	10 pcs.	
	3,0	1,0	35,0	0,55	Red (RD)	10 pcs.	
	3,0	1,0	35,0	0,55	White (WH)	10 pcs.	
7	6,0	2,0	35,0	0,70	Black (BK)	20 pcs.	
	6,0	2,0	35,0	0,70	Green-Yellow (GNYE)	10 pcs.	
8	18,0	6,0	160,0	0,80	Black (BK)	3 pcs.	
	18,0	6,0	160,0	0,80	Green-Yellow (GNYE)	3 pcs.	
	18,0	6,0	160,0	0,80	White (WH)	3 pcs.	

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 3:1 in a kit

ShrinkKit 321 Universal - 975 pcs. - coloured

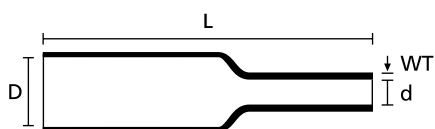
With ShrinkKit 321 HellermannTyton has set a new standard in heat shrink tubing: ShrinkKit tubings cover many applications with their ideal shrink ratio of 3:1.

Features and benefits

- Wide range of sizes, colours and lengths
- For insulation, bend protection and identification
- Compartment sizes changeable by simply moving yellow space dividers



ShrinkKit 321 Universal - 975 pcs 3:1 heat shrink assortment.



Heat Shrink Tubing 3:1

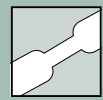


MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Longitudinal Change After Shrinkage	+5%/-10% max.
Dielectric Strength	20 kV/mm
Insulation Class	B (VDE 0530)

RoHS

COMP.	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Colour	Content	Self extinguishing	Article-No.
1	6,0	2,0	60,0	0,70	Black (BK)	50 pcs.	Yes	380-03002
2	12,0	4,0	100,0	0,70	Black (BK)	15 pcs.	Yes	
3	24,0	8,0	200,0	1,00	Black (BK)	10 pcs.	Yes	
4	6,0	2,0	60,0	0,70	Green-Yellow (GNYE)	50 pcs.	Yes	
5	3,0	1,0	50,0	0,55	Transparent (CL)	100 pcs.	No	
6	3,0	1,0	50,0	0,55	Black (BK)	100 pcs.	Yes	
7	12,0	4,0	100,0	0,70	Transparent (CL)	15 pcs.	No	
8	12,0	4,0	100,0	0,70	Red (RD)	15 pcs.	Yes	
9	3,0	1,0	50,0	0,55	Red (RD)	100 pcs.	Yes	
10	3,0	1,0	40,0	0,55	Blue (BU)	100 pcs.	Yes	
11	3,0	1,0	40,0	0,55	Green-Yellow (GNYE)	100 pcs.	Yes	
12	1,5	0,5	40,0	0,45	Black (BK)	75 pcs.	Yes	
	1,5	0,5	40,0	0,45	Green-Yellow (GNYE)	75 pcs.	Yes	
13	6,0	2,0	60,0	0,70	Blue (BU)	50 pcs.	Yes	
14	6,0	2,0	60,0	0,70	Red (RD)	50 pcs.	Yes	
15	6,0	2,0	60,0	0,70	Transparent (CL)	50 pcs.	No	
16	12,0	4,0	170,0	0,70	Green-Yellow (GNYE)	10 pcs.	Yes	
17	12,0	4,0	170,0	0,70	Blue (BU)	10 pcs.	Yes	

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 3:1 in a kit

ShrinkKit 321-A Basic - with adhesive liner - 130 pcs. - BK/CL

ShrinkKit 321-A tubing seals against moisture and dust and with the ideal shrink ratio of 3:1 protects a wide variety of electrical applications. The black tubing is mainly used for environmental sealing of splices and connectors. The transparent tubing is typically used for protection of cable markers.

Features and benefits

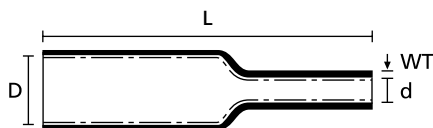
- Adhesive lined heat shrink tubing
- Inner wall melts when heated and is forced into gaps
- Adhesive forms seal against moisture as tubing cools
- Black tubes mainly for the protection of connectors and splices
- Clear tubing ideal for protection of printed label markers
- 130 precut pieces in three sizes.



ShrinkKit 321-A Basic - 130 pcs 3:1 dual wall heat shrink assortment.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	+1%/-15% max.
Dielectric Strength	15 kV/mm
Insulation Class	A (VDE 0530)

RoHS ✓



Heat Shrink Tubing 3:1 with adhesive



COMP.	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Colour	Content	Self extinguishing	Article-No.
1	3,0	1,0	35,0	1,00	Black (BK)	25 pcs.	Yes	380-03004
2	12,0	4,0	35,0	1,70	Black (BK)	10 pcs.	Yes	
3	3,0	1,0	35,0	1,00	Transparent (CL)	25 pcs.	No	
4	6,0	2,0	35,0	1,10	Black (BK)	15 pcs.	Yes	
5	6,0	2,0	35,0	1,10	Transparent (CL)	15 pcs.	No	
6	6,0	2,0	35,0	1,10	Transparent (CL)	15 pcs.	No	
7	6,0	2,0	35,0	1,10	Black (BK)	15 pcs.	Yes	
8	12,0	4,0	80,0	1,70	Black (BK)	5 pcs.	Yes	
	12,0	4,0	80,0	1,70	Transparent (CL)	5 pcs.	No	

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 3:1 in a kit

ShrinKit 321-A - with adhesive liner - 210 pcs. - BK/CL

The black tubing is mainly used for environmental sealing of splices and connectors. The transparent tubing is typically used for protection of cable markers.

Features and benefits

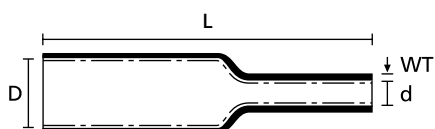
- Adhesive lined heat shrink tubing
- Inner wall melts when heated and is forced into gaps
- Adhesive forms seal against moisture as tubing cools
- Black tubing mainly for the protection of connectors and splices
- Clear tubing ideal for protection of printed label markers
- Compartment size changeable by simply moving yellow space dividers



ShrinKit 321-A - 210 pcs 3:1 dual wall heat shrink assortment.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	+1%/-15% max.
Dielectric Strength	15 kV/mm
Insulation Class	A (VDE 0530)

RoHS



Heat Shrink Tubing 3:1 with adhesive



COMP.	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Colour	Content	Self extinguishing	Article-No.
1	24,0	8,0	200,0	2,50	Black (BK)	5 pcs.	Yes	380-03003
2	12,0	4,0	65,0	1,70	Transparent (CL)	15 pcs.	No	
3	6,0	2,0	50,0	1,10	Black (BK)	20 pcs.	Yes	
	6,0	2,0	50,0	1,10	Transparent (CL)	20 pcs.	No	
4	12,0	4,0	65,0	1,70	Black (BK)	15 pcs.	Yes	
5	3,0	1,0	50,0	1,00	Black (BK)	50 pcs.	Yes	
	3,0	1,0	50,0	1,00	Transparent (CL)	50 pcs.	No	
6	6,0	2,0	35,0	1,10	Black (BK)	30 pcs.	Yes	
	6,0	2,0	35,0	1,10	Transparent (CL)	30 pcs.	No	
7	24,0	8,0	200,0	2,50	Transparent (CL)	5 pcs.	No	
8	12,0	4,0	100,0	1,70	Black (BK)	15 pcs.	Yes	
9	12,0	4,0	100,0	1,70	Black (BK)	15 pcs.	Yes	
10	12,0	4,0	100,0	1,70	Transparent (CL)	15 pcs.	No	
11	3,0	1,0	40,0	1,00	Black (BK)	50 pcs.	Yes	
	3,0	1,0	40,0	1,00	Transparent (CL)	50 pcs.	No	

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat shrinkable tubing 2:1 on a reel

HIS-PACK - coloured

HIS-PACK is used in general purpose of electrical insulation with a high level of protection against corrosion and mechanical abrasion.

Features and benefits

- Cross-linked Polyolefin, thin-wall and flexible
- Handy dispenser box including table showing application size range
- Available in black, red, blue, transparent and yellow/green
- 10 sizes from 1.2 mm to 25.4 mm
- Transparent color is halogen free



HIS Pack Heat Shrink Tubing 2:1 Dispenser Box. Perfect fit in multiple colours.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes



Heat Shrink Tubing 2:1



RoHS ✓

TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-PACK-1.2/0.6	1.2	3/64 "	0.6	0.40	10 m	Black (BK)	300-30120
	1.2	3/64 "	0.6	0.40	10 m	Blue (BU)	300-30126
	1.2	3/64 "	0.6	0.40	10 m	Red (RD)	300-30122
HIS-PACK-1.6/0.8	1.6	1/16 "	0.8	0.40	10 m	Black (BK)	300-30160
	1.6	1/16 "	0.8	0.40	10 m	Blue (BU)	300-30166
	1.6	1/16 "	0.8	0.40	10 m	Red (RD)	300-30162
HIS-PACK-2.4/1.2	2.4	3/32 "	1.2	0.50	10 m	Black (BK)	300-30240
	2.4	3/32 "	1.2	0.50	10 m	Blue (BU)	300-30246
	2.4	3/32 "	1.2	0.50	10 m	Red (RD)	300-30242
HIS-PACK-3.2/1.6	3.2	1/8 "	1.6	0.50	10 m	Black (BK)	300-30320
	3.2	1/8 "	1.6	0.50	10 m	Blue (BU)	300-30326
	3.2	1/8 "	1.6	0.50	10 m	Green-Yellow (GNYE)	300-30327
	3.2	1/8 "	1.6	0.50	10 m	Red (RD)	300-30322
HIS-PACK-4.8/2.4	4.8	3/16 "	2.4	0.50	10 m	Black (BK)	300-30480
	4.8	3/16 "	2.4	0.50	10 m	Blue (BU)	300-30486
	4.8	3/16 "	2.4	0.50	10 m	Green-Yellow (GNYE)	300-30487
	4.8	3/16 "	2.4	0.50	10 m	Red (RD)	300-30482

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 on a reel

HIS-PACK - coloured



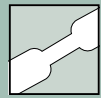
Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-PACK-6.4/3.2	6.4	1/4 "	3.2	0.60	5 m	Black (BK)	300-30640
	6.4	1/4 "	3.2	0.60	5 m	Blue (BU)	300-30646
	6.4	1/4 "	3.2	0.60	5 m	Green-Yellow (GNYE)	300-30647
	6.4	1/4 "	3.2	0.60	5 m	Red (RD)	300-30642
HIS-PACK-9.5/4.7	9.5	3/8 "	4.7	0.60	5 m	Black (BK)	300-30950
	9.5	3/8 "	4.7	0.60	5 m	Blue (BU)	300-30956
	9.5	3/8 "	4.7	0.60	5 m	Green-Yellow (GNYE)	300-30957
	9.5	3/8 "	4.7	0.60	5 m	Red (RD)	300-30952
HIS-PACK-12.7/6.4	12.7	1/2 "	6.4	0.60	5 m	Black (BK)	300-31270
	12.7	1/2 "	6.4	0.60	5 m	Blue (BU)	300-31276
	12.7	1/2 "	6.4	0.60	5 m	Green-Yellow (GNYE)	300-31277
	12.7	1/2 "	6.4	0.60	5 m	Red (RD)	300-31272
HIS-PACK-19.1/9.5	19.1	3/4 "	9.5	0.80	5 m	Black (BK)	300-31900
	19.1	3/4 "	9.5	0.80	5 m	Blue (BU)	300-31906
	19.1	3/4 "	9.5	0.80	5 m	Green-Yellow (GNYE)	300-31907
	19.1	3/4 "	9.5	0.80	5 m	Red (RD)	300-31902
HIS-PACK-25.4/12.7	25.4	1 "	12.7	0.90	5 m	Black (BK)	300-32540
	25.4	1 "	12.7	0.90	5 m	Blue (BU)	300-32546
	25.4	1 "	12.7	0.90	5 m	Green-Yellow (GNYE)	300-32547
	25.4	1 "	12.7	0.90	5 m	Red (RD)	300-32542

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



HIS-PACK - transparent



Heat Shrink Tubing 2:1



MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-PACK-1.2/0.6	1.2	3/64 "	0.6	0.40	10 m	Transparent (CL)	300-30123
HIS-PACK-1.6/0.8	1.6	1/16 "	0.8	0.40	10 m	Transparent (CL)	300-30163
HIS-PACK-2.4/1.2	2.4	3/32 "	1.2	0.50	10 m	Transparent (CL)	300-30243
HIS-PACK-3.2/1.6	3.2	1/8 "	1.6	0.50	10 m	Transparent (CL)	300-30323
HIS-PACK-4.8/2.4	4.8	3/16 "	2.4	0.50	10 m	Transparent (CL)	300-30483
HIS-PACK-6.4/3.2	6.4	1/4 "	3.2	0.60	5 m	Transparent (CL)	300-30643
HIS-PACK-9.5/4.7	9.5	3/8 "	4.7	0.60	5 m	Transparent (CL)	300-30953
HIS-PACK-12.7/6.4	12.7	1/2 "	6.4	0.60	5 m	Transparent (CL)	300-31273
HIS-PACK-19.1/9.5	19.1	3/4 "	9.5	0.80	5 m	Transparent (CL)	300-31903
HIS-PACK-25.4/12.7	25.4	1 "	12.7	0.90	5 m	Transparent (CL)	300-32543

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Storage rack for HIS-Boxes

HIS-Service Station

HIS general purpose heat shrink tubing provides a reliable insulation and protects against corrosion and mechanical influences. The handy dispenser is ideal for small and medium size projects on-site. The sturdy metal HIS-Service Station comes with a cutter and can store all sizes and colours. The Service Station can be mounted to the wall in the work shop or service-van.

Features and benefits

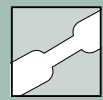
- Contains up to 6 dispenser boxes
- Place on bench or mount to wall
- Special cutter included for easily cutting tubing length to size



HIS-Service-Station contains 6 dispenser boxes and a cutter.

TYPE	Description	Article-No.
HIS-Service-Station	HIS-Service-Station 6 HIS-dispenser boxes in the sizes HIS-3-3/1, HIS-3-6/2, HIS-3-9/3, HIS-3-12/4, HIS-3-24/8, HIS-A-12/4	365-30105
	HIS-Service-Station, empty	300-30002

All dimensions in mm. Subject to technical changes.



Heat shrinkable tubing 3:1 on a reel

HIS-3 - coloured

HIS-3 is used in general purpose of electrical insulation with a high level of protection against mechanical abrasion.

Features and benefits

- Unlined tubing in handy dispenser packs
- High shrink ratio 3:1
- Fits highly variable cable dimensions
- Only 7 sizes for application diameter range of 1 mm up to 20 mm, reduce inventory by half
- Transparent color is halogen free



HIS-3 Heat Shrink Tubing 3:1 Dispenser Box. Multi-fit in various colours.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	32 kV/mm
Flammability	UL 224 VW-1
Insulation Class	B (VDE 0530)
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 3:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-3-1.5/0.5	1.6	0.5	0.45	10 m	Black (BK)	308-30150
	1.6	0.5	0.45	10 m	Blue (BU)	308-30156
	1.6	0.5	0.45	10 m	Red (RD)	308-30152
HIS-3-3/1	3.2	1.0	0.55	10 m	Black (BK)	308-30300
	3.2	1.0	0.55	10 m	Blue (BU)	308-30306
	3.2	1.0	0.55	10 m	Green-Yellow (GNYE)	308-30307
	3.2	1.0	0.55	10 m	Red (RD)	308-30302
HIS-3-6/2	6.4	2.0	0.65	5 m	Black (BK)	308-30600
	6.4	2.0	0.65	5 m	Blue (BU)	308-30606
	6.4	2.0	0.65	5 m	Green-Yellow (GNYE)	308-30607
	6.4	2.0	0.65	5 m	Red (RD)	308-30602

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 on a reel

HIS-3 - coloured



Heat Shrink Tubing 3:1

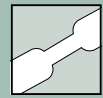


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-3-9/3	9.5	3.0	0.75	5 m	Black (BK)	308-30900
	9.5	3.0	0.75	5 m	Blue (BU)	308-30906
	9.5	3.0	0.75	5 m	Green-Yellow (GNYE)	308-30907
	9.5	3.0	0.75	5 m	Red (RD)	308-30902
HIS-3-12/4	12.7	4.0	0.80	5 m	Black (BK)	308-31200
	12.7	4.0	0.80	5 m	Blue (BU)	308-31206
	12.7	4.0	0.80	5 m	Green-Yellow (GNYE)	308-31207
	12.7	4.0	0.80	5 m	Red (RD)	308-31202
HIS-3-18/6	19.1	6.0	0.90	4 m	Black (BK)	308-31800
	19.1	6.0	0.90	4 m	Blue (BU)	308-31806
	19.1	6.0	0.90	4 m	Green-Yellow (GNYE)	308-31807
	19.1	6.0	0.90	4 m	Red (RD)	308-31802
HIS-3-24/8	25.4	8.0	1.00	3 m	Black (BK)	308-32400
	25.4	8.0	1.00	3 m	Blue (BU)	308-32406
	25.4	8.0	1.00	3 m	Green-Yellow (GNYE)	308-32407
	25.4	8.0	1.00	3 m	Red (RD)	308-32402

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



HIS-3 - transparent



Heat Shrink Tubing 3:1



MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	32 kV/mm
Insulation Class	B (VDE 0530)



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-3-1.5/0.5	1.6	0.5	0.45	10 m	Transparent (CL)	308-30153
HIS-3-3/1	3.2	1.0	0.55	10 m	Transparent (CL)	308-30303
HIS-3-6/2	6.4	2.0	0.65	5 m	Transparent (CL)	308-30603
HIS-3-9/3	9.5	3.0	0.75	5 m	Transparent (CL)	308-30903
HIS-3-12/4	12.7	4.0	0.80	5 m	Transparent (CL)	308-31203
HIS-3-18/6	19.1	6.0	0.90	4 m	Transparent (CL)	308-31803
HIS-3-24/8	25.4	8.0	1.00	3 m	Transparent (CL)	308-32403

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 on a reel

HIS-A - with adhesive liner - black

HIS-A forms a seal against moisture and protects against corrosion and mechanical abrasion.

Features and benefits

- Adhesive lined heat shrink tubing
- Inner wall melts when heated and is forced into gaps
- Adhesive forms seal against moisture as tubing cools
- Protects components
- Available in black and transparent
- 6 sizes for wide range of applications



HIS-A Heat Shrink Tubing 3:1+Adhesive Dispenser Box. Perfect sealing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	-10% max.
Softening Point Adhesive	+85 °C
Dielectric Strength	24 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes
Insulation Class	A (VDE 0530)



Heat Shrink Tubing 3:1 with adhesive



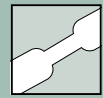
RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-A-3/1	3.0	1.0	1.00	10 m	Black (BK)	308-10300
HIS-A-6/2	6.0	2.0	1.00	5 m	Black (BK)	308-10600
HIS-A-9/3	9.0	3.0	1.00	5 m	Black (BK)	308-10900
HIS-A-12/4	12.0	4.0	1.65	5 m	Black (BK)	308-11200
HIS-A-18/6	19.0	6.0	2.10	4 m	Black (BK)	308-11800
HIS-A-24/8	24.0	8.0	2.35	3 m	Black (BK)	308-12400

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



HIS-A - with adhesive liner - transparent



Heat Shrink Tubing 3:1 with adhesive



MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	-10% max.
Softening Point Adhesive	+85 °C
Dielectric Strength	24 kV/mm
Insulation Class	A (VDE 0530)



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
HIS-A-3/1	3.0	1.0	1.00	10 m	Transparent (CL)	308-10303
HIS-A-6/2	6.0	2.0	1.00	5 m	Transparent (CL)	308-10603
HIS-A-9/3	9.0	3.0	1.00	5 m	Transparent (CL)	308-10903
HIS-A-12/4	12.0	4.0	1.65	5 m	Transparent (CL)	308-11203
HIS-A-18/6	19.0	6.0	2.10	4 m	Transparent (CL)	308-11803
HIS-A-24/8	24.0	8.0	2.35	3 m	Transparent (CL)	308-12403

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 in blister bags

HIS-3 BAG - coloured

HIS-3 BAG tubings are useable for insulation and protection of cables and connectors

Features and benefits

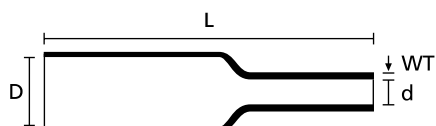
- Thin wall and flexible tubing made of cross-linked Polyolefin
- High shrink ratio 3:1
- Handy, small packaging with 10 pre-cut pieces of 200 mm
- Fits highly variable cable diameters



HIS-3 BAG available in seven colours and four sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	32 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS



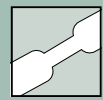
Heat Shrink Tubing 3:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Article-No.
HIS-3-BAG-1.5/0.5	1.6	0.5	0.45	200.0	10 pcs.	Black (BK)	308-30151
	1.6	0.5	0.45	200.0	10 pcs.	Blue (BU)	308-30161
	1.6	0.5	0.45	200.0	10 pcs.	Brown (BN)	308-30163
	1.6	0.5	0.45	200.0	10 pcs.	Green-Yellow (GNYE)	308-30165
	1.6	0.5	0.45	200.0	10 pcs.	Grey (GY)	308-30162
	1.6	0.5	0.45	200.0	10 pcs.	Red (RD)	308-30160

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 in blister bags

HIS-3 BAG - coloured

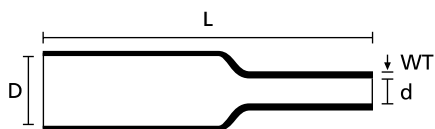
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Article-No.
HIS-3-BAG-3/1	3.2	1.0	0.55	200.0	10 pcs.	Black (BK)	308-30310
	3.2	1.0	0.55	200.0	10 pcs.	Blue (BU)	308-30312
	3.2	1.0	0.55	200.0	10 pcs.	Brown (BN)	308-30314
	3.2	1.0	0.55	200.0	10 pcs.	Green-Yellow (GNYE)	308-30316
	3.2	1.0	0.55	200.0	10 pcs.	Grey (GY)	308-30313
	3.2	1.0	0.55	200.0	10 pcs.	Red (RD)	308-30311
HIS-3-BAG-6/2	6.4	2.0	0.65	200.0	10 pcs.	Black (BK)	308-30610
	6.4	2.0	0.65	200.0	10 pcs.	Blue (BU)	308-30612
	6.4	2.0	0.65	200.0	10 pcs.	Brown (BN)	308-30614
	6.4	2.0	0.65	200.0	10 pcs.	Green-Yellow (GNYE)	308-30617
	6.4	2.0	0.65	200.0	10 pcs.	Grey (GY)	308-30613
	6.4	2.0	0.65	200.0	10 pcs.	Red (RD)	308-30611
HIS-3-BAG-12/4	12.7	4.0	0.80	200.0	10 pcs.	Black (BK)	308-31210
	12.7	4.0	0.80	200.0	10 pcs.	Blue (BU)	308-31212
	12.7	4.0	0.80	200.0	10 pcs.	Brown (BN)	308-31214
	12.7	4.0	0.80	200.0	10 pcs.	Green-Yellow (GNYE)	308-31217
	12.7	4.0	0.80	200.0	10 pcs.	Grey (GY)	308-31213
	12.7	4.0	0.80	200.0	10 pcs.	Red (RD)	308-31211

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

HIS-3 BAG - transparent



Heat Shrink Tubing 3:1



MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	32 kV/mm
Self extinguishing	No



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Article-No.
HIS-3-BAG-1.5/0.5	1.6	0.5	0.45	200.0	10 pcs.	Transparent (CL)	308-30164
HIS-3-BAG-3/1	3.2	1.0	0.55	200.0	10 pcs.	Transparent (CL)	308-30315
HIS-3-BAG-6/2	6.4	2.0	0.65	200.0	10 pcs.	Transparent (CL)	308-30615
HIS-3-BAG-12/4	12.7	4.0	0.80	200.0	10 pcs.	Transparent (CL)	308-31215

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Point of sale display for TREDUX

TREDUX-Display

With TREDUX HellermannTyton has set a new standard in heat shrink tubing.

TREDUX offers a complete range of thin, medium and thick wall tubing cut into 1 meter length. All tubing are labled with an EAN barcode securely packed in display boxes. They can be removed individually for occasional use in smaller quantities.

With the practical, valuable metal point of sale display is an optimal product presentation guaranteed.

The following table is a proposed content for a TREDUX-Display.

Features and benefits

- Complete range of thin, medium- and thick wall heatshrink tubing in one display
- All tubings can be sold in single 1 meter length or entire carton
- Pick of single tube possible allowing job specific purchasing
- Optimised stock based on usage based display content
- Holder for end user brochures available attached to display

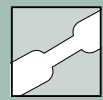


The TREDUX-Display.



TYPE	Content	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Tools	Article-No.
TREDUX - thin wall								
TREDUX-1.5/0.5	1	1.5	0.5	0.45	20 pcs.	Black (BK)	-	319-00150
TREDUX-3/1	1	3.0	1.0	0.55	20 pcs.	Green-Yellow (GNYE)	-	319-00307
TREDUX-6/2	1	6.0	2.0	0.65	15 pcs.	Green-Yellow (GNYE)	-	319-00607
TREDUX-12/4	1	12.0	4.0	0.80	10 pcs.	Green-Yellow (GNYE)	-	319-01207
TREDUX-24/8	1	24.0	8.0	1.20	5 pcs.	Black (BK)	-	319-02400
TREDUX-3/1	2	3.0	1.0	0.55	20 pcs.	Black (BK)	-	319-00300
TREDUX-6/2	2	6.0	2.0	0.65	15 pcs.	Black (BK)	-	319-00600
TREDUX-12/4	4	12.0	4.0	0.80	10 pcs.	Black (BK)	-	319-01200
TREDUX HA47 - thick wall adhesive lined								
TREDUX-HA47-19/6	1	19.0	6.0	2.70	10 pcs.	Black (BK)	32	321-50190
TREDUX-HA47-33/8	1	33.0	8.0	3.20	5 pcs.	Black (BK)	32	321-50330
TREDUX-HA47-45/12	1	45.0	12.0	4.10	4 pcs.	Black (BK)	32	321-50450
TREDUX MA47 - medium wall adhesive lined								
TREDUX-MA47-19/6	1	19.0	6.0	2.40	10 pcs.	Black (BK)	32	323-50190
TREDUX-MA47-40/12	1	40.0	12.0	2.50	4 pcs.	Black (BK)	32	323-50400
TREDUX-MA47-30/8	2	30.0	8.0	2.60	6 pcs.	Black (BK)	32	323-50300
TREDUX-Display								
TREDUX-Display	-	-	-	-	1 pc.	Blue (BU)	-	319-30000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing up to 3:1 - 1 m lengths

TREDUX - thin wall

TREDUX thin wall heat shrink tubing is used for general electrical insulation and mechanical protection of cables and wires.

Features and benefits

- Thin wall, flexible, cross-linked polyolefin tubing
- 1m shrink tubing lengths delivered in handy display carton
- 9 sizes from 1.5 mm to 101.6 mm
- All tubings can be sold in single 1 meter length or entire box

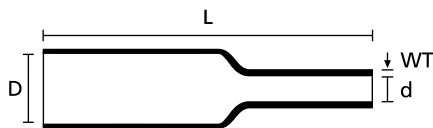
More colours on request. Please contact us.



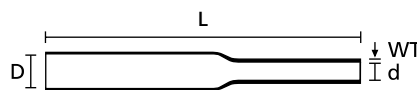
TREDUX shrinks a maximum of 3:1.

MATERIAL	Polyolefin, cross-linked (PO-X)	
Shrink Ratio	2:1	3:1
Operating Temperature	-55 °C to +135 °C	
Min. Shrink Temperature	+70 °C	
Longitudinal Change After Shrinkage	+/-5%	
Dielectric Strength	20 kV/mm	
Flammability	UL 224 VW-1	
Self extinguishing	Yes	

RoHS ✓



Heat Shrink Tubing 3:1



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Shrink Ratio	Article-No.
TREDUX-1.5/0.5	1.5	0.5	0.45	1.0 m	20 pcs.	Black (BK)	3:1	319-00150
	1.5	0.5	0.45	1.0 m	20 pcs.	Green-Yellow (GNYE)	3:1	319-00157
TREDUX-3/1	3.0	1.0	0.55	1.0 m	20 pcs.	Black (BK)	3:1	319-00300
	3.0	1.0	0.55	1.0 m	20 pcs.	Green-Yellow (GNYE)	3:1	319-00307
TREDUX-6/2	6.0	2.0	0.65	1.0 m	15 pcs.	Black (BK)	3:1	319-00600
	6.0	2.0	0.65	1.0 m	15 pcs.	Green-Yellow (GNYE)	3:1	319-00607
TREDUX-12/4	12.0	4.0	0.80	1.0 m	10 pcs.	Black (BK)	3:1	319-01200
	12.0	4.0	0.80	1.0 m	10 pcs.	Green-Yellow (GNYE)	3:1	319-01207
TREDUX-24/8	24.0	8.0	1.20	1.0 m	5 pcs.	Black (BK)	3:1	319-02400
	24.0	8.0	1.20	1.0 m	5 pcs.	Green-Yellow (GNYE)	3:1	319-02407

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

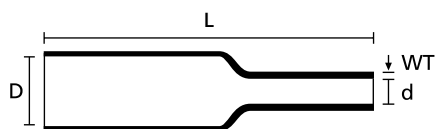


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing up to 3:1 - 1 m lengths

TREDUX - thin wall



Heat Shrink Tubing 3:1



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Shrink Ratio	Article-No.
TREDUX-38.1/19.1	38.1	19.1	1.02	1.0 m	6 pcs.	Black (BK)	2:1	319-03800
	38.1	19.1	1.02	1.0 m	6 pcs.	Green-Yellow (GNYE)	2:1	319-03807
TREDUX-50.8/25.4	50.8	25.4	1.14	1.0 m	6 pcs.	Black (BK)	2:1	319-05100
TREDUX-76.2/38.1	76.2	38.1	1.27	1.0 m	3 pcs.	Black (BK)	2:1	319-07600
TREDUX-101.6/50.8	101.6	50.8	1.40	1.0 m	2 pcs.	Black (BK)	2:1	319-10200

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing up to 4:1 - 1 m lengths

TREDUX MA47 - medium wall adhesive lined

Suitable for insulation and protection of low voltage cable joints and terminations.

Features and benefits

- Medium wall heat shrink tubing
- Thermoplastic adhesive liner for protection from moisture and weathering
- 1 m shrink tubing lengths delivered in handy display carton
- All tubes can be sold in single 1 meter lengths or entire box

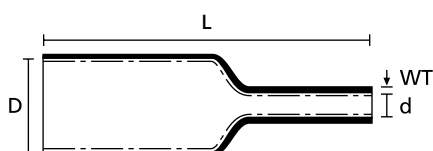


TREDUX MA47 in handy display carton.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Softening Point Adhesive	+85 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Insulation Class	A (VDE 0530)

HF ✓

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Tools	Article-No.
TREDUX-MA47-12/3	12.0	3.0	2.00	1.0 m	6 pcs.	Black (BK)	32	323-50120
TREDUX-MA47-19/6	19.0	6.0	2.40	1.0 m	10 pcs.	Black (BK)	32	323-50190
TREDUX-MA47-30/8	30.0	8.0	2.60	1.0 m	6 pcs.	Black (BK)	32	323-50300
TREDUX-MA47-40/12	40.0	12.0	2.50	1.0 m	4 pcs.	Black (BK)	32	323-50400
TREDUX-MA47-50/16	50.0	16.0	2.70	1.0 m	2 pcs.	Black (BK)	32	323-50500
TREDUX-MA47-63/19	63.0	19.0	2.80	1.0 m	2 pcs.	Black (BK)	32	323-50630
TREDUX-MA47-75/22	75.0	22.0	3.00	1.0 m	2 pcs.	Black (BK)	32	323-50750
TREDUX-MA47-95/30	95.0	30.0	3.00	1.0 m	1 pc.	Black (BK)	32	323-50950

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing up to 4:1 - 1 m lengths

TREDUX HA47 - thick wall adhesive lined

The toughness and weatherability make TREDUX thick wall tubing suitable for exposed applications and underground cable joints.

Features and benefits

- Thick wall polyolefin adhesive-lined tubing
- 1 m shrink tubing lengths delivered in handy display carton
- All tubes can be sold in single 1 meter lengths or entire box



TREDUX HA47 - application below ground.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm



Heat Shrinkable Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Tools	Article-No.
TREDUX-HA47-19/6	19.0	6.0	2.70	1.0 m	10 pcs.	Black (BK)	32	321-50190
TREDUX-HA47-33/8	33.0	8.0	3.20	1.0 m	5 pcs.	Black (BK)	32	321-50330
TREDUX-HA47-45/12	45.0	12.0	4.10	1.0 m	4 pcs.	Black (BK)	32	321-50450
TREDUX-HA47-51/16	51.0	16.0	4.10	1.0 m	2 pcs.	Black (BK)	32	321-50510
TREDUX-HA47-68/22	68.0	22.0	4.10	1.0 m	1 pc.	Black (BK)	32	321-50680
TREDUX-HA47-85/25	85.0	25.4	4.30	1.0 m	1 pc.	Black (BK)	32	321-50850

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat shrinkable tubing 2:1 - PVC

LVR

LVR can be used for cable joints, low voltage bus bars and batteries.

Features and benefits

- PVC heat shrinkable tubing
- Self-extinguishing
- Good chemical resistance and mechanical protection



LVR used for mechanical protection.

MATERIAL	Flexible Polyvinyl Chloride, cadmium free (PVC)
Shrink Ratio	2:1
Operating Temperature	-30 °C to +105 °C
Min. Shrink Temperature	+80 °C
Longitudinal Change After Shrinkage	+/-10% max
Dielectric Strength	22 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes
Storage Temperature	+25 °C max.
Shelf Life	12 months

RoHS



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
LVR-2.4/1.2	2.4	1.2	0.40	250 m	Black (BK)	344-00240
LVR-3.2/1.6	3.2	1.6	0.40	250 m	Black (BK)	344-00320
LVR-4.8/2.4	4.8	2.4	0.50	250 m	Black (BK)	344-00480
LVR-6.4/3.2	6.4	3.2	0.60	250 m	Black (BK)	344-00640
LVR-9.5/4.8	9.5	4.8	0.60	125 m	Black (BK)	344-00950
LVR-12.7/6.4	12.7	6.4	0.70	75 m	Black (BK)	344-01270
LVR-19.1/9.5	19.0	9.5	0.80	100 m	Black (BK)	344-01900
LVR-25.4/12.7	25.4	12.7	1.00	100 m	Black (BK)	344-02540

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



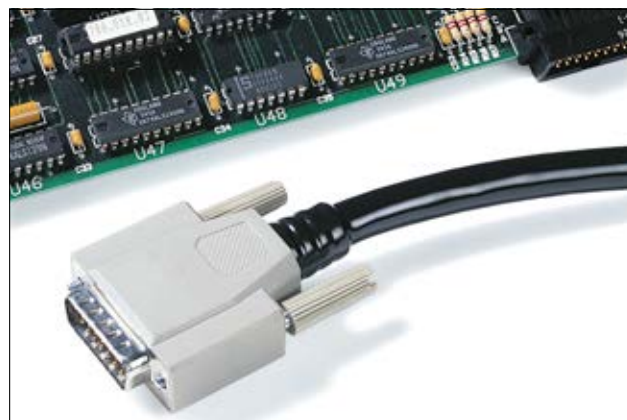
Heat shrinkable tubing 2:1 - Halogen free

TL27

TL27 has a low shrink temperature which offers very fast recovery. Application fields include covering of heat sensitive parts, mechanical protection and cosmetic covering.

Features and benefits

- Very low shrink temperature
- Fast shrinking
- Halogen free



TL27 – a very flexible tubing for automotive applications or applications where halogens cannot be accepted.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-70 °C to +135 °C
Min. Shrink Temperature	+90 °C
Longitudinal Change After Shrinkage	+5%/-15%
Dielectric Strength	23 kV/mm
Self extinguishing	Yes

HF ✓

RoHS ✓



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TL27-1.2/0.6	1.2	0.6	0.31	500 m	Black (BK)	302-20120
TL27-1.6/0.8	1.6	0.8	0.33	500 m	Black (BK)	302-20160
TL27-2.4/1.2	2.4	1.2	0.36	500 m	Black (BK)	302-30240
TL27-3.2/1.6	3.2	1.6	0.39	300 m	Black (BK)	302-30320
TL27-4.8/2.4	4.8	2.4	0.42	150 m	Black (BK)	302-30480
TL27-6.4/3.2	6.4	3.2	0.45	100 m	Black (BK)	302-30640
TL27-9.5/4.8	9.5	4.8	0.48	100 m	Black (BK)	302-30950
TL27-12.7/6.4	12.7	6.4	0.52	100 m	Black (BK)	302-21270
TL27-19.1/9.5	19.1	9.5	0.58	100 m	Black (BK)	302-31900
TL27-25.4/12.7	25.4	12.7	0.67	100 m	Black (BK)	302-32540
TL27-38.1/19.1	38.1	19.1	0.76	100 m	Black (BK)	302-23810
TL27-50.8/25.4	50.8	25.4	0.85	100 m	Black (BK)	302-25080

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

2:1 Heat shrink tubing - on reel & customized cut lengths

TCN20 - thin wall, up to +125°C, self-extinguishing

TCN20 is suitable for a wide range of applications like electrical insulations, mechanical protection and cable bundling.

Features and benefits

- Thin wall general purpose polyolefin tubing
- Self extinguishing, UL224 VW-1, CSA
- Fast shrinking
- Low shrink temperature



TCN20 - reliable insulation that stands up to rigorous use.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS



Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Colour	Article-No.
TCN20-1.2/0.6	1.2	0.6	0.32	300.0 m	300 m	Black (BK)	300-73010
TCN20-1.6/0.8	1.6	0.8	0.32	300.0 m	300 m	Black (BK)	300-73020
TCN20-2.4/1.2	2.4	1.2	0.42	300.0 m	300 m	Black (BK)	300-73030
TCN20-3.2/1.6	3.2	1.6	0.45	300.0 m	300 m	Black (BK)	300-73040
TCN20-4.8/2.4	4.8	2.4	0.52	300.0 m	300 m	Black (BK)	300-73050
TCN20-6.4/3.2	6.4	3.2	0.54	300.0 m	300 m	Black (BK)	300-73060
TCN20-9.5/4.8	9.5	4.8	0.54	100.0 m	100 m	Black (BK)	300-73070
TCN20-12.7/6.4	12.7	6.4	0.62	100.0 m	100 m	Black (BK)	300-73080
TCN20-19.1/9.5	19.1	9.5	0.75	60.0 m	60 m	Black (BK)	300-73090
TCN20-25.4/12.7	25.4	12.7	0.85	60.0 m	60 m	Black (BK)	300-73100
TCN20-38.1/19.1	38.1	19.1	0.96	30.0 m	30 m	Black (BK)	300-73110
TCN20-50.8/25.4	50.8	25.4	0.96	30.0 m	30 m	Black (BK)	300-73120

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - Self extinguishing

TCN20 overexpanded

Mechanical and electrical protection applications for parts with high diameter variances. This fast shrinking tubing makes it suitable for high volume production.

Features and benefits

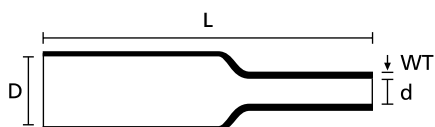
- Thin wall overexpanded polyolefin tubing
- Overexpanded tubes fit more applications (e.g. big cable lugs)
- Self extinguishing and low shrink temperature
- Highly flame-retardant, UL224 VW-1



TCN20 Overexpanded - reliable insulation with an enhanced shrink ratio.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 3:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Colour	Article-No.
TCN20-2.4/0.8	2.4	0.8	0.40	300.0 m	300 m	Black (BK)	300-73130
TCN20-3.2/1.2	3.2	1.2	0.50	300.0 m	300 m	Black (BK)	300-73140
TCN20-4.8/1.6	4.8	1.6	0.50	300.0 m	300 m	Black (BK)	300-73150
TCN20-6.6/2.4	6.6	2.4	0.50	300.0 m	300 m	Black (BK)	300-73160
TCN20-9.5/3.2	9.5	3.2	0.60	100.0 m	100 m	Black (BK)	300-73170
TCN20-12.7/4.8	12.7	4.8	0.70	100.0 m	100 m	Black (BK)	300-73180
TCN20-19.0/6.4	19.0	6.4	0.70	60.0 m	60 m	Black (BK)	300-73190
TCN20-25.4/9.5	25.4	9.5	0.80	60.0 m	60 m	Black (BK)	300-73200
TCN20-38.0/12.7	38.0	12.7	0.90	30.0 m	30 m	Black (BK)	300-73210

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



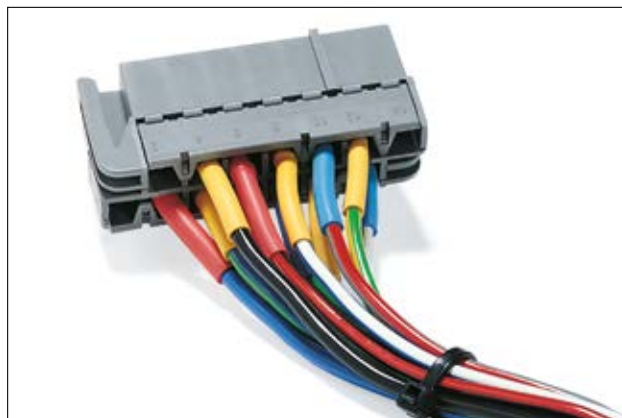
Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing

This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits.

Features and benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Wide range of colours
- Internal diameters up to 102 mm (4 inches)
- UL-224 ,CSA listed and VG approved



HFT-A conforms to major standards (VG) used in all Defence industries.

Standard sizes available in colours black, red, blue, yellow, white and green-yellow.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+135 °C
Longitudinal Change After Shrinkage	-5% max.
Dielectric Strength	21 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-1.2/0.6	1.2	0.6	0.40	400 m	Black (BK)	VG 95343 T05 A 001 A	30	305-01200
	1.2	0.6	0.40	400 m	Blue (BU)	VG 95343 T05 A 001 G	30	305-01206
	1.2	0.6	0.40	400 m	Red (RD)	VG 95343 T05 A 001 C	30	305-01202
	1.2	0.6	0.40	400 m	White (WH)	VG 95343 T05 A 001 L	30	305-01209
	1.2	0.6	0.40	400 m	Yellow (YE)	VG 95343 T05 A 001 E	30	305-01204
HFT-A-1.6/0.8	1.6	0.8	0.40	400 m	Black (BK)	VG 95343 T05 A 002 A	30	305-01600
	1.6	0.8	0.40	400 m	Blue (BU)	VG 95343 T05 A 002 G	30	305-01606
	1.6	0.8	0.40	400 m	Red (RD)	VG 95343 T05 A 002 C	30	305-01602
	1.6	0.8	0.40	400 m	White (WH)	VG 95343 T05 A 002 L	30	305-01609
	1.6	0.8	0.40	400 m	Yellow (YE)	VG 95343 T05 A 002 E	30	305-01604

Recommended Tools: 30=H6100. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing

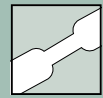
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-2.4/1.2	2.4	1.2	0.50	100 m	Blue (BU)	VG 95343 T05 A 003 G	30	305-02406
	2.4	1.2	0.50	100 m	Red (RD)	VG 95343 T05 A 003 C	30	305-02402
	2.4	1.2	0.50	100 m	White (WH)	VG 95343 T05 A 003 L	30	305-02409
	2.4	1.2	0.50	100 m	Yellow (YE)	VG 95343 T05 A 003 E	30	305-02404
	2.4	1.2	0.50	400 m	Black (BK)	VG 95343 T05 A 003 A	30	305-02400
HFT-A-3.2/1.6	3.2	1.6	0.50	100 m	Blue (BU)	VG 95343 T05 A 004 G	30	305-03206
	3.2	1.6	0.50	100 m	Green-Yellow (GNYE)	VG 95343 T05 A 004 N	30	305-03245
	3.2	1.6	0.50	100 m	Red (RD)	VG 95343 T05 A 004 C	30	305-03202
	3.2	1.6	0.50	100 m	White (WH)	VG 95343 T05 A 004 L	30	305-03209
	3.2	1.6	0.50	100 m	Yellow (YE)	VG 95343 T05 A 004 E	30	305-03204
	3.2	1.6	0.50	400 m	Black (BK)	VG 95343 T05 A 004 A	30	305-03200
HFT-A-4.8/2.4	4.8	2.4	0.50	75 m	Blue (BU)	VG 95343 T05 A 005 G	30	305-04806
	4.8	2.4	0.50	75 m	Green-Yellow (GNYE)	VG 95343 T05 A 005 N	30	305-04845
	4.8	2.4	0.50	75 m	Red (RD)	VG 95343 T05 A 005 C	30	305-04802
	4.8	2.4	0.50	75 m	White (WH)	VG 95343 T05 A 005 L	30	305-04809
	4.8	2.4	0.50	75 m	Yellow (YE)	VG 95343 T05 A 005 E	30	305-04804
	4.8	2.4	0.50	300 m	Black (BK)	VG 95343 T05 A 005 A	30	305-04800
HFT-A-6.4/3.2	6.4	3.2	0.60	75 m	Blue (BU)	VG 95343 T05 A 006 G	30	305-06406
	6.4	3.2	0.60	75 m	Green-Yellow (GNYE)	VG 95343 T05 A 006 N	30	305-06445
	6.4	3.2	0.60	75 m	Red (RD)	VG 95343 T05 A 006 C	30	305-06402
	6.4	3.2	0.60	75 m	White (WH)	VG 95343 T05 A 006 L	30	305-06409
	6.4	3.2	0.60	75 m	Yellow (YE)	VG 95343 T05 A 006 E	30	305-06404
	6.4	3.2	0.60	300 m	Black (BK)	VG 95343 T05 A 006 A	30	305-06400
HFT-A-9.5/4.8	9.5	4.8	0.60	50 m	Blue (BU)	VG 95343 T05 A 007 G	30	305-09506
	9.5	4.8	0.60	50 m	Green-Yellow (GNYE)	VG 95343 T05 A 007 N	30	305-09545
	9.5	4.8	0.60	50 m	Red (RD)	VG 95343 T05 A 007 C	30	305-09502
	9.5	4.8	0.60	50 m	White (WH)	VG 95343 T05 A 007 L	30	305-09509
	9.5	4.8	0.60	50 m	Yellow (YE)	VG 95343 T05 A 007 E	30	305-09504
	9.5	4.8	0.60	150 m	Black (BK)	VG 95343 T05 A 007 A	30	305-09500
HFT-A-12.7/6.4	12.7	6.4	0.60	50 m	Blue (BU)	VG 95343 T05 A 008 G	30	305-12706
	12.7	6.4	0.60	50 m	Green-Yellow (GNYE)	VG 95343 T05 A 008 N	30	305-12745
	12.7	6.4	0.60	50 m	Red (RD)	VG 95343 T05 A 008 C	30	305-12702
	12.7	6.4	0.60	50 m	White (WH)	VG 95343 T05 A 008 L	30	305-12709
	12.7	6.4	0.60	50 m	Yellow (YE)	VG 95343 T05 A 008 E	30	305-12704
	12.7	6.4	0.60	100 m	Black (BK)	VG 95343 T05 A 008 A	30	305-12700
HFT-A-19.0/9.5	19.0	9.5	0.80	25 m	Blue (BU)	VG 95343 T05 A 009 G	30	305-19006
	19.0	9.5	0.80	25 m	Green-Yellow (GNYE)	VG 95343 T05 A 009 N	30	305-19045
	19.0	9.5	0.80	25 m	Red (RD)	VG 95343 T05 A 009 C	30	305-19002
	19.0	9.5	0.80	25 m	White (WH)	VG 95343 T05 A 009 L	30	305-19009
	19.0	9.5	0.80	25 m	Yellow (YE)	VG 95343 T05 A 009 E	30	305-19004
	19.0	9.5	0.80	50 m	Black (BK)	VG 95343 T05 A 009 A	30	305-19000
HFT-A-25.4/12.7	25.4	12.7	0.90	25 m	Blue (BU)	VG 95343 T05 A 010 G	30	305-25406
	25.4	12.7	0.90	25 m	Green-Yellow (GNYE)	VG 95343 T05 A 010 N	30	305-25445
	25.4	12.7	0.90	25 m	Red (RD)	VG 95343 T05 A 010 C	30	305-25402
	25.4	12.7	0.90	25 m	White (WH)	VG 95343 T05 A 010 L	30	305-25409
	25.4	12.7	0.90	25 m	Yellow (YE)	VG 95343 T05 A 010 E	30	305-25404
	25.4	12.7	0.90	50 m	Black (BK)	VG 95343 T05 A 010 A	30	305-25400

Recommended Tools: 30=H6100. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-38.0/19.0	38.0	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	30	305-38100
	38.0	19.0	1.00	50 m	Blue (BU)	VG 95343 T05 A 011 G	30	305-38106
	38.0	19.0	1.00	50 m	Green-Yellow (GNYE)	VG 95343 T05 A 011 N	30	305-38145
	38.0	19.0	1.00	50 m	Red (RD)	VG 95343 T05 A 011 C	30	305-38102
	38.0	19.0	1.00	50 m	White (WH)	VG 95343 T05 A 011 L	30	305-38109
	38.0	19.0	1.00	50 m	Yellow (YE)	VG 95343 T05 A 011 E	30	305-38104
HFT-A-50.8/25.4	51.0	25.4	1.10	35 m	Black (BK)	VG 95343 T05 A 012 A	30	305-50800
	51.0	25.4	1.10	35 m	Blue (BU)	VG 95343 T05 A 012 G	30	305-50806
	51.0	25.4	1.10	35 m	Red (RD)	VG 95343 T05 A 012 C	30	305-50802
	51.0	25.4	1.10	35 m	White (WH)	VG 95343 T05 A 012 L	30	305-50809
	51.0	25.4	1.10	35 m	Yellow (YE)	VG 95343 T05 A 012 E	30	305-50804
HFT-A-76.0/38.0	76.0	38.0	1.30	25 m	Black (BK)	VG 95343 T05 A 013 A	30	305-76200
	76.0	38.0	1.30	25 m	Blue (BU)	VG 95343 T05 A 013 G	30	305-76206
	76.0	38.0	1.30	25 m	Red (RD)	VG 95343 T05 A 013 C	30	305-76202
	76.0	38.0	1.30	25 m	Yellow (YE)	VG 95343 T05 A 013 E	30	305-76204
HFT-A-101.6/50.8	102.0	51.0	1.40	25 m	Black (BK)	VG 95343 T05 A 014 A	30	305-91600
	102.0	51.0	1.40	25 m	Blue (BU)	VG 95343 T05 A 014 G	30	305-91606
	102.0	51.0	1.40	25 m	Red (RD)	VG 95343 T05 A 014 C	30	305-91602
	102.0	51.0	1.40	25 m	White (WH)	VG 95343 T05 A 014 L	30	305-91609
	102.0	51.0	1.40	25 m	Yellow (YE)	VG 95343 T05 A 014 E	30	305-91604

Recommended Tools: 30=H6100. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

TF21

Due to its versatility TF21 is suitable for a wide range of applications like electrical insulations, mechanical protection and marking.

Features and benefits

- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Meets and exceeds a range of industrial standards
- Big variety of different colours and sizes
- Flame retardant and UL224 VW1 listed

More colours on request.

Cut lengths available on request. Please contact us!



TF21 - available in a wide range of colours and sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+105 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	30 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF21-1.2/0.6	1.2	0.6	0.41	100 m	Blue (BU)	309-20126
	1.2	0.6	0.41	100 m	Red (RD)	309-20122
	1.2	0.6	0.41	100 m	White (WH)	309-20129
	1.2	0.6	0.41	100 m	Yellow (YE)	309-20124
	1.2	0.6	0.41	300 m	Black (BK)	309-10120
TF21-1.6/0.8	1.6	0.8	0.43	100 m	Blue (BU)	309-20166
	1.6	0.8	0.43	100 m	Red (RD)	309-20162
	1.6	0.8	0.43	100 m	White (WH)	309-20169
	1.6	0.8	0.43	100 m	Yellow (YE)	309-20164
	1.6	0.8	0.43	300 m	Black (BK)	309-10160

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

TF21

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF21-2.4/1.2	2.4	1.2	0.51	100 m	Blue (BU)	309-20246
	2.4	1.2	0.51	100 m	Green-Yellow (GNYE)	309-40247
	2.4	1.2	0.51	100 m	Red (RD)	309-20242
	2.4	1.2	0.51	100 m	White (WH)	309-20249
	2.4	1.2	0.51	100 m	Yellow (YE)	309-20244
	2.4	1.2	0.51	300 m	Black (BK)	309-10240
TF21-3.2/1.6	3.2	1.6	0.51	100 m	Blue (BU)	309-20326
	3.2	1.6	0.51	100 m	Green-Yellow (GNYE)	309-40327
	3.2	1.6	0.51	100 m	Red (RD)	309-20322
	3.2	1.6	0.51	100 m	White (WH)	309-20329
	3.2	1.6	0.51	100 m	Yellow (YE)	309-20324
	3.2	1.6	0.51	300 m	Black (BK)	309-10320
TF21-4.8/2.4	4.8	2.4	0.51	60 m	Blue (BU)	309-50486
	4.8	2.4	0.51	60 m	Green-Yellow (GNYE)	309-50487
	4.8	2.4	0.51	60 m	Red (RD)	309-50482
	4.8	2.4	0.51	60 m	White (WH)	309-50489
	4.8	2.4	0.51	60 m	Yellow (YE)	309-50484
	4.8	2.4	0.51	300 m	Black (BK)	309-10480
TF21-6.4/3.2	6.4	3.2	0.64	60 m	Blue (BU)	309-50646
	6.4	3.2	0.64	60 m	Green-Yellow (GNYE)	309-50647
	6.4	3.2	0.64	60 m	Red (RD)	309-50642
	6.4	3.2	0.64	60 m	White (WH)	309-50649
	6.4	3.2	0.64	60 m	Yellow (YE)	309-50644
	6.4	3.2	0.64	300 m	Black (BK)	309-10640
TF21-9.5/4.8	9.5	4.8	0.64	50 m	Blue (BU)	309-20956
	9.5	4.8	0.64	50 m	Green-Yellow (GNYE)	309-50957
	9.5	4.8	0.64	50 m	Red (RD)	309-20952
	9.5	4.8	0.64	50 m	White (WH)	309-20959
	9.5	4.8	0.64	50 m	Yellow (YE)	309-20954
	9.5	4.8	0.64	150 m	Black (BK)	309-10950
TF21-12.7/6.4	12.7	6.4	0.64	50 m	Blue (BU)	309-21276
	12.7	6.4	0.64	50 m	Green-Yellow (GNYE)	309-41277
	12.7	6.4	0.64	50 m	Red (RD)	309-21272
	12.7	6.4	0.64	50 m	White (WH)	309-21279
	12.7	6.4	0.64	50 m	Yellow (YE)	309-21274
	12.7	6.4	0.64	100 m	Black (BK)	309-11270

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

TF21


Heat Shrink Tubing 2:1

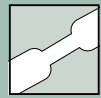


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF21-19.1/9.5	19.1	9.5	0.76	50 m	Black (BK)	309-11900
	19.1	9.5	0.76	50 m	Blue (BU)	309-11906
	19.1	9.5	0.76	50 m	Green-Yellow (GNYE)	309-11907
	19.1	9.5	0.76	50 m	Red (RD)	309-11902
	19.1	9.5	0.76	50 m	White (WH)	309-11909
	19.1	9.5	0.76	50 m	Yellow (YE)	309-11904
TF21-25.4/12.7	25.4	12.7	0.89	50 m	Black (BK)	309-12540
	25.4	12.7	0.89	50 m	Blue (BU)	309-12546
	25.4	12.7	0.89	50 m	Green-Yellow (GNYE)	309-12547
	25.4	12.7	0.89	50 m	Red (RD)	309-12542
	25.4	12.7	0.89	50 m	White (WH)	309-12549
	25.4	12.7	0.89	50 m	Yellow (YE)	309-12544
TF21-38.0/19.0	38.1	19.1	1.02	60 m	Black (BK)	309-13810
	38.1	19.1	1.02	60 m	Blue (BU)	309-13816
	38.1	19.1	1.02	60 m	Green-Yellow (GNYE)	309-13817
	38.1	19.1	1.02	60 m	Red (RD)	309-13812
	38.1	19.1	1.02	60 m	White (WH)	309-13819
	38.1	19.1	1.02	60 m	Yellow (YE)	309-13814
TF21-50.8/25.4	50.8	25.4	1.14	60 m	Black (BK)	309-15080
	50.8	25.4	1.14	60 m	Blue (BU)	309-15086
	50.8	25.4	1.14	60 m	Green-Yellow (GNYE)	309-15087
	50.8	25.4	1.14	60 m	Red (RD)	309-15082
	50.8	25.4	1.14	60 m	White (WH)	309-15089
	50.8	25.4	1.14	60 m	Yellow (YE)	309-15084
TF21-76.0/38.0	76.2	38.1	1.27	30 m	Black (BK)	309-17600
	76.2	38.1	1.27	30 m	Blue (BU)	309-17606
	76.2	38.1	1.27	30 m	Red (RD)	309-17602
	76.2	38.1	1.27	30 m	White (WH)	309-17609
	76.2	38.1	1.27	30 m	Yellow (YE)	309-17604
TF21-101.6/50.8	101.6	50.8	1.40	15 m	Black (BK)	309-11020
	101.6	50.8	1.40	15 m	Blue (BU)	309-11026
	101.6	50.8	1.40	15 m	Red (RD)	309-11022
	101.6	50.8	1.40	15 m	White (WH)	309-11029
	101.6	50.8	1.40	15 m	Yellow (YE)	309-11024

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and transparent

TF24

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfect
- Halogen free
- Good mechanical and chemical resistance
- VG and additional industrial approvals

Cut lengths available on request. Please contact us!



TF24 transparent tubing with 2:1 shrink ratio.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	+/-5% max.
Dielectric Strength	30 kV/mm



Heat Shrink Tubing 2:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
TF24-1.2/0.6	1.2	0.6	0.41	100 m	Transparent (CL)	VG 95343 T05 B 001 M	309-40123
TF24-1.6/0.8	1.6	0.8	0.43	100 m	Transparent (CL)	VG 95343 T05 B 002 M	309-40163
TF24-2.4/1.2	2.4	1.2	0.51	100 m	Transparent (CL)	VG 95343 T05 B 003 M	309-40243
TF24-3.2/1.6	3.2	1.6	0.51	100 m	Transparent (CL)	VG 95343 T05 B 004 M	309-40323
TF24-4.8/2.4	4.8	2.4	0.51	60 m	Transparent (CL)	VG 95343 T05 B 005 M	309-50483
TF24-6.4/3.2	6.4	3.2	0.64	60 m	Transparent (CL)	VG 95343 T05 B 006 M	309-50643
TF24-9.5/4.8	9.5	4.8	0.64	50 m	Transparent (CL)	VG 95343 T05 B 007 M	309-40953
TF24-12.7/6.4	12.7	6.4	0.64	50 m	Transparent (CL)	VG 95343 T05 B 008 M	309-41273
TF24-19.1/9.5	19.1	9.5	0.76	50 m	Transparent (CL)	VG 95343 T05 B 009 M	309-31903
TF24-25.4/12.7	25.4	12.7	0.89	50 m	Transparent (CL)	VG 95343 T05 B 010 M	309-32543
TF24-38.1/19.1	38.1	19.1	1.02	60 m	Transparent (CL)	VG 95343 T05 B 011 M	309-33813
TF24-50.8/25.4	50.8	25.4	1.14	60 m	Transparent (CL)	VG 95343 T05 B 012 M	309-35083
TF24-76.2/38.1	76.2	38.1	1.27	30 m	Transparent (CL)	VG 95343 T05 B 013 M	309-37603
TF24-101.6/50.8	101.6	50.8	1.40	15 m	Transparent (CL)	VG 95343 T05 B 014 M	309-31023

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - flexible and coloured

TF31

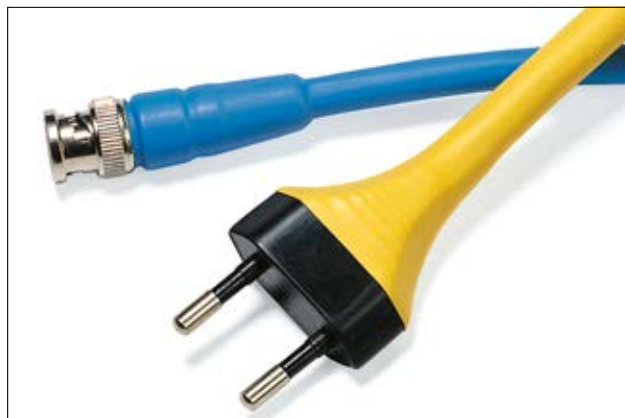
If higher fire protection is a requirement TF31 heat shrinkable tubing is a good choice. It is used for protection, insulation and identification wires, cables and light duty harnesses.

Features and benefits

- Thin wall, very flexible polyolefin tubing
- A small range of sizes cover a wide range of diameters allowing reduced inventory
- Fast shrinking and low shrink temperature
- Flame-retardant, UL224 VW1 listed

Cut lengths available on request. Please contact us!

More colours on request.



TF31 with 3:1 shrink ratio allowing for a wider range of application.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+105 °C
Longitudinal Change After Shrinkage	+5%/-15%
Dielectric Strength	30 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 3:1

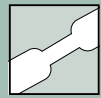


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF31-1.5/0.5	1.5	0.5	0.50	30 m	Black (BK)	333-30150
	1.5	0.5	0.50	30 m	Blue (BU)	333-30156
	1.5	0.5	0.50	30 m	Green (GN)	333-30155
	1.5	0.5	0.50	30 m	Green-Yellow (GNYE)	333-30157
	1.5	0.5	0.50	30 m	Red (RD)	333-30152
	1.5	0.5	0.50	30 m	White (WH)	333-30159
	1.5	0.5	0.50	30 m	Yellow (YE)	333-30154
	1.5	0.5	0.50	300 m	Black (BK)	333-20150

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - flexible and coloured

TF31

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF31-3/1	3.0	1.0	0.60	30 m	Black (BK)	333-30300
	3.0	1.0	0.60	30 m	Blue (BU)	333-30306
	3.0	1.0	0.60	30 m	Green (GN)	333-30305
	3.0	1.0	0.60	30 m	Green-Yellow (GNYE)	333-30307
	3.0	1.0	0.60	30 m	Red (RD)	333-30302
	3.0	1.0	0.60	30 m	White (WH)	333-30309
	3.0	1.0	0.60	30 m	Yellow (YE)	333-30304
	3.0	1.0	0.60	150 m	Black (BK)	333-40300
TF31-6/2	6.0	2.0	0.70	30 m	Black (BK)	333-30600
	6.0	2.0	0.70	30 m	Blue (BU)	333-30606
	6.0	2.0	0.70	30 m	Green (GN)	333-30605
	6.0	2.0	0.70	30 m	Green-Yellow (GNYE)	333-30607
	6.0	2.0	0.70	30 m	Red (RD)	333-30602
	6.0	2.0	0.70	30 m	White (WH)	333-30609
	6.0	2.0	0.70	30 m	Yellow (YE)	333-30604
	6.0	2.0	0.70	150 m	Black (BK)	333-40600
TF31-9/3	9.0	3.0	0.80	30 m	Black (BK)	333-30900
	9.0	3.0	0.80	30 m	Blue (BU)	333-30906
	9.0	3.0	0.80	30 m	Green (GN)	333-30905
	9.0	3.0	0.80	30 m	Green-Yellow (GNYE)	333-30907
	9.0	3.0	0.80	30 m	Red (RD)	333-30902
	9.0	3.0	0.80	30 m	White (WH)	333-30909
	9.0	3.0	0.80	30 m	Yellow (YE)	333-30904
	9.0	3.0	0.80	150 m	Black (BK)	333-20900
TF31-12/4	12.0	4.0	0.85	30 m	Black (BK)	333-31200
	12.0	4.0	0.85	30 m	Blue (BU)	333-31206
	12.0	4.0	0.85	30 m	Green (GN)	333-31205
	12.0	4.0	0.85	30 m	Green-Yellow (GNYE)	333-31207
	12.0	4.0	0.85	30 m	Red (RD)	333-31202
	12.0	4.0	0.85	30 m	White (WH)	333-31209
	12.0	4.0	0.85	30 m	Yellow (YE)	333-31204
	12.0	4.0	0.85	100 m	Black (BK)	333-21200

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - flexible and coloured

TF31


Heat Shrink Tubing 3:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF31-18/6	18.0	6.0	1.00	30 m	Black (BK)	333-31800
	18.0	6.0	1.00	30 m	Blue (BU)	333-31806
	18.0	6.0	1.00	30 m	Green (GN)	333-31805
	18.0	6.0	1.00	30 m	Green-Yellow (GNYE)	333-31807
	18.0	6.0	1.00	30 m	Red (RD)	333-31802
	18.0	6.0	1.00	30 m	White (WH)	333-31809
	18.0	6.0	1.00	30 m	Yellow (YE)	333-31804
	18.0	6.0	1.00	60 m	Black (BK)	333-41800
TF31-24/8	24.0	8.0	1.20	30 m	Black (BK)	333-32400
	24.0	8.0	1.20	30 m	Blue (BU)	333-32406
	24.0	8.0	1.20	30 m	Green (GN)	333-32405
	24.0	8.0	1.20	30 m	Green-Yellow (GNYE)	333-32407
	24.0	8.0	1.20	30 m	Red (RD)	333-32402
	24.0	8.0	1.20	30 m	White (WH)	333-32409
	24.0	8.0	1.20	30 m	Yellow (YE)	333-32404
	24.0	8.0	1.20	60 m	Black (BK)	333-42400
TF31-40/13	40.0	13.0	1.25	30 m	Black (BK)	333-34000
	40.0	13.0	1.25	30 m	Blue (BU)	333-34006
	40.0	13.0	1.25	30 m	Green (GN)	333-34005
	40.0	13.0	1.25	30 m	Green-Yellow (GNYE)	333-34007
	40.0	13.0	1.25	30 m	Red (RD)	333-34002
	40.0	13.0	1.25	30 m	White (WH)	333-34009
	40.0	13.0	1.25	30 m	Yellow (YE)	333-34004
	40.0	13.0	1.25	60 m	Black (BK)	333-24000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Heat shrinkable tubing 3:1 - flexible and transparent

TF34

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfectly
- A small range of sizes required to cover a wide range of diameters allowing reduced inventory
- Halogen free

Cut lengths available on request. Please contact us!



TF34 transparent tubing with 3:1 shrink ratio allowing for a wider range of application.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	-5% max.
Dielectric Strength	46 kV/mm



Heat Shrink Tubing 3:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TF34-1.5/0.5	1.5	0.5	0.50	30 m	Transparent (CL)	333-30153
TF34-3/1	3.0	1.0	0.50	30 m	Transparent (CL)	333-30303
TF34-6/2	6.0	2.0	0.70	30 m	Transparent (CL)	333-30603
TF34-9/3	9.0	3.0	0.80	30 m	Transparent (CL)	333-30903
TF34-12/4	12.0	4.0	0.85	30 m	Transparent (CL)	333-31203
TF34-18/6	18.0	6.0	1.00	30 m	Transparent (CL)	333-31803
TF34-24/8	24.0	8.0	1.20	30 m	Transparent (CL)	333-32403
TF34-40/13	40.0	13.0	1.25	30 m	Transparent (CL)	333-34003

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing adhesive lined - 1.2 m lengths

TA32 - thin wall, 3:1 shrink ratio

TA32/TA42 is designed for environmental sealing and electrical insulation of wire splices, terminations and components.

Features and benefits

- Thin wall adhesive-lined heat shrink tubing
- Highly flame retardant
- Outer wall conforms to UL224
- High shrink ratio

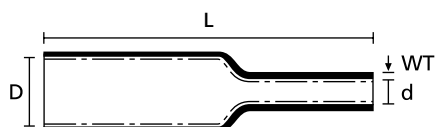
Cut lengths available on request. Please contact us!



TA32 and TA42 are UL224 listed adhesive lined tubing. Available in 3:1 and 4:1 shrink ratio.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+110 °C
Softening Point Adhesive	+110 °C
Longitudinal Change After Shrinkage	-15% max.
Dielectric Strength	25 kV/mm
Flammability	UL 224 VW-1
Flammable	No

RoHS ✓



Heat Shrink Tubing 3:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TA32-3/1	3.0	1.0	0.95	1.2 m	Black (BK)	3:1	318-30300
TA32-4.5/1.5	4.8	1.5	1.10	1.2 m	Black (BK)	3:1	318-30450
TA32-6/2	6.4	2.0	1.20	1.2 m	Black (BK)	3:1	318-30600
TA32-9/3	9.5	3.0	1.30	1.2 m	Black (BK)	3:1	318-30900
TA32-12/4	12.7	4.0	1.40	1.2 m	Black (BK)	3:1	318-31200
TA32-19/6	19.0	6.0	1.80	1.2 m	Black (BK)	3:1	318-31900
TA32-24/8	24.0	8.0	2.50	1.2 m	Black (BK)	3:1	318-32400
TA32-40/13	40.0	13.0	2.50	1.2 m	Black (BK)	3:1	318-34000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Heat shrinkable tubing adhesive lined - 1.2 m lengths

TA42 - thin wall, 4:1 shrink ratio

The high expansion ratio makes it possible to repair most damaged cable jackets without removing connectors.

Features and benefits

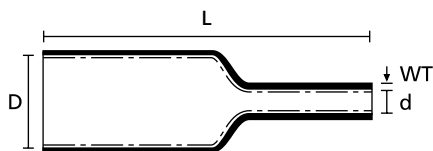
- Thin wall adhesive-lined heat shrink tubing
- Highly flame retardant
- Outer wall conforms to UL224
- High shrink ratio



TA32 and TA42 are UL224 listed adhesive lined tubing. Available in 3:1 and 4:1 shrink ratio.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+110 °C
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1
Flammable	No

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TA42-4/1	4.0	1.0	1.00	1.2 m	Black (BK)	4:1	318-40400
TA42-8/2	8.0	2.0	1.20	1.2 m	Black (BK)	4:1	318-40800
TA42-12/3	12.0	3.0	1.40	1.2 m	Black (BK)	4:1	318-41200
TA42-16/4	16.0	4.0	1.80	1.2 m	Black (BK)	4:1	318-41600
TA42-24/6	24.0	6.0	2.20	1.2 m	Black (BK)	4:1	318-42400
TA42-32/8	32.0	8.0	2.50	1.2 m	Black (BK)	4:1	318-43200
TA42-52/13	52.0	13.0	2.55	1.2 m	Black (BK)	4:1	318-45200

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing adhesive lined

EPS-300 - 3:1 shrink ratio

Heatshrinkable tubing EPS seals and protects a wide variety of electrical applications like back end connector sealing, connector-to-cable transitions and splices.

Features and benefits

- Flexible, thin wall polyolefin heat shrink tubing
- With coextruded hot melt adhesive inner wall
- Protects against moisture
- Provides an environmental sealing of complex parts

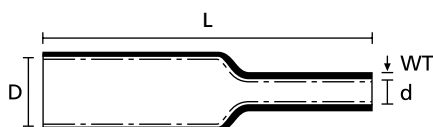
Cut lengths available on request. Please contact us!



EPS300 and EPS400 offer high shrink ratios and protection against humidity.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	-5% max.
Softening Point Adhesive	+90 °C
Dielectric Strength	45 kV/mm
Self extinguishing	Yes

RoHS ✓

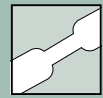


Heat Shrink Tubing 3:1 with adhesive

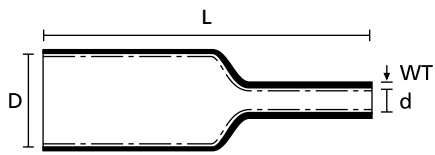


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Shrink Ratio	Article-No.
EPS-300-3/1	3.0	1.0	1.00	400 m	Black (BK)	3:1	340-03010
EPS-300-6/2	6.0	2.0	1.00	300 m	Black (BK)	3:1	340-06020
EPS-300-9/3	9.0	3.0	1.40	150 m	Black (BK)	3:1	340-09030
EPS-300-12/4	12.0	4.0	1.80	100 m	Black (BK)	3:1	340-12040
EPS-300-19/6	19.0	6.0	2.20	50 m	Black (BK)	3:1	340-19060
EPS-300-24/8	24.0	8.0	2.50	25 m	Black (BK)	3:1	340-24080
EPS-300-40/13	40.0	13.0	2.50	25 m	Black (BK)	3:1	340-40130

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



EPS-400 - 4:1 shrink ratio



Heat Shrink Tubing 4:1 with adhesive

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Shrink Ratio	Article-No.
EPS-400-4/1	4.0	1.0	1.00	300 m	Black (BK)	4:1	341-04010
EPS-400-8/2	8.0	2.0	1.00	150 m	Black (BK)	4:1	341-08020
EPS-400-12/3	12.0	3.0	1.40	100 m	Black (BK)	4:1	341-12030
EPS-400-16/4	16.0	4.0	1.80	100 m	Black (BK)	4:1	341-16040
EPS-400-24/6	24.0	6.0	2.20	50 m	Black (BK)	4:1	341-24060
EPS-400-32/8	32.0	8.0	2.50	25 m	Black (BK)	4:1	341-32080

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 4:1 - Flame retardant

MA40 - medium wall adhesive lined

Designed for low voltage cable joints and terminations in shipbuilding. Insulates and protects against moisture.

Features and benefits

- Medium wall adhesive lined shrink tubing for low voltage power cables
- Designed for shipbuilding, Germanische Lloyd approved
- Flame retardant
- UV and weather resistant
- Excellent mechanical performance



MA40 medium wall, adhesive lined and flame retarded tubing for shipbuilding applications.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
MA40-8/2	8.0	2.0	1.70	1.0 m	Black (BK)	32	323-00100
MA40-12/3	12.0	3.0	2.00	1.0 m	Black (BK)	32	323-00101
MA40-16/5	16.0	5.0	2.00	1.0 m	Black (BK)	32	323-00103
MA40-22/6	22.0	6.0	2.40	1.0 m	Black (BK)	32	323-00104
MA40-33/8	33.0	8.0	2.50	1.0 m	Black (BK)	32	323-00105
MA40-40/12	40.0	12.0	2.60	1.0 m	Black (BK)	32	323-00106
MA40-55/16	55.0	16.0	2.70	1.0 m	Black (BK)	32	323-00107

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing up to 4:1 - 1 m lengths

MA47 - medium wall adhesive lined

Insulation and protection of low voltage cable joints and terminations above and below ground.

Features and benefits

- Medium wall tubing with robust insulation characteristics
- Shrink tubing for above and underground cable applications
- Protects cable joints and terminations in low voltage applications
- Internally coated with a thermoplastic adhesive
- Protects against humidity and other environmental impacts



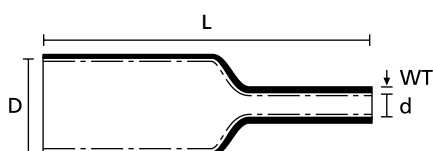
MA47 for above and below ground.

Cut lengths available on request. Please contact us!

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Insulation Class	A (VDE 0530)

HF ✓

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
MA47-8/2	8.0	2.0	1.80	1.0 m	Black (BK)	32	323-20080
MA47-12/3	12.0	3.0	1.80	1.0 m	Black (BK)	32	323-20120
MA47-19/6	22.0	6.0	2.40	1.0 m	Black (BK)	32	323-20190
MA47-30/8	33.0	8.0	2.60	1.0 m	Black (BK)	32	323-20300
MA47-40/12	40.0	12.0	2.60	1.0 m	Black (BK)	32	323-20400
MA47-50/16	55.0	16.0	2.70	1.0 m	Black (BK)	32	323-20500
MA47-63/19	65.0	19.0	2.90	1.0 m	Black (BK)	32	323-20630
MA47-75/22	75.0	22.0	3.00	1.0 m	Black (BK)	32	323-20750
MA47-95/30	95.0	25.0	3.60	1.0 m	Black (BK)	32	323-20950
MA47-115/34	115.0	34.0	3.50	1.0 m	Black (BK)	32	323-21150
MA47-140/42	140.0	42.0	3.30	1.0 m	Black (BK)	32	323-21400

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing up to 4:1 - 1 m lengths in a Kit

MA47 - medium wall adhesive lined

MA47 heat shrinkable tubing in 4 sizes packed in a handy transportation tube. Insulation and protection of low voltage cable joints and terminations above and below ground.

Features and benefits

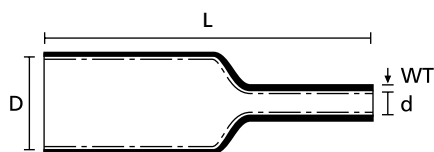
- Re-usable transportation tube in adjustable length
- 4 sizes of MA47 for different applications in 1 kit
- Medium wall tubing with robust insulation characteristics
- Shrink tubing for above and underground cable applications
- Protects against humidity and other environmental impacts after shrinking



Heatshrink tubing MA47 in a handy, re-usable kit.

Detailed Information about Heatguns please refer to page 613.

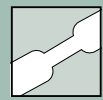
Detailed information about MA47 please refer to pages 301, 302.



Heat Shrink Tubing 4:1 with adhesive

TYPE	Content	Article-No.	Page
MA47-Kit	-	905-50026	-
MA47-12/3	2	323-20120	301, 302
MA47-19/6	2	323-20190	301, 302
MA47-30/8	2	323-20300	301, 302
MA47-40/12	2	323-20400	301, 302

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing up to 4:1 - 1 m lengths

MU47 - medium wall unlined

Insulation and production of low voltage cable joints and terminations.

Features and benefits

- Medium wall heat shrink tubing
- Not adhesive lined
- Provides good mechanical strength
- Resistant to solvents, acids and alkaline solutions

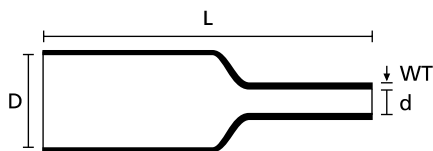
Detailed Information about Heatguns please refer to page 613.

Cut lengths available on request. Please contact us!



Medium single wall tubing MU47 and dual wall tubing MA47.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm



Heat Shrinkable Tubing 4:1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
MU47-12/3	12.0	3.0	1.80	1.0 m	Black (BK)	32	323-10120
MU47-19/6	22.0	6.0	2.40	1.0 m	Black (BK)	32	323-10190
MU47-30/8	33.0	8.0	2.60	1.0 m	Black (BK)	32	323-10300
MU47-40/12	40.0	12.0	2.60	1.0 m	Black (BK)	32	323-10400
MU47-50/16	55.0	16.0	2.90	1.0 m	Black (BK)	32	323-10500
MU47-63/19	65.0	19.0	2.90	1.0 m	Black (BK)	32	323-10630
MU47-75/22	75.0	22.0	3.00	1.0 m	Black (BK)	32	323-10750
MU47-95/30	95.0	25.0	3.60	1.0 m	Black (BK)	32	323-10950
MU47-115/34	115.0	34.0	3.50	1.0 m	Black (BK)	32	323-11150
MU47-140/42	140.0	42.0	3.30	1.0 m	Black (BK)	32	323-11400

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Cable repair kit

LVRK-L

The Cable Repair Kit LVRK-L is a solution for the fast and safe repair of damaged cable and wires in electrical installations. Damaged cable jackets and wires can be repaired safely and durably, saving time and labour

Features and benefits

- Fast, safe and labour-saving repair of cable and wires
- No need for concealed sockets or wire insertion, with subsequent cost savings
- Available as a kit for simple and easy handling
- 1x heat shrinkable tubing, length 200 mm, shrink ratio 4:1, excellent insulation and can be cut for installation
- 5x crimp connectors with heat shrinkable insulation and adhesive liner
- 4x T-tie heat stabilised cable ties



Low Voltage Cable Repair Kit - LVRK-L.

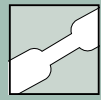
MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	4:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+110 °C
Softening Point Adhesive	+110 °C
Longitudinal Change After Shrinkage	-15% max.
Dielectric Strength	15 kV/mm

RoHS ✓



TYPE	Length (L)	Colour	Pack Cont.	Article-No.
LVRK-L-24/6-200	200.0	Black (BK)	1 pc.	380-04019

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable cable repair sleeves

RMS

RMS wrap-around sleeves are closed with a steel channel. The sleeve is adhesive lined and will effectively seal the cable after shrinkage. RMS sleeves provide fast, watertight and reliable insulation.

Features and benefits

- Fast, moisture proof and permanent repair of cable jackets
- Only 6 sizes for a wide range of cable diameters: from 15 mm up to 160 mm
- Available in 4 standard lengths and also in custom lengths on request
- Each RMS kit is ready for use and comes with instruction sheet, abrasive strip and cleaning sachet
- The metal closure is made of 316 stainless steel for high overall corrosion resistance
- Weather resistant and halogen free
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated



RMS: Repair sleeve, steel closure, abrasive strip, cleaning sachet, instruction sheet.



RMS wrap-around sleeves for rapid and secure cable repair.

MATERIAL	Polyolefin, chemically cross-linked (PO-X)
Shrink Ratio	up to 4.5:1
Operating Temperature	-40 °C to +120 °C
Min. Shrink Temperature	+110 °C
Softening Point Adhesive	+105 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	30 kV/mm

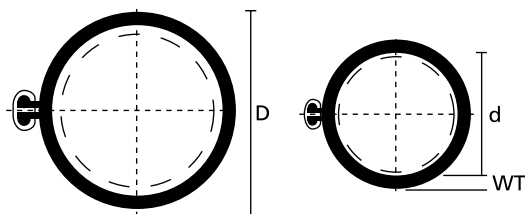
HF ✓

RoHS ✓



Heat shrinkable cable repair sleeves

RMS



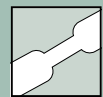
Cable Repair Sleeve RMS with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Suitable for Cable Ø from/to	Length (L)	Colour	Tools	Article-No.
RMS 43-10	43.0	10.0	2.30	15 - 35	250.0	Black (BK)	32	450-20000
	43.0	10.0	2.30	15 - 35	500.0	Black (BK)	32	450-20001
	43.0	10.0	2.30	15 - 35	750.0	Black (BK)	32	450-20004
	43.0	10.0	2.30	15 - 35	1000.0	Black (BK)	32	450-20002
RMS 52-15	52.0	15.0	2.30	20 - 45	250.0	Black (BK)	32	450-20010
	52.0	15.0	2.30	20 - 45	500.0	Black (BK)	32	450-20011
	52.0	15.0	2.30	20 - 45	750.0	Black (BK)	32	450-20014
	52.0	15.0	2.30	20 - 45	1000.0	Black (BK)	32	450-20012
RMS 76-22	76.0	22.0	2.50	28 - 65	500.0	Black (BK)	32	450-20021
	76.0	22.0	2.50	28 - 65	750.0	Black (BK)	32	450-20024
	76.0	22.0	2.50	28 - 65	1000.0	Black (BK)	32	450-20022
RMS 100-30	100.0	30.0	2.54	35 - 85	500.0	Black (BK)	32	450-20030
	100.0	30.0	2.54	35 - 85	1000.0	Black (BK)	32	450-20031
RMS 139-38	139.0	38.0	2.77	45 - 120	1000.0	Black (BK)	32	450-20041
RMS 185-55	185.0	55.0	2.74	65 - 160	1000.0	Black (BK)	32	450-20050

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable straight-through joint

LVK - adhesive lined

LVK is a heat shrinkable straight-through joint for universal connecting of unarmoured polymeric cables or conductors insulated with PVC, PE and XLPE. Suitable for compression and mechanical connectors on aluminium or copper cables. Voltage level 0.6/1.0 (1.2) kV.

Features and benefits

- Universally suitable to connect cables and conductors
- Immediately ready for use
- Using a high-quality thermoplastic inner adhesive
- Good corrosion protection properties with excellent abrasion resistance and weather resistance
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated
- Resistant to chemical agents and alkaline earths
- Excellent shrink behavior
- High UV resistance
- Halogen free

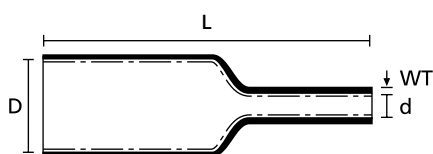
Without connector!



LVK - Heat shrinkable straight-through joint.



LVK: Outer sleeve, inner sleeves, cleaning cloth, emery cloth, installation instructions.



Heat Shrink Tubing 4:1 with adhesive



MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+105 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm



TYPE	No. of Inner sleeves	Conductor Size Range (mm ²)	Inner Tubing Supplied Ø D min.	Inner Tubing Recov. Ø d max.	Inner Tubing Length (L)	Outer Tubing Supplied Ø D min.	Outer Tubing Recov. Ø d max.	Outer Tubing Length (L)	Tools	Article-No.
LVK-4x16-50	4	16-50	22.0	6.0	170.0	55.0	16.0	550.0	32	380-04008
LVK-4x25-150	4	25-150	33.0	8.0	250.0	105.0	25.0	800.0	32	380-04010
LVK-4x25-95	4	25-95	33.0	8.0	250.0	75.0	20.0	800.0	32	380-04009
LVK-4x95-300	4	95-300	40.0	12.0	280.0	130.0	35.0	900.0	32	380-04011
LVK-5x1.5-16	5	1.5-16	19.0	3.2	125.0	48.0	12.0	450.0	32	380-04006
LVK-5x1.5-6	5	1.5-6	12.0	3.0	70.0	48.0	12.0	250.0	32	380-04005
LVK-5x6-25	5	6-25	22.0	6.0	125.0	55.0	16.0	500.0	32	380-04007

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable straight-through joint with mechanical connectors

LVK-C - adhesive lined

LVK-C is a heat shrinkable straight-through joint for universal connecting of unarmoured polymeric cables or conductors insulated with PVC, PE and XLPE. With mechanical connectors for aluminium or copper cables. Voltage level 0.6/1.0 (1.2) kV.

Features and benefits

- Universally suitable to connect cables and conductors
- Immediately ready for use
- Using a high-quality thermoplastic inner adhesive
- Good corrosion protection properties with excellent abrasion resistance and weather resistance
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated
- Resistant to chemical agents and alkaline earths
- Excellent shrink behavior
- High UV resistance
- With mechanical connectors
- Halogen free

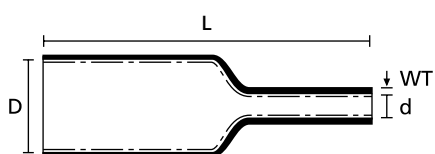
With connector!



LVK-C - Heat shrinkable straight-through joint with connectors.



LVK-C: Outer sleeve, inner sleeves, mechanical connectors, cleaning cloth, emery cloth, installation instructions.



Heat Shrink Tubing 4:1 with adhesive



MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+105 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm

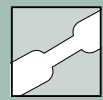
HF ✓

RoHS ✓

TYPE	No. of Inner sleeves	Conductor Size Range (mm ²)	Inner Tubing Supplied Ø D min.	Inner Tubing Recov. Ø d max.	Inner Tubing Length (L)	Outer Tubing Supplied Ø D min.	Outer Tubing Recov. Ø d max.	Outer Tubing Length (L)	Tools	Article-No.
LVK-C-4x16-50	4	16-50	22.0	6.0	170.0	55.0	16.0	550.0	32	380-04016
LVK-C-4x25-150	4	25-150	33.0	8.0	250.0	105.0	25.0	800.0	32	380-04018
LVK-C-5x1.5-16	5	1.5-16	19.0	3.2	125.0	48.0	12.0	450.0	32	380-04014
LVK-C-5x1.5-6	5	1.5-6	12.0	3.0	70.0	48.0	12.0	250.0	32	380-04013
LVK-C-5x6-25	5	6-25	22.0	6.0	125.0	55.0	16.0	500.0	32	380-04015

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 4:1 - Flame retardant

HA40 - thick wall adhesive lined

Designed for low voltage cable joints and terminations in shipbuilding. Insulates and protects against moisture.

Features and benefits

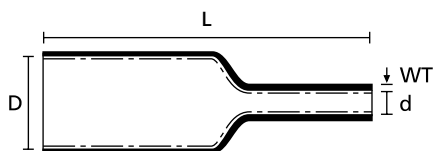
- Thick wall adhesive lined shrink tubing for low voltage power cables
- Designed for shipbuilding, Germanische Lloyd approved
- Flame retardant
- UV and weather resistant
- Excellent mechanical performance



HA40 thick wall, adhesive lined and flame retarded tubing for shipbuilding applications.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Self extinguishing	Yes

RoHS



Heat Shrink Tubing 4:1 with adhesive

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
HA40-9/3	9.0	3.0	2.00	1.0 m	Black (BK)	32	321-00100
HA40-13/4	13.0	4.0	2.20	1.0 m	Black (BK)	32	321-00101
HA40-22/6	22.0	6.0	2.70	1.0 m	Black (BK)	32	321-00102
HA40-33/8	33.0	8.0	3.20	1.0 m	Black (BK)	32	321-00103
HA40-40/12	40.0	12.0	4.10	1.0 m	Black (BK)	32	321-00104
HA40-55/16	55.0	16.0	4.10	1.0 m	Black (BK)	32	321-00105
HA40-75/22	75.0	22.0	4.10	1.0 m	Black (BK)	32	321-00106
HA40-92/25	92.0	25.0	4.20	1.0 m	Black (BK)	32	321-00107

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing up to 3.5:1 - 1 m lengths

HA47 - thick wall adhesive lined

The toughness and weatherability makes it well suited for exposed applications and underground cable joints and cable terminations.

Features and benefits

- Thick wall polyolefin adhesive-lined sleeving
- Thermoplastic adhesive protects against moisture and weathering
- Used for low voltage power applications

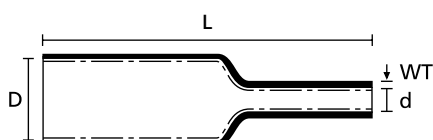


HA47 - Halogenfree 4:1 Heavy Dual Wall Heat Shrink Tubing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Insulation Class	A (VDE 0530)

HF ✓

RoHS ✓



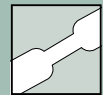
Heat Shrinkable Tubing 3.5:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Tools	Article-No.
HA47-9/3	9.0	3.0	2.00	1.0 m	32	321-20090
HA47-13/4	13.0	4.0	2.40	1.0 m	32	321-20130
HA47-19/6	19.0	6.0	2.70	1.0 m	32	321-20180
HA47-33/8	33.0	8.0	3.20	1.0 m	32	321-20280
HA47-45/12	45.0	12.0	4.00	1.0 m	32	321-20450
HA47-51/16	51.0	16.0	4.00	1.0 m	32	321-20510
HA47-68/22	68.0	22.0	4.00	1.0 m	32	321-20680
HA47-85/25	85.0	25.0	4.20	1.0 m	32	321-20850
HA47-105/30	105.0	30.0	4.20	1.0 m	32	321-20900
HA47-130/36	130.0	36.0	4.20	1.0 m	32	321-21300
HA47-160/50	165.0	50.0	4.20	1.0 m	32	321-21600
HA47-180/50	180.0	50.0	4.20	1.0 m	32	321-21850

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 6:1, adhesive lined in 1.2 m cuts

HA67 - thick wall adhesive lined

Insulates, seals and protects large size differences between connectors and cables.

Features and benefits

- High shrink ratio, heavy-duty heat shrinkable tubing
- Thermoplastic adhesive-lined tubing
- Conforms well to highly variable substrate dimensions
- Simplifies cable repair
- Passes over large connectors and shrinks onto much smaller cable jackets
- Environmental sealing and excellent insulation
- Resistant to impact and abrasion

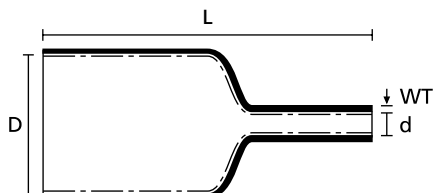


Due to the high shrink ratio HA67 is suitable for complex shapes and dimensions.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	6:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm

HF ✓

RoHS ✓



Heat Shrink Tubing 6:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
HA67-19.0/3.2	19.0	3.2	3.20	1.2 m	Black (BK)	32	321-30000
HA67-33.0/5.5	33.0	5.5	3.40	1.2 m	Black (BK)	32	321-30100
HA67-44.4/7.4	44.4	7.4	3.60	1.2 m	Black (BK)	32	321-30200
HA67-50.8/8.3	50.8	8.3	4.80	1.2 m	Black (BK)	32	321-30300
HA67-69.8/11.7	69.8	11.7	4.80	1.2 m	Black (BK)	32	321-30400
HA67-88.9/17.1	88.9	17.1	4.80	1.2 m	Black (BK)	32	321-30500
HA67-119.4/22.9	119.4	22.9	4.80	1.2 m	Black (BK)	32	321-30600

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 2:1 - Flame retardant

TR27

TR27 is used in applications where toxic emissions evolved in a fire must be minimised, e.g. for heavily populated buildings or safety sensitive areas like tunnels, hospitals, schools, theatres, mass transit vehicles and computer centres.

Features and benefits

- Thin wall, flexible polyolefin tubing
- Optional available with adhesive or as thick wall version (SR27)
- Halogen free and excellent flame-retardant properties
- Limited Fire Hazard
- Low generation of toxic gases and corrosive acid
- Low smoke generation
- Meets various industrial standards



TR27 is ideal for safety sensitive areas.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-40 °C to +105 °C
Min. Shrink Temperature	+115 °C
Longitudinal Change After Shrinkage	+5%/-10% max.
Dielectric Strength	15 kV/mm
Self extinguishing	Yes

HF ✓

LFH ✓

RoHS ✓



Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
TR27-3.2/1.6	3.2	1.6	0.51	150 m	Black (BK)	315-50320
TR27-4.8/2.4	4.8	2.4	0.51	60 m	Black (BK)	315-50480
TR27-6.4/3.2	6.4	3.2	0.64	60 m	Black (BK)	315-50640
TR27-9.5/4.8	9.5	4.8	0.64	60 m	Black (BK)	315-50950
TR27-12.7/6.4	12.7	6.4	0.64	60 m	Black (BK)	315-51270
TR27-19.1/9.5	19.1	9.5	0.76	60 m	Black (BK)	315-51900
TR27-25.4/12.7	25.4	12.7	0.51	60 m	Black (BK)	315-52540
TR27-38.1/19.1	38.1	19.1	1.02	60 m	Black (BK)	315-53810
TR27-50.8/25.4	50.8	25.4	1.14	60 m	Black (BK)	315-55100

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - Flame retardant

TA37 – thin wall adhesive lined

TA37 shrink tubing has a low smoke index and excellent flame retardant properties to meet strict fire security standards in electrical insulation.

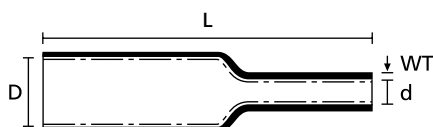
Features and benefits

- Thin wall adhesive lined heat shrink tubing
- Halogen free
- Flame retardant
- Combination of these three (halogen free, adhesive lined and flame retardant) product properties is unique
- Low smoke generation
- Low generation of toxic gases and corrosive acid

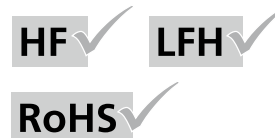


TA37 - Halogenfree and self-extinguishing 3:1 Thin Dual Wall Heat Shrink Tubing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-40 °C to +105 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	+3%/-15%
Dielectric Strength	19.7 kV/mm
Self extinguishing	Yes



Heat Shrink Tubing 3:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Article-No.
TA37 3-1	3.2	1.0	0.95	1.2 m	Black (BK)	315-13000
TA37 4.5-1.5	4.8	1.5	1.10	1.2 m	Black (BK)	315-13001
TA37 6-2	6.4	2.0	1.20	1.2 m	Black (BK)	315-13002
TA37 9-3	9.5	3.0	1.30	1.2 m	Black (BK)	315-13003
TA37 12-4	12.7	4.0	1.40	1.2 m	Black (BK)	315-13004
TA37 19-6	19.1	6.0	2.20	1.2 m	Black (BK)	315-13005
TA37 24-8	24.0	8.0	2.50	1.2 m	Black (BK)	315-13006
TA37 40-13	40.0	13.0	2.50	1.2 m	Black (BK)	315-13007
TA37 50-19	50.0	19.0	4.00	1.2 m	Black (BK)	315-13008
TA37 75-25	75.0	25.0	3.00	1.2 m	Black (BK)	315-13009
TA37 120-45	120.0	45.0	4.00	1.2 m	Black (BK)	315-13011

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



4:1 Heat shrink tubing - 1.2m lengths

SA47-LA - standard wall adhesive lined for perfect corrosion protection

SA47-LA is a semi-rigid halogen free polyolefin tubing with an inner liner of hot melt adhesive. It has excellent tensile strength and strain relief. The adhesive liner provides superb moisture protection. Ideal for electrical connections and splices in automobiles. Tubing is transparent and hot melt adhesive is black.

SA47-LA is specially designed with less adhesive for cable connections.

Features and benefits

- Standard wall polyolefin heat shrink tubing
- Industry leading corrosion protection
- Excellent tensile strength and strain relief
- Provides excellent moisture protection
- Tubing is clear and hot melt adhesive black
- Provides environmental sealing of complex parts
- Halogen free

Cut lengths available on request. Please contact us!

Available with transparent inner adhesive on request.

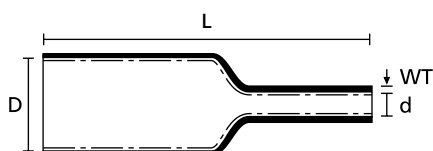


SA47-LA - strongest thermoplastic adhesive.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	4:1
Operating Temperature	-40 °C to +125 °C
Min. Shrink Temperature	+130 °C
Melting Point	starting from +110 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm

HF ✓

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Article-No.
SA47-LA-5.75/1.25	5.75	1.25	1.10	1.2 m	Transparent (CL), Black (BK)	301-10020
SA47-LA-7.5/1.65	7.5	1.65	1.40	1.2 m	Transparent (CL), Black (BK)	301-10021
SA47-LA-11.0/2.4	11.0	2.4	1.80	1.2 m	Transparent (CL), Black (BK)	301-10022
SA47-LA-18.3/4.35	18.3	4.35	2.20	1.2 m	Transparent (CL), Black (BK)	301-10023
SA47-LA-24.0/6.0	24.0	6.0	2.50	1.2 m	Transparent (CL), Black (BK)	301-10024
SA47-LA-32.0/8.0	32.0	8.0	2.50	1.2 m	Transparent (CL), Black (BK)	301-10025
SA47-LA-52.0/13.0	52.0	13.0	3.00	1.2 m	Transparent (CL), Black (BK)	301-10026

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

4:1 Heat shrink tubing - 1.2 m lengths

TX46 - high-temp adhesive, self-extinguishing

TX46 is a 4:1 thin-walled adhesive lined heat shrink tubing. The special adhesive has a high melting point and is ideal for high temperature sealing applications. In combination with its superior shrink performance it can be used to seal the most challenging cable lugs or any other terminals, connections and inline splices in a high temperature environment.

Features and benefits

- Thin-walled: flexible, light weight, space saving
- 4:1 shrink ratio covers a large range and offers great contact pressure
- Thermoplastic adhesive with high melting point provides a reliable seal up to +150°C
- The outer jacket has good mechanical strength
- Resistant to typical automotive fluids

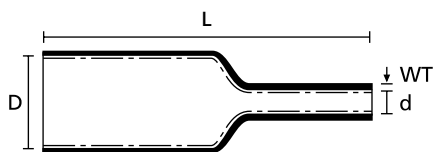
Additional colors, sizes, and custom cut lengths upon request.



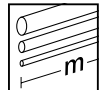
TX46 - high temperature adhesive and self-extinguishing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	4:1
Operating Temperature	-40 °C to +150 °C
Min. Shrink Temperature	+135 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	22 kV/mm
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Article-No.
TX46-7.6/1.7	7.6	1.7	0.40	1.2 m	Black (BK)	317-00070
TX46-9.0/2.3	9.0	2.3	0.40	1.2 m	Black (BK)	317-00071
TX46-11.6/2.5	11.6	2.5	0.50	1.2 m	Black (BK)	317-00072
TX46-17.8/4.4	17.8	4.4	0.70	1.2 m	Black (BK)	317-00073
TX46-24.0/6.0	24.0	6.0	1.40	1.2 m	Black (BK)	317-00074
TX46-32.0/8.0	32.0	8.0	1.60	1.2 m	Black (BK)	317-00075

All dimensions in mm. Subject to technical changes.



Heat shrinkable tubing 2:1 - Elastomer

SE28

SE28 is used for long-term protection of cables and wire harnesses in military equipment, motor sports and aviation.

Features and benefits

- Flexible, high performance elastomeric heat shrink tubing
- Used in aerospace, defence, railway and automotive applications
- Resistant to diesel fuel, aviation and hydraulic fluids
- Provides a reliable protection against abrasion and mechanical damage
- Very suitable for protecting cables and wire harnesses
- For high temperature applications up to 150 °C

Product also available with thin wall (TE28). See more info on our internet page.



SE28 - Diesel resistant 2:1 high performance elastomer heat shrink tubing.

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+170 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Flammability	VG 95343-5
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 2:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
SE28 3.2/1.6	3.2	1.6	0.75	150 m	Black (BK)	VG 95343 T05 D 001 A	32	342-20000
SE28 4.8/2.4	4.8	2.4	0.85	60 m	Black (BK)	VG 95343 T05 D 002 A	32	342-20010
SE28 6.4/3.2	6.4	3.2	0.90	60 m	Black (BK)	VG 95343 T05 D 003 A	32	342-20020
SE28 9.5/4.8	9.5	4.8	1.00	60 m	Black (BK)	VG 95343 T05 D 004 A	32	342-20030
SE28 12.7/6.4	12.7	6.4	1.20	60 m	Black (BK)	VG 95343 T05 D 005 A	32	342-20040
SE28 19.0/9.5	19.0	9.5	1.45	30 m	Black (BK)	VG 95343 T05 D 006 A	32	342-20050
SE28 25.4/12.7	25.4	12.7	1.80	30 m	Black (BK)	VG 95343 T05 D 007 A	32	342-20060
SE28 38.0/19.0	38.0	19.0	2.40	30 m	Black (BK)	VG 95343 T05 D 008 A	32	342-20070
SE28 51.0/25.4	51.0	25.4	2.80	30 m	Black (BK)	VG 95343 T05 D 009 A	32	342-20080
SE28 76.0/38.0	76.0	38.0	3.20	15 m	Black (BK)	VG 95343 T05 D 010 A	32	342-20090
SE28 101.2/51.0	102.0	51.0	3.60	10 m	Black (BK)	VG 95343 T05 D 011 A	32	342-20100

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Heat shrinkable tubing 2:1 - PVDF

TK20

Typical applications of this translucent tubing are where high-temperature performance is required. Also very suitable for applications that ask for visual inspection of covered components, or if low friction surface is needed. TK20 is also used as oil stop for energy cables. This thin walled, translucent heat shrink tubing is often used for chemical applications.

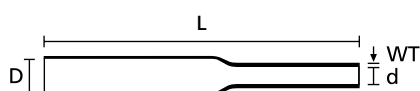
Features and benefits

- Semi-rigid heat shrinkable tubing made of PVDF
- Thin wall and tough
- For higher temperature applications
- Very good mechanical strength, abrasion resistance and chemical resistance
- Meets various industrial standards
- Self extinguishing, UL 224 VW1 listed



TK20 is often used for chemical applications.

MATERIAL	Polyvinylidene Fluoride (PVDF)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +175 °C
Min. Shrink Temperature	+170 °C
Longitudinal Change After Shrinkage	+/-10% max
Dielectric Strength	30 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes



Heat Shrink Tubing 2:1



RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Designation as per VG-Norm	Article-No.
TK20-1.2/0.6	1.2	0.6	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 001 M	331-00129
TK20-1.6/0.8	1.6	0.8	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 002 M	311-00169
TK20-2.4/1.2	2.4	1.2	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 003 M	311-00249
TK20-3.2/1.6	3.2	1.6	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 004 M	311-00329
TK20-4.8/2.4	4.8	2.4	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 005 M	311-00489
TK20-6.4/3.2	6.4	3.2	0.30	1.2 m	Transparent (CL)	VG 95343 T05 F 006 M	311-00649
TK20-9.5/4.8	9.5	4.75	0.30	1.2 m	Transparent (CL)	VG 95343 T05 F 007 M	311-00959
TK20-12.7/6.4	12.7	6.4	0.30	1.2 m	Transparent (CL)	VG 95343 T05 F 008 M	311-01279
TK20-19.1/9.5	19.1	9.5	0.43	1.2 m	Transparent (CL)	VG 95343 T05 F 009 M	311-01909
TK20-25.4/12.7	25.4	12.7	0.48	1.2 m	Transparent (CL)	VG 95343 T05 F 010 M	311-02549
TK20-38.1/19.1	38.1	19.1	0.51	1.2 m	Transparent (CL)	-	311-03819
TK20-50.8/25.4	50.8	25.4	0.51	1.2 m	Transparent (CL)	-	311-05089

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing - PTFE

TFE2 - 2:1 shrink ratio

TFE is ideal for high temperature applications, when resistance to aggressive fluids is required or a very thin walled tubing is needed, for example in pH-measuring instruments. TFE tubing is also used to reduce movement due to friction, covering cylinders for example.

Features and benefits

- PTFE heat shrink tubing
- Very high temperature resistance
- Extra thin wall translucent tubing
- High abrasion resistance and good resistance against aggressive chemicals
- Available in either 2:1 (TFE2) or 4:1 (TFE4) shrink ratios

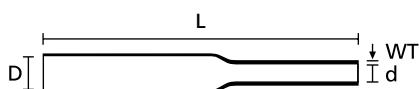
Cut lengths available on request. Please contact us!



TFE is available in either 2:1 or 4:1 shrink ratios.

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-65 °C to +260 °C
Min. Shrink Temperature	+330 °C
Longitudinal Change After Shrinkage	-20% max.
Dielectric Strength	40 kV/mm
Flammable	No

RoHS ✓

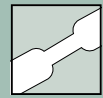


Heat Shrink Tubing 2:1

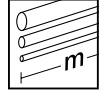
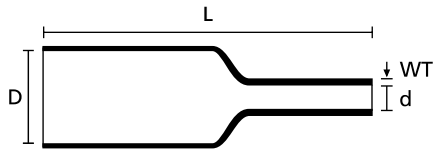


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wire Size (AWG)	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TFE2-30	0.86	0.38	30	0.23	1.2 m	Transparent (CL)	2:1	336-00079
TFE2-28	0.96	0.46	28	0.23	1.2 m	Transparent (CL)	2:1	336-00099
TFE2-26	1.17	0.56	26	0.23	1.2 m	Transparent (CL)	2:1	336-00109
TFE2-24	1.27	0.69	24	0.25	1.2 m	Transparent (CL)	2:1	336-00139
TFE2-22	1.39	0.82	22	0.25	1.2 m	Transparent (CL)	2:1	336-00149
TFE2-20	1.52	0.99	20	0.30	1.2 m	Transparent (CL)	2:1	336-00159
TFE2-18	1.93	1.25	18	0.30	1.2 m	Transparent (CL)	2:1	336-00199
TFE2-16	2.36	1.55	16	0.30	1.2 m	Transparent (CL)	2:1	336-00249
TFE2-14	3.05	1.83	14	0.30	1.2 m	Transparent (CL)	2:1	336-00319
TFE2-12	3.81	2.26	12	0.30	1.2 m	Transparent (CL)	2:1	336-00399
TFE2-10	4.85	2.85	10	0.30	1.2 m	Transparent (CL)	2:1	336-00489
TFE2-8	6.10	3.58	8	0.38	1.2 m	Transparent (CL)	2:1	336-00619
TFE2-6	7.67	4.52	6	0.38	1.2 m	Transparent (CL)	2:1	336-00779
TFE2-4	9.40	5.69	4	0.38	1.2 m	Transparent (CL)	2:1	336-00949
TFE2-2	10.92	7.06	2	0.38	1.2 m	Transparent (CL)	2:1	336-01109
TFE2-0	11.94	8.81	0	0.38	1.2 m	Transparent (CL)	2:1	336-01209

All dimensions in mm. Subject to technical changes. AWG: American Wire Gauge Minimum Order Quantity (MOQ) may differ from package content.



TFE4 - 4:1 shrink ratio



Heat Shrinkable Tubing 4:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Size (imperial)	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TFE4-5/64	1.98	0.64	5/64 "	0.22	1.2 m	Transparent (CL)	4:1	339-00209
TFE4-1/8	3.17	0.94	1/8 "	0.25	1.2 m	Transparent (CL)	4:1	339-00329
TFE4-3/16	4.75	1.27	3/16 "	0.30	1.2 m	Transparent (CL)	4:1	339-00340
TFE4-1/4	6.35	1.60	1/4 "	0.30	1.2 m	Transparent (CL)	4:1	339-00649
TFE4-3/8	9.52	2.44	3/8 "	0.30	1.2 m	Transparent (CL)	4:1	339-00959
TFE4-1/2	12.7	3.66	1/2 "	0.38	1.2 m	Transparent (CL)	4:1	339-01279
TFE4-5/8	15.87	4.52	5/8 "	0.38	1.2 m	Transparent (CL)	4:1	339-01599
TFE4-3/4	19.05	5.69	3/4 "	0.38	1.2 m	Transparent (CL)	4:1	339-01909
TFE4-1	25.4	7.06	1 "	0.38	1.2 m	Transparent (CL)	4:1	339-02549
TFE4-1 1/4	31.80	8.82	1-1/4 "	0.38	1.2 m	Transparent (CL)	4:1	339-03189

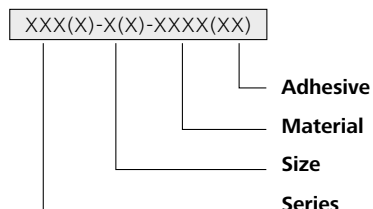
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



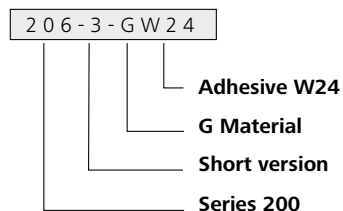
Product Selection for Heat Shrinkable Moulded Shapes

Order Example

Type:



Example:

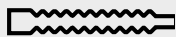


Other product styles are available. Please refer to Moulded Shapes catalogue.

Low Profile Boots Product Overview

Page

Convolute Boots
Helashrink 313C Series, with
adapter lip



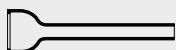
324

Shim Boots
Helashrink 313E Series, without
adapter lip



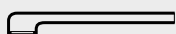
325

Straight Boots
Helashrink 313F Series, with
adapter lip



326

Right Angle Boots
Helashrink 333F Series, with
adapter lip, 90° angle



327

Low Profile Boots Product Overview

Page

Transition Boots
Helashrink 412H Series, side
breakout



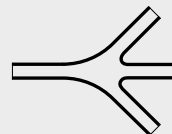
328

Transition Boots
Helashrink 492H Series, 1 to 2
cables

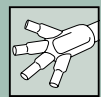


329

Transition Boots
Helashrink 573H Series, 1 to 3
cables



330



Bulbous Boots Product Overview

Page

Bottle Shapes Helashrink 150 Series, with rib, VG		331, 332
Bottle Shapes Helashrink 100 Series, without rib		333
Bottle Shapes Helashrink 100 Series, with rib, MIL		334
Long Outlet Shape Helashrink 130 Series, with rib, low profile, VG		335
Bottle Shapes Helashrink 170 Series, with rib, VG		336
Bottle Shapes Helashrink 190 Series, with external ribs, VG		337
2-Way Outlet Shapes Helashrink 200 Series, low profile		338
2-Way Outlet Shapes Helashrink 200 Series, VG		339
3-Way Outlet Shapes Helashrink 300 Series, VG		340
4-Way Outlet Shapes Helashrink 400 Series, VG		341
Right-Angle Shapes Helashrink 1100 Series, with rib, VG		342
Right-Angle Shapes Helashrink 1100 Series, with rib, MIL		343
Right-Angle Shapes Helashrink 1100 Series, without rib		344

Bulbous Boots Product Overview

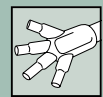
Page

Right-Angle Shapes Helashrink 1100 Series, with rib, low profile, VG style/MIL style		345
Right-Angle Shapes Helashrink 1100 Series, with rib, low profile, high ratio, VG		346
T-Shapes Helashrink 1200 Series, VG		347
T-Shapes Helashrink 1200 Series, Offset, VG		348
Angled T-Shapes Helashrink 1300 Series, 30° & 45° angle, VG		349
Angle Shapes Helashrink 1800 Series, with rib, 30°, 45°, 60° angle		350
Angle Shapes Helashrink 1800 Series, 45° angle		351, 352
2-Way Outlet Shapes Helashrink 200 Series, in line, low voltage		353
4-Way Outlet Shapes Helashrink 400 Series, in line, low voltage		354
5-Way Outlet Shapes Helashrink 500 Series, in line, low voltage		355
Locating Bushes Helashrink 1760, 1790, 1820 Series		356
Low Voltage Helashrink PEC Series, pinched		357
Low Voltage Helashrink 1600 Series		358



Materials for Heat Shrinkable Moulded Shapes

Material Specifications						
	-9	H	G	B7	B8	L
Material	Modified elastomer blend	Flexible limited fire hazard material	Fluid resistant elastomer	Semi-rigid flame retarded polyolefin	Semi-rigid flame retarded polyolefin	Flexible flame retarded fluoroelastomer
Operating Temperature	-55 °C to +120 °C	-55 °C to +105 °C	-75 °C to +150 °C	-55 °C to +135 °C	-55 °C to +100 °C	-55 °C to +200 °C
Min. Shrink Temperature	+135 °C	+135 °C	+135 °C	+135 °C	+135 °C	+175 °C
Specifications	SCX15112	DEF STAN 59-97, BSG198 Part 5, VG 95343 NAVSEA 5617649	DEF STAN 59-97, BSG198 Part 5, VG 95343 Part 6, 18	MIL-I-81765/1 Type 1, DEF STAN 59-97, BSG198 Part 5	EA-TS 09-11	DEF STAN 59-97, BSG198 Part 5, MIL-81765/4
Tensile Strength	12 MPa	10 MPa	15 MPa	13 MPa	15 MPa	12 MPa
Elongation at break	500%	450%	580%	500%	500%	300%
Dielectric Strength	20 kV/mm	15 kV/mm	14 kV/mm	14 kV/mm	15 kV/mm	8 kV/mm
Flammability for Material	excellent	excellent	excellent	excellent	good	excellent
Typical Application	Military and general high performance harnessing	Ships, submarines & railways	Military and general high performance harnessing	Military and general high performance harnessing	Power/utility shapes	Military and high performance harnessing



Adhesive for Heat Shrinkable Moulded Shapes

Adhesive Specifications							
	W / W2	W8	W21	W24	WM250	V9500	HMT200A
Adhesive	Hot melt adhesive	Hot melt adhesive	Hot melt adhesive	High performance, pre-coat, 1 part epoxy	Hot melt adhesive	Two part, black, epoxy adhesive	Hot melt adhesive tape
Operating Temperature	-55 °C to +80 °C	-55 °C to +105 °C	-55 °C to +120 °C	-75 °C to +200 °C	-55 °C to +80 °C	-75 °C to +150 °C	-55 °C to +105 °C
Softening Point Adhesive	+95 °C	+110 °C	+120 °C	+80 °C	+95 °C		+110 °C
Supplied Form	pre-applied	pre-applied	pre-applied	pre-applied	pre-applied	cardridge	tape
Shelf Life	5 years	5 years	5 years	5 years	5 years	18 months	5 years
Solvent Resistance	Fair under splash conditions	Fair under splash conditions	Saline: Very good De-icing fluid: Good Diesel: Excellent Lubricating Oil: Good Hydraulic Oil: Excellent Aviation Fuel: Good Automotive Fuel: Good	De-icing fluid: Excellent Petrol: Excellent Lubricating Oil: Excellent Hydraulic Oil: Excellent	Fair under splash conditions	De-icing fluid: Excellent, Petrol: Excellent, Lubricating Oil: Excellent, Hydraulic Oil: Excellent	Fair under splash conditions



A wider range of material / adhesive combinations are available in the Moulded Shapes catalogue.



Low Profile Convolute Boots

Helashrink 313C Series, with adapter lip

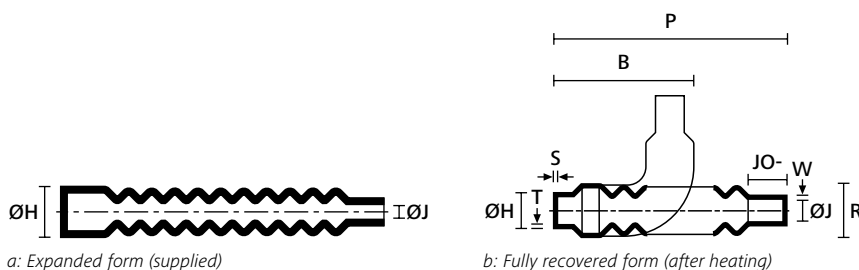
Features and benefits

- For circular grooved adapters to provide strain relief
- Excellent environmental sealing with adhesive
- Convoluted design grants flexibility for different cable outlet angles

For material / adhesive information please refer to page 322, 323.



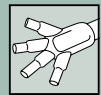
313C722-774 Series supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R max.	JO ± 10 %	W min.	B nom.	T ± 0.5	S ± 0.5	Tools	Article-No.
313C722-9	14.2	6.9	11.1	4.8	120.6	21.1	17.3	1.5	62.4	1.3	1.5	32	422-00001
313C732-9	22.4	11.7	17.7	8.1	133.3	26.5	19.8	1.5	67.8	1.3	1.5	32	422-00101
313C743-9	34.0	17.5	26.9	12.7	146.0	32.7	22.3	1.5	73.4	1.3	1.8	32	422-00201
313C753-9	44.2	22.3	36.5	17.5	158.7	37.8	25.4	1.5	78.2	1.3	1.8	32	422-00302
313C764-9	53.8	40.6	45.7	22.3	171.4	42.9	28.4	1.5	82.8	2.0	1.8	32	422-00400
313C774-9	77.2	40.6	54.6	22.8	236.2	62.2	25.4	1.5	138.4	2.0	2.0	32	422-00501

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Shim Boots

Helashrink 313E Series, without adapter lip

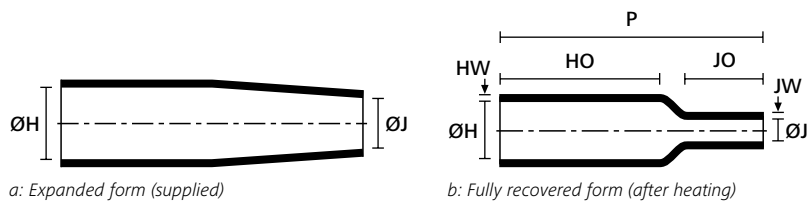
Features and benefits

- Used to build up or shim a cable diameter
- Facilitates better fit for components in cable harness

For material / adhesive information please refer to page 322, 323.



313E445-457 Series supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	HO ± 10 %	HW ± 25 %	JW ± 25 %	JO ± 10 %	Tools	Article-No.
313E445-9	12.7	12.7	11.1	3.3	63.5	41.1	1.5	1.5	15.7	32	422-10000
313E447-9	20.8	14.7	20.6	9.9	63.5	41.1	1.5	1.5	16.5	32	422-10100
313E455-9	22.1	22.1	11.2	3.3	53.3	27.9	2.3	1.5	15.7	32	422-10200
313E457-9	22.1	22.1	20.6	9.9	53.3	27.9	2.3	1.5	14.0	32	422-10300

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Straight Boots

Helashrink 313F Series, with adapter lip

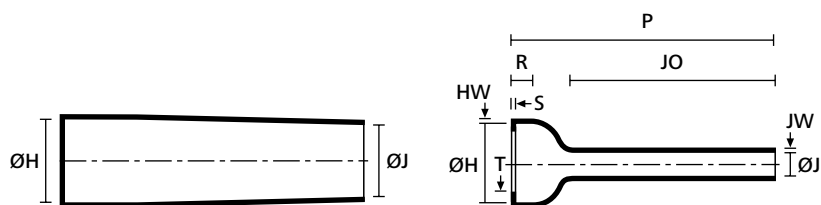
Features and benefits

- Lightweight strain relief for small cable diameters requiring high shrink ratio

For material /
adhesive information
please refer to page
322, 323.



313F322-396 Series supplied / fully recovered.



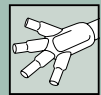
a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 15 %	T ± 0.8	JO ± 10 %	HW ± 1.5	JW ± 0.8	S ± 1.5	Tools	Article-No.
313F322-9	23.8	9.9	17.2	6.6	105.9	11.6	1.3	86.3	1.5	1.5	1.5	32	422-20000
313F332-9	27.1	13.2	20.8	7.6	121.1	12.1	1.3	98.5	1.5	1.5	1.5	32	422-20100
313F343-9	30.9	18.5	24.3	8.9	138.6	12.1	1.3	112.7	1.7	1.5	1.7	32	422-20200
313F353-9	35.6	22.1	28.7	10.1	159.5	12.1	1.3	130.8	1.7	1.5	1.7	32	422-20300
313F364-9	38.8	28.2	31.4	10.9	177.8	13.9	1.8	142.2	1.7	1.5	1.7	32	422-20400
313F374-9	42.2	32.2	38.3	12.7	203.2	15.2	1.8	163.0	1.7	1.5	1.7	32	422-20500
313F385-9	51.5	45.4	45.4	14.9	203.2	15.2	1.8	157.7	1.7	1.7	1.7	32	422-20600
313F396-9	62.7	45.4	53.3	16.7	228.6	16.0	1.8	153.1	1.7	1.7	1.7	32	422-20700

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Right Angle Boots

Helashrink 333F Series, with adapter lip, 90° angle

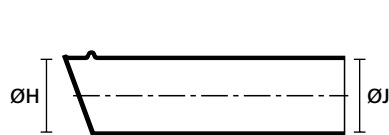
Features and benefits

- Lightweight strain relief for small cable diameters requiring high shrink ratio
- Right angle connector housing with long cable entry and inner lip

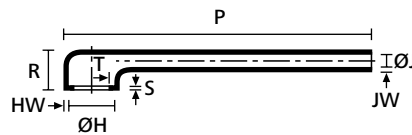
For material / adhesive information please refer to page 322, 323.



333F322-385 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 15 %	T ± 0.8	HW ± 1.5	JW ± 0.8	S ± 1.5	Tools	Article-No.
333F322-9	23.8	9.9	17.2	6.6	105.1	18.5	1.3	1.5	1.5	1.5	32	422-30000
333F332-9	27.1	13.2	20.8	7.6	115.8	19.8	1.3	1.5	1.5	1.5	32	422-30004
333F343-9	30.9	18.5	24.3	8.9	146.3	20.8	1.3	1.7	1.5	1.7	32	422-30100
333F353-9	35.3	21.6	28.7	10.1	172.2	21.8	1.3	1.7	1.5	1.7	32	422-30200
333F364-9	38.8	27.9	31.4	10.9	185.1	24.1	1.8	1.7	1.5	1.7	32	422-30301
333F374-9	45.2	34.0	38.3	12.1	213.6	27.4	1.8	1.7	1.5	1.7	32	422-30400
333F385-9	51.5	41.1	44.4	15.0	224.5	29.4	1.7	1.7	1.7	1.7	32	422-30500

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Transition Boots

Helashrink 412H Series, side breakout

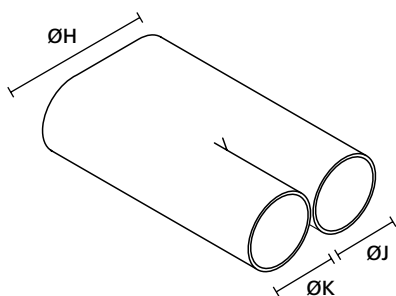
Features and benefits

- Connector cable strain relief
- Used with circular adaptors

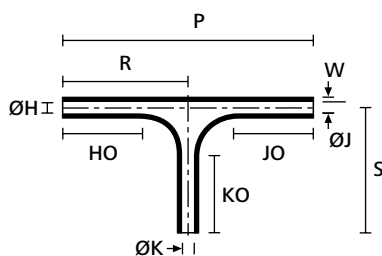
For material / adhesive information please refer to page 322, 323.



412H622-625 Series supplied / fully recovered.



a: Expanded form (supplied)

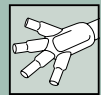


b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ/K min. a	ØJ/K max. b	HO/JO/KO ± 10%	P ± 10%	W nom.	R/S nom.	Tools	Article-No.
412H622-9	19.8	6.6	13.2	6.6	25.4	80.7	1.0	40.3	32	422-40000
412H623-9	34.2	11.4	22.8	11.4	41.1	120.3	1.3	60.1	32	422-40100
412H624-9	60.1	20.0	40.1	20.0	63.5	175.7	1.5	87.8	32	422-40200
412H625-9	83.3	33.2	54.8	33.2	88.9	242.3	1.7	121.1	32	422-40300

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Transition Boots

Helashrink 492H Series, 1 to 2 cables

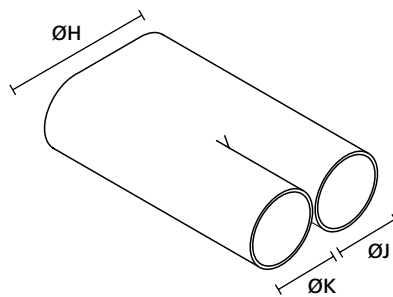
Features and benefits

- For cable harness breakouts or transitions
- Strain relief, sealing and mechanical protection

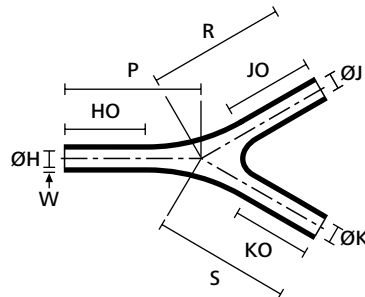
For material / adhesive information please refer to page 322, 323.



492H412-415 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ/K min. a	ØJ/K max. b	HO/JO/KO ± 15%	W nom.	P/R/S nom.	Tools	Article-No.
492H412-9	19.8	6.6	13.2	6.6	25.4	1.0	40.6	32	422-50000
492H413-9	34.2	11.4	22.8	11.4	41.1	1.3	62.9	32	422-50101
492H414-9	60.2	20.1	40.1	20.1	63.5	1.5	94.7	32	422-50202
492H415-9	83.3	33.2	54.8	33.2	49.7	1.7	133.8	32	422-50302

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Low Profile Transition Boots

Helashrink 573H Series, 1 to 3 cables

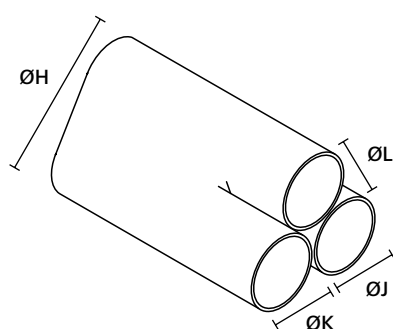
Features and benefits

- For cable harness breakouts or transitions
- Strain relief, sealing and mechanical protection

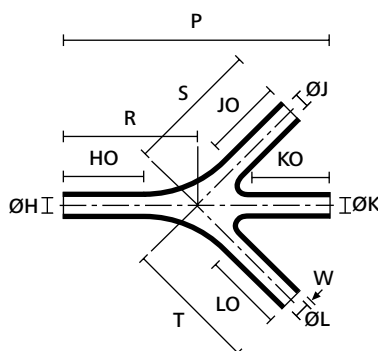
For material /
adhesive information
please refer to page
322, 323.



573H532-535 Series supplied / fully recovered.



a: Expanded form (supplied)

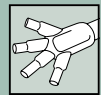


b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ/K/L min. a	ØJ/K/L max. b	P nom.	R/S/T nom.	W nom.	HO/JO/ KO/LO ± 15%	Tools	Article-No.
573H532-9	19.8	6.6	13.2	6.6	85.8	42.9	1.0	25.4	32	422-60000
573H533-9	34.2	11.4	20.5	11.4	135.6	67.8	1.3	41.1	32	422-60100
573H534-9	60.1	20.0	36.0	20.0	207.2	103.6	1.5	63.5	32	422-60202
573H535-9	99.8	33.2	54.8	33.2	294.6	147.3	1.7	88.9	32	422-60302

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Bottle Shapes, VG style

Helashrink 150 Series, with rib

Features and benefits

- Use in conjunction with circular grooved adaptors
- Strengthened strain relief by usage of an additional inner lip
- Excellent protection against environment impacts
- Eliminates moisture ingress to harness

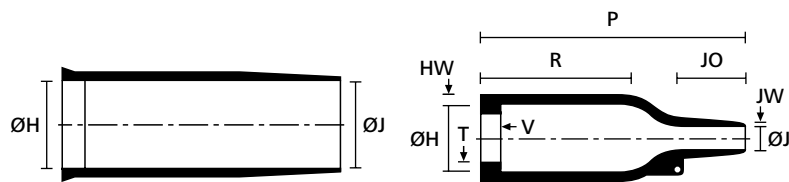
For material / adhesive information please refer to page 322, 323.



150 Series boot recovered onto a connectors.



150 Series supplied.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	JO ± 10 %	HW ± 20 %	JW ± 20 %	V max.	T ± 20 %	Designation as per VG-Norm	Tools	Article-No.
152-41-G	24.0	10.5	24.0	6.0	26.0	9.0	10.0	1.6	0.5	3.3	1.0	VG 95343 T06 A 001 A	32	401-52780
152-42-G	24.0	10.5	24.0	6.0	38.0	21.0	10.0	1.6	0.5	3.3	1.0	VG 95343 T06 B 001 A	32	401-52880
153-41-G	25.0	14.0	9.0	3.5	40.0	13.0	16.0	1.8	0.5	3.3	1.0	VG 95343 T06 A 002 A	32	401-53780
153-42-G	25.0	14.0	9.0	3.5	55.0	28.0	16.0	1.8	0.5	3.3	1.0	VG 95343 T06 B 002 A	32	401-53880
154-41-G	30.0	14.0	30.0	6.0	43.0	20.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T06 A 003 A	32	401-54780
154-42-G	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T06 B 003 A	32	401-54880
155-42-G	31.0	18.0	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T06 B 004 A	32	401-55880
156-41-G	36.0	22.5	36.0	8.5	60.0	22.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T06 A 005 A	32	401-56780
156-42-G	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T06 B 005 A	32	401-56880
157-41-G	43.0	28.0	43.0	10.0	60.0	21.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T06 A 006 A	32	401-57780
157-42-G	43.0	28.0	43.0	10.0	79.0	41.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T06 B 006 A	32	401-57880
157-43-G	43.0	28.0	43.0	10.0	99.0	61.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T06 C 001 A	32	401-57980
158-41-G	60.0	35.0	60.0	16.0	90.0	32.0	38.0	3.2	1.5	3.3	1.7	VG 95343 T06 A 007 A	32	401-58780

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.

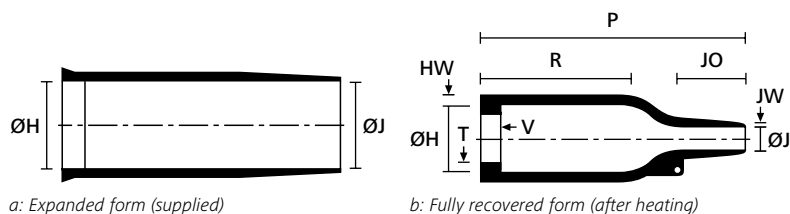


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, VG style

Helashrink 150 Series, with rib



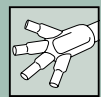
TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	JO ± 10 %	HW ± 20 %	JW ± 20 %	V max.	T ± 20 %	Designation as per VG-Norm	Tools	Article-No.
158-42-G	60.0	35.0	60.0	16.0	110.0	52.0	38.0	3.2	1.5	3.3	1.7	VG 95343 T06 B 007 A	32	401-58880
158-43-G	60.0	35.0	60.0	16.0	130.0	72.0	38.0	3.2	1.5	3.3	1.7	VG 95343 T06 C 002 A	32	401-58980
159-41-G	66.0	45.0	66.0	17.0	130.0	50.0	50.0	3.8	2.0	3.3	2.0	VG 95343 T06 A 008 A	32	401-59780
159-42-G	66.0	45.0	66.0	17.0	150.0	70.0	50.0	3.8	2.0	3.3	2.0	VG 95343 T06 B 008 A	32	401-59880
159-43-G	66.0	45.0	66.0	17.0	171.0	90.0	50.0	3.8	2.0	3.3	2.0	VG 95343 T18 C 003 A	32	401-59980
160-41-G	82.0	58.0	82.0	27.0	137.0	37.0	62.0	3.8	3.8	3.3	2.0	VG 95343 T06 A 009 A	32	401-60780
160-42-G	82.0	58.0	82.0	27.0	158.0	58.0	62.0	3.8	3.8	3.3	2.0	VG 95343 T06 B 009 A	32	401-60880
160-43-G	82.0	58.0	82.0	27.0	213.0	113.0	62.0	3.8	3.8	3.3	2.0	VG 95343 T06 C 004 A	32	401-60980

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, MIL style

Helashrink 100 Series, with rib

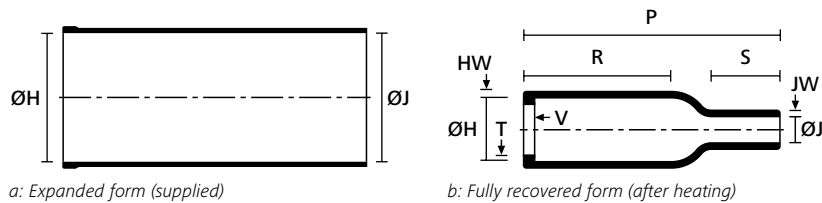
Features and benefits

- With circular grooved adaptor for strain relief
- Combine with complementary adhesives for environmental sealing
- Suitable for small cable diameters

For material / adhesive information please refer to page 322, 323.



100 series supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	V ± 10 %	T ± 20 %	S nom.	Tools	Article-No.
113-4-G	10.7	7.9	4.6	2.0	25.4	14.5	1.3	1.0	3.0	1.0	4.6	32	401-13480

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Bottle Shapes

Helashrink 100 Series, without rib

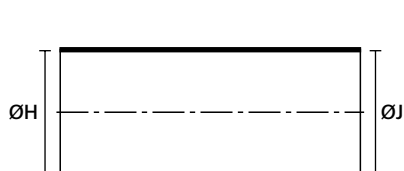
Features and benefits

- Strain relief for connector cable
- Easy re-entry for repair when combined with hot melt adhesive
- For mechanical protection and protection against environment impacts

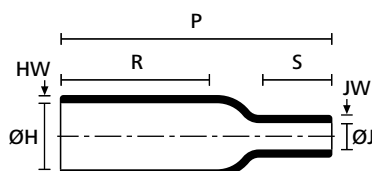
For material / adhesive information please refer to page 322, 323.



100 series supplied / fully recovered.



a: Expanded form (supplied)

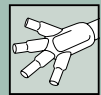


b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R max.	HW ± 20 %	JW ± 30 %	S nom.	Tools	Article-No.
113-1-G	10.7	7.9	4.6	2.0	25.4	14.5	1.3	1.0	4.6	32	401-13180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Long Outlet Shape, VG style

Helashrink 130 Series, with rib, low profile

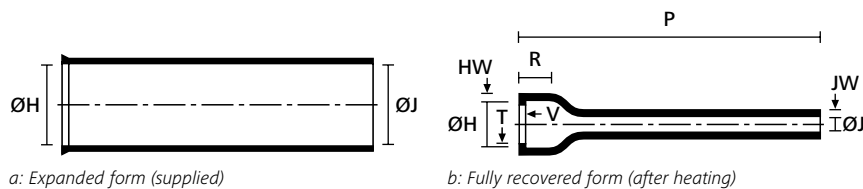
Features and benefits

- Low profile and lightweight
- Typically used on airborne harnesses
- Rib locates on circular backshell

For material / adhesive information please refer to page 322, 323.



135-1 supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	V max.	T ± 10 %	Designation as per VG-Norm	Tools	Article-No.
129-1-G	22.0	12.0	22.0	6.5	76.0	12.0	1.5	1.1	3.3	1.0	VG 95343 T06 D 001 A	32	401-29180
130-1-G	25.5	15.0	25.5	7.5	83.0	12.0	1.5	1.1	3.3	1.0	VG 95343 T06 D 002 A	32	401-30180
131-1-G	29.0	19.0	29.0	8.5	89.0	12.0	1.8	1.1	3.3	1.0	VG 95343 T06 D 003 A	32	401-31180
132-1-G	34.0	23.0	34.0	10.0	102.0	12.0	1.8	1.1	3.3	1.0	VG 95343 T06 D 004 A	32	401-32180
133-1-G	37.0	30.0	37.0	11.0	108.0	14.0	2.0	1.1	3.3	1.7	VG 95343 T06 D 005 A	32	401-33180
134-1-G	43.5	34.0	43.5	12.0	114.0	15.0	2.0	1.1	3.3	1.7	VG 95343 T06 D 006 A	32	401-34180
135-1-G	50.0	41.0	50.0	14.5	118.0	15.0	2.3	1.4	3.3	1.7	VG 95343 T06 D 007 A	32	401-35180
136-1-G	62.5	47.0	62.5	18.0	121.0	16.0	2.5	1.4	3.3	2.0	VG 95343 T06 D 008 A	32	401-36180
138-1-G	69.0	60.0	69.0	20.0	127.0	16.0	2.5	1.4	3.3	2.0	VG 95343 T06 D 009 A	32	401-38180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, VG style

Helashrink 170 Series, with rib

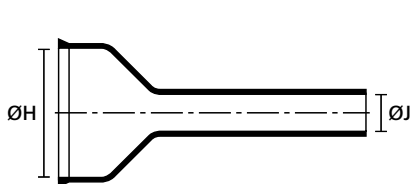
Features and benefits

- Cable strain relief for partially loaded connectors
- Small cable diameters
- Use with our W24 adhesive for excellent chemical resistance

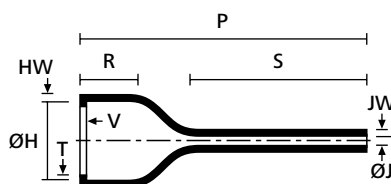
For material /
adhesive information
please refer to page
322, 323.



177-1-G supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

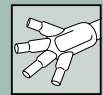
TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10 %	R ± 10 %	T ± 20 %	HW ± 20 %	JW nom.	V max.	S nom.	Designation as per VG-Norm	Tools	Article-No.
176-1-G	19.3	13.0	6.3	2.1	60.0	11.7	1.0	1.5	1.1	3.3	38.0	VG 95343 T06 D 011 A	32	401-76180
177-1-G	26.1	19.1	7.6	2.6	74.0	12.2	1.0	1.8	1.1	3.3	45.0	VG 95343 T06 D 012 A	32	401-77180
178-1-G	34.2	26.0	9.6	3.1	84.0	12.2	1.0	1.8	1.1	3.3	51.0	VG 95343 T06 D 013 A	32	401-78180
179-1-G	43.6	34.1	11.4	3.6	100.0	12.2	1.7	1.8	1.1	3.3	58.0	VG 95343 T06 D 014 A	32	401-79180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, VG style

Helashrink 190 Series, with external ribs

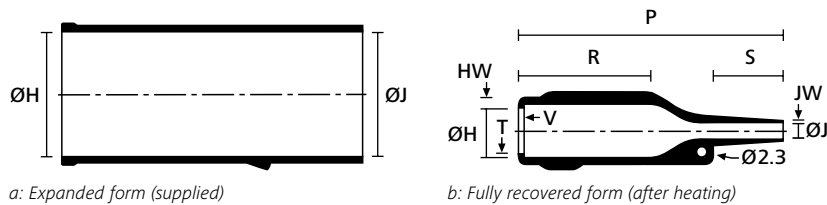
Features and benefits

- Specifically for small audio connectors
- Multiple external ribs to improve grip in harsh conditions

For material / adhesive information please refer to page 322, 323.



199-4-G supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	V ± 10%	T ± 20%	S nom.	Designation as per VG-Norm	Tools	Article-No.
199-4-G	17.5	14.0	7.0	4.3	70.0	35.0	1.8	0.5	1.5	1.0	20.0	VG 95343 T06 A 010 A	32	401-99480

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



2-Way Outlet Shapes

Helashrink 200 Series, low profile

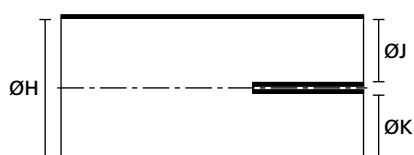
Features and benefits

- For harnesses which route multi-core cables in different directions
- High ratio expansion for quick and easy installation
- Mechanical tension relief

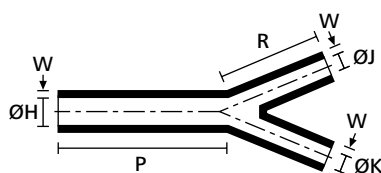
For material / adhesive information please refer to page 322, 323.



200 series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	ØK min. a	ØK max. b	P ± 10%	R ± 10 %	W ± 20 %	Tools	Article-No.
201-1-G	19.0	9.4	14.0	6.4	14.0	6.4	50.8	30.5	1.5	32	402-01180
201-2-G	31.8	9.4	15.7	6.4	15.7	6.4	50.8	30.5	1.5	32	402-01220

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



2-Way Outlet Shapes, VG style

Helashrink 200 Series

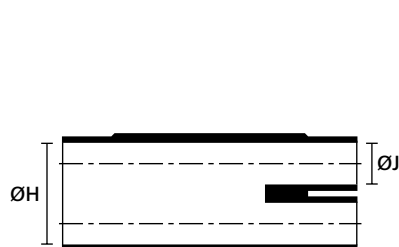
Features and benefits

- Mechanical tension relief in cable harnesses

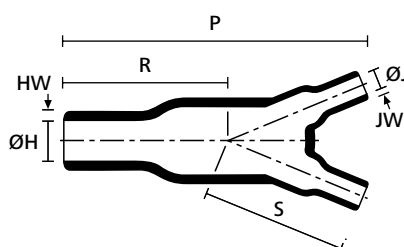
For material / adhesive information please refer to page 322, 323.



203-1 supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW nom.	S nom.	Tools	Designation as per VG-Norm	Article-No.
206-1-G	13.0	6.0	7.0	3.0	41.0	22.0	1.5	1.0	19.0	32	VG 95343 T08 C 001 A	402-06180
212-1-G	14.5	8.0	8.5	5.5	136.0	83.0	2.5	2.0	63.0	32	VG 95343 T08 C 005 A	402-12180
213-1-G	17.3	7.9	11.1	7.9	140.0	83.1	2.3	-	64.0	32	-	402-13180
203-1-G	27.0	12.0	13.0	6.0	80.0	38.0	2.5	1.5	43.0	32	VG 95343 T08 C 002 A	402-03180
204-1-G	39.0	18.0	27.0	12.0	131.0	66.0	3.0	2.5	81.0	32	VG 95343 T08 C 003 A	402-04180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



3-Way Outlet Shapes, VG style

Helashrink 300 Series

Features and benefits

- Cable strain relief and mechanical protection at harness transition points
- All outlets clearly marked to aid orientation during installation

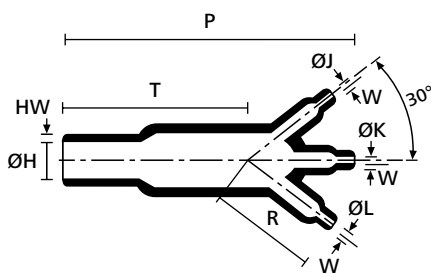
For material / adhesive information please refer to page 322, 323.



304-1-G supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

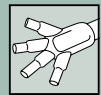
TYPE	ØH min. a	ØH max. b	ØJ/K/L min. a	ØJ/K/L max. b	P ± 10%	R ± 10 %	HW ± 30 %	W ± 20 %	T ± 10 %	Designation as per VG-Norm	Tools	Article-No.
306-1-G	13.0	6.5	6.5	3.5	46.0	21.0	1.5	1.0	20.3	VG 95343 T08 D 001 A	32	403-06180
304-1-G	27.0	13.5	13.0	7.0	93.0	43.0	2.5	1.5	42.9	VG 95343 T08 D 002 A	32	403-04180
310-1-G	38.5	19.0	19.0	10.0	135.0	62.0	3.0	1.8	61.0	VG 95343 T08 D 003 A	32	403-10180
311-1-G	55.5	25.5	27.0	12.5	192.0	89.0	4.5	3.1	88.9	VG 95343 T08 D 004 A	32	403-11180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



4-Way Outlet Shapes, VG style

Helashrink 400 Series

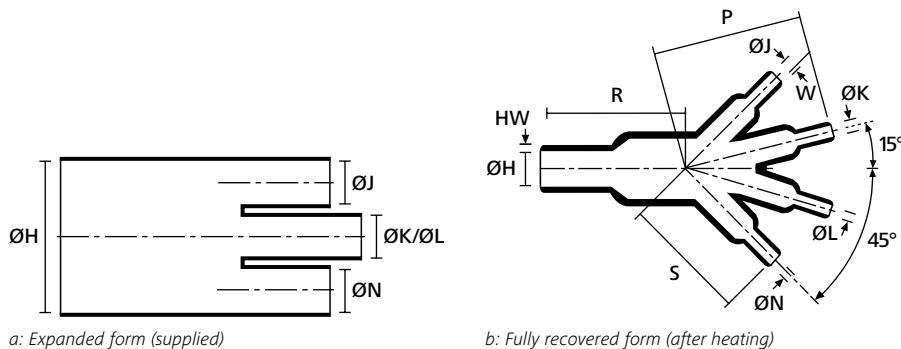
Features and benefits

- All outlets clearly marked to aid orientation during installation
- Cable strain relief and mechanical protection at harness transition points

For material / adhesive information please refer to page 322, 323.



403-1 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ/K/L/N min. a	ØJ/K/L/N max. b	P ± 10%	R ± 10 %	HW ± 20 %	W ± 10 %	T ± 20 %	S nom.	Designation as per VG-Norm	Tools	Article-No.
411-1-G	19.0	10.0	9.5	5.5	71.0	35.6	2.0	1.0	36.0	32.0	VG 95343 T08 E 002 A	32	404-11180
403-1-G	27.0	13.0	13.0	7.0	102.0	49.0	2.5	1.5	52.0	45.0	VG 95343 T08 E 004 A	32	404-03180
413-1-G	38.5	19.0	19.0	10.0	150.0	72.0	3.0	2.0	75.0	65.0	VG 95343 T08 E 005 A	32	404-13180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib

Features and benefits

- Used in conjunction with a circular grooved adaptor
- Provides strain relief and an environmental seal

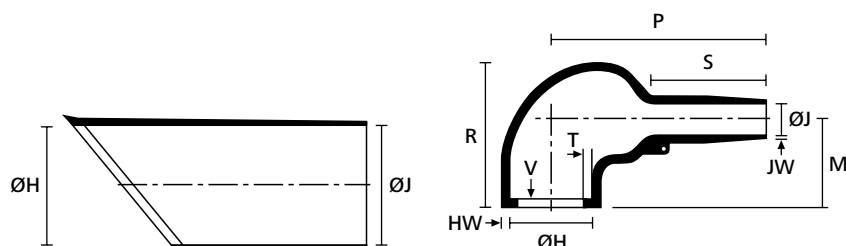
For material / adhesive information please refer to page 322, 323.



1152-4-G recovered onto a connector.



1155-4 supplied.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10 %	R ± 10 %	HW ± 20 %	HW ± 30 %	JW ± 20 %	V max.	T ± 20 %	M nom.	S nom.	Tools	Designation as per VG-Norm	Article-No.
1152-4-G	24.0	10.5	24.0	6.0	32.0	25.0	1.3	1.3	0.5	3.3	1.0	19.0	10.0	32	VG 95343 T06 E 001 A	411-52480
1154-4-G	30.0	14.5	30.0	6.0	41.0	27.0	1.5	1.5	1.5	3.3	1.0	19.0	12.0	32	VG 95343 T06 E 002 A	411-54480
1155-4-G	31.0	18.0	31.0	7.0	51.0	31.0	1.8	1.8	1.0	3.3	1.0	21.0	15.0	32	VG 95343 T06 E 003 A	411-55480
1156-4-G	36.0	22.5	36.0	8.5	59.0	38.0	1.8	1.8	1.0	3.3	1.0	26.0	15.0	32	VG 95343 T06 E 004 A	411-56480
1157-4-G	43.0	28.5	43.0	10.0	71.0	45.0	2.0	2	1.0	3.3	1.7	30.0	16.0	32	VG 95343 T06 E 005 A	411-57480
1158-4-G	60.0	35.0	60.0	16.0	101.0	54.0	3.3	-	1.5	3.3	1.7	35.0	30.0	32	VG 95343 T06 E 006 A	411-58480
1159-4-G	66.0	45.0	66.0	17.0	108.0	68.0	3.8	3.8	2.0	3.3	2.0	42.0	51.0	32	VG 95343 T06 E 007 A	411-59480
1160-4-G	82.0	61.0	82.0	25.0	152.0	84.0	4.0	4	4.0	3.3	2.0	52.0	39.0	32	VG 95343 T06 E 008 A	411-60480

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Right-Angle Shapes, MIL style

Helashrink 1100 Series, with rib

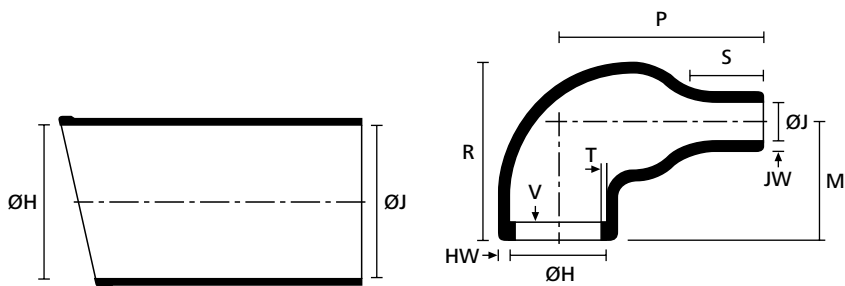
Features and benefits

- Used in conjunction with a circular grooved adaptor for strain relief

For material / adhesive information please refer to page 322, 323.



1108-4 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 30 %	V max.	T ± 20 %	M nom.	S nom.	Tools	Article-No.
1108-4-G	16.5	7.9	16.5	3.8	17.3	20.1	1.0	1.6	3.3	1.0	15.2	5.1	32	411-08480

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Right-Angle Shapes

Helashrink 1100 Series, without rib

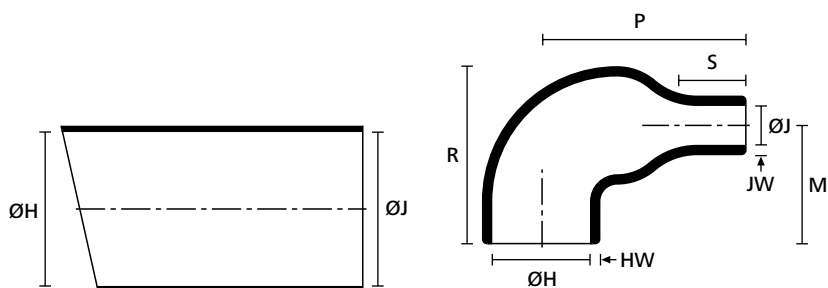
Features and benefits

- Strain relief for connector cable
- Easy re-entry for repair when combined with hot melt adhesive

For material /
adhesive information
please refer to page
322, 323.



1108-1 supplied / fully recovered.



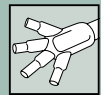
a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 30 %	M nom.	S nom.	Tools	Article-No.
1108-1-G	16.5	7.9	16.5	2.5	18.3	20.1	1.0	1.6	15.2	5.1	32	411-08180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Right-Angle Shapes, VG style/MIL style

Helashrink 1100 Series, with rib, low profile

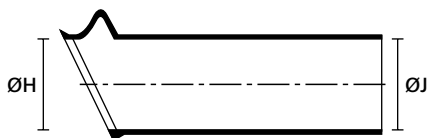
Features and benefits

- Lightweight, low profile, compact strain relief and mechanical protection
- Typically used on airborne harnesses

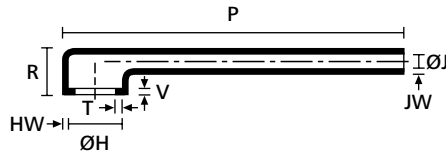
For material / adhesive information please refer to page 322, 323.



1123-1-G supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 30 %	T ± 10 %	V ± 10 %	Designation as per VG-Norm	Tools	Article-No.
1121-1-G	22.0	12.0	22.0	6.5	70.0	19.0	1.5	1.1	1.0	3.0	VG 95343 T06 F 001 A	32	411-21180
1122-1-G	25.5	15.0	25.5	7.5	79.0	20.0	1.5	1.1	1.0	3.0	VG 95343 T06 F 002 A	32	411-22180
1123-1-G	29.0	19.0	29.0	8.5	89.0	21.0	1.8	1.1	1.0	3.0	VG 95343 T06 F 003 A	32	411-23180
1124-1-G	34.0	23.0	34.0	10.0	102.0	22.0	1.8	1.1	1.0	3.0	VG 95343 T06 F 004 A	32	411-24180
1125-1-G	37.0	30.0	37.0	11.0	108.0	24.0	2.0	1.1	1.7	3.0	VG 95343 T06 F 005 A	32	411-25180
1126-1-G	43.5	34.0	43.5	12.0	121.0	27.0	2.0	1.1	1.7	3.0	VG 95343 T06 F 006 A	32	411-26180
1127-1-G	50.0	41.5	50.0	14.5	132.0	30.0	2.3	1.4	1.7	3.0	VG 95343 T06 F 007 A	32	411-27180
1128-1-G	62.5	47.0	62.5	1.0	133.0	33.0	2.5	1.4	2.0	3.0	VG 95343 T06 F 008 A	32	411-28180
1129-1-G	69.0	60.0	69.0	20.0	137.0	35.0	2.5	1.4	2.0	3.0	VG 95343 T06 F 009 A	32	411-29180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib, low profile, high ratio

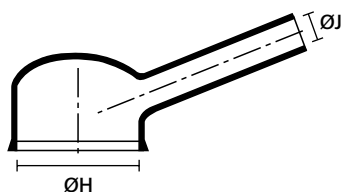
Features and benefits

- Use in applications of partially loaded connectors with small cable diameters
- Tail design for easy orientation prior to cooling
- Strain relief for connector cable

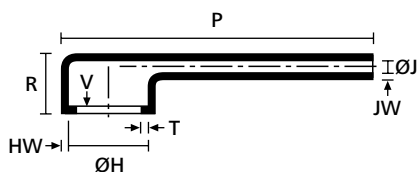
For material / adhesive information please refer to page 322, 323.



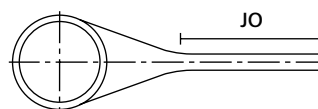
1135-1-G supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)



Fully recovered form (after heating)

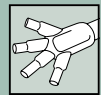
TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10 %	R ± 10 %	HW ± 20 %	JW ± 20 %	JO ± 10 %	V max.	T ± 20 %	Designation as per VG-Norm	Tools	Article-No.
1133-1-G	19.0	13.0	6.0	2.0	45.0	16.0	1.5	1.1	21.8	3.3	1.0	VG 95343 T06 F 011 A	32	411-33180
1134-1-G	26.0	19.0	7.5	2.5	67.0	18.0	1.8	1.1	29.2	3.3	1.0	VG 95343 T06 F 012 A	32	411-34180
1135-1-G	34.0	26.0	9.5	3.0	81.0	19.0	1.8	1.1	35.3	3.3	1.0	VG 95343 T06 F 013 A	32	411-35180
1136-1-G	43.5	34.0	11.5	3.5	116.0	21.0	1.8	1.1	47.0	3.3	1.7	VG 95343 T06 F 014 A	32	411-36180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



T-Shapes, VG style/MIL style

Helashrink 1200 Series

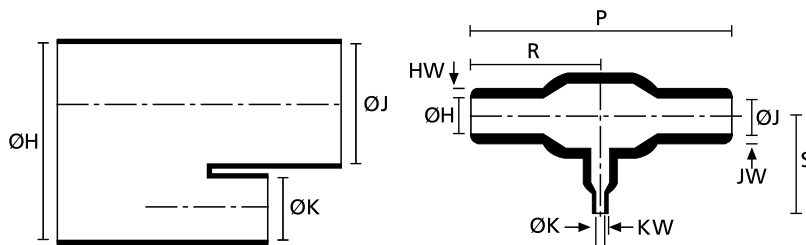
Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses

For material / adhesive information please refer to page 322, 323.



1202-1-G recovered onto a cable harness.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH/J min. a	ØH/J max. b	ØK min. a	ØK max. b	P ± 10 %	R ± 10 %	HW ± 20 %	JW ± 30 %	KW ± 20 %	Tools	S ± 10 %	Designation as per VG-Norm	Article-No.
1206-1-G	6.5	3.5	6.5	3.5	30.0	15.0	1.0	1.0	1.0	32	15.0	VG 95343 T08 A 009 A	412-06180
1203-1-G	13.0	6.0	6.5	3.0	52.0	26.0	1.5	1.5	1.0	32	19.3	VG 95343 T08 A 001 A	412-03180
1202-1-G	13.0	7.0	13.0	7.0	59.0	29.5	1.5	1.5	1.5	32	29.2	VG 95343 T08 A 010 A	412-02180
1205-1-G	17.5	9.0	7.5	4.0	51.0	25.5	1.5	1.5	1.0	32	25.5	-	412-05180
1201-1-G	17.5	9.0	10.0	5.0	47.0	23.5	1.5	1.5	1.0	32	23.5	VG 95343 T08 A 007 A	412-01180
1207-1-G	27.0	12.4	27.0	13.5	120.0	60.0	2.5	2.5	2.5	32	59.9	VG 95343 T08 A 011 A	412-07180
1209-1-G	27.0	13.0	13.0	6.0	108.0	54.0	2.5	2.5	1.5	32	38.6	VG 95343 T08 A 002 A	412-09180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



T-Shapes, VG style

Helashrink 1200 Series, Offset

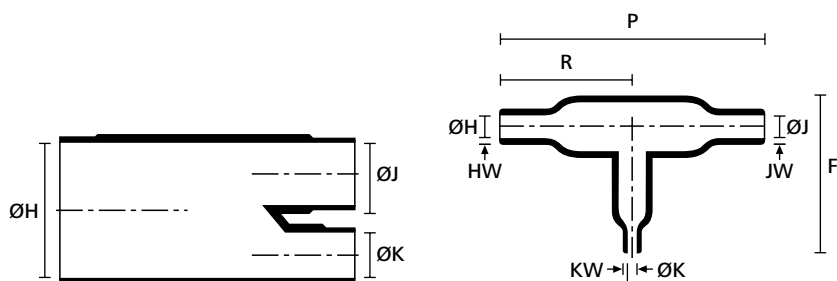
Features and benefits

- For strain relief, sealing and mechanical protection
- Use adhesive for cable transition on harness, if environmental sealing is required

For material / adhesive information please refer to page 322, 323.



1204-1 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

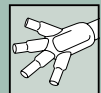
TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	ØK min. a	ØK max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	KW ± 20%	F ± 15%	Designation as per VG-Norm	Tools	Article-No.
1204-1-G	13.0	7.5	6.5	4.0	6.5	4.0	56.0	33.0	1.5	1.0	1.0	27.0	VG 95343 T08 A 016 A	32	412-04180
1216-1-G	33.0	13.0	16.5	6.5	16.5	6.5	97.0	54.0	2.5	1.5	1.5	52	VG 95343 T08 A 017 A	32	412-16180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Angled T-Shapes, VG style

Helashrink 1300 Series, 30° & 45° angle

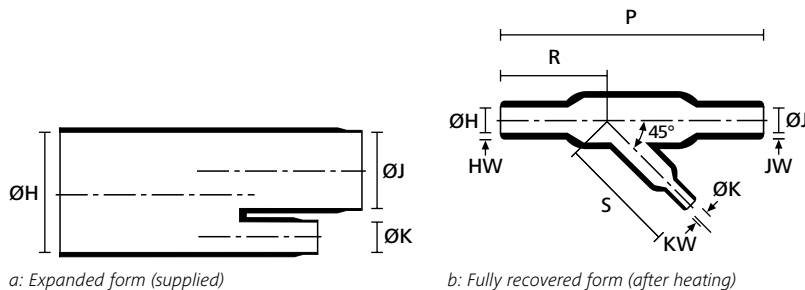
Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses
- Branching part 30° & 45° Y-joint
- Mechanical strain relief for cable harnesses

For material / adhesive information please refer to page 322, 323.



1303-1-G supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	ØK min. a	ØK max. b	P ± 10 %	R ± 10 %	HW ± 30 %	JW ± 30 %	KW ± 20 %	S ± 10 %	Angle	Designation as per VG-Norm	Tools	Article-No.
1306-1-G	13.0	6.0	6.5	3.0	6.5	3.0	45.0	23.0	1.5	1.0	1.0	21.5	45°	VG 95343 T06 B 010 A	32	413-06180
1301-1-G	13.0	7.0	13.0	7.0	7.0	3.5	50.0	23.0	1.5	1.5	1.0	23.0	45°	VG 95343 T08 B 001 A	32	413-01180
1302-1-G	27.0	13.0	27.0	13.0	7.0	3.5	92.0	41.0	2.5	2.5	1.0	36.0	45°	VG 95343 T08 B 004 A	32	413-02180
1303-1-G	27.0	14.0	27.0	14.0	13.0	7.5	145.0	70.0	2.5	2.5	1.5	54.0	45°	VG 95343 T08 B 002 A	32	413-03180
1311-1-G	30.4	15.2	30.4	15.2	20.3	10.2	82.6	31.8	2.5	2.5	1.8	50.8	30°	VG 95343 T08 B 003 A	32	413-11180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Angle Shapes

Helashrink 1800 Series, with rib, 30°, 45°, 60° angle

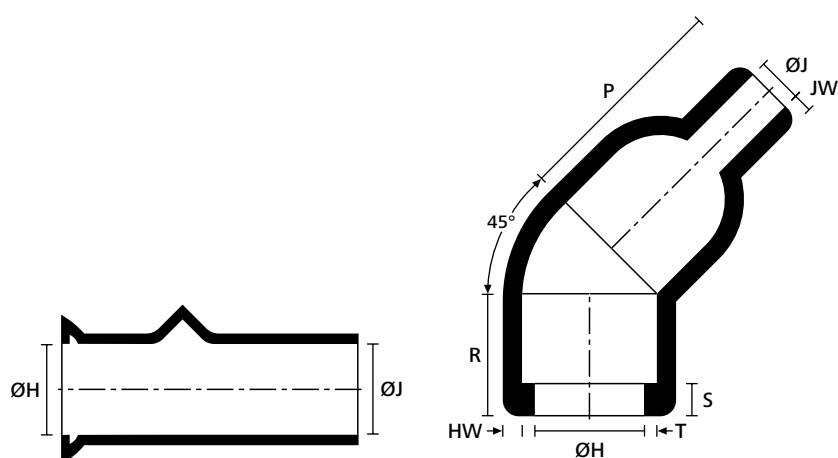
Features and benefits

- Provides strain relief and mechanical protection for harness systems
- Use in conjunction with a circular grooved adaptor

For material / adhesive information please refer to page 322, 323.



1821-42 supplied / fully recovered.



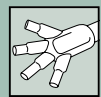
a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	Angle	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10 %	R ± 10 %	HW ± 20 %	JW ± 20 %	S ± 10 %	T ± 10 %	Tools	Article-No.
1820-4-G	30°	36.0	21.4	36.0	8.3	46.0	26.0	1.8	1.0	26.0	8.6	32	418-20001
1817-4-G	30°	60.0	33.7	60.0	14.8	65.0	32.0	2.0	1.0	32.0	3.0	32	418-17001
1821-42-G	45°	20.0	14.2	20.0	4.1	24.0	10.0	2.3	1.8	3.0	1.1	32	418-21013
1803-4-G	45°	24.0	17.8	12.0	5.6	28.0	14.0	2.8	2.3	3.0	1.0	32	418-03005
1830-4-G	45°	31.0	17.9	31.0	7.0	55.0	35.0	1.8	1.8	-	2.0	32	418-30003
1807-4-G	45°	35.6	18.0	35.6	7.4	43.2	10.2	1.8	1.8	3.0	1.0	32	418-07003
1831-4-G	45°	36.0	22.1	36.0	8.4	60.0	40.0	2.0	2.0	-	2.0	32	418-31001
1805-4-G	45°	40.0	18.8	40.0	7.0	28.0	11.0	1.5	1.5	3.0	1.0	32	418-05003
1806-4-G	45°	42.6	27.9	42.6	9.7	85.0	17.8	2.0	2.0	3.0	1.7	32	418-06002
1832-4-G	45°	43.0	27.9	43.0	9.9	65.0	45.0	2.2	2.2	-	2.0	32	418-32000
1819-4-G	60°	43.0	28.2	43.0	9.9	55.0	18.0	2.0	1.0	18.0	3.0	32	418-19001

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Angle Shapes

Helashrink 1800 Series, with rib, 45°angle

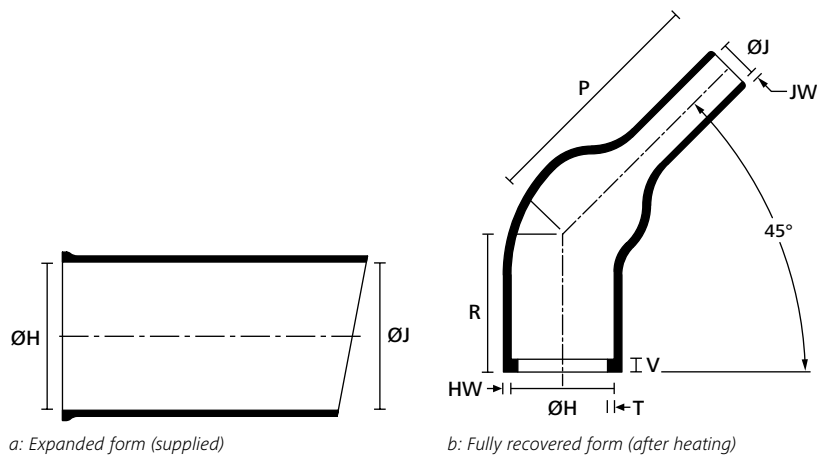
Features and benefits

- Provides strain relief and mechanical protection for harness systems
- Use in conjunction with a circular grooved adaptor

For material / adhesive information please refer to page 322, 323.



1837-4 supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R nom.	HW ± 20 %	JW ± 30 %	V max.	T ± 20 %	Tools	Article-No.
1834-4-G	10.0	6.6	10.0	2.0	14.2	15.2	1.0	0.6	1.5	0.6	32	418-34001
1835-4-G	17.0	7.6	17.0	3.5	15.7	16.3	1.0	0.6	1.5	0.6	32	418-35001
1836-4-G	24.0	9.9	24.0	4.0	19.0	12.7	1.0	0.6	1.5	0.6	32	418-36001
1837-4-G	30.0	13.9	30.0	5.8	29.9	19.0	1.0	0.6	1.5	0.6	32	418-37001

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Angle Shapes

Helashrink 1800 Series, with rib, 45° angle

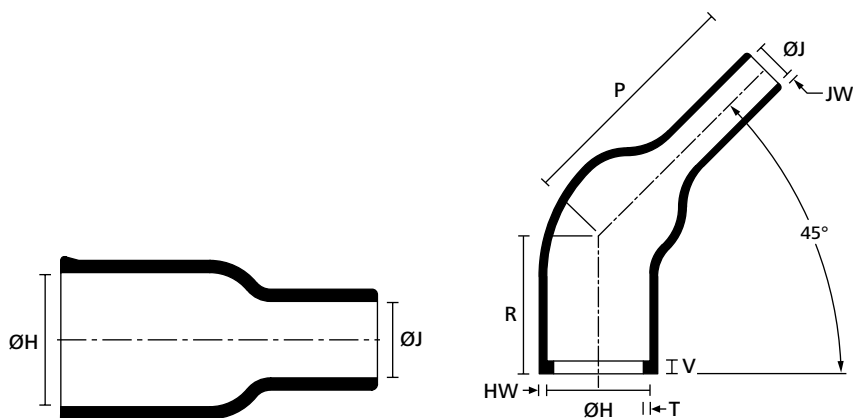
Features and benefits

- Provides strain relief and mechanical protection for harness systems
- Use in conjunction with a circular grooved adaptor
- For use in elevated temperature scenarios

For material / adhesive information please refer to page 322, 323.



1837-5 supplied / fully recovered.



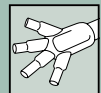
a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R nom.	HW ± 20 %	JW ± 30 %	V max.	T ± 20 %	Tools	Article-No.
1834-5-L	10.0	6.6	4.0	2.0	14.2	15.2	1.0	0.6	1.5	0.6	32	418-34002
1835-5-L	15.0	7.6	7.0	3.5	15.7	16.3	1.0	0.6	1.5	0.6	32	418-35002
1836-5-L	19.0	9.9	8.0	4.0	19.0	12.7	1.0	0.6	1.5	0.6	32	418-36002
1837-5-L	27.0	13.9	11.0	5.8	29.9	19.0	1.0	0.6	1.5	0.6	32	418-37002

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



2-Way Outlet Shapes, Breakout Boots

Helashrink 200 Series, in line, low voltage

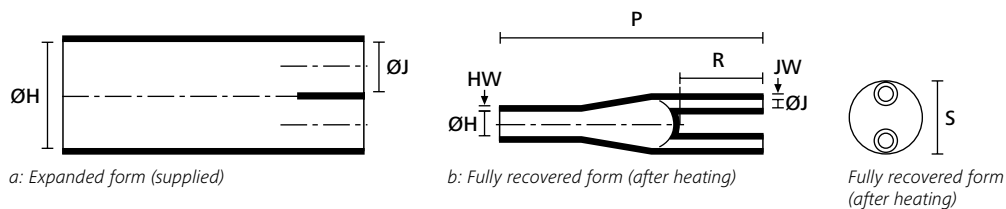
Features and benefits

- Easy, time-saving insulation of cable branch point where it splits into single wires
- Adhesive is applied to relieve mechanical tension in cable harnesses

For material / adhesive information please refer to page 322, 323.



223-2 supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	S nom.	Tools	Article-No.
216-3-B8W	21.0	9.4	9.0	2.8	76.5	20.0	1.6	1.6	14.0	32	402-16039
223-2-B8W	33.0	9.4	17.5	4.1	94.0	30.0	1.5	1.2	20.0	32	402-23058
218-2-B8W	49.0	22.9	20.0	7.6	119.0	34.0	3.2	3.2	30.0	32	402-18051

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



4-Way Outlet Shapes, Breakout Boots

Helashrink 400 Series, in line, low voltage

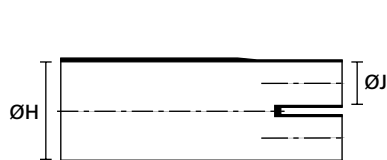
Features and benefits

- Easy, time-saving insulation of cable branch point where it splits into single wires
- Made of tough, cross-linked, Polyolefin
- Adhesive is applied to relieve mechanical tension in cable harnesses

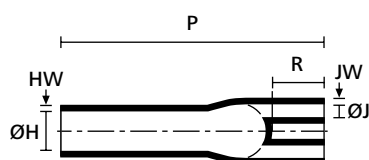
For material / adhesive information please refer to page 322, 323.



400 series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

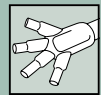


Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	S nom.	Tools	Article-No.
442-1-B8WM250	28.0	9.0	9.0	1.8	78.0	17.0	2.7	2.0	20.0	32	404-42009
408-2-B8W2	35.0	12.0	15.0	3.0	95.0	24.0	2.5	2.0	22.0	32	404-08022
418-4-B8W2	60.0	22.9	30.0	6.4	202.0	38.1	4.1	3.3	38.1	32	404-18020

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



5-Way Outlet Shapes, Breakout Boots

Helashrink 500 Series, in line, low voltage

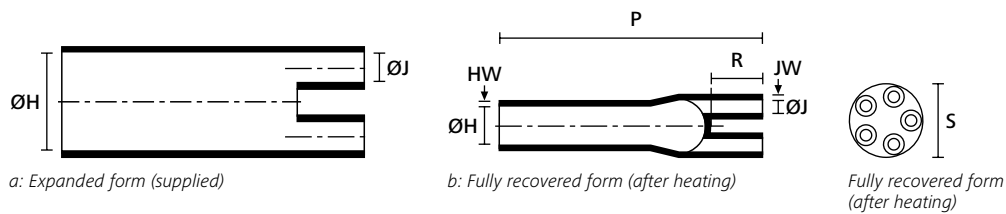
Features and benefits

- Cable breakout boots for insulating and sealing cable crotch or conduit system
- Excellent resistance to abrasion and weathering

For material / adhesive information please refer to page 322, 323.



500 Series supplied / fully recovered.



TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	S nom.	Tools	Article-No.
508-5-B8W	41.9	24.5	16.9	7.5	180.0	30.0	3.5	3.0	48.0	32	405-08049

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Locating Bushes

Helashrink 1760, 1790, 1820 Series

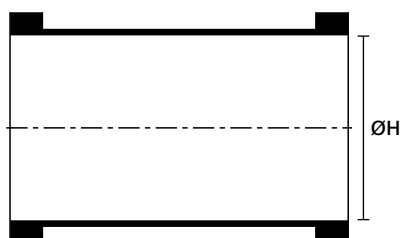
Features and benefits

- Provides location, cushioning, shimming and protection on cable runs through bulk head or enclosure entry points
- Available in a range of materials and adhesives for most applications.
- Designed for use on aerospace engine applications

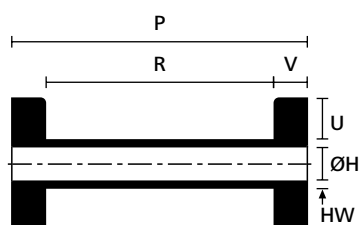
For material / adhesive information please refer to page 322, 323.



1793-1 supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	ØH min. a	ØH max. b	P ± 10%	R ± 10 %	HW ± 20 %	V ± 10 %	Tools	U ± 20%	Article-No.
1822-1-G	12.0	5.9	30.0	24.0	6.1	3.0	32	2.0	418-22001
1796-1-G	15.0	6.4	29.0	24.0	1.5	2.5	32	2.0	417-96001
1823-1-G	16.0	7.8	32.0	24.0	6.2	4.0	32	2.0	418-23001
1793-1-G	20.0	9.5	35.0	25.0	1.5	5.0	32	3.0	417-93001
1795-1-G	26.0	12.7	35.0	25.0	2.0	5.0	32	3.0	417-95001
1794-1-L	30.0	18.0	35.0	25.0	2.0	5.0	32	3.0	417-94002

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Heat shrinkable caps 3:1

PEC - thin wall, adhesive, self-extinguishing

Pinched end caps (PEC) are pieces of heat shrink tubing shrunk onto a filler to create an end cap. These heat shrink caps are designed to seal and protect wire ends, such as stub splices.

Features and benefits

- Thin-walled (short shrink time, lightweight, flexible)
- 3:1 shrink ratio (wider range of applications, higher contact pressure)
- With thermoplastic (hot-melt) adhesive
- Continuous operating temperature up to +125°C
- Peak temperature up to 250°C/4h (heat shock test)
- Self-extinguishing

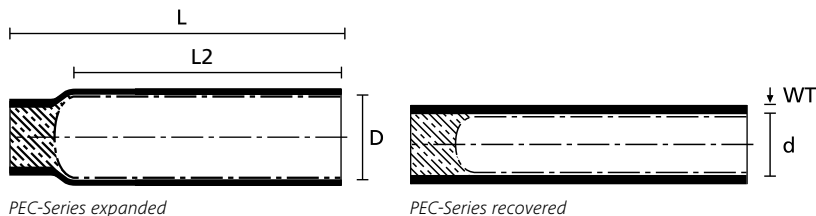


The appropriate End Cap for every cable diameter and cable type.

Additional colors, sizes, and custom cut lengths upon request.

MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	3:1
Min. Shrink Temperature	+120 °C
Operating Temperature	-45 °C to +125 °C
Dielectric Strength	15 kV/mm
Flammability	self-extinguishing in 30 seconds according to SAE-AMS-DTL-23053/4
Self extinguishing	Yes

RoHS



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Length (L2)	Pack Cont.	Article-No.
PEC-3/1	3.0	1.0	1.00	25.0	20.0	50 pcs.	416-00000
PEC-4.8/1.5	4.8	1.5	1.00	30.0	25.0	50 pcs.	416-00003
PEC-6/2	6.0	2.0	1.00	30.0	25.0	50 pcs.	416-00001
PEC-9/3	9.0	3.0	1.40	35.0	27.0	50 pcs.	416-00002

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



End Caps

Helashrink 1600 Series, low voltage

End caps are suitable for use on both polymeric and paper insulated, lead jacketed cables which may include aluminium or steel armouring.

Features and benefits

- Seal cables during storage or transportation
- Insulating cap for live LV cables (0.6/1kV)
- Adhesive lining for excellent environmental seal
- High shrink ratio to minimise number of sizes needed
- Can be fitted with air valves for pressurised cable applications
- High shrink ratio to minimise number of sizes needed

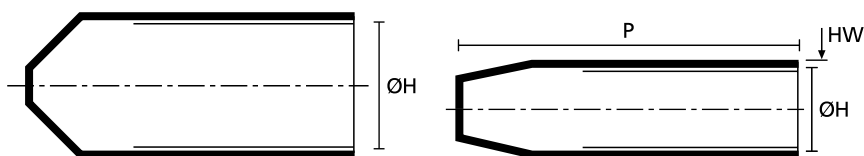


The appropriate end cap for every cable diameter and cable types.

For material /
adhesive information
please refer to page
322, 323.

MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Flexibility	semi rigid
Shrink Ratio	up to 3:1
Min. Shrink Temperature	+135 °C
Operating Temperature	-55 °C to +80 °C
Dielectric Strength	15 kV/mm
Flammability	ASTM D635

RoHS



a: Expanded form (supplied)

b: Fully recovered form (after heating)

TYPE	Bundle Ø min.	Bundle Ø max.	ØH min. a	ØH max. b	P ± 10%	HW ± 20 %	Tools	Article-No.
1612-1-B5W2	4.0	8.0	12.0	4.0	40.0	2.6	32	416-12046
1613-1-B5W2	6.5	16.0	20.0	6.0	55.0	2.8	32	416-13060
1602-1-B5W2	10.0	20.0	25.0	8.5	65.0	2.8	32	416-02008
1614-1-B5W2	16.0	32.0	40.0	15.0	75.0	3.3	32	416-14047
1615-1-B5W2	26.0	51.0	62.0	23.0	132.0	3.8	32	416-15035
1617-1-B5W2	32.0	61.0	75.0	32.0	140.0	4.0	32	416-17033
1616-1-B5W2	48.0	80.0	105.0	45.0	135.0	4.0	32	416-16053
1609-1-B5W2	65.0	110.0	120.0	60.0	150.0	4.2	32	416-09000
1610-1-B5W2	90.0	135.0	160.0	82.0	135.0	4.5	32	416-10000

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. For these moulded shapes a wide range of material / adhesive combinations are available. Please refer to the Moulded Shapes catalogue.



Hot Melt Tape for Heat Shrinkable Tubing and Shapes

HMT200A

Designed for use with heat shrink sleeving and mouldings.

Features and benefits

- Hot melt tape flows when heated to seal against moisture
- For heat shrink tubing and mouldings

For material / adhesive information please refer to page 322, 323.



HMT200A-Tape.

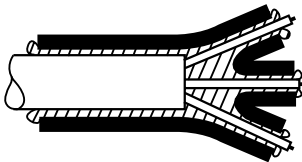


Adhesive tape HMT200A for sealing against humidity.

MATERIAL	Ethylenevinylacetate (EVA)
Operating Temperature	-55 °C to +105 °C

HF ✓

RoHS ✓



HMT200A in combination with unlined heat shrinkable shapes

TYPE	Thickness (T)	Width (W)	Colour	Reel Length	Tools	Article-No.
HMT200A	0.25	25.0	Translucent (TT)	10 m	32	354-02260
	0.25	25.0	Translucent (TT)	50 m	32	354-02259

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes.



Two-Component Adhesive for Heat Shrinkable Tubing and Shapes

V9500

Features and benefits

- High performance, two-part epoxy adhesive
- Very resistant to most solvents and fuels, even at elevated temperatures
- Two different packages available
- V9500 available in 10g sachets for manual mixing
- Processing set: emery paper, small mixing bowl and wooden spatula
- High performance bonding
- Meets military requirements for heat shrinkable components for harnesses

For material / adhesive information please refer to page 322, 323.



Two-component epoxy adhesive V9500.



The V9500 applicator gun guarantees the clean and precise coating of special fittings.

MATERIAL	Epoxy resins (EP)
Colour	Black (BK)
Curing Temperature	+135 °C
Curing Time	24 hours at +25 °C, 2 hours at +85 °C
Operating Temperature	-75 °C to +150 °C

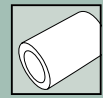
RoHS ✓

TYPE	Description	Designation as per VG-Norm	Article-No.
V9500NOZZLE-N10	-	VG 95343 T15 MA	627-95011
V9500 Epoxy Kit	5 x 10g sachets (50g), 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	-	627-95000
	1 x dual cartridge, 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	VG 95343 T15 A 002 B	627-95001
V9500 Epoxy Cartridge	Two-component adhesive cartridge	-	627-95002
V9500 Applicator Gun	Applicator gun	VG 95343 T15 DA	627-95003

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Chloroprene tubing and grommets

Helsyn H

The chloroprene tubings are ideally suited to rigorous environments such as automotive, aerospace, mass transit and defence markets. As the material is highly elastic, it's original size can be expanded 500% on application and 200% in continuous use. To save time and effort when fitting the tubing, try the HellermannTyton three prong tools and the Hellerine lubricant, which are specially designed for use with HellermannTyton chloroprene tubing.

Features and benefits

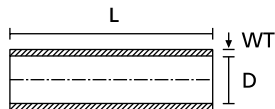
- Highly elastic, easy to fit chloroprene tubing
- Withstands up to 120 °C intermittent temperature
- Covers many cable diameters with one size
- Available in cut lengths



H rubber tubing is highly flexible and easy to apply.

MATERIAL	Chloroprene Rubber (CR)
Operating Temperature	-65 °C to +95 °C, intermittent +120 °C
Flammability	UL 94 HB
Elongation at break (min.)	500 %

RoHS ✓



Chloroprene tubing



TYPE	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Reel Length	Pack Cont.	Colour	Tools	Article-No.
H12BKX100M	1.2	0.80	2.0	100 m	100 m	Black (BK)	37	608-01200
H15BKX100M	1.5	0.80	3.0	100 m	100 m	Black (BK)	37	608-01201
H25BKX100M	2.5	0.80	4.0	100 m	100 m	Black (BK)	37	608-01203
H30BKX100M	3.0	0.80	6.0	100 m	100 m	Black (BK)	37;39	608-01204
H40BKX100M	4.0	1.00	8.0	100 m	100 m	Black (BK)	37;39	608-01205
H50BKX100M	5.0	1.05	9.0	100 m	100 m	Black (BK)	37-38	608-01206
H75BKX25M	7.5	1.25	13.0	25 m	25 m	Black (BK)	37-40	608-01207

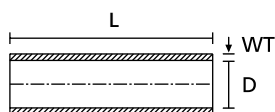
Recommended Tools: 37=TPPexpand_3.3, 38=TPPexpand_3.7, 39=VA2.5/5, 40=VA2.5/5 PRONG 8. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Helsyn H



Chloroprene tubing



TYPE	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Length (L)	Pack Cont.	Colour	Tools	Article-No.
H12X20BK	1.2	0.80	2.0	20.0	1000 pcs.	Black (BK)	37	600-02498
H15X20BK	1.5	0.80	3.0	20.0	1000 pcs.	Black (BK)	37	600-02929
H25X25BK	2.5	0.80	4.0	25.0	1000 pcs.	Black (BK)	37	600-02934
H30X25BK	3.0	0.80	6.0	25.0	1000 pcs.	Black (BK)	37;39	600-02938
H40X30BK	4.0	1.00	8.0	30.0	500 pcs.	Black (BK)	37;39	600-02947
H50X25BK	5.0	1.05	9.0	25.0	500 pcs.	Black (BK)	37-38	600-02949
H75X30BK	7.5	1.25	13.0	30.0	250 pcs.	Black (BK)	37-40	600-02198

Recommended Tools: 37=TPPexpand_3.3, 38=TPPexpand_3.7, 39=VA2.5/5, 40=VA2.5/5 PRONG 8. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Chloroprene tubing and grommets

Helsyn TH - thin wall

The chloroprene tubings are ideally suited to rigorous environments such as automotive, aerospace, mass transit and defence markets. As the material is highly elastic, it's original size can be expanded 500% on application and 200% in continuous use. To save time and effort when fitting the tubing, try the HellermannTyton three prong tools and the Hellerine lubricant, which are specially designed for use with HellermannTyton chloroprene tubing.

Features and benefits

- Highly elastic, easy to fit chloroprene tubing
- Withstands up to 120°C intermittent temperature
- Covers many cable diameters with one size
- Available in cut lengths



H rubber tubing is highly flexible and easy to apply.

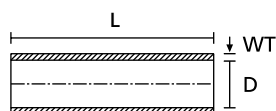
MATERIAL	Chloroprene Rubber (CR)
Operating Temperature	-65 °C to +95 °C, intermittent +120 °C
Flammability	UL 94 HB
Elongation at break (min.)	500 %

RoHS



Chloroprene tubing and grommets

Helsyn TH - thin wall



Chloroprene tubing



TYPE	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Reel Length	Colour	Tools	Article-No.
TH100BKX25M	10.0	1.00	20.0	25 m	Black (BK)	38-40	608-01208
TH120BKX25M	12.0	1.00	23.0	25 m	Black (BK)	38-41	608-01209
TH140BKX20M	14.0	1.10	25.0	20 m	Black (BK)	39;41	608-01210
TH170BKX20M	17.0	1.20	28.0	20 m	Black (BK)	39;41	608-01202

Recommended Tools: 38=TPPexpand_3.7, 39=VA2.5/5, 40=VA2.5/5 PRONG 8, 41=VA2.5/5 PRONG 18. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Helsyn TH - thin wall



TYPE	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Length (L)	Pack Cont.	Colour	Tools	Article-No.
TH100X35BK	10.0	1.00	20.0	35.0	100 pcs.	Black (BK)	38-40	600-02493
TH120X50BK	12.0	1.00	23.0	50.0	100 pcs.	Black (BK)	38-41	600-02495
TH140X50BK	14.0	1.10	25.0	50.0	100 pcs.	Black (BK)	39;41	600-02496
TH170X50BK	17.0	1.20	28.0	50.0	100 pcs.	Black (BK)	39;41	600-02497

Recommended Tools: 38=TPPexpand_3.7, 39=VA2.5/5, 40=VA2.5/5 PRONG 8, 41=VA2.5/5 PRONG 18. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Installation aid for tubing and grommets

Hellerine

Hellerine lubricant for tubing and grommets installations.

Features and benefits

- Effective aid for affixing elastomer sleeves
- Universally employable
- Evaporates after installation
- Consists of 99% vegetable oils
- Discoloration-free
- Offered in 250 ml bottle or in cans of 5 l or 20 l



Hellerine lubricant in 250 ml plastic bottle.

TYPE	Description	Article-No.
HELLERINE 0.25 LITER	Hellerine assembly aid, 0.25 liter	625-00250
HELLERINE 5 LITER	Hellerine assembly aid, 5 liter	625-05000
HELLERINE 20 LITER	Hellerine assembly aid, 20 liter	625-06000

Subject to technical changes.

A cut above the rest: Quality Heat Shrink Tubing begins here

From practical dispenser boxes for convenient daily use to specialised solutions that meet high performance demands: Find just the right Heat Shrink Tubing for your application needs.

Discover our comprehensive portfolio here or get in touch for expert advice.

www.HellermannTyton.com/insulation

MADE FOR REAL

HellermannTyton

Heat Shrink Tubing 3:1

Heat Shrink Tubing
Warmschrumpfschlauch
Gaines thermoretractables
Tubos termoretráctiles
Tubos termoretráctiles
Gaine termorestringenti
Krimpkeus
Krympeslange
Värmekrympslang
Kutistemuoviletku
Rury i koszulki termokurczliwe
Teplém smršťovateľné hadice
Zsugorcsó
Toploskrčne cevi
Tuburi termocontractibile
Термоконтракционные трубки
Isyila Daralan Makaronlar
Термоусаживаемые трубки

3:1

HellermannTyton

Article-No.: 308-31806

HIS-3 18/6-PO-X-BU

Qty: 1 PCS Col: Blue Mat: PO-X

Lot: 88317-1118-175696/110

308-31806

4 031026 218938

4 031026 218938

S: 77 708 2
N: 18 003 56
FIN: 32 377 58

Made in PRC

UL324 / E14329 / 600V / 125°C



3.1 Non-Metallic Conduit Systems

Non-Metallic Conduits	
HG-SW PA6 Standard	368
HG-LW PA6 Light	369
HG-FR PA6 Flame Retardant	370
HG-DC PA6 Double Slit	371
Fittings for Non-Metallic Conduits	
Fixed external thread	HG-S, Straight, IP66 372, 373 HG-90, 90° Elbow, IP66 374, 375



3.2 Metallic Conduit Systems

Metallic Conduits	
SC galvanised steel conduit	376
SSC stainless steel conduit	377
Fittings for Metallic Conduits	
SC-FM fixed external thread, IP40	378
Metallic Conduits with Plastic Coating	
PCS galvanised steel, PVC coating	379
Fittings for Metallic Conduits with Plastic Coating	
PCS-FM fixed external thread, IP54	380
PCS-FMC compression fitting, fixed thread, IP65	381
Metallic Conduits with Liquid-Tight Cover	
LTS galvanised steel, PVC cover	382
Fittings for Metallic Conduits with Liquid-Tight Cover	
LTS-FMC compression fitting, fixed thread, IP68	383



3.3 Spiral-Reinforced Conduit Systems

Spiral-Reinforced PVC Conduits	
PSR smooth bore	384
Fittings for Spiral-Reinforced PVC Conduits	
PSR-S fixed external thread, IP65-IP67	385
PSR-90 fixed external thread, 90° elbow, IP65-IP67	386
FlexiGuard Conduits and Fittings	
FG PVC conduit, steel wire spiral-reinforced	387
FG IP54 fitting, swivel thread	388
FG-UH IP54 fitting with mounting bracket	389



3.4 Conduit System Accessories

HelaGuard Accessories	
Conduit Clips	PACC for corrugated conduits 390 AFCS plated steel and PVC liner 391



3.5 Protective Tubing and Spiral Binding

Helawrap Cable Cover and Accessories	
HWPP in polypropylene	392, 393, 394
Helawrap in polyamide 6, UL94 V0	395
Helawrap HWPPMC with metal-content	396
HWClips	397
HWBase	398
HAT application tool	399
Spiral Binding	
SBPE standard polyethylene	400
SBPEFR polyethylene, flame-retardant	401
SBPA standard polyamide 6	402
SBPAV0 polyamide 6, flame-retardant	403
SBPTFE, PTFE	404
SBPEMC metal-content spiral binding	405
SBPPHDR polypropylene, high abrasion-resistant, narrow pitch	406
SBPPHDF polypropylene, high abrasion-resistant, wide pitch	407



3.6 Protective Sleeves

Expandable Braided Sleeves

HEGP standard polyester	408
HEGPX high-expansion polyester	409
HEGPETFR polyester, flame-retardant	410
HEGPETFRX high-expansion polyester flame-retardant	411
HEGPA66 polyamide 6.6, abrasion-resistant	412
HEGPL polyester, light weight	413
HLB polyester, in dispenser boxes	414
HEGMAN non-flammable meta-aramid	415
HEGMANWO non-flammable meta-aramid, water and oil-resistant	416

Open Woven Sleeves

Twist-In self-closing polyester sleeving	417
Twist-In-FR self-closing polyester sleeving, flame-retardant	418
Twist-In-EMIZ self-closing sleeving, EMI shielding	419
Twist-In-RR self-closing sleeving, rodent repellent	420
HELAHOOK re-closable polyester sleeving with hook-and-loop seal	421

Burst Protective Sleeves

HEGWS	422

Electromagnetic Shielding Sleeves

HEGEMIP electromagnetic protection	423
HEGEMIP-HY electromagnetic protection for hybrid automobiles	424
HEGEMIP-VG electromagnetic protection for defence applications	425



3.7 Wiring Ducts

Rigid PVC Wiring Ducts

HelaDuct HTWD-PN for small-diameter wires (metric sizes)	426, 427
HelaDuct HTWD-PW for large-diameter wires (metric sizes)	428, 429
HelaDuct HTWD-PD (DIN-sizes)	430, 431

Halogen-Free Wiring Ducts

HelaDuct HTWD-HF (metric sizes)	432, 433

Wiring Ducts Accessories

For mounting prior to wiring	HelaDuct HTWD-BWR Base Wire Retainers	435
For mounting to duct fingers	HelaDuct HTWD-NFWR and HTWD-WFWR Wire Retainers	436
For fastening components to base of ducts	HelaDuct HTWD-CTH	437
For installing wiring ducts into fixing holes	HelaDuct HTWD-R4 and HTWD-R6 Rivets	438
For inserting R4 and R6 rivets	HelaDuct HTWD-RT4 and HTWD-RT6 Rivet Tools	439



3.8 Edge Protection

Grommet Strip

Flexiform G51P polyester edge protection	440
Flexiform G51T PTFE edge protection	441
Flexiform G51N polyamide 6 edge protection	441

Beading

EdgeGuard PS1, SM1, RA1	442



3.9 Grommets

Grommets

Push-on Caps	443
Elbow grommets	444
Bend Protection Grommets	445, 446
Strain Relief Grommets	447
Edge Protection Grommets	448, 449
Hot Grommet Kit	450



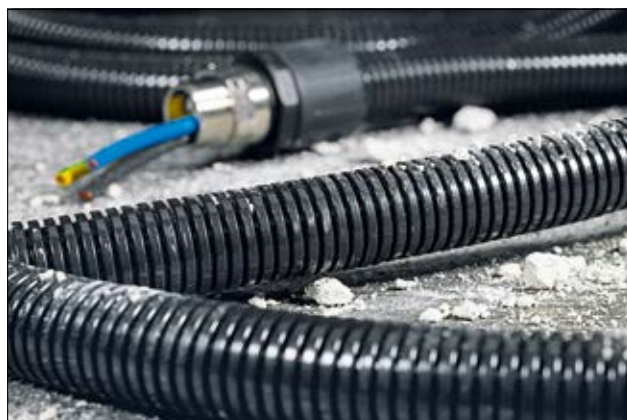
Non-metallic conduits

HG-SW PA6 Standard Weight

Standard weight corrugated flexible conduit for industrial applications, including machine building, plant construction, control panels, public buildings.

Features and benefits

- Very flexible and high fatigue life
- Very abrasion resistant
- High impact strength, recovers if crushed
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Self-extinguishing according to UL94 V2
- Colour: black, grey on request

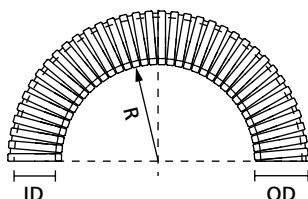


HelaGuard HG-SW for industrial applications.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +120 °C
Operating Temperature Moving	-20 °C to +100 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



HelaGuard non-metallic conduit

TYPE	Nominal Ø	NW Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
HG-SW10	10	7.5	10.0	6.3	15	19 g/m	50 m	Black (BK)	166-11100
HG-SW11	11	8.5	11.5	8.2	20	22 g/m	50 m	Black (BK)	166-11101
HG-SW13	13	10	13.0	9.8	25	28 g/m	50 m	Black (BK)	166-11102
HG-SW16	16	12	15.8	11.8	35	38 g/m	25 m	Black (BK)	166-11110
	16	12	15.8	11.8	35	38 g/m	50 m	Black (BK)	166-11103
HG-SW21	21	17	21.2	16.7	45	60 g/m	25 m	Black (BK)	166-11111
	21	17	21.2	16.7	45	60 g/m	50 m	Black (BK)	166-11104
HG-SW28	28	23	28.5	22.8	50	100 g/m	25 m	Black (BK)	166-11105
	28	23	28.5	22.8	50	100 g/m	50 m	Black (BK)	166-11112
HG-SW34	34	29	34.5	28.1	60	135 g/m	25 m	Black (BK)	166-11106
	34	29	34.5	28.1	60	135 g/m	50 m	Black (BK)	166-11118
HG-SW42	42	36	42.5	35.5	70	165 g/m	25 m	Black (BK)	166-11113
HG-SW54	54	48	54.5	47.2	80	235 g/m	25 m	Black (BK)	166-11114
HG-SW67	67	56	67.2	56.3	130	365 g/m	10 m	Black (BK)	166-11109

All dimensions in mm. Subject to technical changes. Colour grey available on request. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Non-Metallic Conduits

HG-LW PA6 Light Weight

Light weight corrugated flexible conduit for machine building, plant construction, control panels and public buildings.

Features and benefits

- Light weight
- Very flexible and high fatigue life
- Small bending radius
- High impact strength and recovers if crushed
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Colour: black; grey on request

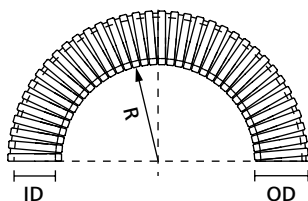


HelaGuard HG-LW is very light and flexibel.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +120 °C
Operating Temperature Moving	-20 °C to +100 °C
Flammability	EN IEC 61386

HF ✓

RoHS ✓



HelaGuard non-metallic conduit

TYPE	Nominal Ø	NW Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
HG-LW10	10	7.5	10.0	6.5	15	18 g/m	50 m	Black (BK)	166-11200
HG-LW11	11	8.5	11.5	8.3	20	22 g/m	50 m	Black (BK)	166-11201
HG-LW13	13	10	13.0	10.0	25	24 g/m	50 m	Black (BK)	166-11202
HG-LW16	16	12	15.8	12.0	35	36 g/m	50 m	Black (BK)	166-11203
HG-LW21	21	17	21.2	16.9	40	56 g/m	50 m	Black (BK)	166-11204
HG-LW28	28	23	28.5	23.0	45	90 g/m	50 m	Black (BK)	166-11205
HG-LW34	34	29	34.5	28.3	55	110 g/m	50 m	Black (BK)	166-11206
HG-LW42	42	36	42.5	35.7	65	150 g/m	25 m	Black (BK)	166-11207
HG-LW54	54	48	54.5	47.4	80	200 g/m	25 m	Black (BK)	166-11208
HG-LW67	67	56	67.2	56.5	110	310 g/m	10 m	Black (BK)	166-11209

All dimensions in mm. Subject to technical changes. Colour grey available on request. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Non-Metallic Conduits

HG-FR PA6 Flame Retardant

Flame-retardant standard weight corrugated flexible conduit is used where high fire-protection is required, including railway vehicles, tunnels and underground stations as well as public buildings.

Features and benefits

- Highly flame retardant (UL94 V0)
- Low smoke, low toxicity
- Very flexible and high fatigue life
- High impact strength, recovers if crushed
- Abrasion resistant
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Colour: black

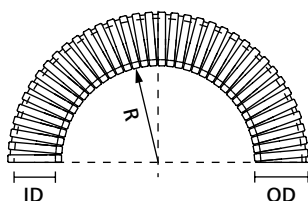


HelaGuard HG-FR offers excellent fire protection properties.

MATERIAL	Polyamide 6, flame retardant (PA6FR)
Operating Temperature	-40 °C to +120 °C
Operating Temperature Moving	-20 °C to +100 °C
Flammability	UL 94 V0

HF ✓

RoHS ✓



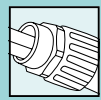
HelaGuard non-metallic conduit

TYPE	Nominal Ø	NW Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
HG-FR10	10	7.5	10.0	6.3	15	19 g/m	50 m	Black (BK)	166-11400
HG-FR13	13	10	13.0	9.8	25	28 g/m	50 m	Black (BK)	166-11401
HG-FR16	16	12	15.8	11.8	35	38 g/m	50 m	Black (BK)	166-11402
HG-FR21	21	17	21.2	16.7	45	60 g/m	50 m	Black (BK)	166-11403
HG-FR28	28	23	28.5	21.7	50	100 g/m	50 m	Black (BK)	166-11404
HG-FR34	34	29	34.5	28.1	60	135 g/m	50 m	Black (BK)	166-11405
HG-FR42	42	36	42.5	35.5	70	165 g/m	25 m	Black (BK)	166-11406
HG-FR54	54	48	54.5	47.2	80	235 g/m	25 m	Black (BK)	166-11407
HG-FR67	67	56	67.2	56.3	130	365 g/m	10 m	Black (BK)	166-11410

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Non-Metallic Conduits

HG-DC Double Slit

Double slit corrugated conduit for retrofitting is used in control panels, machine building, plant construction.

Features and benefits

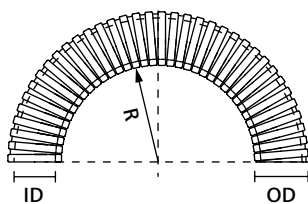
- Can be opened and closed repeatedly
- Cables can be inserted laterally
- Abrasion resistant
- Free of halogen, sulphur and phosphorus
- Colour: black



HelaGuard HG-DC double slit conduit.

For more information on our complete HelaGuard range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +120 °C
Flammability	UL 94 HB



HelaGuard non-metallic conduit

TYPE	Nominal Ø	NW Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
HG-DC11	11	8.5	11.5	5.7	70	37 g/m	50 m	Black (BK)	166-11800
HG-DC13	13	10	12.9	7.9	75	46 g/m	50 m	Black (BK)	166-11801
HG-DC16	16	12	16.2	10.0	100	72 g/m	50 m	Black (BK)	166-11802
HG-DC21	21	17	21.0	13.7	120	110 g/m	50 m	Black (BK)	166-11803
HG-DC28	28.4	23	28.4	19.8	170	166 g/m	50 m	Black (BK)	166-11804
HG-DC34	34.2	29	34.2	25.0	180	180 g/m	25 m	Black (BK)	166-11805
HG-DC42	43.5	36	43.5	32.3	200	293 g/m	25 m	Black (BK)	166-11806
HG-DC54	53.3	48	53.3	44.0	240	400 g/m	25 m	Black (BK)	166-11807

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Fittings with fixed external thread

HG-S Straight fitting, IP66

Straight external thread.

Features and benefits

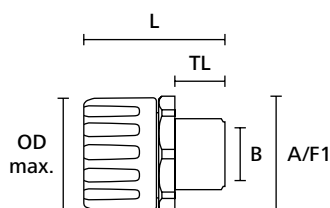
- One piece, fast fit
- High pull-off strength
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Metric threads supplied with locknuts

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.



HelaGuard HG-S Straight, IP66.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-50 °C to +135 °C
Flammability	UL 94 V2



HelaGuard fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	A/F Body (A/F1)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
HG10-S-M12	10	M12	7.5	19.0	33.0	19.0	9.0	10 pcs.	Black (BK)	166-21000
HG10-S-M16	10	M16	9.5	19.0	35.0	19.0	11.0	10 pcs.	Black (BK)	166-21020
HG11-S-M12	11	M12	7.5	19.0	33.0	19.0	9.0	10 pcs.	Black (BK)	166-21021
HG13-S-M12	13	M12	7.5	24.0	35.0	23.0	9.0	10 pcs.	Black (BK)	166-21022
HG13-S-M16	13	M16	11.0	24.0	37.0	23.0	11.0	10 pcs.	Black (BK)	166-21001
HG13-S-M20	13	M20	12.5	24.0	40.0	23.0	14.0	10 pcs.	Black (BK)	166-21023
HG16-S-M16	16	M16	11.0	29.0	41.0	28.0	11.0	10 pcs.	Black (BK)	166-21002
HG16-S-M20	16	M20	14.5	29.0	34.0	28.0	14.0	10 pcs.	Black (BK)	166-21003
HG20-S-M20	20	M20	14.5	32.0	44.0	30.0	14.0	10 pcs.	Black (BK)	166-21025
HG21-S-M20	21	M20	14.5	32.0	44.0	30.0	14.0	10 pcs.	Black (BK)	166-21004
HG25-S-M25	25	M25	19.5	39.0	49.0	37.0	15.0	10 pcs.	Black (BK)	166-21026
HG28-S-M25	28	M25	19.5	44.0	49.0	42.0	15.0	10 pcs.	Black (BK)	166-21005
HG28-S-M32	28	M32	26.5	44.0	50.0	42.0	16.0	10 pcs.	Black (BK)	166-21027
HG34-S-M32	34	M32	26.5	51.0	53.0	49.0	16.0	10 pcs.	Black (BK)	166-21006

All dimensions in mm. Subject to technical changes. Colour grey available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings with fixed external thread

HG-S Straight fitting, IP66

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	A/F Body (A/F1)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
HG34-S-M40	34	M40	32.5	51.0	53.0	49.0	16.0	10 pcs.	Black (BK)	166-21028
HG42-S-M40	42	M40	32.5	63.0	60.0	60.0	16.0	2 pcs.	Black (BK)	166-21007
HG42-S-M50	42	M50	40.5	63.0	60.0	60.0	16.0	2 pcs.	Black (BK)	166-21029
HG54-S-M50	54	M50	42.0	76.0	65.0	73.0	16.0	2 pcs.	Black (BK)	166-21008
HG54-S-M63	54	M63	53.0	76.0	65.0	73.0	16.0	2 pcs.	Black (BK)	166-21030
HG67-S-M63	67	M63	56.0	90.0	70.0	87.0	16.0	1 pc.	Black (BK)	166-21009

All dimensions in mm. Subject to technical changes. Colour grey available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings with fixed external thread

HG-90 90° Elbow fitting, IP66

90° elbow external thread.

Features and benefits

- One piece, fast fit
- High pull-off strength
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Metric threads supplied with locknuts

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.

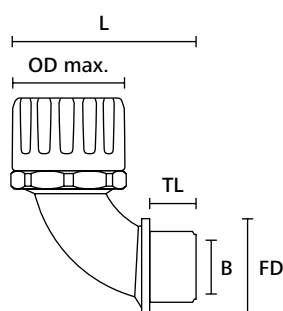


HelaGuard HG-90 90° Elbow, IP66.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-50 °C to +135 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



HelaGuard fitting, 90° with fixed internal thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	Face Diameter (FD)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
HG10-90-M12	10	M12	6.5	19.0	32.0	17.0	8.0	10 pcs.	Black (BK)	166-22200
HG11-90-M12	11	M12	6.5	19.0	32.0	17.0	8.0	10 pcs.	Black (BK)	166-22220
HG13-90-M16	13	M16	10.5	24.0	46.0	22.0	11.0	10 pcs.	Black (BK)	166-22201
HG16-90-M16	16	M16	10.5	29.0	49.0	22.0	11.0	10 pcs.	Black (BK)	166-22202
HG16-90-M20	16	M20	14.0	29.0	51.0	27.0	13.0	10 pcs.	Black (BK)	166-22203
HG21-90-M20	21	M20	14.0	32.0	53.0	27.0	13.0	10 pcs.	Black (BK)	166-22204
HG25-90-M25	25	M25	19.0	39.0	63.0	32.0	15.0	10 pcs.	Black (BK)	166-22222
HG28-90-M25	28	M25	19.0	44.0	66.0	32.0	15.0	10 pcs.	Black (BK)	166-22205
HG34-90-M32	34	M32	24.5	51.0	75.0	40.0	16.0	10 pcs.	Black (BK)	166-22206
HG42-90-M40	42	M40	32.5	63.0	98.0	50.0	16.0	2 pcs.	Black (BK)	166-22207
HG42-90-M50	42	M50	39.0	63.0	99.0	60.0	16.0	2 pcs.	Black (BK)	166-22223

All dimensions in mm. Subject to technical changes. Colour grey available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings with fixed external thread

HG-90 90° Elbow fitting, IP66

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	Face Diameter (FD)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
HG54-90-M50	54	M50	39.0	76.0	104.0	60.0	16.0	2 pcs.	Black (BK)	166-22208
HG54-90-M63	54	M63	49.5	76.0	104.0	72.0	16.0	2 pcs.	Black (BK)	166-22224
HG67-90-M63	67	M63	49.5	90.0	120.0	72.0	16.0	1 pc.	Black (BK)	166-22209

All dimensions in mm. Subject to technical changes. Colour grey available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



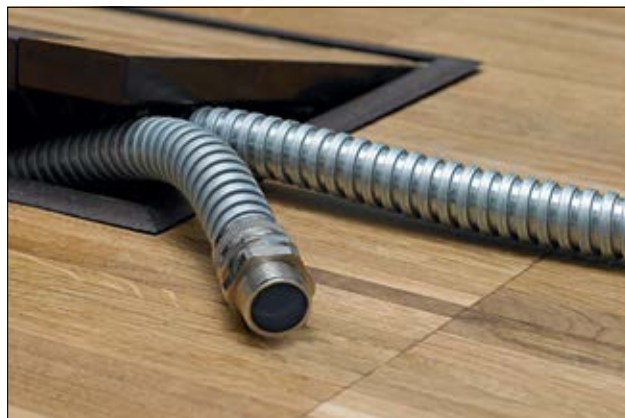
Metallic conduits

SC Galvanised steel conduit

General purpose flexible steel conduit offers high mechanical protection and is typically used in machines, plants, underfloor wiring, data cabling and protection of hydraulic or pneumatic hoses.

Features and benefits

- High compression, tensile and impact strength
- Very flexible

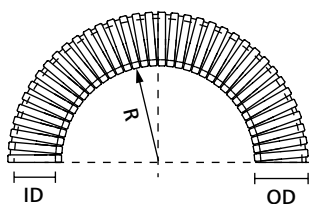


HelaGuard SC Galvanised Steel Conduit.

MATERIAL	Galvanised Steel (GS)
Operating Temperature	-100 °C to +300 °C

HF ✓

RoHS ✓



HelaGuard metallic conduit

TYPE	Nominal Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
SC10	10	9.1	6.8	25	110 g/m	50 m	Metal (ML)	166-30100
SC12	12	13.2	10.0	30	113 g/m	50 m	Metal (ML)	166-30101
SC16	16	16.4	12.9	40	152 g/m	25 m	Metal (ML)	166-30102
SC20	20	20.6	16.9	45	295 g/m	25 m	Metal (ML)	166-30103
SC25	25	24.6	21.1	55	321 g/m	25 m	Metal (ML)	166-30104
SC32	32	32.0	28.1	70	450 g/m	25 m	Metal (ML)	166-30105
SC40	40	42.5	37.6	80	519 g/m	25 m	Metal (ML)	166-30106
SC50	50	53.2	48.4	90	802 g/m	25 m	Metal (ML)	166-30107

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Metallic conduits

SSC Stainless steel conduit

Stainless steel, corrosion-resistant flexible conduit used for protection of sensor cables, instrumentation tubing, as well as hydraulic and pneumatic hoses, particularly in corrosive environments. Commonly used in hospitals and clinics.

Features and benefits

- Highly resistant to rust and corrosion
- High compression, tensile and impact strength
- Very flexible



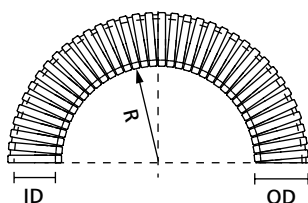
The HelaGuard SSC stainless steel conduit offers superior mechanical protection in corrosive environments.

For more information on our complete HelaGuard range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Stainless Steel (SS316)
Operating Temperature	-100 °C to +600 °C

HF ✓

RoHS ✓



HelaGuard metallic conduit

TYPE	Nominal Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
SSC10	10	9.1	6.8	25	110 g/m	25 m	Metal (ML)	166-30200
SSC12	12	12.3	10.0	40	126 g/m	25 m	Metal (ML)	166-30201
SSC16	16	16.4	13.0	40	162 g/m	25 m	Metal (ML)	166-30202
SSC20	20	20.4	16.9	45	202 g/m	25 m	Metal (ML)	166-30203
SSC25	25	24.3	21.1	55	300 g/m	25 m	Metal (ML)	166-30204
SSC32	32	31.7	28.1	70	340 g/m	25 m	Metal (ML)	166-30205
SSC40	40	42.1	37.6	80	410 g/m	10 m	Metal (ML)	166-30206
SSC50	50	52.8	48.4	90	516 g/m	10 m	Metal (ML)	166-30207

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Fittings for metallic conduits

SC-FM Fixed external thread, IP40

Fixed external thread, nickel plated brass.

Features and benefits

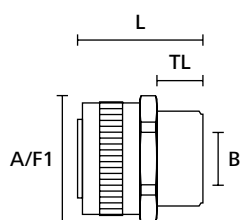
- Multi-part fitting of shell and body with external thread
- Provides tight, reliable hold of conduit
- Can be secured with locknut

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.



HelaGuard SC-FM Fixed External Thread.

MATERIAL	Nickel Plated Brass (NPB)
Operating Temperature	-100 °C to +300 °C



HelaGuard fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Length (L)	A/F Body (A/F1)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
SC10-FM-M12	10	M12	5.6	21.0	13.0	7.0	10 pcs.	Metal (ML)	166-30300
SC12-FM-M16	12	M16	8.5	23.0	17.0	10.0	10 pcs.	Metal (ML)	166-30301
SC16-FM-M16	16	M16	11.5	25.0	20.0	10.0	10 pcs.	Metal (ML)	166-30302
SC16-FM-M20	16	M20	11.5	25.0	22.0	10.0	10 pcs.	Metal (ML)	166-30303
SC20-FM-M20	20	M20	15.3	26.3	24.0	10.0	10 pcs.	Metal (ML)	166-30304
SC25-FM-M25	25	M25	19.1	29.5	29.0	10.0	10 pcs.	Metal (ML)	166-30305
SC32-FM-M32	32	M32	26.2	36.8	36.0	13.0	2 pcs.	Metal (ML)	166-30306
SC40-FM-M40	40	M40	34.6	39.0	48.0	14.0	2 pcs.	Metal (ML)	166-30307
SC50-FM-M50	50	M50	44.7	42.0	58.0	15.0	1 pc.	Metal (ML)	166-30308

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Metallic conduits with plastic coating

PCS Galvanised steel conduit, PVC coating

Flexible galvanised steel conduit with PVC coating, typically used in machine and plant construction and electrical installations.

Features and benefits

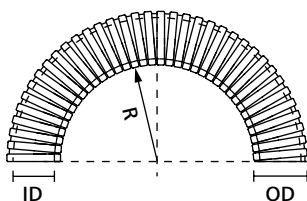
- High compression, tensile and impact strength
- Very flexible
- Good resistance to alkalis and acids
- Good resistance to chemicals



HelaGuard PCS Galvanised steel conduit with PVC coating.

MATERIAL	Galvanised Steel (GS), Polyvinylchloride (PVC)
Operating Temperature	-15 °C to +70 °C

RoHS



HelaGuard metallic conduit, plastic coating

TYPE	Nominal Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
PCS10	10	10.1	6.8	25	140 g/m	50 m	Black (BK)	166-30700
PCS12	12	14.2	10.2	30	143 g/m	50 m	Black (BK)	166-30701
PCS16	16	17.1	13.0	40	196 g/m	25 m	Black (BK)	166-30702
PCS20	20	21.6	16.9	45	345 g/m	25 m	Black (BK)	166-30703
PCS25	25	26.0	21.1	55	411 g/m	25 m	Black (BK)	166-30704
PCS32	32	34.0	28.1	60	560 g/m	25 m	Black (BK)	166-30705
PCS40	40	44.2	37.6	80	719 g/m	25 m	Black (BK)	166-30706
PCS50	50	55.0	48.4	90	1052 g/m	25 m	Black (BK)	166-30707
PCS63	63	64.5	57.5	115	1091 g/m	10 m	Black (BK)	166-30708
PCS75	75	79.2	70.0	150	1459 g/m	10 m	Black (BK)	166-30709

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Fittings for metallic conduits with plastic coating

PCS-FM Fixed external thread, IP54

Fixed external thread, nickel plated brass.

Features and benefits

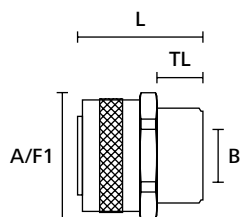
- Two-part fitting of shell and body with external thread
- Provides tight, reliable hold of conduit
- Can be secured with locknut

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.



HelaGuard PCS-FM Fixed External Thread.

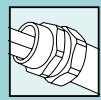
MATERIAL	Nickel Plated Brass (NPB)
Operating Temperature	-100 °C to +300 °C



HelaGuard fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Length (L)	A/F Body (A/F1)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
PCS10-FM-M12	10	M12	5.6	21.0	13.0	8.0	10 pcs.	Metal (ML)	166-31000
PCS12-FM-M16	12	M16	8.5	23.0	17.0	8.0	10 pcs.	Metal (ML)	166-31001
PCS16-FM-M16	16	M16	11.5	25.0	20.0	10.0	10 pcs.	Metal (ML)	166-31002
PCS16-FM-M20	16	M20	11.5	25.0	22.0	10.0	10 pcs.	Metal (ML)	166-31003
PCS20-FM-M20	20	M20	15.3	26.3	24.0	10.0	10 pcs.	Metal (ML)	166-31004
PCS25-FM-M25	25	M25	19.1	32.5	29.0	10.0	10 pcs.	Metal (ML)	166-31005
PCS32-FM-M32	32	M32	26.2	36.8	36.0	13.0	2 pcs.	Metal (ML)	166-31006
PCS40-FM-M40	40	M40	34.6	39.0	48.0	14.0	2 pcs.	Metal (ML)	166-31007
PCS50-FM-M50	50	M50	44.7	42.0	58.0	15.0	1 pc.	Metal (ML)	166-31008
PCS63-FM-M63	63	M63	54.5	50.0	70.0	18.0	1 pc.	Metal (ML)	166-31009
PCS75-FM-M75	75	M75	66.5	60.0	84.0	20.0	1 pc.	Metal (ML)	166-31019

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Fittings for metallic conduits with plastic coating

PCS-FMC Fixed thread compression fitting, IP65

External thread, nickel plated brass.
Fulfil IP65.

Features and benefits

- Multipart compression fitting including elastomeric seal
- Provides excellent tensile strength
- Can be used for knockouts or threaded entries as fitting rotates until tightened



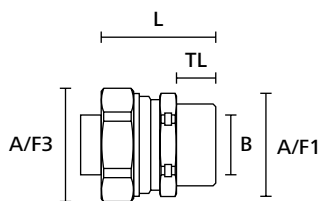
HelaGuard PCS-FMC Compression Fitting.

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Nickel Plated Brass (NPB), Thermoplastic Elastomer (TPE)	Nickel Plated Brass (NPB), Polyamide 6 (PA6)
Operating Temperature	-50 °C to +135 °C	

HF ✓

RoHS ✓



HelaGuard compression fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Length (L)	A/F Body (A/F1)	A/F Nut (A/F3)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
PCS10-FMC-M12	10	M12	5.6	29.8	20.0	20.0	10.0	10 pcs.	Metal (ML)	166-31400
PCS12-FMC-M16	12	M16	8.6	29.8	20.0	22.0	10.0	10 pcs.	Metal (ML)	166-31401
PCS16-FMC-M16	16	M16	11.5	33.0	24.0	26.0	12.0	10 pcs.	Metal (ML)	166-31402
PCS16-FMC-M20	16	M20	11.5	33.0	24.0	26.0	12.0	10 pcs.	Metal (ML)	166-31403
PCS20-FMC-M20	20	M20	15.3	33.5	26.0	29.0	12.0	10 pcs.	Metal (ML)	166-31404
PCS25-FMC-M25	25	M25	19.1	40.5	33.0	35.0	14.0	10 pcs.	Metal (ML)	166-31405
PCS32-FMC-M32	32	M32	26.0	45.8	40.0	42.0	15.0	2 pcs.	Metal (ML)	166-31406
PCS40-FMC-M40	40	M40	34.6	47.5	56.0	58.0	16.0	2 pcs.	Metal (ML)	166-31407
PCS50-FMC-M50	50	M50	44.7	51.0	70.0	70.0	16.0	1 pc.	Metal (ML)	166-31408

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Metallic conduits with liquid-tight cover

LTS Galvanised steel conduit, PVC cover

Flexible galvanised steel conduit with smooth, liquid-tight PVC cover. Fulfills IP66, IP67, IP68 and IP69k with LTS-fittings. LTS is used in machine tools and outdoor installations, wherever liquid-tight is a requirement.

Features and benefits

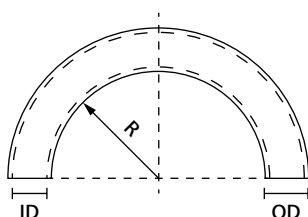
- Liquid-tight (IP68 and IP69k with LTS fittings)
- High compression, tensile and impact strength
- Good flexibility
- Smooth outer cover does not wrinkle when bent
- Good resistance to acids, petrol, oils and greases
- Suitable for outdoor use



HelaGuard LTS.

MATERIAL	Galvanised Steel (GS), Polyvinylchloride (PVC)
Operating Temperature	-20 °C to +105 °C

RoHS ✓



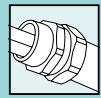
HelaGuard liquid-tight metallic conduit, plastic coating

TYPE	Nominal Ø	US Trade Size	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
LTS10	10	1/4 "	11.8	7.0	35	185 g/m	50 m	Black (BK)	166-31900
LTS12	12	5/16 "	14.2	10.0	40	203 g/m	25 m	Black (BK)	166-31901
LTS16	16	3/8 "	17.8	12.6	45	311 g/m	25 m	Black (BK)	166-31902
LTS20	20	1/2 "	21.1	16.0	65	407 g/m	25 m	Black (BK)	166-31903
LTS25	25	3/4 "	26.4	21.1	100	503 g/m	25 m	Black (BK)	166-31904
LTS32	32	1 "	33.1	26.5	135	732 g/m	25 m	Black (BK)	166-31905
LTS40	40	1 1/4 "	41.8	35.4	175	885 g/m	25 m	Black (BK)	166-31906
LTS50	50	1 1/2 "	47.9	40.4	230	1240 g/m	25 m	Black (BK)	166-31907
LTS63	63	2 "	59.7	51.6	280	1470 g/m	10 m	Black (BK)	166-31908

All dimensions in mm. Subject to technical changes. Other reel lengths available on request. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings for metallic conduits with liquid-tight cover

LTS-FMC Fixed thread compression fitting, IP68

External thread, nickel plated brass.

Fulfils IP66, IP67, IP68 and IP69k.

Features and benefits

- Multipart compression fitting including elastomeric seal
- Provides excellent tensile strength
- Can be used for knockouts or threaded entries as fitting rotates until tightened



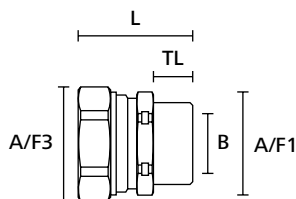
HelaGuard LTS-FMC Compression Fitting.

Fittings with PG and swivel threads are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Nickel Plated Brass (NPB), Polyamide 6 (PA6)
Operating Temperature	-50 °C to +135 °C

HF ✓

RoHS ✓



HelaGuard compression fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Length (L)	A/F Body (A/F1)	A/F Nut (A/F3)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
LTS10-FMC-M12	10	M12	5.6	29.8	20.0	20.0	10.0	10 pcs.	Metal (ML)	166-32200
LTS10-FMC-M16	10	M16	5.6	29.8	20.0	20.0	10.0	10 pcs.	Metal (ML)	166-32201
LTS12-FMC-M16	12	M16	8.6	29.8	20.0	22.0	10.0	10 pcs.	Metal (ML)	166-32203
LTS16-FMC-M16	16	M16	10.7	33.0	24.0	26.0	12.0	10 pcs.	Metal (ML)	166-32204
LTS16-FMC-M20	16	M20	10.7	33.0	24.0	26.0	12.0	10 pcs.	Metal (ML)	166-32205
LTS20-FMC-M20	20	M20	14.5	33.5	26.0	29.0	12.0	10 pcs.	Metal (ML)	166-32206
LTS25-FMC-M25	25	M25	18.0	40.5	33.0	35.0	14.0	10 pcs.	Metal (ML)	166-32207
LTS32-FMC-M32	32	M32	24.6	45.8	40.0	42.0	15.0	2 pcs.	Metal (ML)	166-32208
LTS40-FMC-M40	40	M40	32.7	47.5	50.0	52.0	16.0	1 pc.	Metal (ML)	166-32209
LTS50-FMC-M50	50	M50	37.7	53.0	58.0	58.0	18.0	1 pc.	Metal (ML)	166-32210
LTS63-FMC-M63	63	M63	49.0	58.8	70.0	70.0	20.0	1 pc.	Metal (ML)	166-32211

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Spiral-reinforced PVC conduits

PSR Conduit

Flexible, smooth bore conduit with spiral rigid PVC reinforcement and flexible PVC cover. PSR conduits are typically used in machine building, plant construction, shipbuilding, automation, and electrical installations.

Features and benefits

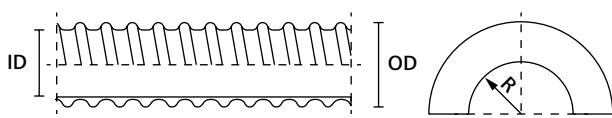
- Extremely flexible
- Withstands torsional movement
- Self-extinguishing
- Easy to feed cables into conduit
- Can be used with PSR fittings
- Colour: grey; black, green (oil resistant), blue (high temperature resistant) or orange (highly flexible) upon request



PSR is extremely flexible and allows for easy insertion of cables.

PSR conduit with higher resistance to oil (color: green), temperature (colour: blue) and flexibility (colour: orange) available on request.

MATERIAL	Polyvinylchloride (PVC)
Operating Temperature	-20 °C to +70 °C
Flammability	EN IEC 61386



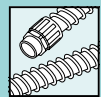
HelaGuard spiral reinforced conduit

TYPE	Nominal Ø	Outside Ø (OD)	Inside Ø (ID)	Min. Bending Radius (R)	Weight	Reel Length	Colour	Article-No.
PSR12	12	14.5	10.0	25	71 g/m	30 m	Grey (GY)	166-40001
PSR16	16	16.5	12.0	25	76 g/m	30 m	Grey (GY)	166-40002
PSR20	20	21.0	16.0	35	112 g/m	30 m	Grey (GY)	166-40003
PSR25	25	27.5	22.0	45	153 g/m	30 m	Grey (GY)	166-40004
PSR32	32	33.5	28.0	60	327 g/m	30 m	Grey (GY)	166-40005
PSR40	40	41.0	35.0	80	448 g/m	30 m	Grey (GY)	166-40006
PSR50	50	46.4	40.0	105	725 g/m	30 m	Grey (GY)	166-40007
PSR63	63	57.0	50.0	120	948 g/m	30 m	Grey (GY)	166-40008

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings for spiral-reinforced PVC conduits

PSR-S Straight fitting

Straight PA66 fitting, fixed external thread.

Fulfils IP65 with PSR conduits.

Fulfils IP66 and IP67 with PSRSC conduits.

Features and benefits

- High pull-off strength
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Metric threads supplied with locknuts
- Fits both PSR and PSRSC conduits

Fittings with PG-Thread and in 90° and 45° are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.

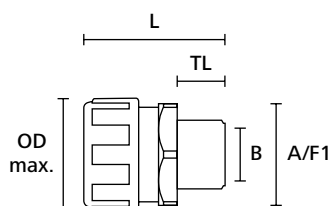


PSR-S Straight.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-50 °C to +135 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



HelaGuard fitting, straight with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	A/F Body (A/F1)	Thread Length (TL)	Pack Cont.	Colour	Article-No.
PSR12-S-M16	12	M16	9.0	24.0	38.0	23.0	11.0	10 pcs.	Grey (GY)	166-40701
PSR16-S-M16	16	M16	10.5	28.0	40.0	25.0	11.0	10 pcs.	Grey (GY)	166-40702
PSR16-S-M20	16	M20	10.5	28.0	41.0	25.0	14.0	10 pcs.	Grey (GY)	166-40703
PSR20-S-M20	20	M20	14.5	33.0	43.0	30.0	14.0	10 pcs.	Grey (GY)	166-40704
PSR25-S-M25	25	M25	19.0	42.0	45.0	37.0	15.0	10 pcs.	Grey (GY)	166-40705
PSR32-S-M32	32	M32	24.5	48.0	48.0	45.0	16.0	10 pcs.	Grey (GY)	166-40706
PSR40-S-M40	40	M40	33.0	60.0	59.0	60.0	16.0	2 pcs.	Grey (GY)	166-40707
PSR50-S-M50	50	M50	39.0	64.0	55.0	60.0	16.0	2 pcs.	Grey (GY)	166-40708
PSR63-S-M63	63	M63	48.0	76.0	56.0	73.0	16.0	1 pc.	Grey (GY)	166-40709

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Fittings for spiral-reinforced PVC conduits

PSR-90 90° elbow fitting

90° PA66 fitting, fixed external thread.

Fulfills IP65 with PSR conduits.

Fulfills IP66 and IP67 with PSRSC conduits.

Features and benefits

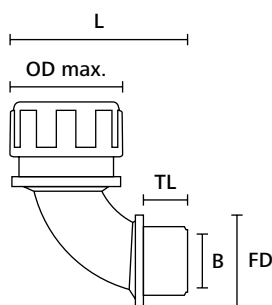
- High pull-off strength
- Highly resistant to solvents and oils
- Free of halogen, sulphur and phosphorus
- Metric threads supplied with locknuts
- Fits both PSR and PSRSC conduits



PSR-90 90° Elbow.

Fittings with PG-Thread and in 90° and 45° are also available. For our complete range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-50 °C to +135 °C
Flammability	UL 94 V2



HelaGuard fitting, 90° with fixed external thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Outside Ø max (OD max.)	Length (L)	Face Diameter (FD)	Thread Length (TL)	Pack Cont.	Article-No.
PSR16-90-M16	16	M16	10.5	28.0	49.0	22.0	11.0	10 pcs.	166-40801
PSR16-90-M20	16	M20	10.5	28.0	51.0	27.0	13.0	10 pcs.	166-40802
PSR20-90-M20	20	M20	14.5	33.0	52.0	27.0	13.0	10 pcs.	166-40803
PSR25-90-M25	25	M25	19.0	42.0	63.0	33.0	15.0	10 pcs.	166-40804
PSR32-90-M32	32	M32	24.5	48.0	74.0	40.0	16.0	2 pcs.	166-40805
PSR40-90-M40	40	M40	33.0	60.0	113.0	50.0	16.0	2 pcs.	166-40806

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



FlexiGuard conduits and fittings

PVC Conduits with steel wire spiral-reinforcement

FlexiGuard protective hoses are used to protect cables in machines and plant construction, and robotics as well as leads to switch cabinets.

Features and benefits

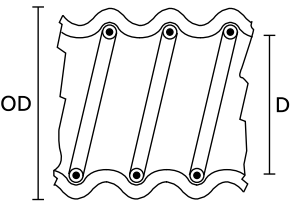
- Extremely flexible
- Excellent mechanical protection
- Good resistance to oils, acids and alkalis
- Good resistance to chemicals



FlexiGuard FG with FG-UH fitting.

For more information on our complete HelaGuard range of conduits and fittings, please see our HelaGuard catalogue.

MATERIAL	Flexible Polyvinyl Chloride, cadmium free (PVC), Steel (ST)
Operating Temperature	-20 °C to +70 °C, (+80 °C, 200 h)
Flammability	UL 94 HB



FlexiGuard

TYPE	Nominal Ø	Inside Ø (ID)	Outside Ø (OD)	Min. Bending Radius (R)	Reel Length	Colour	Article-No.
FG14	14	10.0	14.0	14	10 m	Grey (GY)	167-00209
FG17	17	13.0	17.0	17	10 m	Grey (GY)	167-00211
FG19	19	15.0	19.0	19	10 m	Grey (GY)	167-00213
FG21	21	16.0	21.0	21	10 m	Grey (GY)	167-00216
FG27	27	21.0	27.0	27	10 m	Grey (GY)	167-00221
FG36	36	30.0	36.0	36	10 m	Grey (GY)	167-00229
FG45	45	38.0	45.0	45	10 m	Grey (GY)	167-00236
FG56	56	48.0	56.0	56	10 m	Grey (GY)	167-00248

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Fittings for FlexiGuard spiral-reinforced PVC Conduits

FG straight fitting with swivel thread, IP54

Straight swivel external thread.
Fulfils IP54 with FlexiGuard FG conduits.

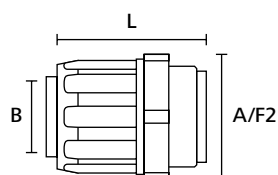
Features and benefits

- One piece, easy fit
- Swivel thread
- Vibration and tension resistant
- Large bore size
- Inner ferrule protects cables
- Good resistance to chemicals



FG conduit fitting.

MATERIAL	Polypropylene (PP)
Operating Temperature	-35 °C to +80 °C
Flammability	UL 94 V2



FlexiGuard fitting, straight with swivel thread

TYPE	Nominal Ø	Thread Size	Min. Bore Size (B)	Length (L)	A/F Thread (A/F2)	Colour	Pack Cont.	Article-No.
FG14-M16	14	M16	8.8	41.5	20.0	Grey (GY)	10 pcs.	167-00530
FG14-PG9	14	PG9	8.8	41.5	20.0	Grey (GY)	10 pcs.	167-00510
FG17-M20	17	M20	11.1	45.0	24.0	Grey (GY)	10 pcs.	167-00531
FG17-PG11	17	PG11	11.1	45.0	24.0	Grey (GY)	10 pcs.	167-00511
FG19-PG13	19	PG13	13.0	47.5	27.0	Grey (GY)	10 pcs.	167-00512
FG21-M25	21	M25	14.8	49.5	30.0	Grey (GY)	10 pcs.	167-00533
FG21-PG16	21	PG16	14.8	49.5	30.0	Grey (GY)	10 pcs.	167-00513
FG27-M32	27	M32	19.4	52.0	36.0	Grey (GY)	10 pcs.	167-00534
FG27-PG21	27	PG21	19.4	52.0	36.0	Grey (GY)	10 pcs.	167-00514
FG36-M40	36	M40	27.9	54.8	46.0	Grey (GY)	10 pcs.	167-00535
FG36-PG29	36	PG29	27.9	54.8	46.0	Grey (GY)	10 pcs.	167-00515
FG45-M50	45	M50	35.6	58.0	55.0	Grey (GY)	10 pcs.	167-00536
FG45-PG36	45	PG36	35.6	58.0	55.0	Grey (GY)	10 pcs.	167-00516
FG56-M63	56	M63	45.9	60.0	65.0	Grey (GY)	10 pcs.	167-00537
FG56-PG48	56	PG48	45.9	60.0	65.0	Grey (GY)	10 pcs.	167-00517

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Fittings for FlexiGuard spiral-reinforced PVC Conduits

FG-UH straight fitting with mounting bracket, IP54

Straight swivel bracket.

Fulfills IP54 with FlexiGuard FG conduits.

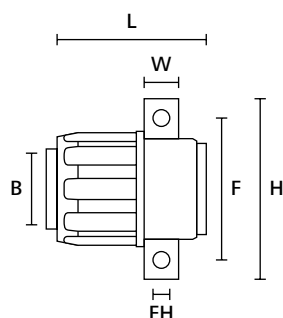
Features and benefits

- One piece, easy fit
- Swivel bracket
- Vibration and tension resistant
- Large bore size
- Inner ferrule protects cables
- Good resistance to chemicals



FG-UH fitting with bracket.

MATERIAL	Polypropylene (PP)
Operating Temperature	-35 °C to +80 °C
Flammability	UL 94 V2



FlexiGuard fitting, straight with bracket

TYPE	Nominal Ø	Min. Bore Size (B)	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Fixing Hole Centres (F)	Colour	Pack Cont.	Article-No.
FG14-UH	14	8.8	41.5	10.0	40.0	5.7	29.0	Grey (GY)	10 pcs.	167-00520
FG17-UH	17	11.1	45.0	12.0	50.0	5.7	37.0	Grey (GY)	10 pcs.	167-00521
FG19-UH	19	13.0	47.5	12.0	50.0	5.7	37.0	Grey (GY)	10 pcs.	167-00522
FG21-UH	21	14.8	49.5	12.0	50.0	5.7	37.0	Grey (GY)	10 pcs.	167-00523
FG27-UH	27	19.4	52.0	12.5	57.0	5.7	43.0	Grey (GY)	10 pcs.	167-00524
FG36-UH	36	27.9	54.8	13.0	67.0	6.7	53.0	Grey (GY)	10 pcs.	167-00525
FG45-UH	45	35.6	58.0	14.0	79.5	6.7	65.0	Grey (GY)	10 pcs.	167-00526
FG56-UH	56	45.9	60.0	16.5	92.5	6.7	76.0	Grey (GY)	10 pcs.	167-00527

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



HelaGuard accessories

PACC Clip for corrugated conduits

Corrugated tubes can be securely fastened with the PACC clamp.

Features and benefits

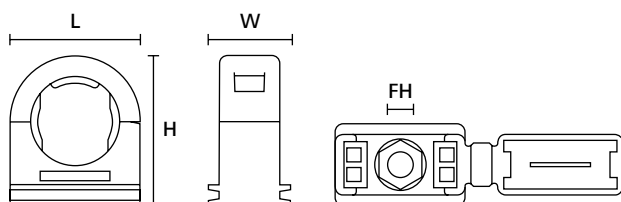
- Easy and quick assembly with non-metallic conduits
- Lid is integrated
- Hole for fastening with screw
- Inner rib prevents conduit from slipping

For more information on our complete HelaGuard range of conduits and fittings, please see our HelaGuard catalogue.



HelaGuard PACC Conduit Clip.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-50 °C to +135 °C
Flammability	UL 94 V2



HelaGuard conduit clip, side views

HelaGuard conduit clip, top view

TYPE	Nominal Ø	Height (H)	Width (W)	Length (L)	Hole Ø (FH)	Pack Cont.	Colour	Article-No.
PACC10	10	26.0	12.0	23.0	M5	10 pcs.	Black (BK)	166-25707
PACC13	13	26.0	12.0	23.0	M5	10 pcs.	Black (BK)	166-25700
PACC16	16	30.0	12.0	26.0	M5	10 pcs.	Black (BK)	166-25701
PACC21	21	36.0	15.0	32.0	M6	10 pcs.	Black (BK)	166-25702
PACC28	28	45.0	15.0	41.0	M6	10 pcs.	Black (BK)	166-25703
PACC34	34	51.0	15.0	48.0	M6	10 pcs.	Black (BK)	166-25704
PACC42	42	60.0	15.0	57.0	M6	5 pcs.	Black (BK)	166-25705
PACC54	54	72.0	15.0	70.0	M6	5 pcs.	Black (BK)	166-25706

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



HelaGuard accessories

AFCS Fixing clip, plated steel and PVC liner

The AFCS clip is used to secure metallic conduits.

Features and benefits

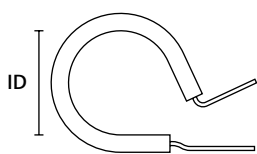
- Simple, secure fixing of metallic conduits
- Liner prevents damage due to abrasion



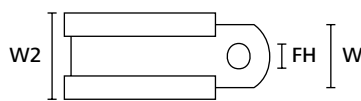
HelaGuard AFCS Fixing Clip, Galvanised Steel and PVC Liner.

MATERIAL	Galvanised Steel (GS), Polyvinylchloride (PVC)
Operating Temperature	-20 °C to +105 °C

RoHS



HelaGuard fixing clip, side view



HelaGuard fixing clip, top view

TYPE	Nominal Ø	Inside Ø (ID)	Width (W)	Width (W2)	Hole Ø (FH)	Pack Cont.	Colour	Article-No.
AFCS10	10	11.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50600
AFCS12	12	14.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50601
AFCS16	16	17.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50602
AFCS20	20	21.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50603
AFCS25	25	25.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50604
AFCS32	32	34.0	12.7	17.4	5.1	10 pcs.	Metal (ML), Black (BK)	166-50605
AFCS40	40	44.0	25.4	30.5	14.2 x 17.5	5 pcs.	Metal (ML), Black (BK)	166-50606
AFCS50	50	54.0	25.4	30.5	14.2 x 17.5	5 pcs.	Metal (ML), Black (BK)	166-50607
AFCS63	63	70.0	25.4	30.5	14.2 x 17.5	1 pc.	Metal (ML), Black (BK)	166-50608
AFCS75	75	76.2	25.4	30.5	14.2 x 17.5	1 pc.	Metal (ML), Black (BK)	166-50609

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Helawrap cable cover

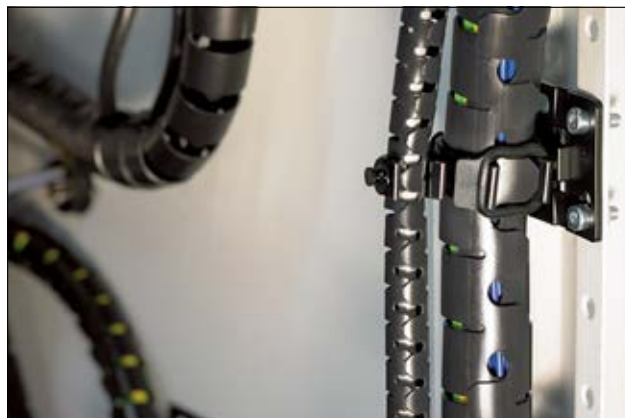
HWPP for industrial applications

Helawrap is used to bundle and protect cables and wires in the electrical industry, panel building, machine building and many other industrial applications. Helawrap is the time-saving solution for industrial applications.

Features and benefits

- Ideal solution for bundling, protecting and fixing cables
- Quick and effortless to apply
- Good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reapplied often
- Available in several colours and sizes
- Handy HAT applicator tool included

To order additional HAT application tools, see page 399.



Protecting and fixing cables with the Helawrap cable cover and accessory set, for instance in wiring cabinets.



Insert one or more cables into the insertion slot of the HAT applicator tool.



Place the HAT applicator tool in one end of the Helawrap cable cover.



Simply slide the HAT applicator tool through the Helawrap cover.

MATERIAL	Polypropylene (PP)
Operating Temperature	-60 °C to +110 °C, intermittent +140 °C
Flammability	UL 94 HB



TYPE	Bundle Ø max.	Colour	Reel Length	Application Tool	Article-No.
HWPP8	9.0	Black (BK)	25 m	HAT8	161-64101
	9.0	Grey (GY)	25 m	HAT8	161-64102
	9.0	Silver (SR)	25 m	HAT8	161-64103
	9.0	White (WH)	25 m	HAT8	161-64104
HWPP16	16.0	Black (BK)	25 m	HAT16	161-64201
	16.0	Grey (GY)	25 m	HAT16	161-64202
	16.0	Silver (SR)	25 m	HAT16	161-64203
	16.0	White (WH)	25 m	HAT16	161-64207

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Helawrap cable cover

HWPP for industrial applications

TYPE	Bundle Ø max.	Colour	Reel Length	Application Tool	Article-No.
HWPP20	21.0	Black (BK)	25 m	HAT20	161-64301
	21.0	Grey (GY)	25 m	HAT20	161-64302
	21.0	Silver (SR)	25 m	HAT20	161-64303
	21.0	White (WH)	25 m	HAT20	161-64304
HWPP25	27.0	Black (BK)	25 m	HAT25	161-64401
	27.0	Grey (GY)	25 m	HAT25	161-64402
	27.0	Silver (SR)	25 m	HAT25	161-64403
	27.0	White (WH)	25 m	HAT25	161-64407
HWPP30	32.0	Black (BK)	25 m	HAT30	161-64501
	32.0	Grey (GY)	25 m	HAT30	161-64502
	32.0	Silver (SR)	25 m	HAT30	161-64503
	32.0	White (WH)	25 m	HAT30	161-64504
HWPP40	42.0	Black (BK)	15 m	HAT40	161-64601

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Helawrap cable cover

HWPP for home and office use

Helawrap HWPP in practical 2 metre lengths is designed for home and office use. It puts an end to the cable chaos of PCs, TVs and Hi-Fi systems.

Features and benefits

- Ideal solution for bundling, protecting, mounting and routing cables
- Quick and effortless to apply
- Good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reapplied often
- Available in several colours and sizes
- Handy applicator tool included



Helawrap - Office Desktop Cable Management.

To order additional HAT application tools, see page 399.

Complete set including application tool.



Helawrap Cable Cover - HWPP - 2 m black.



Insert one or more cables into the insertion slot of the HAT applicator tool.



Place the HAT applicator tool in one end of the Helawrap cable cover.



Simply slide the HAT applicator tool through the Helawrap cover.

TYPE	Bundle Ø max.	Colour	Length (L)	Application Tool	Article-No.
HWPP16L2	16.0	Black (BK)	2.0 m	HAT16	161-64204
	16.0	Grey (GY)	2.0 m	HAT16	161-64205
	16.0	Silver (SR)	2.0 m	HAT16	161-64206
	16.0	White (WH)	2.0 m	HAT16	161-64215
HWPP25L2	27.0	Black (BK)	2.0 m	HAT25	161-64404
	27.0	Grey (GY)	2.0 m	HAT25	161-64405
	27.0	Silver (SR)	2.0 m	HAT25	161-64406
	27.0	White (WH)	2.0 m	HAT25	161-64415

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



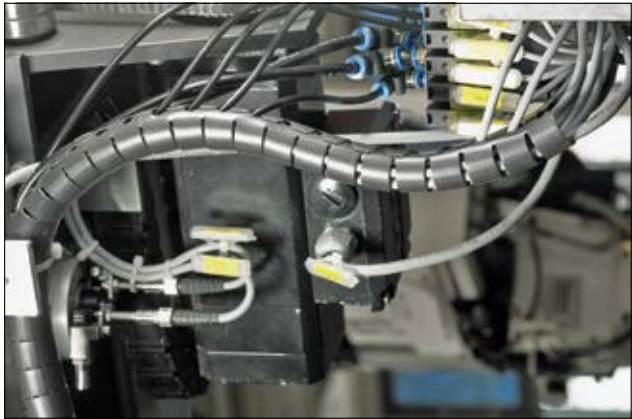
Helawrap cable cover

HWPAV0 flame-retardant and abrasion-resistant

Helawrap HWPAV0 is used to bundle and protect cable and wires, especially if there is vibration and abrasion. HWPAV0 has excellent flame-retardant properties and is halogen-free.

Features and benefits

- Ideal solution for bundling, protecting and fixing cables
- Quick and effortless to apply
- Self-extinguishing according to UL94 V0
- Very good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reapplied often
- Handy applicator tool included



Cables can be branched off at any point for better, more flexible protection.

To order additional
HAT application
tools, see page 399.

MATERIAL	Polyamide 6 V0 (PA6V0)
Operating Temperature	-40 °C to +90 °C, intermittent +120 °C
Flammability	UL 94 V0



TYPE	Bundle Ø max.	Colour	Reel Length	Application Tool	Article-No.
HWPAV08	9.0	Black (BK)	25 m	HAT8	161-63101
HWPAV016	16.0	Black (BK)	25 m	HAT16	161-63201
HWPAV020	21.0	Black (BK)	25 m	HAT20	161-63301
HWPAV025	27.0	Black (BK)	25 m	HAT25	161-63401
HWPAV030	32.0	Black (BK)	25 m	HAT30	161-63501

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



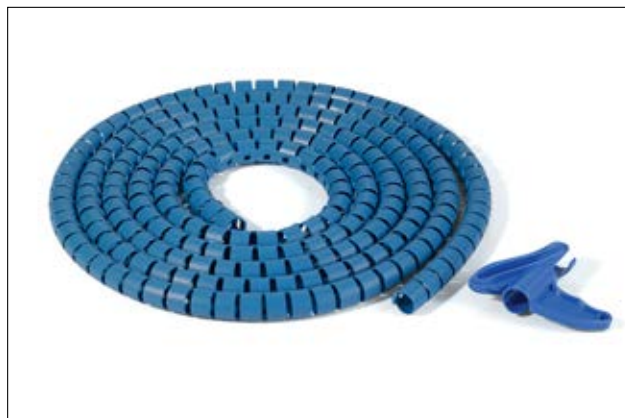
Metal-Content Cable Cover

Helawrap HWPPMC

HWPPMC is particularly suitable for installation and maintenance for food-processing machines and in food-processing plants.

Features and benefits

- High metal-content for reliable detection with standard detection equipment
- Quick and effortless to apply
- Stainless steel preserves resistance to corrosion
- Blue colour for enhanced visibility
- Ideal solution for bundling and protecting cables and hoses
- Highly flexible
- Very good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reused
- Handy applicator tool included



HWPPMC metal-content cable cover.

MATERIAL	Polypropylene (PP), Stainless Steel (SS)
Operating Temperature	-60 °C to +100 °C, intermittent +140 °C
Flammability	UL 94 HB



To order additional
HAT application
tools, see page 399.

Can support quality assurance in the production
of food stuffs, for example HACCP.

TYPE	Bundle Ø max.	Colour	Length (L)	Reel Length	Application Tool	Article-No.
HWPPMC8	9.0	Blue (BU)	25.0 m	25 m	HAT8	161-66000
HWPPMC16	16.0	Blue (BU)	25.0 m	25 m	HAT16	161-66100
HWPPMC20	21.0	Blue (BU)	25.0 m	25 m	HAT20	161-66200
HWPPMC25	27.0	Blue (BU)	25.0 m	25 m	HAT25	161-66300
HWPPMC30	32.0	Blue (BU)	25.0 m	25 m	HAT30	161-66400

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Accessories for Helawrap Cable Cover

HWClips

To complete the Helawrap cable management system various Helawrap Clips in compatible sizes are available.

The mounting clips can be combined and adjusted individually. Attached to a mounting base the assembly can be screw mounted or adhered to the surface.

Features and benefits

- Mounts and routes Helawrap cable cover flexibly and efficiently
- Fit snugly around the cable cover and holds it tight
- Each clip can be joined to mounting plate or other clips of any size
- Each clip rotates freely
- Easily released and re-used



Helawrap self-adhesive and screw mount bases and clips.

MATERIAL	Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)	Flexible Polyvinyl Chloride, cadmium free (PVC)
Operating Temperature	-40 °C to +105 °C	-35 °C to +50 °C
Flammability	UL 94 HB	UL 94 V2

HF ✓

RoHS ✓

RoHS ✓



Multiple clips can be joined. Clips swivel freely.

For secure hold, R1 loop can be used (for HWClip25 and HWClip30 only).

TYPE	for Helawrap size	Material	Colour	Pack Cont.	Article-No.
HWCLIP08	8	PA66HIRHS	Black (BK)	50 pcs.	161-64002
HWCLIP16	16	PA66HIRHS	Black (BK)	50 pcs.	161-64004
HWCLIP20	20	PA66HIRHS	Black (BK)	50 pcs.	161-64006
HWCLIP25	25	PA66HIRHS	Black (BK)	50 pcs.	161-64008
HWCLIP30	30	PA66HIRHS	Black (BK)	50 pcs.	161-64010
R1	25, 30	PVC	Black (BK)	500 pcs.	201-20010

Subject to technical changes.



Acessories for retaining Helawrap Open Cable Cover

HWBase

To complete the Helawrap cable management system various Helawrap Clips in compatible sizes are available. The mounting clips can be combined and adjusted individually. Attached to a mounting base the assembly can be screw mounted or directly sticked to the surface.

Features and benefits

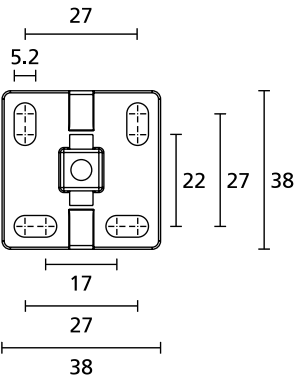
- Mounting plates can be fixed with screws, cable ties or adhesive
- Can be used to mount any size HWClip



Helawrap self-adhesive and screw mount bases and clips.

MATERIAL	Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 HB

HF✓ RoHS✓



Helawrap HWBase/HWBaseA

TYPE	Adhesive	Colour	Pack Cont.	Article-No.
HWBASE	-	Black (BK)	50 pcs.	161-64015
HWBASEA	Acrylate with base of polyurethane foam	Black (BK)	50 pcs.	161-64013

Subject to technical changes.



Helawrap applicator tool

HAT

The HAT application tools are used with Helawrap HWPP, HWPAV0 and HWPPMC cable covers to bundle and protect cables rapidly and efficiently. There is a specially designed HAT application tool for each size Helawrap cable cover.

Features and benefits

- Bundles cable rapidly and effortlessly
- Glides smoothly and securely through cover
- Easy insertion of cable



Applicator tools are available for every Helawrap cover size.

TYPE	Colour	Pack Cont.	Article-No.
HAT8	Blue (BU)	10 pcs.	161-60001
HAT16	Blue (BU)	10 pcs.	161-60002
HAT20	Blue (BU)	10 pcs.	161-60003
HAT25	Blue (BU)	10 pcs.	161-60004
HAT30	Blue (BU)	10 pcs.	161-60005
HAT40	Blue (BU)	5 pcs.	161-60006

Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PE General Purpose Spiral Binding

SBPE

SBPE spiral binding is suitable for standard electrical applications and panel building and plant engineering. Sizes 4 and 9 are also available in practical 5 metre lengths.

Features and benefits

- Organises and protects cables and hoses
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters and colours



HellermannTyton SBPE Spiral Wrap.

MATERIAL	Polyethylene (PE)
Operating Temperature	-60 °C to +80 °C, intermittent +120 °C
Flammability	UL 94 HB



TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPE1.5	1.5	0.80	6.0	1.6	8.0	Black (BK)	30 m	161-41001
	1.5	0.80	6.0	1.6	8.0	Grey (GY)	30 m	161-41002
	1.5	0.80	6.0	1.6	8.0	Natural (NA)	30 m	161-41000
SBPE4D	4	1.00	7.8	5.0	20.0	Black (BK)	5 m	161-41104
SBPE4	4	1.00	7.8	5.0	20.0	Black (BK)	30 m	161-41101
SBPE4D	4	1.00	7.8	5.0	20.0	Grey (GY)	5 m	161-41105
SBPE4	4	1.00	7.8	5.0	20.0	Grey (GY)	30 m	161-41102
SBPE4D	4	1.00	7.8	5.0	20.0	Natural (NA)	5 m	161-41103
SBPE4	4	1.00	7.8	5.0	20.0	Natural (NA)	30 m	161-41100
SBPE6D	6	1.20	10.0	7.5	40.0	Black (BK)	5 m	161-41153
SBPE6	6	1.20	10.0	7.5	40.0	Black (BK)	30 m	161-41151
SBPE6D	6	1.20	10.0	7.5	40.0	Grey (GY)	5 m	161-41155
SBPE6	6	1.20	10.0	7.5	40.0	Grey (GY)	30 m	161-41154
SBPE6D	6	1.20	10.0	7.5	40.0	Natural (NA)	5 m	161-41152
SBPE6	6	1.20	10.0	7.5	40.0	Natural (NA)	30 m	161-41150
SBPE9D	9	1.40	12.5	10.0	100.0	Black (BK)	5 m	161-41204
SBPE9	9	1.40	12.5	10.0	100.0	Black (BK)	30 m	161-41201
SBPE9D	9	1.40	12.5	10.0	100.0	Grey (GY)	5 m	161-41205
SBPE9	9	1.40	12.5	10.0	100.0	Grey (GY)	30 m	161-41202
SBPE9D	9	1.40	12.5	10.0	100.0	Natural (NA)	5 m	161-41203
SBPE9	9	1.40	12.5	10.0	100.0	Natural (NA)	30 m	161-41200
SBPE16	16	1.60	16.0	20.0	150.0	Black (BK)	30 m	161-41301
	16	1.60	16.0	20.0	150.0	Grey (GY)	30 m	161-41302
	16	1.60	16.0	20.0	150.0	Natural (NA)	30 m	161-41300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PE Flame-retardant Spiral Binding

SBPEFR

The flame-retardant properties of SBPEFR make it suitable for applications in the automobile and electrical industries, where enhanced fire protection is needed.

Features and benefits

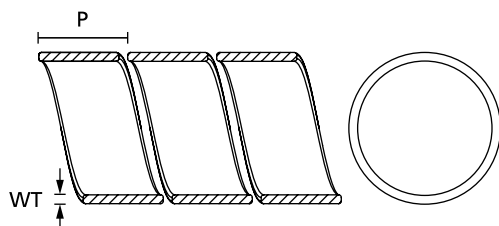
- Organises and protects cables and hoses
- Self-extinguishing according to UL94 V2
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters and colours



SBPEFR spiral binding is available in several diameters and in the colours black and white.

MATERIAL	Polyethylene, flame retardant (PE-FR)
Operating Temperature	-60 °C to +80 °C, intermittent +120 °C
Flammability	UL 94 V2, FMVSS 302, Type B

RoHS ✓



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPEFR1.5	1.5	0.80	6.0	1.6	8.0	Black (BK)	30 m	161-43001
	1.5	0.80	6.0	1.6	8.0	White (WH)	30 m	161-43000
SBPEFR4	4	1.00	7.8	5.0	20.0	Black (BK)	30 m	161-43101
	4	1.00	7.8	5.0	20.0	White (WH)	30 m	161-43100
SBPEFR6	6.0	0.80	10.0	7.5	40.0	Black (BK)	30 m	161-43151
	6.0	0.80	10.0	7.5	40.0	White (WH)	30 m	161-43150
SBPEFR9	9	1.40	12.5	10.0	100.0	Black (BK)	30 m	161-43201
	9	1.40	12.5	10.0	100.0	White (WH)	30 m	161-43200
SBPEFR16	16	1.60	16.0	20.0	150.0	Black (BK)	30 m	161-43301
	16	1.60	16.0	20.0	150.0	White (WH)	30 m	161-43300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PA Abrasion-resistant Spiral Binding

SBPA

SBPA spiral binding is used for cable harnesses in the automobile industry and for many demanding industrial applications.

Features and benefits

- Organises and protects cables and hoses
- Very good protection against abrasion
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters and colours

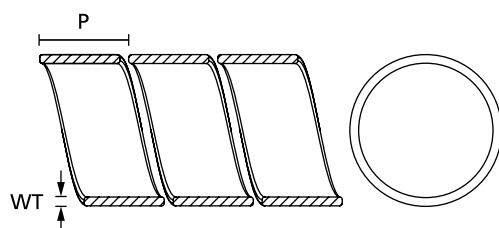


SBPA spiral binding made of polyamide offers excellent protection against abrasion.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +95 °C
Flammability	UL 94 HB

HF ✓

RoHS ✓



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPA1.5	1.5	0.40	6.0	1.6	8.0	Natural (NA)	30 m	161-42000
SBPA4	4	0.60	7.8	5.0	20.0	Natural (NA)	30 m	161-42100
SBPA6	6	0.80	10.0	7.5	40.0	Natural (NA)	30 m	161-42150
SBPA9	9	1.00	12.5	10.0	100.0	Natural (NA)	30 m	161-42200
SBPA16	16	1.20	16.0	20.0	150.0	Natural (NA)	30 m	161-42300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



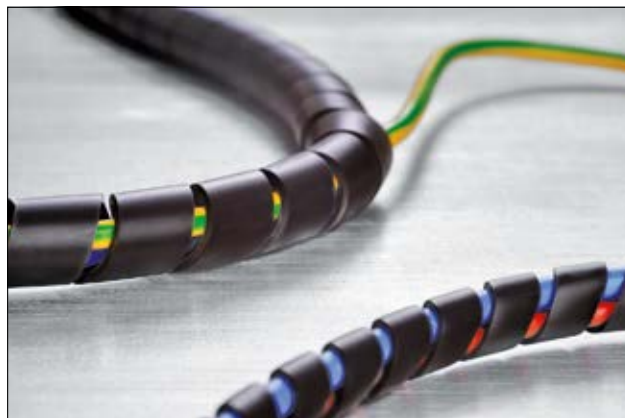
PA Flame-retardant Spiral Binding

SBPAV0

Due to its excellent flame protection properties, SBPAV0 spiral binding is particularly suitable for the rail and aviation industries as well as public buildings.

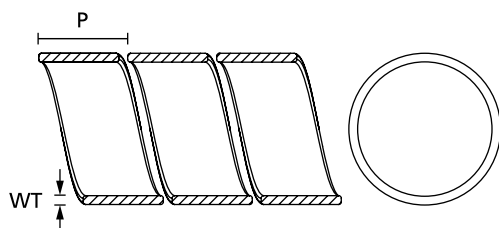
Features and benefits

- Organises and protects cables and hoses
- Self-extinguishing according to UL94 V0
- Very good protection against abrasion
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters



Spiral binding SBPAV0.

MATERIAL	Polyamide 6 V0 (PA6V0)
Operating Temperature	-40 °C to +95 °C, intermittent +130 °C
Flammability	UL 94 V0



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPAV01.5	1.5	0.40	6.0	1.6	8.0	Black (BK)	30 m	161-44000
SBPAV04	4	0.60	7.8	5.0	20.0	Black (BK)	30 m	161-44100
SBPAV06	6	0.80	10.0	7.5	40.0	Black (BK)	30 m	161-44150
SBPAV09	9	1.00	12.5	10.0	100.0	Black (BK)	30 m	161-44200
SBPAV016	16	1.20	16.0	20.0	150.0	Black (BK)	30 m	161-44300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



PTFE High temperature spiral binding

SBPTFE

SBPTFE is recommended wherever superior protection against chemical and extreme temperatures are important.

Features and benefits

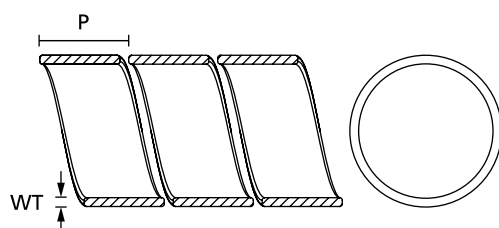
- High temperature resistance
- Excellent fire protection
- Self-extinguishing according to UL94 V0
- Very good solvent and acid resistance
- Organises and protects cables and hoses
- Suitable for retro-fitting
- Cables branch out at any point



Spiral binding SBPTFE is ideal for extreme conditions.

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-60 °C to +260 °C, intermittent +350 °C
Flammability	UL 94 V0

RoHS ✓



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPTFE1.5	1.5	0.50	6.0	1.6	8.0	Natural (NA)	5 m	161-45000
SBPTFE4	4	0.70	7.8	5.0	20.0	Natural (NA)	5 m	161-45100
SBPTFE9	9	1.00	12.5	10.0	100.0	Natural (NA)	5 m	161-45200

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PE Metal Detectable Spiral Binding

SBPEMC

SBPEMC is designed for applications in food-processing plants and machines.

Features and benefits

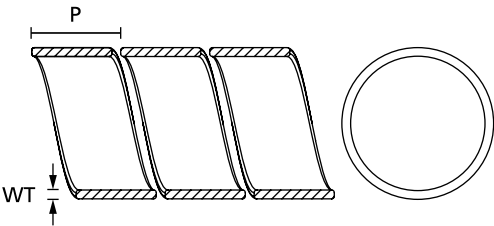
- High metal-content for reliable detection with standard detection equipment
- Stainless steel preserves resistance to corrosion
- Blue colour for enhanced visibility
- Ideal solution for bundling and protecting cables and hoses
- Highly flexible
- Suitable for retro-fitting
- Branching off cable at any point



Detectable, metal-content spiral binding protects cables on food-processing machines.

Can support quality assurance in the production of food stuffs, for example HACCP.

MATERIAL	Polyethylene (PE), Stainless Steel (SS)
Operating Temperature	-60 °C to +80 °C, intermittent +120 °C
Flammability	UL 94 HB



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPEMC1.5	1.5	0.80	6.0	1.6	8.0	Blue (BU)	30 m	161-46000
SBPEMC4	4	1.00	7.8	5.0	20.0	Blue (BU)	30 m	161-46100
SBPEMC9	9	1.40	12.5	10.0	100.0	Blue (BU)	30 m	161-46200
SBPEMC16	16	1.60	16.0	20.0	150.0	Blue (BU)	30 m	161-46300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PP High Abrasion-resistant Narrow Pitch Spiral Binding

SBPPHDR

Spiral binding is used to route and bind cables that need high mechanical protection, for instance in the automobile industry as well as in control panels and cabinets. It is also used in electrical installation, where safety is a primary consideration. Spiral binding provides a tidy solution for many applications.

Features and benefits

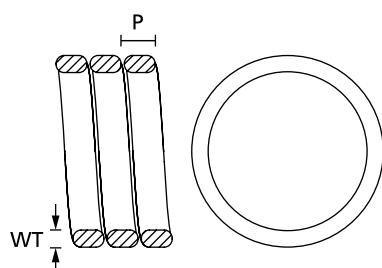
- For organising and protecting cables and hoses
- Heavy-walled and very robust
- Excellent protection from mechanical stress
- Very high abrasion resistance
- Very good resistance to oils
- Available in diameters up to 50 mm
- Ideal for larger cable bundles

More colours and sizes available on request.



SBPPHDR - Heavy Duty Round Spiral Wrap.

MATERIAL	Polypropylene (PP)
Operating Temperature	-30 °C to +100 °C
Flammability	UL 94 HB



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Length (L)	Article-No.
SBPPHDR10	10	2.00	5.0	10.0	14.0	Black (BK)	1.0 m	162-30000
SBPPHDR15	15	2.50	5.0	15.0	20.0	Black (BK)	1.0 m	162-30100
SBPPHDR20	20	2.50	5.5	20.0	25.0	Black (BK)	1.0 m	162-30200
SBPPHDR25	25	2.50	6.0	25.0	30.0	Black (BK)	1.0 m	162-30300
SBPPHDR30	30	3.50	6.5	30.0	37.0	Black (BK)	1.0 m	162-30400
SBPPHDR35	35	3.50	6.5	35.0	42.0	Black (BK)	1.0 m	162-30500
SBPPHDR40	40	4.00	7.0	40.0	48.0	Black (BK)	1.0 m	162-30600
SBPPHDR50	50	4.50	8.0	50.0	59.0	Black (BK)	1.0 m	162-30700

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PP High Abrasion-resistant Wide Pitch Spiral Binding

SBPPHDF

SBPPHDF spiral binding is especially suitable wherever high abrasion resistance and much larger cable diameters are needed, for example in the petrochemical industry and in plant construction.

Features and benefits

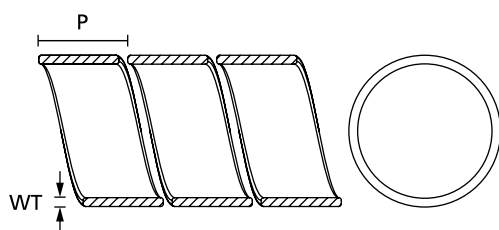
- For organising and protecting cables and hoses
- Heavy-walled and very robust
- Excellent protection from mechanical stress
- Very high abrasion resistance
- Very good resistance to oils
- Available in diameters up to 50 mm
- Ideal for larger cable bundles



SBPPHDF - Heavy Duty Flat Spiral Wrap.

More colours and sizes available on request.

MATERIAL	Polypropylene (PP)
Operating Temperature	-30 °C to +100 °C
Flammability	UL 94 HB



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Length (L)	Article-No.
SBPPHDF10	10	1.50	10.0	10.0	13.0	Black (BK)	1.0 m	162-31000
SBPPHDF15	15	1.50	13.0	15.0	18.0	Black (BK)	1.0 m	162-31100
SBPPHDF20	20	1.50	18.0	20.0	23.0	Black (BK)	1.0 m	162-31200
SBPPHDF25	25	2.00	19.0	25.0	29.0	Black (BK)	1.0 m	162-31300
SBPPHDF30	30	2.00	20.0	30.0	34.0	Black (BK)	1.0 m	162-31400
SBPPHDF35	35	2.00	20.0	35.0	39.0	Black (BK)	1.0 m	162-31500
SBPPHDF40	40	2.50	20.0	40.0	45.0	Black (BK)	1.0 m	162-31600
SBPPHDF50	50	3.00	22.0	50.0	56.0	Black (BK)	1.0 m	162-31700

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Standard polyester braided sleeving

Helagaine HEGP

Helagaine HEGP braided sleeving provides abrasion protection in the automotive industry, in machine building, in panel building and in electrical appliances.

Features and benefits

- Made of sturdy polyester
- Highly flexible
- High abrasion resistance
- Very high surface coverage



Helagaine HEGP braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGP03	1.0	5.0	Black (BK)	200 m	45	170-10300
HEGP04	2.0	7.0	Black (BK)	200 m	45	170-10400
HEGP05	3.0	9.0	Black (BK)	200 m	45	170-10500
HEGP06	4.0	11.0	Black (BK)	100 m	45	170-10600
HEGP08	5.0	12.0	Black (BK)	100 m	45	170-10800
HEGP10	7.0	15.0	Black (BK)	100 m	45	170-11000
HEGP12	8.0	17.0	Black (BK)	100 m	45	170-11200
HEGP15	10.0	20.0	Black (BK)	100 m	45	170-11500
HEGP20	14.0	26.0	Black (BK)	50 m	45	170-12000
HEGP25	18.0	34.0	Black (BK)	50 m	45	170-12500
HEGP30	20.0	40.0	Black (BK)	50 m	45	170-13000
HEGP40	30.0	50.0	Black (BK)	50 m	45	170-14000
HEGP50	40.0	66.0	Black (BK)	50 m	45	170-15000

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 **ECE R-118**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



High-expansion polyester braided sleeving

Helagaine HEGPX

Helagaine HEGPX is used whenever a higher expansion rate is required. HEGPX is particularly suitable for use in the automotive industry, panel building and in electrical appliances.

Features and benefits

- Made of sturdy polyester
- Highly flexible
- High rate of expansion
- Easy to apply over irregular shapes
- Good abrasion resistance



HEGPX - Expandable abrasion protection sleeve.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302

HF ✓

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPX06	3.0	9.0	Black (BK)	200 m	45	170-00060
HEGPX09	5.0	16.0	Black (BK)	100 m	45	170-00090
HEGPX12	6.0	19.0	Black (BK)	100 m	45	170-00120
HEGPX20	12.0	32.0	Black (BK)	100 m	45	170-00200
HEGPX30	19.0	45.0	Black (BK)	50 m	45	170-00300
HEGPX40	32.0	70.0	Black (BK)	50 m	45	170-00400

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Flame-retardant polyester braided sleeving

Helagaine HEGPETFR

This sleeve is particularly designed for abrasion protection of bundles of electrical cables. Helagaine HEGPETFR is therefore particularly recommended in applications such as public transport, aircraft industry, telecommunications, underground cables, etc.

Features and benefits

- Made of sturdy polyester
- Self-extinguishing
- Highly flexible
- Easy to apply over irregular shapes
- Good abrasion resistance



Helagaine HEGPETFR braided sleeving.

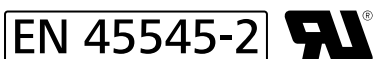
MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Flammability	Tools	Article-No.
HEGPETFR04	3.0	7.0	Black with Grey Identification Yarn (BKIDGY)	200 m	FMVSS 302, Type B	45	170-81001
HEGPETFR05	4.0	9.0	Black with Grey Identification Yarn (BKIDGY)	200 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81002
HEGPETFR06	5.0	11.0	Black with Grey Identification Yarn (BKIDGY)	100 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81003
HEGPETFR08	7.0	13.0	Black with Grey Identification Yarn (BKIDGY)	100 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81004
HEGPETFR10	9.0	15.0	Black with Grey Identification Yarn (BKIDGY)	100 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81005
HEGPETFR12	11.0	17.0	Black with Grey Identification Yarn (BKIDGY)	100 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81006
HEGPETFR15	13.0	20.0	Black with Grey Identification Yarn (BKIDGY)	100 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81007
HEGPETFR20	18.0	25.0	Black with Grey Identification Yarn (BKIDGY)	50 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81008
HEGPETFR25	22.0	30.0	Black with Grey Identification Yarn (BKIDGY)	50 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81009
HEGPETFR30	27.0	40.0	Black with Grey Identification Yarn (BKIDGY)	50 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81010
HEGPETFR40	35.0	50.0	Black with Grey Identification Yarn (BKIDGY)	50 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81011
HEGPETFR50	45.0	60.0	Black with Grey Identification Yarn (BKIDGY)	50 m	FMVSS 302, Type B, UL 1441 VW-1	45	170-81012

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



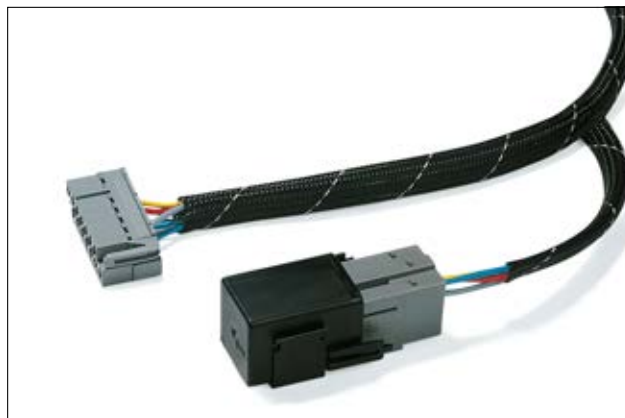
Flame-retardant, high-expansion polyester braided sleeving

Helagaine HEGPETFRX

Helagaine HEGPETFRX is especially suitable for areas wherever fire protection is important as well as a higher expansion ratio of the braided sleeve. Helagaine HEGPETFRX offers superior cable protection for machine tools, robotics and automatic equipment.

Features and benefits

- Made of sturdy polyester
- Self-extinguishing
- Highly flexible
- High rate of expansion
- Easy to apply over irregular shapes
- Good abrasion resistance



Helagaine HEGPETFRX.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	FMVSS 302, Type B, UL 1441 VW-1

HF ✓

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPETFRX03	2.0	6.0	Black with Grey Identification Yarn (BKIDGY)	200 m	45	170-81100
HEGPETFRX06	3.0	10.0	Black with Grey Identification Yarn (BKIDGY)	200 m	45	170-81101
HEGPETFRX09	5.0	16.0	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81102
HEGPETFRX12	6.0	19.0	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81103
HEGPETFRX20	12.0	32.0	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81104
HEGPETFRX30	19.0	45.0	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81105
HEGPETFRX40	32.0	70.0	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81106
HEGPETFRX50	38.0	76.0	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81107

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Abrasion-resistant polyamide braided sleeving

Helagaine HEGPA66

Helagaine HEGPA66 is particularly suitable for vehicle manufacturing as well as plant construction.

Features and benefits

- Made from heavy-duty polyamide yarn
- Excellent abrasion resistance
- Highly flexible
- Easy to apply over irregular shapes
- Eases application by expanding when compressed
- Very high surface covering



Helagaine HEGPA66 braided sleeving.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-60 °C to +150 °C
Melting Point	+255 °C
Flammability	UL 94 V2, FMVSS 302



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPA6604	3.0	6.0	Black (BK)	200 m	45	170-40400
HEGPA6606	4.0	8.0	Black (BK)	100 m	45	170-40600
HEGPA6608	5.0	10.0	Black (BK)	100 m	45	170-40800
HEGPA6610	7.0	12.0	Black (BK)	100 m	45	170-41000
HEGPA6612	8.0	14.0	Black (BK)	100 m	45	170-41200
HEGPA6616	12.0	18.0	Black (BK)	50 m	45	170-41600
HEGPA6620	15.0	23.0	Black (BK)	50 m	45	170-42000
HEGPA6625	18.0	28.0	Black (BK)	50 m	45	170-42500
HEGPA6630	25.0	32.0	Black (BK)	50 m	45	170-43000
HEGPA6640	30.0	44.0	Black (BK)	50 m	45	170-44000
HEGPA6650	40.0	55.0	Black (BK)	50 m	45	170-45000
HEGPA6660	50.0	65.0	Black (BK)	50 m	45	170-46000

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 **ECE R-118**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Light-weight polyester braided sleeving

Helagaine HEGPL

Helagaine HEGPL is used primarily in the automobile interior, motor compartment, car body and chassis.

Features and benefits

- Made of sturdy polyester
- Easier application over irregular shapes
- Highly flexible
- Good abrasion resistance



Helagaine HEGPL braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302, Type B



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPL03	3.0	8.0	Black (BK)	1000 m	45	170-80503
HEGPL06	5.0	12.0	Black (BK)	400 m	45	170-80506
HEGPL12	8.0	21.0	Black (BK)	300 m	45	170-80512
HEGPL20	12.0	30.0	Black (BK)	300 m	45	170-80520
HEGPL30	18.0	55.0	Black (BK)	200 m	45	170-80530
HEGPL40	24.0	66.0	Black (BK)	150 m	45	170-80540
HEGPL50	30.0	82.0	Black (BK)	150 m	45	170-80550

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.
All dimensions in mm. Subject to technical changes. Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.



Standard braided sleeving in dispenser boxes

Helagaine HLB

Because Helagaine HLB is supplied in practical dispenser boxes and covers a wide range of applications with only a few sizes, it is ideal for both the professional and the home user. Helagaine HLB bundles and effectively protects cables and wires, for instance in HiFi systems.

Features and benefits

- In practical, space-saving 10 m dispenser boxes
- Expands to 3x nominal diameter
- Bundling diameters from 5 mm to 54 mm
- Three sizes for very wide range of applications
- Extraction of sleeves



Only three sizes of Helagaine HLB cover almost all application diameters and are available in practical dispenser boxes.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Melting Point	+250 °C
Flammability	UL 94 V2



TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HLB15	15.0	5.0	21.0	Black (BK)	10 m	45	170-80150
HLB25	25.0	10.0	30.0	Black (BK)	10 m	45	170-80250
HLB35	35.0	18.0	54.0	Black (BK)	10 m	45	170-80350

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes.



Meta-aramid braided sleeving

Helagaine HEGMAN

Helagaine HEGMAN provides excellent mechanical protection for applications involving high temperatures and fire-protection, particularly in the aerospace, military, railway and ship-building industries.

Features and benefits

- Made of non-flammable meta-aramid
- Extremely flexible
- High expansion for easy installation over long lengths
- Optimal mechanical protection for harnesses
- Able to withstand the most severe environments
- Superior protection against abrasion, flames and high temperatures
- Highly resistant to radiation and fluids



Helagaine HEGMAN braided sleeving.

MATERIAL	Polyaramid Polymetaphenylene Isophthalamide (PMPI)
Operating Temperature	-60 °C to +240 °C
Melting Point	Does not melt / Carbonisation above +370 °C
Flammability	UL 94 V0

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HEGMAN-02	1.0	2.0	Green (GN)	100 m	170-02100
HEGMAN-04	2.0	4.0	Green (GN)	100 m	170-02101
HEGMAN-06	4.0	8.0	Green (GN)	100 m	170-02102
HEGMAN-08	6.0	12.0	Green (GN)	50 m	170-02103
HEGMAN-10	8.0	16.0	Green (GN)	50 m	170-02104
HEGMAN-15	10.0	20.0	Green (GN)	50 m	170-02105
HEGMAN-20	12.0	24.0	Green (GN)	50 m	170-02106
HEGMAN-25	15.0	30.0	Green (GN)	50 m	170-02107
HEGMAN-30	20.0	40.0	Green (GN)	50 m	170-02108

All dimensions in mm. Subject to technical changes. Cuts in any lengths. NOMEX® is a registered trademark of DuPont. Minimum Order Quantity (MOQ) may differ from package content.



Water and oil repellent meta-aramid braided sleeving

Helagaine HEGMANWO

Helagaine HEGMANWO is especially resistant to water and oil and is designed for applications requiring mechanical protection at high temperatures, particularly in the aerospace, military, railway and ship-building industries.

Features and benefits

- Made of non-flammable meta-aramid
- Water and oil-repellent
- Extremely flexible
- High expansion for easy installation over long lengths
- Optimal mechanical protection for harnesses
- Able to withstand the most severe environments
- Superior protection against abrasion, flames and high temperatures
- Highly resistant to radiation, microorganisms and fluids
- Also very resistant to acids and alkali



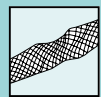
Helagaine HEGMANWO braided sleeving.

MATERIAL	Polyaramid Polymetaphenylene Isophthalamide (PMPI)
Operating Temperature	-60 °C to +240 °C
Melting Point	Does not melt / Carbonisation above +370 °C
Flammability	UL 94 V0, EN 3844-1B

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HEGMANWO-02	1.0	2.0	Green (GN)	100 m	170-02000
HEGMANWO-04	2.0	4.0	Green (GN)	100 m	170-02001
HEGMANWO-06	4.0	8.0	Green (GN)	100 m	170-02002
HEGMANWO-08	6.0	12.0	Green (GN)	50 m	170-02003
HEGMANWO-10	8.0	16.0	Green (GN)	50 m	170-02004
HEGMANWO-15	10.0	20.0	Green (GN)	50 m	170-02005
HEGMANWO-20	12.0	24.0	Green (GN)	50 m	170-02006
HEGMANWO-25	15.0	30.0	Green (GN)	50 m	170-02007
HEGMANWO-30	20.0	40.0	Green (GN)	50 m	170-02008

All dimensions in mm. Subject to technical changes. Cuts in any lengths. NOMEX® is a registered trademark of DuPont. Minimum Order Quantity (MOQ) may differ from package content.



Self-closing polyester sleeving

Helagaine Twist-In

Helagaine Twist-In is used to bundle and protect cables and hoses in machine-building and automation, electrical installations, automobile and truck manufacturing. Helagaine Twist-In is also available in practical 2 m and 5 m lengths for use in the home or workplace.

Features and benefits

- Self-closing sleeve made of sturdy polyester
- Provides very good protection against abrasion
- Quick and easy installation and removal
- Ideal for retro-fitting
- Allows for inspection and maintenance



Helagaine Twist-In enables easy access to cables and wires for assembly, inspection and maintenance.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +125 °C
Melting Point	+255 °C
Flammability	FMVSS 302



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
Twist-In 05-5 m	4.0	5.0	Black (BK)	5 m	45	170-01011
Twist-In 05	4.0	5.0	Black (BK)	150 m	45	170-01000
Twist-In 08-5 m	5.0	8.0	Black (BK)	5 m	45	170-01012
Twist-In 08	5.0	8.0	Black (BK)	100 m	45	170-01001
Twist-In 13-5 m	10.0	13.0	Black (BK)	5 m	45	170-01013
Twist-In 13	10.0	13.0	Black (BK)	50 m	45	170-01002
Twist-In 19-2 m	16.0	19.0	Black (BK)	2 m	45	170-01014
Twist-In 19	16.0	19.0	Black (BK)	25 m	45	170-01004
Twist-In 25-2 m	19.0	25.0	Black (BK)	2 m	45	170-01015
Twist-In 25	19.0	25.0	Black (BK)	25 m	45	170-01005
Twist-In 29-2 m	25.0	29.0	Black (BK)	2 m	45	170-01016
Twist-In 29	25.0	29.0	Black (BK)	15 m	45	170-01006
Twist-In 32-2 m	29.0	32.0	Black (BK)	2 m	45	170-01017
Twist-In 32	29.0	32.0	Black (BK)	15 m	45	170-01007
Twist-In 38-2 m	32.0	38.0	Black (BK)	2 m	45	170-01018
Twist-In 38	32.0	38.0	Black (BK)	15 m	45	170-01008
Twist-In 50	38.0	50.0	Black (BK)	15 m	45	170-01010

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



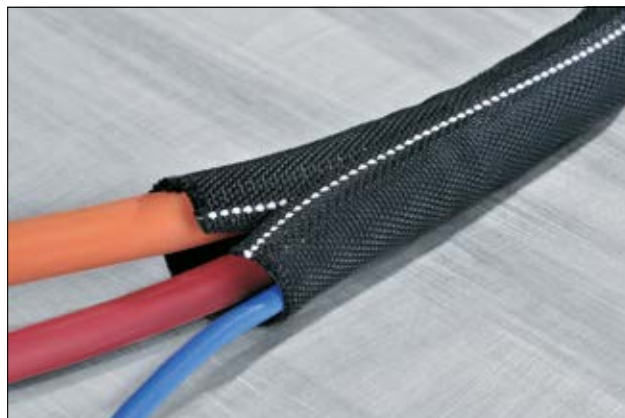
Self-closing, flame-retardant polyester sleeving

Helagaine Twist-In-FR

Helagaine Twist-In-FR is used wherever fire protection is essential, such as in the railway, aerospace and shipbuilding industries.

Features and benefits

- Self-closing sleeve made from polyester
- Optimal fire protection
- Certified conformity with railway standard EN45545-2
- Quick and easy installation and removal
- Ideal for retro-fitting
- Allows access to bundle for assembly, inspection and maintenance



Helagaine Twist-In-FR is used wherever fire safety is important.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +125 °C
Melting Point	+240 °C
Flammability	FMVSS 302, UL 1441 VW-1



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
Twist-In-FR 05	4.0	5.0	Black with White Identification Yarn (BKIDWH)	150 m	45	170-01100
Twist-In-FR 08	5.0	8.0	Black with White Identification Yarn (BKIDWH)	100 m	45	170-01101
Twist-In-FR 13	10.0	13.0	Black with White Identification Yarn (BKIDWH)	50 m	45	170-01102
Twist-In-FR 19	16.0	19.0	Black with White Identification Yarn (BKIDWH)	25 m	45	170-01104
Twist-In-FR 25	19.0	25.0	Black with White Identification Yarn (BKIDWH)	25 m	45	170-01105
Twist-In-FR 29	25.0	29.0	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01106
Twist-In-FR 32	29.0	32.0	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01107
Twist-In-FR 38	32.0	38.0	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01108
Twist-In-FR 50	38.0	50.0	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01109

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



EN 45545-2

ECE R-118



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-closing, EMI protective sleeving

Helagaine Twist-In-EMIZ

Helagaine Twist-In-EMIZ is used to bundle and protect cables against ElectroMagnetic Interferences (EMI). Designed specifically for the railway industry, Twist-In-EMIZ can also be used in many other sectors, such as the naval and automotive industries.

Features and benefits

- Self-closing sleeve made of tinned copper and polyester monofilament
- High-performance electromagnetic protection thanks to its patented System Z
- Its EMC shielding capabilities(> 60 dB) provide highly effective attenuation of electromagnetic interference, protecting people and systems
- Optimal fire protection
- Very good protection against abrasion, vibration, impact and salt spray
- Certified conformity with railway standard EN45545-2: R22 HL3, R23 HL3
- Lightweight, repositionable and very flexible
- Quick and easy installation
- Allows for inspection, maintenance and retro-fitting
- For effective EMI protection, we recommend grounding at both ends, ideally with 360° shielding, on metal connectors



Twist-In-EMIZ shielding cables from electromagnetic interference (EMI).

MATERIAL	Tin-plated copper (SNCU), Polyester (PET)
Operating Temperature	-65 °C to +150 °C
EMI requirements	Tested from 10 kHz to 100 MHz according to IEC 62153-4-3 (triaxial method) Results on request

HF ✓

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
Twist-In-EMIZ-05	1.0	5.0	Metal (ML)	100 m	170-01250
Twist-In-EMIZ-08	5.0	8.0	Metal (ML)	100 m	170-01251
Twist-In-EMIZ-13	8.0	13.0	Metal (ML)	50 m	170-01252
Twist-In-EMIZ_19	13.0	19.0	Metal (ML)	25 m	170-01253
Twist-In-EMIZ_25	19.0	25.0	Metal (ML)	25 m	170-01254
Twist-In-EMIZ_32	25.0	32.0	Metal (ML)	15 m	170-01255
Twist-In-EMIZ_38	32.0	38.0	Metal (ML)	15 m	170-01256
Twist-In-EMIZ-50	38.0	50.0	Metal (ML)	15 m	170-01257
Twist-In-EMIZ_80	50.0	80.0	Metal (ML)	10 m	170-01258

All dimensions in mm. Subject to technical changes.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Rodent repellent self-closing sleeving

Helagaine Twist-In-RR

Helagaine Twist-In-RR is used to bundle and protect cables and hoses against rodents and martens in demanding areas such as automotive, railways, telecoms, underground, sewage system. Helagaine Twist-In-RR is also available in practical 2 m and 3 m lengths for use in the home or workplace.

Features and benefits

- Self-closing sleeve made from glass-fibre and polyester
- Optimal protection from rodents and martens
- Optimal fire protection
- Optimal protection against abrasion, vibrations and impacts
- Provides very good protection against abrasion, UV, vibrations and impacts
- Certified conformity with railway standard EN45545-2: R22 HL3, R23 HL3
- Quick and easy installation and retro-fitting
- Lightweight
- Allows for inspection and maintenance
- Good resistance to acids and solvents
- Good resistance to UV and weathering
- Good resistance to micro-organisms



Helagaine Twist-In-RR is used to protect against rodents and martens.

MATERIAL	Polyester (PET), Glass-fibre (GF)
Operating Temperature	-70 °C to +125 °C
Melting Point	+225 °C
Flammability	FMVSS 302



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
Twist-In-RR-13	10.0	13.0	White (WH), Black (BK)	3 m	170-01175
	10.0	13.0	White (WH), Black (BK)	50 m	170-01161
Twist-In-RR-19	16.0	19.0	White (WH), Black (BK)	2 m	170-01176
	16.0	19.0	White (WH), Black (BK)	25 m	170-01162
Twist-In-RR-29	25.0	29.0	White (WH), Black (BK)	2 m	170-01177
	25.0	29.0	White (WH), Black (BK)	15 m	170-01163
Twist-In-RR-32	29.0	32.0	White (WH), Black (BK)	2 m	170-01178
	29.0	32.0	White (WH), Black (BK)	15 m	170-01164

All dimensions in mm. Subject to technical changes.



EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



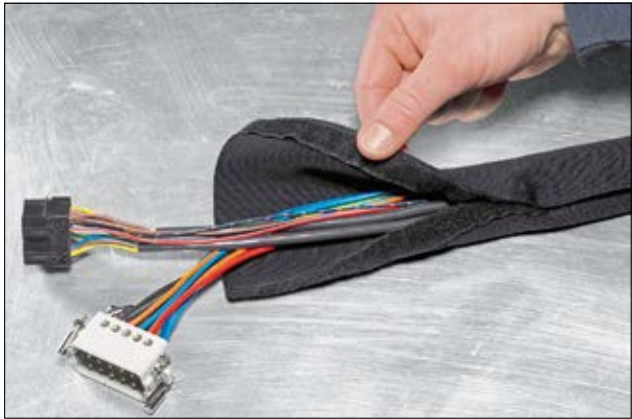
Re-closeable protective sleeving with hook-and-loop seal

HELAHOOK

HELAHOOK is used in automobiles and commercial vehicles as well as industrial machines and railway vehicles. HELAHOOK is especially practical where repeated use is required, for instance in event management.

Features and benefits

- Re-sealable cable protection made of polyester
- Very elastic, fits snugly around the cables
- Hook and loop sealing system can be used for retro-fitting
- High abrasion-resistance



HELAHOOK protective sleeving allows for retro-fitting and repeated use.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C
Flammability	UL 94 V2, FMVSS 302



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HELAHOOK10	3.0	15.0	Black (BK)	25 m	170-05100
HELAHOOK15	10.0	20.0	Black (BK)	25 m	170-05150
HELAHOOK20	15.0	30.0	Black (BK)	25 m	170-05200
HELAHOOK25	20.0	40.0	Black (BK)	25 m	170-05250
HELAHOOK30	25.0	50.0	Black (BK)	25 m	170-05300

All dimensions in mm. Subject to technical changes. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Burst Protection Sleeving for Hydraulic Hoses

Helagaine HEGWS

Helagaine HEGWS is burst protection sleeve highly resistant to abrasion and tears. HEGWS is used to protect hydraulic hoses and prevent injuries due to leaks emitting high-pressure liquid jets. HEGWS is typically used with earth moving machinery and where there is high mechanical vibration.

Features and benefits

- Exceptional tear-resistance
- Very good protection against abrasion
- Optimal protection of hydraulic hoses
- Reduces risk of liquid-jet injuries
- Fulfills the standards of Earth Moving Machinery EN ISO 3457 and Mechanical Vibration and Shock EN 1299



Helagaine HEGWS: The ideal protective sleeve for hydraulic hoses.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +125 °C
Melting Point	+220 +/- 10 °C
Flammability	UL 94 V2, FMVSS 302, Type B



TYPE	Inside Ø (ID)	Wall (WT)	Colour	Reel Length	Tools	Article-No.
HEGWS20	12.0	1.10	Black (BK)	50 m	45	170-01300
HEGWS25	15.0	1.10	Black (BK)	50 m	45	170-01301
HEGWS30	19.0	1.10	Black (BK)	50 m	45	170-01302
HEGWS35	22.0	1.10	Black (BK)	50 m	45	170-01303
HEGWS40	25.0	1.10	Black (BK)	50 m	45	170-01304
HEGWS45	28.0	1.10	Black (BK)	50 m	45	170-01305
HEGWS50	31.0	1.10	Black (BK)	50 m	45	170-01306
HEGWS60	38.0	1.10	Black (BK)	50 m	45	170-01307
HEGWS70	44.0	1.10	Black (BK)	50 m	45	170-01308
HEGWS80	50.0	1.10	Black (BK)	50 m	45	170-01309
HEGWS90	57.0	1.10	Black (BK)	50 m	45	170-01310
HEGWS100	60.0	1.10	Black (BK)	50 m	45	170-01311
HEGWS115	70.0	1.10	Black (BK)	50 m	45	170-01312
HEGWS145	90.0	1.10	Black (BK)	50 m	45	170-01313
HEGWS176	110.0	1.10	Black (BK)	50 m	45	170-01314
HEGWS200	125.0	1.10	Black (BK)	50 m	45	170-01315

Recommended Tools: 45=HSG0. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



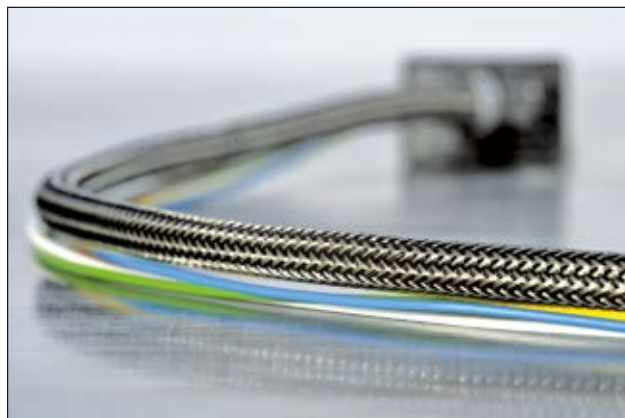
Braided sleeving for electromagnetic protection

Helagaine HEGEMIP

Helagaine HEGEMIP braided sleeving is used for highly sensitive electronics, such as in machines, military equipment and automobiles.

Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Particularly suitable for applications with restricted space or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



HEGEMIP braided sleeving: reliable protection from electromagnetic radiation.

MATERIAL	Polyester, halogen free (PET), Tin-plated copper (SNCU)
Operating Temperature	-40 °C to +150 °C
EMI requirements	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
Flammability	UL 94 V2, FMVSS 302

HF ✓

RoHS ✓

TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP04	4.0	4.0	6.0	Metal (ML), Black (BK)	22 g/m	100 m	173-00400
HEGEMIP06	6.0	5.0	10.0	Metal (ML), Black (BK)	29 g/m	100 m	173-00600
HEGEMIP08	8.0	8.0	11.0	Metal (ML), Black (BK)	36 g/m	100 m	173-00800
HEGEMIP10	10.0	8.0	13.0	Metal (ML), Black (BK)	44 g/m	50 m	173-01000
HEGEMIP12	12.0	10.0	15.0	Metal (ML), Black (BK)	48 g/m	50 m	173-01200
HEGEMIP14	14.0	12.0	18.0	Metal (ML), Black (BK)	58 g/m	100 m	173-01400
HEGEMIP16	16.0	14.0	20.0	Metal (ML), Black (BK)	73 g/m	100 m	173-01600
HEGEMIP18	18.0	16.0	22.0	Metal (ML), Black (BK)	79 g/m	50 m	173-01800
HEGEMIP20	20.0	18.0	25.0	Metal (ML), Black (BK)	100 g/m	50 m	173-02000

All dimensions in mm. Subject to technical changes. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.



Electromagnetic protection braided sleeving for hybrid automobiles

Helagaine HEGEMIP-HY

Helagaine HEGEMIP-HY provides electromagnetic protection in hybrid automobiles.

Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Special copper alloy for enhanced protection against salt spray
- Particularly suitable for applications with restricted space or requiring movement
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



HEGEMIP-HY braided sleeving: EMI protection for hybrid automobiles.

MATERIAL	Polyester (PET), Tin-plated copper (SNCU)
Operating Temperature	-40 °C to +150 °C
EMI requirements	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
Flammability	UL 94 V2, FMVSS 302



TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP-HY20	20.0	19.0	27.0	Silver (SR), Orange (OG)	72 g/m	50 m	173-02001
HEGEMIP-HY30	30.0	25.0	35.0	Silver (SR), Orange (OG)	101 g/m	50 m	173-03000
HEGEMIP-HY35	35.0	30.0	40.0	Silver (SR), Orange (OG)	120 g/m	50 m	173-03501
HEGEMIP-HY40	40.0	30.0	50.0	Silver (SR), Orange (OG)	180 g/m	50 m	173-04000
HEGEMIP-HY50	50.0	40.0	60.0	Silver (SR), Orange (OG)	204 g/m	50 m	173-05000
HEGEMIP-HY60	60.0	50.0	70.0	Silver (SR), Orange (OG)	299 g/m	25 m	173-06000

All dimensions in mm. Subject to technical changes. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.



Electromagnetic protection braided sleeving for defence applications

Helagaine HEGEMIP-VG

Helagaine HEGEMIP-VG provides electromagnetic protection for the defence industry.

Features and benefits

- Excellent electromagnetic protection
- Very flexible, expandable and easy to apply
- Especially suitable for applications in tight areas or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Very good abrasion resistance
- Approved to military norm VG 96936-10 / Type A



HEGEMIP-VG braided sleeving with VG approval for defence applications.

MATERIAL	Tin-plated copper (SNCU)
Operating Temperature	-65 °C to +150 °C
Flammability	UL 94 V2, FMVSS 302

RoHS ✓

TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP-VG03	3.0	3.5	5.0	Metal (ML)	19 g/m	500 m	173-00200
HEGEMIP-VG04	4.0	4.5	7.0	Metal (ML)	30 g/m	500 m	173-00201
HEGEMIP-VG06	6.0	5.5	8.5	Metal (ML)	37 g/m	500 m	173-00202
HEGEMIP-VG07.5	7.5	7.5	13.5	Metal (ML)	71 g/m	500 m	173-00203
HEGEMIP-VG10	10.0	13.0	17.5	Metal (ML)	96 g/m	250 m	173-00204
HEGEMIP-VG12.5	12.5	15.0	19.5	Metal (ML)	100 g/m	200 m	173-00205
HEGEMIP-VG20	20.0	19.0	30.0	Metal (ML)	265 g/m	100 m	173-00206

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

VG

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



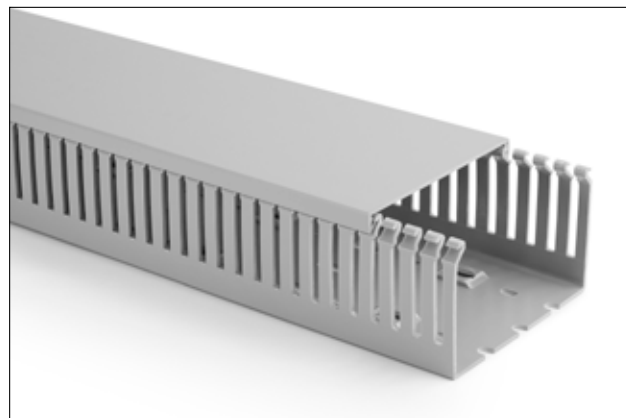
Rigid PVC wiring ducts

HelaDuct HTWD-PN for small-diameter wires (metric sizes)

HelaDuct HTWD-PN wiring ducts are used to route and protect wires in control panels and switching systems.

Features and benefits

- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Raised mounting points for easily and securely fastening wire retainers and other accessories prior to cabling
- Wire retainers and accessories leave no protruding parts below surface of duct
- Duct covers are easy to mount and remove, yet hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of ducts
- Additional retainer nub on fingers on ducts height 80 and above to prevent cables from slipping
- Base perforation according to DIN EN 50085

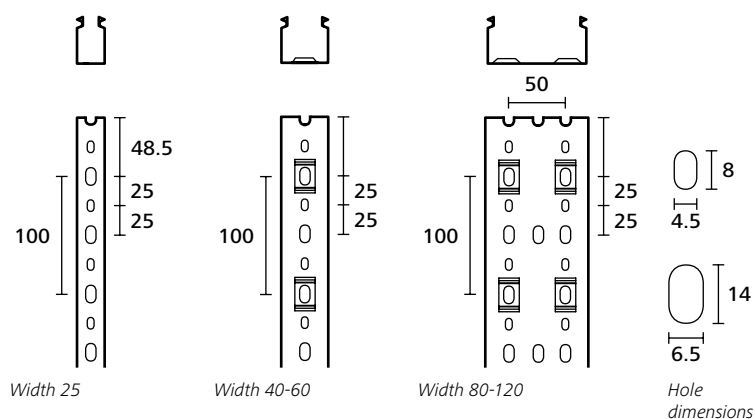


HelaDuct HTWD-PN - narrow finger wiring duct.

MATERIAL	Polyvinylchloride (PVC)
Colour	Grey (GY)
Length (L)	2 m
Operating Temperature	-5 °C to +65 °C
Flammability	UL 94 V0

RoHS ✓

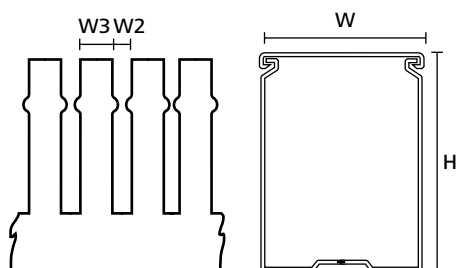
Base perforation according to DIN EN50085, HelaDuct wiring ducts HTWD-PN / PW





Rigid PVC wiring ducts

HelaDuct HTWD-PN for small-diameter wires (metric sizes)



Wiring duct HTWD-PN

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-PN-25X40	25.0	40.0	4.0	6.0	72 m	184-10068
HTWD-PN-25X60	25.0	60.0	4.0	6.0	48 m	184-10138
HTWD-PN-25X80	25.0	80.0	4.0	6.0	48 m	184-10198
HTWD-PN-40X40	40.0	40.0	4.0	6.0	40 m	184-10078
HTWD-PN-40X60	40.0	60.0	4.0	6.0	36 m	184-10148
HTWD-PN-40X80	40.0	80.0	4.0	6.0	32 m	184-10208
HTWD-PN-40X100	40.0	100.0	4.0	6.0	16 m	184-10258
HTWD-PN-60X40	60.0	40.0	4.0	6.0	24 m	184-10088
HTWD-PN-60X60	60.0	60.0	4.0	6.0	24 m	184-10158
HTWD-PN-60X80	60.0	80.0	4.0	6.0	24 m	184-10218
HTWD-PN-60X100	60.0	100.0	4.0	6.0	8 m	184-10268
HTWD-PN-80X40	80.0	40.0	4.0	6.0	24 m	184-10098
HTWD-PN-80X60	80.0	60.0	4.0	6.0	24 m	184-10168
HTWD-PN-80X80	80.0	80.0	4.0	6.0	24 m	184-10228
HTWD-PN-80X100	80.0	100.0	4.0	6.0	8 m	184-10329
HTWD-PN-100X40	100.0	40.0	4.0	6.0	16 m	184-10108
HTWD-PN-100X60	100.0	60.0	4.0	6.0	16 m	184-10178
HTWD-PN-100X80	100.0	80.0	4.0	6.0	16 m	184-10238
HTWD-PN-100X100	100.0	100.0	4.0	6.0	8 m	184-10278
HTWD-PN-120X60	120.0	60.0	4.0	6.0	16 m	184-10188
HTWD-PN-120X80	120.0	80.0	4.0	6.0	16 m	184-10248

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



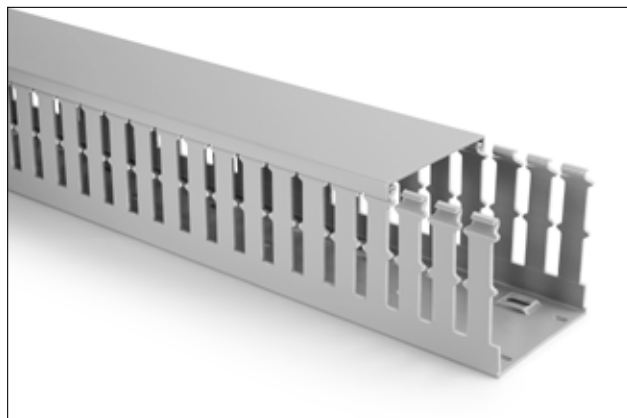
Rigid PVC wiring ducts

HelaDuct HTWD-PW for large-diameter wires (metric sizes)

HelaDuct HTWD-PW wiring ducts are used to route and protect wires in control panels and switching systems.

Features and benefits

- Wide slots suitable for large-diameter wires
- Wide fingers provide additional wire support
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Raised mounting points for easily, quickly and securely fastening wire retainers and other accessories prior to cabling
- Wire retainers and accessories leave no protruding parts below surface of duct
- Duct covers are easy to mount and remove, yet hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of ducts
- Additional retainer nub on fingers on ducts height 80 and above to prevent cables from slipping
- Base perforation according to DIN EN 50085

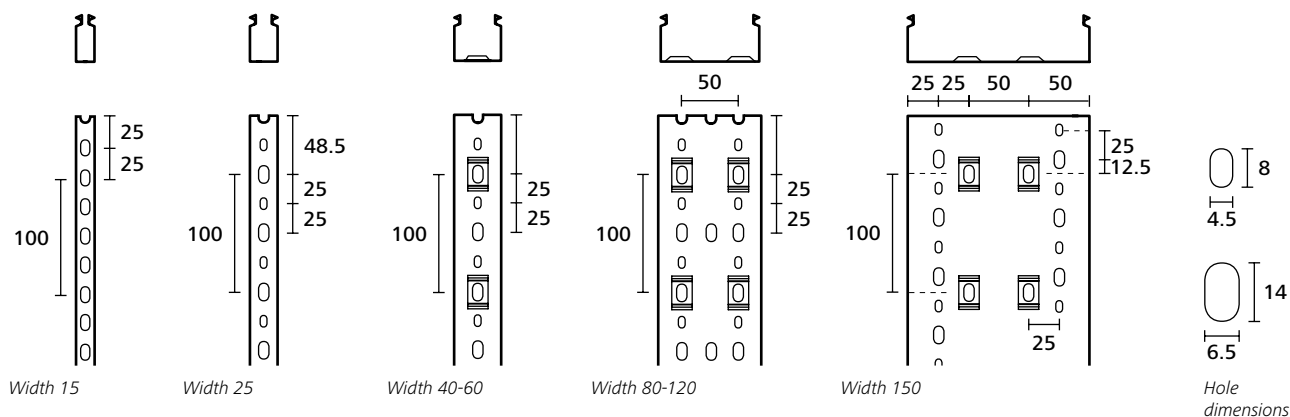


HelaDuct HTWD-PW - wide finger wiring duct.

MATERIAL	Polyvinylchloride (PVC)
Colour	Grey (GY)
Length (L)	2 m
Operating Temperature	-5 °C to +65 °C
Flammability	UL 94 V0

RoHS ✓

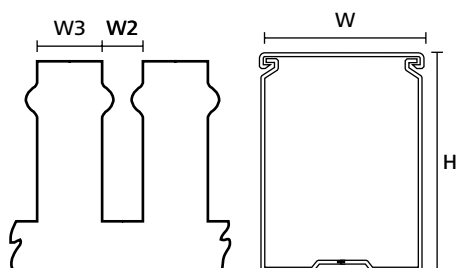
Base perforation according to DIN EN50085, HelaDuct wiring ducts HTWD-PN / PW





Rigid PVC wiring ducts

HelaDuct HTWD-PW for large-diameter wires (metric sizes)



Wiring duct HTWD-PW/
HTWD-PWB

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-PW-15X18	15.0	18.0	5.0	7.5	72 m	181-10018
HTWD-PW-15X30	15.0	30.0	5.0	7.5	64 m	181-10038
HTWD-PW-15X40	15.0	40.0	5.0	7.5	48 m	181-10058
HTWD-PW-15X60	15.0	60.0	5.0	7.5	32 m	181-10118
HTWD-PW-25X30	25.0	30.0	5.0	7.5	72 m	181-10028
HTWD-PW-25X40	25.0	40.0	8.0	12.0	72 m	181-10068
HTWD-PW-25X60	25.0	60.0	8.0	12.0	48 m	181-10138
HTWD-PW-25X80	25.0	80.0	8.0	12.0	48 m	181-10198
HTWD-PW-25X100	25.0	100.0	8.0	12.0	16 m	181-10328
HTWD-PW-40X40	40.0	40.0	8.0	12.0	40 m	181-10078
HTWD-PW-40X60	40.0	60.0	8.0	12.0	36 m	181-10148
HTWD-PW-40X80	40.0	80.0	8.0	12.0	32 m	181-10208
HTWD-PW-40X100	40.0	100.0	8.0	12.0	16 m	181-10258
HTWD-PW-60X40	60.0	40.0	8.0	12.0	24 m	181-10088
HTWD-PW-60X60	60.0	60.0	8.0	12.0	24 m	181-10158
HTWD-PW-60X80	60.0	80.0	8.0	12.0	24 m	181-10218
HTWD-PW-60X100	60.0	100.0	8.0	12.0	8 m	181-10268
HTWD-PW-80X40	80.0	40.0	8.0	12.0	24 m	181-10098
HTWD-PW-80X60	80.0	60.0	8.0	12.0	24 m	181-10168
HTWD-PW-80X80	80.0	80.0	8.0	12.0	24 m	181-10228
HTWD-PW-80X100	80.0	100.0	8.0	12.0	8 m	181-10329
HTWD-PW-100X40	100.0	40.0	8.0	12.0	16 m	181-10108
HTWD-PW-100X60	100.0	60.0	8.0	12.0	16 m	181-10178
HTWD-PW-100X80	100.0	80.0	8.0	12.0	16 m	181-10238
HTWD-PW-100X100	100.0	100.0	8.0	12.0	8 m	181-10278
HTWD-PW-120X60	120.0	60.0	8.0	12.0	16 m	181-10188
HTWD-PW-120X80	120.0	80.0	8.0	12.0	16 m	181-10248
HTWD-PW-150X100	150.0	100.0	8.0	12.0	8 m	181-10288

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

HelaDuct HTWD-PD (DIN-sizes)

Features and benefits

-

HelaDuct HTWD-PD - DIN sized wiring duct.

MATERIAL	Polyvinylchloride (PVC)
Colour	Grey (GY)
Length (L)	2 m
Operating Temperature	-5 °C to +60 °C
Flammability	UL 94 V0

RoHS

Technical drawings of two types of hole punches, showing side and top views with dimensions.

Left Punch (Width 20-50):

- Side View: Total height is 100. The punch body has a height of 48.5. The hole has a diameter of 25. The punch body has a thickness of 25.
- Top View: The punch body has a width of 50. The hole has a diameter of 25.

Right Punch (Width 75-125):

- Side View: Total height is 100. The punch body has a height of 48.5. The hole has a diameter of 25. The punch body has a thickness of 25.
- Top View: The punch body has a width of 50. The hole has a diameter of 25.

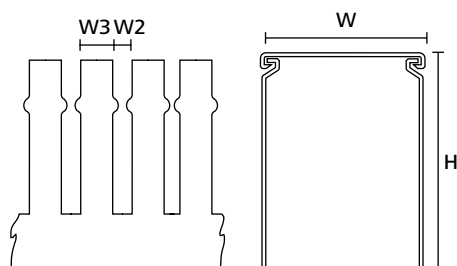
Hole dimensions:

- Small hole: Diameter 8, Width 4.5.
- Large hole: Diameter 14, Width 6.5.



Rigid PVC wiring ducts

HelaDuct HTWD-PD (DIN-sizes)



Wiring duct HTWD-PD

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-PD-20X20	20.0	20.0	4.0	6.0	64 m	185-42020
HTWD-PD-20X37.5	20.0	37.5	4.0	6.0	32 m	185-42037
HTWD-PD-20X50	20.0	50.0	4.0	6.0	20 m	185-42050
HTWD-PD-25X25	25.0	25.0	5.0	7.5	48 m	185-42525
HTWD-PD-25X50	25.0	50.0	5.0	7.5	18 m	185-42550
HTWD-PD-25X75	25.0	75.0	5.0	7.5	32 m	185-42575
HTWD-PD-37.5X25	37.5	25.0	5.0	7.5	64 m	185-43725
HTWD-PD-37.5X37.5	37.5	37.5	5.0	7.5	32 m	185-43737
HTWD-PD-37.5X50	37.5	50.0	5.0	7.5	40 m	185-43750
HTWD-PD-37.5X75	37.5	75.0	5.0	7.5	40 m	185-43775
HTWD-PD-50X50	50.0	50.0	5.0	7.5	48 m	185-45050
HTWD-PD-50X75	50.0	75.0	5.0	7.5	20 m	185-45075
HTWD-PD-50X100	50.0	100.0	5.0	7.5	24 m	185-45010
HTWD-PD-75X50	75.0	50.0	5.0	7.5	20 m	185-47550
HTWD-PD-75X75	75.0	75.0	5.0	7.5	16 m	185-47575
HTWD-PD-75X100	75.0	100.0	5.0	7.5	16 m	185-47510
HTWD-PD-100X50	100.0	50.0	5.0	7.5	24 m	185-41050
HTWD-PD-100X75	100.0	75.0	5.0	7.5	16 m	185-41075
HTWD-PD-100X100	100.0	100.0	5.0	7.5	8 m	185-41010
HTWD-PD-125X50	125.0	50.0	5.0	7.5	18 m	185-41250
HTWD-PD-125X75	125.0	75.0	5.0	7.5	12 m	185-41275

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Halogen-free wiring ducts

HelaDuct HTWD-HF (metric sizes)

HelaDuct HTWD-HF wiring ducts are used to route and protect wires in control panels and switching systems where there are high demands on personal or material safety in case of fire, such as in public transport, tunnels, data-processing centers or public buildings.

Features and benefits

- Excellent fire-safety characteristics according to UL94 und EN 45545-2
- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Duct covers hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of duct
- Base perforation according to DIN EN 50085



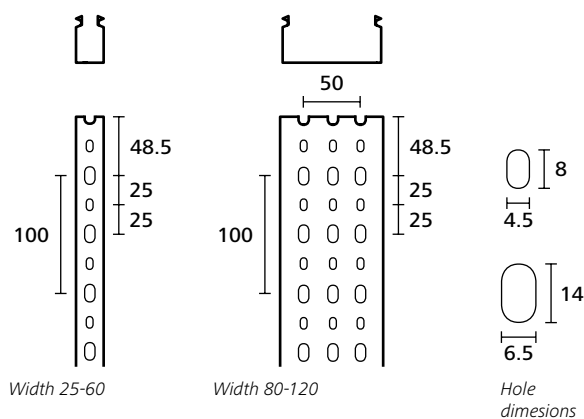
HelaDuct HTWD-HF (metric), halogenfree wiring duct.

MATERIAL	Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS)
Colour	Grey (GY)
Length (L)	2.0 m
Operating Temperature	-25 °C to +90 °C
Flammability	UL 94 V0

HF ✓

RoHS ✓

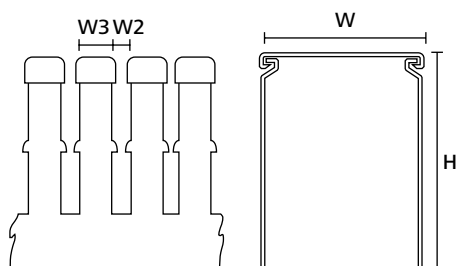
Base perforation according to DIN EN50085, HelaDuct wiring ducts HTWD-HF





Halogen-free wiring ducts

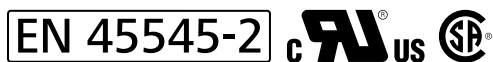
HelaDuct HTWD-HF (metric sizes)



HelaDuct Wiring ducts
HTWD-HF

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-HF-25X25	25.0	25.0	6.0	6.5	50.0 m	183-22525
HTWD-HF-25X40	25.0	40.0	6.0	6.5	48.0 m	183-22540
HTWD-HF-25X60	25.0	60.0	6.0	6.5	60.0 m	183-25060
HTWD-HF-25X80	25.0	80.0	6.0	6.5	20.0 m	183-22580
HTWD-HF-40X25	40.0	25.0	6.0	6.5	48.0 m	183-24025
HTWD-HF-40X40	40.0	40.0	6.0	6.5	50.0 m	183-24040
HTWD-HF-40X60	40.0	60.0	6.0	6.5	40 m	183-24060
HTWD-HF-40X80	40.0	80.0	6.0	6.5	20.0 m	183-24080
HTWD-HF-60X40	60.0	40.0	6.0	6.5	40 m	183-26040
HTWD-HF-60X60	60.0	60.0	6.0	6.5	24.0 m	183-26060
HTWD-HF-60X80	60.0	80.0	6.0	6.5	20.0 m	183-26080
HTWD-HF-60X100	60.0	100.0	6.0	6.5	12.0 m	183-26010
HTWD-HF-80X40	80.0	40.0	6.0	6.5	20.0 m	183-28040
HTWD-HF-80X60	80.0	60.0	6.0	6.5	20.0 m	183-28060
HTWD-HF-80X80	80.0	80.0	6.0	6.5	12.0 m	183-28080
HTWD-HF-80X100	80.0	100.0	6.0	6.5	10.0 m	183-28010
HTWD-HF-100X40	100.0	40.0	6.0	6.5	20.0 m	183-22040
HTWD-HF-100X60	100.0	60.0	6.0	6.5	16.0 m	183-21060
HTWD-HF-100X80	100.0	80.0	6.0	6.5	12.0 m	183-21080
HTWD-HF-100X100	100.0	100.0	6.0	6.5	8.0 m	183-21010
HTWD-HF-120X60	120.0	60.0	6.0	6.5	12.0 m	183-21260
HTWD-HF-120X80	120.0	80.0	6.0	6.5	16.0 m	183-21280

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



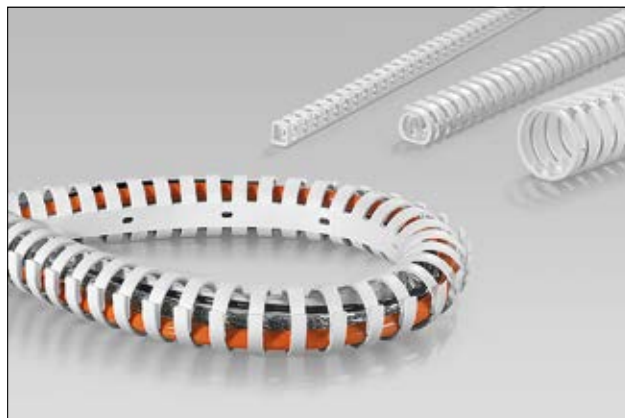
Flexible cable support

HelaDuct Flex

HelaDuct flexible cable supports are commonly used in switching cabinets. They are also used in the furniture industry, where cables need to be routed rapidly and attractively.

Features and benefits

- Space-saving wiring system
- Highly flexible, can be installed at angles of 90° and higher
- Cable clearly open to view
- Rapid mounting with screws or adhesive strip with high-quality foam bonding layer



HelaDuct Flex can be installed at angles above 90°.

MATERIAL	Polypropylene (PP)	
Colour	White (WH)	
Operating Temperature	-20 °C to +70 °C	
Fixation Method	Screw Mounting	Screw Mounting and Adhesive
Adhesive		Synthetic rubber with base of polyethylene foam
Flammability	UL 94 V0 (excluding adhesive)	

HF ✓

RoHS ✓

TYPE	Nominal Ø	Fixation Method	No. of Wires		Length (L)	Pack Cont.	Article-No.
HelaDuct Flex10	10	Screw Mounting	6 x 1.50 mm ²	4 x 2.50 mm ²	500.0	100 pcs.	164-11008
HelaDuct Flex10SK	10	Screw Mounting and Adhesive	6 x 1.50 mm ²	4 x 2.50 mm ²	500.0	100 pcs.	164-11108
HelaDuct Flex20	20	Screw Mounting	22 x 1.50 mm ²	14 x 2.50 mm ²	500.0	70 pcs.	164-21008
HelaDuct Flex20SK	20	Screw Mounting and Adhesive	22 x 1.50 mm ²	14 x 2.50 mm ²	500.0	70 pcs.	164-21108
HelaDuct Flex30	30	Screw Mounting	50 x 1.50 mm ²	34 x 2.50 mm ²	500.0	40 pcs.	164-31008
HelaDuct Flex30SK	30	Screw Mounting and Adhesive	50 x 1.50 mm ²	34 x 2.50 mm ²	500.0	40 pcs.	164-31108
HelaDuct Flex40	40	Screw Mounting	81 x 2.50 mm ²	60 x 2.50 mm ²	500.0	24 pcs.	164-41008
HelaDuct Flex40SK	40	Screw Mounting and Adhesive	81 x 2.50 mm ²	60 x 2.50 mm ²	500.0	24 pcs.	164-41108

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



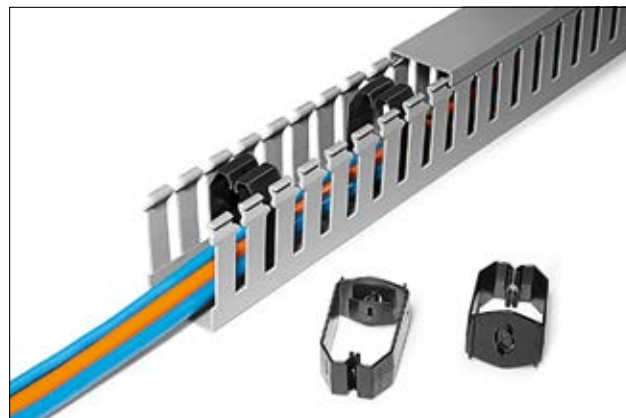
For mounting prior to wiring

HelaDuct HTWD-BWR Base Wire Retainers

HelaDuct Base Wire Retainers HTWD-BWR are anchored securely on the raised mounting points of HTWD-PN and HTWD-PW ducts to allow insertion of wires. Wires are held in place during wiring, for instance in a vertical position or during ceiling installation.

Features and benefits

- Quickly and easily fastened on raised mounting points with a 1/4 turn of a screwdriver
- Wires easily inserted and firmly held in place
- Anchor of retainer remains inside raised mounting point and does not protrude below surface of duct base
- Reduces strain on duct fingers especially at corners and eliminates bulging against sidewall
- Available for all duct sizes of width and height larger than 40
- Fits snugly in duct for minimal loss of installation space

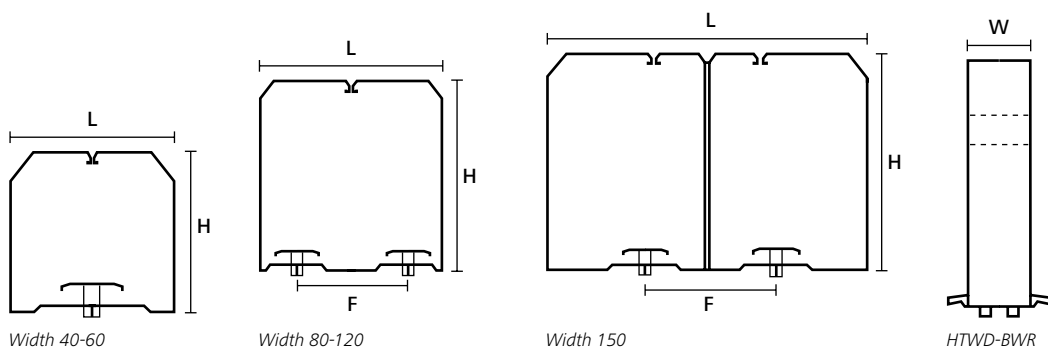


HTWD-BWR wire retainers are easy to mount and hold wires firmly during wiring.

MATERIAL	Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS)
Operating Temperature	-5 °C to +80 °C
Flammability	UL 94 HB

HF ✓

RoHS ✓



TYPE	Length (L)	Height (H)	Width (W)	Fixing Hole Centres (F)	Colour	Pack Cont.	Article-No.
HTWD-BWR-40X80	34.0	75.0	20.0	-	Black (BK)	20 pcs.	181-50480
HTWD-BWR-40X40	35.0	36.0	20.0	-	Black (BK)	40 pcs.	181-50440
HTWD-BWR-40X60	35.0	56.0	20.0	-	Black (BK)	40 pcs.	181-50460
HTWD-BWR-60X60	54.0	55.0	20.0	-	Black (BK)	20 pcs.	181-50660
HTWD-BWR-60X80	54.0	75.0	20.0	-	Black (BK)	20 pcs.	181-50680
HTWD-BWR-60X100	54.0	95.0	20.0	-	Black (BK)	20 pcs.	181-50690
HTWD-BWR-60X40	55.0	35.0	20.0	-	Black (BK)	40 pcs.	181-50640
HTWD-BWR-80X60	74.0	55.0	20.0	50.0	Black (BK)	10 pcs.	181-50860
HTWD-BWR-80X80	74.0	74.0	20.0	50.0	Black (BK)	10 pcs.	181-50880
HTWD-BWR-80X100	74.0	94.0	20.0	50.0	Black (BK)	30 pcs.	181-50890
HTWD-BWR-100X100	93.0	94.0	20.0	50.0	Black (BK)	5 pcs.	181-51090
HTWD-BWR-100X60	94.0	55.0	20.0	50.0	Black (BK)	10 pcs.	181-51060
HTWD-BWR-100X80	94.0	75.0	20.0	50.0	Black (BK)	10 pcs.	181-51080
HTWD-BWR-120X80	113.0	74.0	20.0	50.0	Black (BK)	10 pcs.	181-51280
HTWD-BWR-120X60	114.0	54.0	20.0	50.0	Black (BK)	10 pcs.	181-51260
HTWD-BWR-150X100	143.0	94.0	20.0	50.0	Black (BK)	5 pcs.	181-51590

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



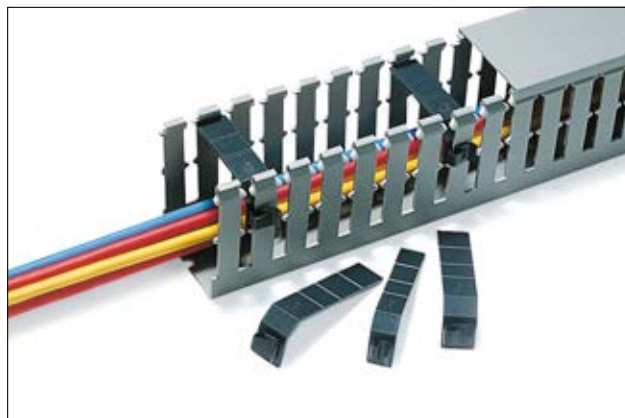
For mounting to duct fingers

HelaDuct HTWD-NFWR and HTWD-WFWR Wire Retainers

The Narrow Finger and Wide Finger Wire Retainers HTWD-NFWR and HTWD-WFWR are easily attached to HelaDuct wiring duct fingers to hold wires securely in place during installation and when the cover is removed.

Features and benefits

- Prevents wires from falling out even when vertical routed
- Easily inserted onto single fingers of duct
- Height can be freely adjusted
- Does not block insertion of wirings into slots
- One retainer for all duct widths: length of retainer can be shortened at break-off points to duct width
- HTWD-NFWR is compatible with HelaDuct HTWD-PN and HTWD-HF (metric sizes)
- HTWD-WFWR is compatible with HelaDuct HTWD-PW ducts

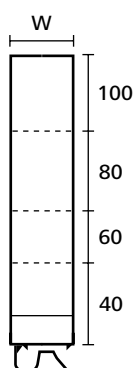


HTWD-NFWR and HTWD-WFWR hold wires in place even when cover is removed.

MATERIAL	Acrylonitrile Butadiene Styrene (ABS)
Operating Temperature	-40 °C to +80 °C
Flammability	UL 94 HB

HF ✓

RoHS ✓



HTWD-NFWR, -WFWR

TYPE	For Wiring Ducts	Width (W)	Colour	Pack Cont.	Article-No.
HTWD-NFWR	HTWD-PN, HTWD-HF	14.0	Black (BK)	100 pcs.	181-10020
HTWD-WFWR	HTWD-PW	18.0	Black (BK)	100 pcs.	181-10010

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



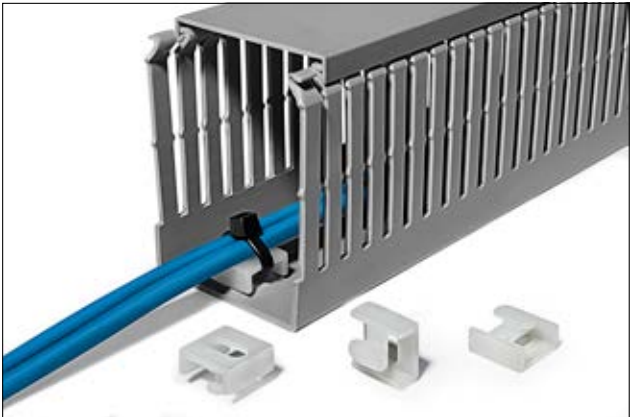
For fixing cable ties to base of ducts

HelaDuct HTWD-CTH cable tie holder

HelaDuct HTWD-CTH is used to anchor a cable tie securely to the base of a duct.

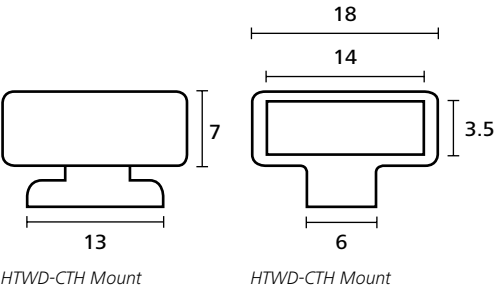
Features and benefits

- Holds all components firmly in place
- Cable tie easily laced through HTWD-CTH
- Anchor of mount remains inside raised mounting point and does not protrude below surface of duct base



HTWD-CTH for fixing cable ties to base of ducts.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +80 °C
Flammability	UL 94 V2



TYPE	For Wiring Ducts	Colour	Pack Cont.	Article-No.
HTWD-CTH	HTWD-PN, HTWD-PW	White (WH)	50 pcs.	181-45029

Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



For installing wiring ducts into fixing holes

HelaDuct HTWD-R4 and HTWD-R6 rivets

HTWD-R4 and HTWD-R6 are used to rapidly mount and secure wiring ducts into fixing holes without the use of screws.

Features and benefits

- Very good mechanical properties
- Good resistance to vibration
- Easily and rapidly applied with HTWD-RT4 and HTWD-RT6 rivet tools
- Colour-coded for easy identification for use with rivet tools

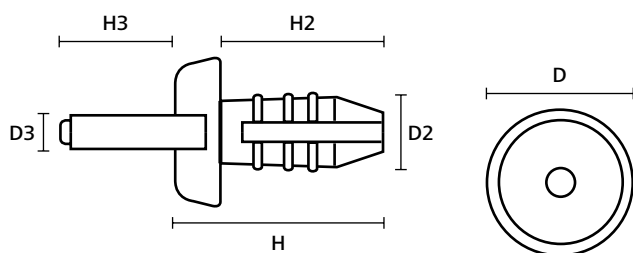


HTWD-R4 and HTWD-R6 Rivet.

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-40 °C to +80 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



HTWD-R4, -R6

TYPE	Height (H)	Height (H2)	Height (H3)	Ø (D)	Ø (D2)	Ø (D3)	Colour	Pack Cont.	Article-No.
HTWD-R4	14.0	12.0	11.5	9.0	5.0	2.0	Blue (BU)	1000 pcs.	181-42400
HTWD-R6	16.0	12.7	13.0	11.0	6.0	3.0	Black (BK)	250 pcs.	181-42600
	16.0	14.0	13.5	11.0	7.5	4.0	Orange (OG)	500 pcs.	181-42500

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



For inserting R4 and R6 rivets

HelaDuct HTWD-RT4 and HTWD-RT6 Rivet Tools

HelaDuct HTWD-RT4 and HTWD-RT6 tools are used to insert HTWD-R4 and HTWD-R6 rivets into fixing holes and thus mounting ducts without the use of screws.

Features and benefits

- Durable and reliable
- Long aluminum body enables insertion even into very high ducts
- Soft plastic ergonomic handle
- Colour-coded for easy identification for use with correct rivets



Rivet Tools HTWD-RT4, -RT6.

MATERIAL	Metal (MET), Plastic (PL)



TYPE	For Wiring Duct Rivets	Colour	Pack Cont.	Article-No.
HTWD-RT4	R4	Blue (BU)	1 pc.	181-41542
HTWD-RT6	R6	Orange (OG)	1 pc.	181-41564

Subject to technical changes.



Edge protection for cut-out sections

Flexiform G51P PE grommet strip

Flexiform edge protection is used to protect cables and wires routed through sharp-edged cut-out sections.

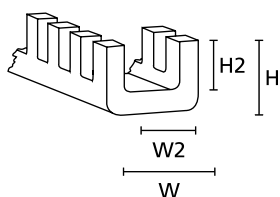
Features and benefits

- Very flexible
- Easily and securely applied without adhesives
- Provides effective, orderly-looking protection
- Flexiform G51P made of polyethylene offers general purpose edge protection



Optimal protection of cables and wires at panel edges.

MATERIAL	Polyethylene (PE)
Operating Temperature	-30 °C to +80 °C
Flammability	UL 94 HB



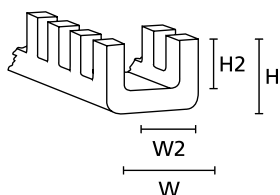
Flexiform edge protection

TYPE	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51PAA	0.4 - 0.9	2.3	0.9	2.7	1.8	PE	Natural (NA)	25 m	251-10009
G51PA	0.4 - 1.3	3.9	1.5	4.3	2.7	PE	Natural (NA)	25 m	251-10109
G51PB	1.3 - 2.1	4.6	2.4	4.3	2.7	PE	Natural (NA)	25 m	251-10209
G51PC	2.1 - 3.3	5.7	3.5	4.3	2.7	PE	Natural (NA)	25 m	251-10309
G51PD	3.3 - 4.8	8.4	5.1	6.2	4.3	PE	Natural (NA)	25 m	251-10409
G51PE	4.8 - 6.5	9.9	6.7	6.4	4.5	PE	Natural (NA)	25 m	251-10509
G51PF	6.5 - 8.1	11.4	8.3	6.8	4.8	PE	Natural (NA)	25 m	251-10609
G51PG	8.1 - 9.7	13.2	10.1	6.8	4.8	PE	Natural (NA)	25 m	251-10709
G51PH	9.7 - 12.9	16.4	13.2	6.8	4.8	PE	Natural (NA)	25 m	251-10809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.



Flexiform G51T PTFE grommet strip



Flexiform edge protection

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-60 °C to +260 °C, intermittent +350 °C
Flammability	UL 94 V0

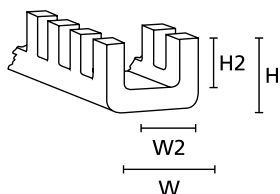
RoHS



TYPE	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51TA	0.4 - 1.3	3.9	1.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30109
G51TB	1.3 - 2.1	4.6	2.4	4.3	2.7	PTFE	Natural (NA)	3 m	251-30209
G51TC	2.1 - 3.3	5.7	3.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30309
G51TD	3.3 - 4.8	8.4	5.1	6.2	4.3	PTFE	Natural (NA)	3 m	251-30409
G51TE	4.8 - 6.5	9.9	6.7	6.4	4.5	PTFE	Natural (NA)	3 m	251-30509
G51TF	6.5 - 8.1	11.4	8.3	6.8	4.8	PTFE	Natural (NA)	3 m	251-30609
G51TG	8.1 - 9.7	13.2	10.1	6.8	4.8	PTFE	Natural (NA)	3 m	251-30709
G51TH	9.7 - 12.9	16.4	13.2	6.8	4.8	PTFE	Natural (NA)	3 m	251-30809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

Flexiform G51N PA6 grommet strip



Flexiform edge protection

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +95 °C
Flammability	UL 94 HB

HF



RoHS



TYPE	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51NA	0.4 - 1.3	3.9	1.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21109
G51NB	1.3 - 2.1	4.6	2.4	4.3	2.7	PA6	Natural (NA)	25 m	251-21209
G51NC	2.1 - 3.3	5.7	3.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21309
G51ND	3.3 - 4.8	8.4	5.1	6.2	4.3	PA6	Natural (NA)	25 m	251-21409
G51NE	4.8 - 6.5	9.9	6.7	6.4	4.5	PA6	Natural (NA)	25 m	251-21509
G51NF	6.5 - 8.1	11.4	8.3	6.8	4.8	PA6	Natural (NA)	25 m	251-21609
G51NG	8.1 - 9.7	13.2	10.1	6.8	4.8	PA6	Natural (NA)	25 m	251-21709
G51NH	9.70 - 12.90	16.4	13.2	6.8	4.8	PA6	Natural (NA)	25 m	251-21809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

NASM

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Edge protection

EdgeGuard

EdgeGuard is used to cover panel edging to prevent chafing and provide an attractive finish.

Features and benefits

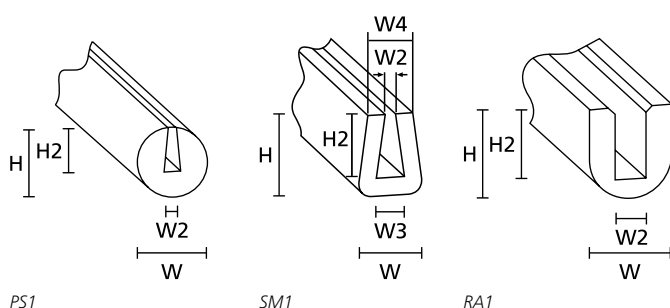
- Very flexible
- Easy to apply
- Protects cables from chafing on bulkheads



EdgeGuard protection against sharp panel edges.

MATERIAL	Polyvinylchloride (PVC)
Operating Temperature	-65 °C to +105 °C, intermittent +135 °C
Flammability	UL 94 HB

RoHS ✓



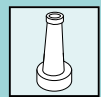
PS1

SM1

RA1

TYPE	Width (W)	Width (W2)	Width (W3)	Width (W4)	Height (H)	Height (H2)	Colour	Pack Cont.	Article-No.
PS1	1.2	0.6	-	-	5.0	3.2	Black (BK)	75 m	800-00200
SM1	5.0	1.0	1.8	4.2	6.3	4.9	Black (BK)	75 m	800-00004
RA1	6.4	2.4	-	-	7.1	5.6	Black (BK)	75 m	800-00001

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



For blade receptables and terminals

Push-on caps

The protective push-on caps and elbow grommets are specially constructed to insulate and protect flat pin bushings. They are used in all areas of automotive electronics and connection technology.

Features and benefits

- Protects effectively against spraying water
- Flexible and easy to apply
- High resistance to chemicals and environmental influences



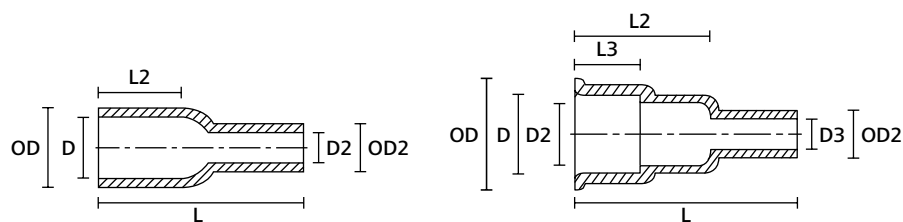
Push-on caps and elbow grommets in various dimensions.

MATERIAL	Polyvinylchloride (PVC)	Polyvinylchloride, flame retardant (PVC-FR)	Polyethylene (PE)
Operating Temperature	-30 °C to +60 °C		-10 °C to +70 °C
Shore Hardness A	70±5	55±5	nom. 45
Flammability	UL 94 HB	UL 94 V0	UL 94 HB

RoHS ✓

HF ✓

RoHS ✓



HV4819

HV4825

TYPE	Drawing	Outside Ø (OD)	Outside Ø (OD2)	Ø (D)	Ø (D2)	Length (L)	Length (L2)	Length (L3)	Material	Colour	Pack Cont.	Article-No.
HV4819		10.0	6.0	8.0	4.0	27.0	-	-	PVC-FR	Black (BK)	2000 pcs.	631-08190
		10.0	6.0	8.0	4.0	27.0	-	-	PVC-FR	Natural (NA)	2000 pcs.	631-08199
HV4820		12.0	6.0	10.0	4.0	25.0	14.0	6.0	PVC	Black (BK)	2000 pcs.	631-08200
		12.0	6.0	10.0	4.0	25.0	14.0	6.0	PVC	Natural (NA)	2000 pcs.	631-08209
HV4823		10.5	7.5	8.0	5.0	27.0	-	-	PVC	Natural (NA)	2000 pcs.	631-08239
HV4825		14.0	6.0	10.3	4.0	28.0	17.0	8.0	PVC	Natural (NA)	2000 pcs.	631-08259
OP4827		9.0	6.2	7.5	3.5	22.5	-	-	PE	Natural (NA)	2000 pcs.	631-58279
OP4828		5.2	4.0	4.0	2.8	18.0	-	-	PE	Natural (NA)	2000 pcs.	631-58289

All dimensions in mm. Subject to technical changes.



For flat pin bushings

Elbow grommets

Elbow grommets are specially constructed to insulate and protect flat pin bushings. They are used in all areas of automotive electronics and connection technology.

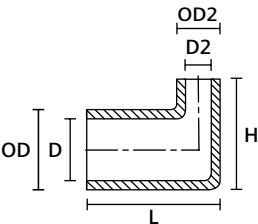
Features and benefits

- Protects effectively against spraying water
- Flexible and easy to apply
- High resistance to chemicals and environmental influences



Push-on caps and elbow grommets in various dimensions.

MATERIAL	Polyvinylchloride, flame retardant (PVC-FR)
Operating Temperature	-30 °C to +60 °C
Shore Hardness A	55±5
Flammability	UL 94 V0, FMVSS 302



HV4821

TYPE	Drawing	Outside Ø (OD)	Outside Ø (OD2)	Ø (D)	Ø (D2)	Height (H)	Length (L)	Material	Colour	Pack Cont.	Article-No.
HV4821		10.5	5.3	8.5	3.3	14.0	17.0	PVC-FR	Black (BK)	2000 pcs.	631-08210
		10.5	5.3	8.5	3.3	14.0	17.0	PVC-FR	Natural (NA)	2000 pcs.	631-08219

All dimensions in mm. Subject to technical changes.



For bend protection at cable exits

Bend protection grommets

Bend protection grommets are typically used to protect cables and wires at the apertures in casings.

Features and benefits

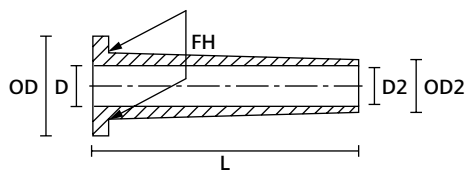
- Routes cables free of kinks and breakage
- Provides strain relief
- Flexible and easy to apply
- High resistance to chemicals und environmental influences



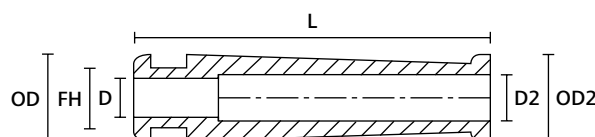
Protection and routing of cables free of kinks and breakage.

MATERIAL	Polyvinylchloride, flame retardant (PVC-FR)
Operating Temperature	-30 °C to +60 °C
Shore Hardness A	55±5
Flammability	UL 94 V0

RoHS ✓



HV2101



HV2206

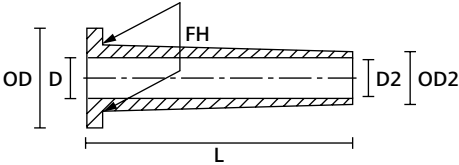
TYPE	Drawing	Outside Ø (OD)	Outside Ø (OD2)	Hole Ø (FH)	Ø (D)	Ø (D2)	Length (L)	Colour	Pack Cont.	Article-No.
HV2101		5.3	5.5	9.0	5.3	5.5	35.0	White (WH)	1000 pcs.	632-01019
		13.0	7.0	9.0	5.3	5.5	35.0	Black (BK)	1000 pcs.	632-01010
		13.0	7.0	9.0	5.3	5.5	35.0	Grey (GY)	1000 pcs.	632-01017
HV2101A		13.0	9.5	9.0	5.5	5.3	35.0	Black (BK)	1000 pcs.	632-01020
HV2103		13.0	6.5	9.0	4.5	3.0	27.0	Black (BK)	1000 pcs.	632-01030
HV2104		13.0	6.5	9.5	4.5	3.0	28.5	Black (BK)	1000 pcs.	632-01040
HV2107		16.0	12.0	11.5	8.0	-	85.0	Black (BK)	200 pcs.	632-01070
HV2206		11.0	-	8.0	5.5	-	47.0	Black (BK)	500 pcs.	632-02060
HV2209		13.0	7.8	8.8	6.5	7.5	36.0	Black (BK)	1000 pcs.	632-02090
HV2210		13.0	7.8	8.8	7.5	6.5	30.0	Black (BK)	1000 pcs.	632-02100

All dimensions in mm. Subject to technical changes.

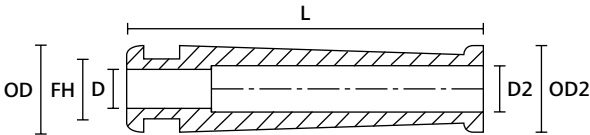


For bend protection at cable exits

Bend protection grommets



HV2101



HV2206

TYPE	Drawing	Outside Ø (OD)	Outside Ø (OD2)	Hole Ø (FH)	Ø (D)	Ø (D2)	Length (L)	Colour	Pack Cont.	Article-No.
HV2213		9.0	5.5	6.0	4.0	3.5	23.0	Black (BK)	2000 pcs.	632-02130
HV2228		11.0	8.0	8.0	5.6	5.5	44.0	Black (BK)	500 pcs.	632-02280

All dimensions in mm. Subject to technical changes.



For strain relief

Strain relief grommets

Straining relief grommets are used as protection for cables and wires from pulling. They are also used for bend protection in casing apertures.

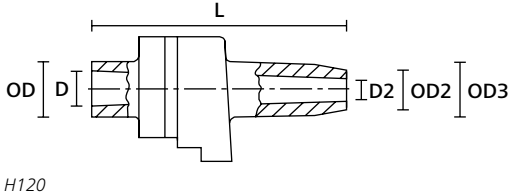
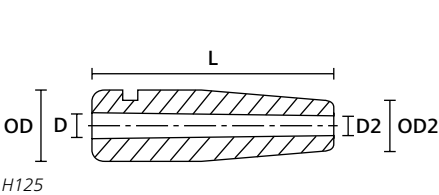
Features and benefits

- Provides excellent strain relieve
- Flexible and easy to apply
- High resistance to chemicals and environmental influences



Strain protection grommets in various shapes and sizes.

MATERIAL	Polyvinylchloride, flame retardant (PVC-FR)	Flexible Polyvinyl Chloride, cadmium free (PVC)
Operating Temperature	-30 °C to +60 °C	
Shore Hardness A	55±5	63±5
Flammability	UL 94 V0	UL 94 HB



TYPE	Drawing	Outside Ø (OD)	Outside Ø (OD2)	Outside Ø (OD3)	Ø (D)	Ø (D2)	Length (L)	Material	Colour	Pack Cont.	Article-No.
H125		9.0	6.0	-	4.0	3.5	32.0	PVC	Black (BK)	1000 pcs.	634-31250
H126		9.0	6.0	-	5.0	4.5	32.0	PVC	Black (BK)	1000 pcs.	634-31260
		9.0	6.0	-	5.0	4.5	32.0	PVC	Grey (GY)	1000 pcs.	634-31268
H321		8.5	7.0	8.5	6.0	5.5	46.0	PVC-FR	Black (BK)	200 pcs.	634-03210
H120		8.0	6.0	8.0	4.5	3.0	35.0	PVC-FR	Black (BK)	500 pcs.	634-01200
H121		11.0	8.5	-	8.0	7.0	33.0	PVC-FR	Black (BK)	500 pcs.	634-01210

All dimensions in mm. Subject to technical changes.



For punched or drilled metal sheets

Edge protection grommets

Edge protection grommets are used wherever cable and wires are routed through apertures. HellermannTyton grommets offer excellent mechanical protection.

Features and benefits

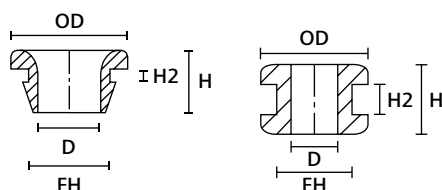
- Protects cables from sharp edges
- Provides additional strain relief
- Flexible and easy to apply
- High resistance to chemicals and environmental influences



Edge protection grommets.

MATERIAL	Polyvinylchloride (PVC)	Polyvinylchloride, flame retardant (PVC-FR)
Operating Temperature	-30 °C to +60 °C	
Shore Hardness A	70±5	55±5
Flammability	UL 94 HB	UL 94 V0

RoHS ✓

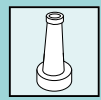


HV1502

HV1201 - HV1218

TYPE	Drawing	Outside Ø (OD)	Hole Ø (FH)	Ø (D)	Height (H)	Height (H2)	Variant	Material	Colour	Pack Cont.	Article-No.
HV1101		25.5	19.0	12.0	10.0	1.6	Round	PVC-FR	Black (BK)	500 pcs.	633-01010

All dimensions in mm. Subject to technical changes.



For punched or drilled metal sheets

Edge protection grommets

		Outside Ø (OD)	Hole Ø (FH)	Ø (D)	Height (H)	Height (H2)				Pack Cont.	Article-No.
TYPE	Drawing						Variant	Material	Colour		
HV1212		9.0	6.0	4.0	7.0	1.0	Round	PVC-FR	Black (BK)	2000 pcs.	633-02120
HV1201		9.5	6.4	4.0	5.6	1.6	Round	PVC-FR	Black (BK)	2000 pcs.	633-02010
HV1201B		9.5	6.4	4.0	6.5	2.5	Round	PVC-FR	Black (BK)	2000 pcs.	633-02020
HV1215		10.0	8.0	6.0	5.0	1.0	Round	PVC-FR	Black (BK)	2000 pcs.	633-02150
HV1209		11.0	9.0	4.0	5.5	1.5	Round	PVC-FR	Black (BK)	1000 pcs.	633-02090
HV1208		14.0	9.5	8.0	8.0	1.5	Round	PVC-FR	Black (BK)	1000 pcs.	633-02080
HV1207		14.0	10.0	6.0	6.4	1.5	Round	PVC-FR	Black (BK)	1000 pcs.	633-02070
HV1218		14.0	10.0	6.0	9.0	4.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02180
HV1216		14.5	8.0	5.0	6.5	1.5	Round	PVC-FR	Black (BK)	2000 pcs.	633-02160
HV1210		15.0	9.0	6.0	10.5	2.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02100
HV1203		17.5	12.0	10.0	6.8	2.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02030
HV1204		17.5	12.0	10.0	8.8	4.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02040
HV1206		17.5	12.0	10.0	10.8	6.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02060
HV1205		17.5	13.5	10.0	8.7	4.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-02050
HV1303		15.9	11.0	8.0	6.4	1.6	Round	PVC-FR	Black (BK)	1000 pcs.	633-03030
HV1301		15.9	11.0	8.0	7.0	1.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-03010
HV1302		15.9	11.0	8.0	9.0	3.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-03020
HV1304		15.9	11.0	8.0	10.8	6.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-03040
HV1305		24.0	18.0	14.0	7.0	3.0	Round	PVC-FR	Black (BK)	500 pcs.	633-03050
		24.0	18.0	14.0	7.0	3.0	Round	PVC-FR	White (WH)	500 pcs.	633-03059
HV1401		15.9	9.5	5.0	4.8	0.8	Round	PVC-FR	Black (BK)	1000 pcs.	633-04010
HV1402		23.0	18.5	6.0	7.0	2.0	Round	PVC-FR	Black (BK)	1000 pcs.	633-04020
HV1502		11.5	8.0	6.5	8.0	1.5	Round	PVC	Black (BK)	2000 pcs.	633-05020
HV1606		31.0	25.0	17.0	11.0	3.0	Oval	PVC-FR	Grey (GY)	500 pcs.	633-06068
HV1607		43.0	37.0	29.0	11.0	3.0	Oval	PVC-FR	Grey (GY)	250 pcs.	633-06078
HV1608		58.0	52.0	44.0	11.0	3.0	Oval	PVC-FR	Grey (GY)	250 pcs.	633-06088

All dimensions in mm. Subject to technical changes.



Bend and edge protection grommet set

HOT Kit

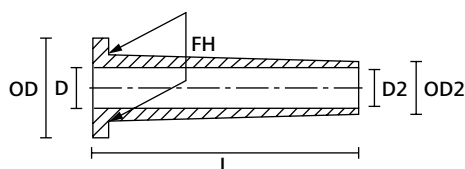
The practical mix of grommets for construction, repairs and home improvement.

Features and benefits

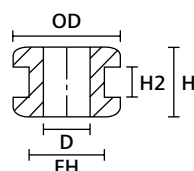
- Flexible and easy to apply
- High resistance to chemicals and environmental influences



HOT Grommet assortment kit.



HV2101



HV1201 - HV1218

Product Group	Type	Content	Article-No.
Bend and edge protection grommet set	HOT Kit	-	639-60000
Bend protection grommets	HV2101	15	632-01010
	HV2210	15	632-02100
	HV2213	20	632-02130
Edge protection grommets	HV1201	20	633-02010
	HV1203	15	633-02030
	HV1208	15	633-02080

Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

HellermannTyton

Even big things have small beginnings.

You have to work with what you've got – and that was exactly what our company founder Paul Hellermann did back in 1935. Inspired by the small rubber tube in bicycle valves, he developed a process for binding electric cables with rubber: the Hellermann grommet and three-pronged pliers. The first two of the hundreds of patents filed since then.

www.HellermannTyton.com/made-for-real

MADE FOR REAL





4.1 Electrical and Technical Tapes

Vinyl Electrical Tapes		
All Purpose Electrical Tape	HelaTape Flex 15	454
	HelaTape Flex 20	456
For Higher Mechanical Requirements	HelaTape Flex 25	457
Premium Electrical Tape	HelaTape Flex 1000+	458
Premium Heavy Duty Electrical Tape	HelaTape Flex 2000+	459
Corrosion Protection Tape	HelaTape Wrap 25	460
Conductive Tapes		
Electrical Semi-Conducting Tape	HelaTape Shield 310	461
Self-amalgamating Tapes		
Low Voltage Rubber Tape	HelaTape Power 600	462
Electrical Insulation Mastic	HelaTape Power 650	463
Rubber Mastic Tape	HelaTape Power 660 RM	464
Vinyl Mastic Tape	HelaTape Power 670 VM	465
Silicone Rubber Tape	HelaTape Power 800	466
	HelaTape Power 810	467
High Voltage Rubber Tape	HelaTape Power 820 (Linerless)	468

Technical Tapes

Vinyl Bundling Tape	HelaTape Allround 1500	469
Cloth Tape	HelaTape Tex	470

Wire Harness Tapes

Hand-tearable Cloth Tape	Protect 180	471
Strong, High Temperature Cloth Tape	Protect 250	472
Soft and Flexible Fleece Tape	Protect 300	473



4.2 Wire Connectors

Connectors

For all Types of Wire	HelaCon Plus Releasable	474
HelaCon-Series	HelaCon Plus Mini	475
For Lighting Installation	HelaCon Lux	477



4.3 Cable Rods

Cable Installation System		
Cable Rod System	Cable Scout+ Sets	478
	Cable Scout+ Pairs	479
	Cable Scout+ Accessories	480



4.4 Downlight Covers

Downlight covers		
Downlight Covers - For Residential Buildings	SpotClip-I	481
	SpotClip-II	482
	SpotClip-III	484
	SpotClip-IV-Slim	486
	SpotClip-Box	487
Downlight Covers - For Industrial Buildings	SpotClip-Kit	489
	SpotClip-Plate	491
	SpotClip-Caps	492



4.5 Cable Entry Systems

VarioPlate Cable Entry System	
VarioPlate Frames	493
VarioPlate Insert Grommets	494
VarioPlate Blindplugs	496
VarioPlate Mounting Tool	497



4.6 Connection Products

Nylon Cable Glands	
	498



Vinyl Electrical Tapes – Commercial Grade Vinyl Electrical Tape

HelaTape Flex 15

Primary electrical insulation for all wire and cable splices up to 1 kV.
Protective jacketing for low, medium and high voltage splices.
Wrapping of wire harnesses and cables.
Used for indoor and outdoor applications.

Features and benefits

- Vinyl electrical tape in many different colours
- Used for insulation, protection, fixing, maintenance, colour coding and more
- Good resistance to abrasion, sunlight, moisture, chemicals and varying weather conditions
- Highly flexible with outstanding adhesion performance
- Harnessing of wires and cables
- Suitable for mechanical and electrical applications up to 1 kV
- VDE approved according to IEC 60454-3-1-6/F-PVCP/90
- Flame retardant according to IEC 60454-2



HelaTape Flex 15 – Vinyl Electrical Tapes.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	45 kV/mm
Adhesion to Steel	2.2 N/10 mm
Adhesion to Backing	2.0 N/10 mm
Elongation at break (min.)	200 %
Breaking Strength	28 N/10 mm
Operating Temperature	-10 °C to +90 °C

RoHS



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX15-15x10	0.15	15.0	10.0 m	Black (BK)	710-00104
	0.15	15.0	10.0 m	Blue (BU)	710-00100
	0.15	15.0	10.0 m	Brown (BN)	710-00107
	0.15	15.0	10.0 m	Green (GN)	710-00103
	0.15	15.0	10.0 m	Green-Yellow (GNYE)	710-00106
	0.15	15.0	10.0 m	Grey (GY)	710-00108
	0.15	15.0	10.0 m	Orange (OG)	710-00110
	0.15	15.0	10.0 m	Red (RD)	710-00101
	0.15	15.0	10.0 m	Red (RD), Grey (GY), Yellow (YE), Green (GN), Blue (BU), Orange (OG), White (WH), Brown (BN), Black (BK), Green-Yellow (GNYE)	710-00146
	0.15	15.0	10.0 m	Transparent (CL)	710-00147
	0.15	15.0	10.0 m	Violet (VT)	710-00109
	0.15	15.0	10.0 m	White (WH)	710-00105
	0.15	15.0	10.0 m	Yellow (YE)	710-00102
HTAPE-FLEX15-15x25	0.15	15.0	25.0 m	Black (BK)	710-00115

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Vinyl Electrical Tapes – Commercial Grade Vinyl Electrical Tape

HelaTape Flex 15

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX15-19x20	0.15	19.0	20.0 m	Black (BK)	710-00155
	0.15	19.0	20.0 m	Blue (BU)	710-00151
	0.15	19.0	20.0 m	Brown (BN)	710-00158
	0.15	19.0	20.0 m	Green (GN)	710-00154
	0.15	19.0	20.0 m	Green-Yellow (GNYE)	710-00157
	0.15	19.0	20.0 m	Grey (GY)	710-00159
	0.15	19.0	20.0 m	Red (RD)	710-00152
	0.15	19.0	20.0 m	Violet (VT)	710-00160
	0.15	19.0	20.0 m	White (WH)	710-00156
	0.15	19.0	20.0 m	Yellow (YE)	710-00153
HTAPE-FLEX15-19x25	0.15	19.0	25.0 m	Black (BK)	710-00126
HTAPE-FLEX15-25x25	0.15	25.0	25.0 m	Black (BK)	710-00137
	0.15	25.0	25.0 m	Blue (BU)	710-00133
	0.15	25.0	25.0 m	Brown (BN)	710-00140
	0.15	25.0	25.0 m	Green (GN)	710-00136
	0.15	25.0	25.0 m	Green-Yellow (GNYE)	710-00139
	0.15	25.0	25.0 m	Grey (GY)	710-00141
	0.15	25.0	25.0 m	Red (RD)	710-00134
	0.15	25.0	25.0 m	White (WH)	710-00138
	0.15	25.0	25.0 m	Yellow (YE)	710-00135

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Vinyl Electrical Tapes – Insulating Tape for Higher Mechanical Requirements

HelaTape Flex 20

Primary electrical insulation for all wire and cable splices up to 1 kV.
Protective jacketing for low, medium and high voltage splices.
Wrapping of wire harnesses and cables.
Used for indoor and outdoor applications.

Features and benefits

- Vinyl electrical tape with strong rubber adhesive
- Suitable for mechanical and electrical applications up to 1 kV
- Additional thickness for quicker layering and higher abrasion resistance
- Weather resistant
- Flame retardant according to UL 510 Standard



HelaTape Flex 20 – Higher thickness for quicker layering.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	40 kV/mm
Adhesion to Steel	2.5 N/10 mm
Adhesion to Backing	2.5 N/10 mm
Elongation at break (min.)	240 %
Breaking Strength	40 N/10 mm
Operating Temperature	-10 °C to +105 °C

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX20-19x20	0.20	19.0	20.0 m	Black (BK)	710-10300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Vinyl Electrical Tapes – Insulating Tape for Higher Mechanical Requirements

HelaTape Flex 25

Primary electrical insulation for all wire and cable splices up to 1 kV.
Protective jacketing for low, medium and high voltage splices.
Wrapping of wire harnesses and cables.
Used for indoor and outdoor applications.

Features and benefits

- Vinyl film coated with high quality rubber adhesive
- Extra high material thickness
- Highly resistant to sun, water, oil, acids, alkalies, corrosive chemicals
- Used for insulation, protection, fixing, maintenance and more
- Superior vinyl tape with excellent all-weather performance
- Flame retardant according to UL 510 Standard



HelaTape Flex 25 for higher abrasion resistance.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	45 kV/mm
Adhesion to Steel	2.6 N/10 mm
Adhesion to Backing	2.6 N/10 mm
Elongation at break (min.)	240 %
Breaking Strength	46 N/10 mm
Operating Temperature	-10 °C to +90 °C

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX25-19x33	0.25	19.0	33.0 m	Black (BK)	710-00450
HTAPE-FLEX25-38x33	0.25	38.0	33.0 m	Black (BK)	710-00451

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Vinyl Electrical Tapes – Premium Vinyl Electrical Tape

HelaTape Flex 1000+

Primary electrical insulation for all wire and cable splices up to 1 kV.
Protective jacketing for low, high and medium voltage splices.
Harnessing of wires and cables.
Used for indoor and outdoor applications.

Features and benefits

- All-weather highly flexible, professional grade, self-adhesive vinyl electrical tape
- Excellent performance and durability over wide temperature range from -18°C to +105°C according to CSA C22.2
- VDE approved according to IEC 60454-3-1-7/F-PVCP/90
- Used for insulation, protection, fixing, maintenance, colour coding
- Pressure sensitive high quality rubber based adhesive
- Excellent resistance to abrasion, moisture, chemicals, corrosion and UV exposure
- Primary electrical insulation for all wire and cable splices up to 1 kV
- Protective jacketing for low, medium and high voltage splices and repairs
- Flame retardant according to UL 510 Standard
- For indoor and outdoor applications
- Size 19 mm x 20 m is single packed in a plastic can only
710-10601 comes in a pack of 10 pcs



HelaTape Flex 1000+ provides excellent low temperature performance.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	45 kV/mm
Adhesion to Steel	3.0 N/10 mm
Adhesion to Backing	2.7 N/10 mm
Elongation at break (min.)	300 %
Breaking Strength	35 N/10 mm
Operating Temperature	-18 °C to +105 °C

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX1000+ 19x6	0.18	19.0	6.0 m	Black (BK)	710-10600
HTAPE-FLEX1000+ C 19x20	0.18	19.0	20.0 m	Black (BK)	710-10602
HTAPE-FLEX1000+ 19x20 PACK	0.18	19.0	20.0 m	Black (BK)	710-10601
HTAPE-FLEX1000+ C 19x20	0.18	19.0	20.0 m	Blue (BU)	710-10603
	0.18	19.0	20.0 m	Brown (BN)	710-10608
	0.18	19.0	20.0 m	Green (GN)	710-10606
	0.18	19.0	20.0 m	Green-Yellow (GNYE)	710-10612
	0.18	19.0	20.0 m	Grey (GY)	710-10609
	0.18	19.0	20.0 m	Red (RD)	710-10604
	0.18	19.0	20.0 m	White (WH)	710-10607
	0.18	19.0	20.0 m	Yellow (YE)	710-10605
HTAPE-FLEX1000+ 19x33	0.18	19.0	33.0 m	Black (BK)	710-10610
HTAPE-FLEX1000+ 50x33	0.18	50.0	33.0 m	Black (BK)	710-10611

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Vinyl Electrical Tapes – Premium Heavy Duty Vinyl Electrical Tape

HelaTape Flex 2000+

Primary electrical insulation for all wire and cable splices up to 1 kV.
Protective jacketing for low, high, and medium voltage splices.
Harnessing of wires and cables.
Used for indoor and outdoor applications.

Features and benefits

- All-weather, highly flexible, professional grade, self-adhesive vinyl electrical tape with higher thickness for more mechanical and electrical protection
- Excellent performance and durability over wide temperature range from -18 °C to +105 °C according to CSA C22.2
- Pressure sensitive and aggressive high quality rubber based adhesive
- Performs continuously at low temperature environment
- Flame retardant according to UL 510 Standard
- Excellent resistance to abrasion, moisture, chemicals, corrosion and UV exposure
- Primary electrical insulation for all wire and cable splices up to 1 kV



HelaTape Flex 2000+ is the best choice for professional installation.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	40 kV/mm
Adhesion to Steel	3.0 N/10 mm
Adhesion to Backing	2.4 N/10 mm
Elongation at break (min.)	300 %
Breaking Strength	40 N/10 mm
Operating Temperature	-18 °C to +105 °C

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX2000+19x20	0.21	19.0	20.0 m	Black (BK)	710-10701
HTAPE-FLEX2000+38x20	0.21	38.0	20.0 m	Black (BK)	710-10705

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Vinyl Electrical Tapes – Vinyl Tape for Corrosion Protection

HelaTape Wrap 25

This is a PVC tape with a special adhesive. This tape offers an excellent protection against corrosion and gives complete environmental, mechanical and electrical protection for all types of pipe wrapping applications. It is also resistant to UV, bacteria and fungus. HelaTape Wrap can be used for outside and underground applications.

Features and benefits

- Special adhesive with excellent protection against corrosion
- Complete environmental, mechanical and electrical protection
- Highly resistant to UV, water, oil, most chemicals, bacteria and fungus
- Used for pipes, tubes, and conduits in outside and underground applications



HelaTape Wrap 25 protects against all types of corrosion.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	40 kV/mm
Adhesion to Steel	2.2 N/10 mm
Adhesion to Backing	2.0 N/10 mm
Elongation at break (min.)	200 %
Breaking Strength	44 N/10 mm
Operating Temperature	-10 °C to +90 °C

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-WRAP25-25x30	0.25	25.0	30.0 m	Black (BK)	710-10800
HTAPE-WRAP25-50x30	0.25	50.0	30.0 m	Black (BK)	710-10802
HTAPE-WRAP25-100x30	0.25	100.0	30.0 m	Black (BK)	710-10803

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Conductive Tapes – Electrical Semi-Conducting Tape

HelaTape Shield 310

Features and benefits

- Self-amalgamating conducting tape made from ethylene propylene rubber
- Provides good conducting properties
- Prevents partial discharges
- Moisture and UV-resistant and easy to apply
- Guidance and/or finishing of the semiconductive layer in case of repairs and connections of medium to high voltage cables.



HelaTape Shield 310 self-amalgamating conducting tape for shielding high voltage splices and terminations.

MATERIAL	Ethylene Propylene Rubber (EPR)
Operating Temperature	-40 °C to +90 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.02 %
Tensile Strength	2.0 MPa
Elongation at break (min.)	600 %
Volume Resistance	870 Ω cm

HF ✓

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-SHIELD310	0.76	19.0	4.6 m	Black (BK)	711-10000
	0.76	38.0	9.1 m	Black (BK)	711-10001

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – Low Voltage Rubber Tape

HelaTape Power 600

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Self-amalgamating low voltage rubber tape
- Primary insulation at not more than 1 kV
- Easily suitable to irregular shapes and surfaces
- Compatible with all extruded dielectric cable insulations
- Weather resistant and flame retardant according to UL 510
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of HelaTape Flex will do the mechanical protection.



HelaTape Power 600 is a self-amalgamating low voltage rubber tape.

MATERIAL	Natural rubber (NR)
Operating Temperature	-40 °C to +80 °C
Intermittent Operating Temperature	+95 °C
Tensile Strength	2 N/mm ²
Elongation at break (min.)	300 %
Dielectric Strength	14 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER600-19x6.7	0.76	19.0	6.7 m	Black (BK)	711-10200
HTAPE-POWER600-38x6.7	0.76	38.0	6.7 m	Black (BK)	711-10201

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – Electrical Insulation Mastic

HelaTape Power 650

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Self-amalgamating insulation compound for sealing and padding cable jackets up to 1 kV
- Easily moulded by hand to conform to irregular shapes even during low temperatures
- Permanently elastic and resistant to ageing
- Perfect adhesion to metal and all types of cable insulations and jackets
- Provides excellent moisture sealing
- Resistant to salt water, ozone, oil and corrosive chemicals
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of Helatape Flex will do the mechanical protection



HelaTape Power self-amalgamating mastic is highly flexible.

MATERIAL	Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
Operating Temperature	-10 °C to +105 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.1 %
Volume Resistance	$10^{15} \Omega \text{ cm}$
Dielectric Strength	19.7 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER650	3.20	38.0	1.5 m	Black (BK)	711-10300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – Rubber Mastic Tape

HelaTape Power 660 RM

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Self-amalgamating rubber mastic tape
- EPR backing coated with a tacky, temperature-stable mastic adhesive
- Designed for electrical insulating and moisture sealing applications
- Can be used as cable jacket replacement
- Perfect adhesion and sealing for copper and aluminium wires
- Easily suitable to irregular shapes and surfaces
- Compatible with all extruded cable insulations
- UV, moisture, corrosion and chemical resistant
- Primary electrical insulation for bus bar connections rated up to 35 kV
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of Helatape Flex will do the mechanical protection



HelaTape Power 660 is a very flexible rubber mastic sealing and padding tape.

MATERIAL	Ethylene Propylene Rubber (EPR), Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
Operating Temperature	-30 °C to +90 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.1 %
Tensile Strength	1.5 N/mm ²
Dielectric Strength	19.7 kV/mm

HF ✓

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER 660-RM	1.65	50.8	3.0 m	Black (BK)	711-00307

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – Vinyl Mastic Tape

HelaTape Power 670 VM

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Easy to apply vinyl mastic tape
- Self-adhesive application - without stretching
- Mastic layer is very sticky and provides excellent moisture sealing
- Vinyl top layer provides additional protection
- Performs continuously. Even at low temperatures
- Primary insulation up to 1 kV
- Applicable to all extruded cable insulations
- UV and weather resistant



HelaTape Power 670 provides additional vinyl film protection to the mastic compound.

MATERIAL	Polyvinylchloride (PVC), Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
Operating Temperature	-30 °C to +80 °C
Intermittent Operating Temperature	+95 °C
Water Absorption	0.9 %
Tensile Strength	16 N/mm ²
Elongation at break (min.)	200 %
Volume Resistance	10 ¹² Ω cm
Dielectric Strength	19.7 kV/mm

HF ✓

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER 670-VM	1.20	100.0	3.0 m	Black (BK)	711-00304

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – Silicone Rubber Tape

HelaTape Power 800

HelaTape Power 800 is made from a special silicone and is Self-amalgamating Tapes. It is very suitable for sealing (waterproof and airtight), insulating and repairing. HelaTape Power 800 is not a conventional adhesive tape. It does not stick to other surfaces, but welds itself by wrapping it multiple times in an overlapping manner.

Features and benefits

- Self-amalgamating and self-cleaning, chemically cross-linked silicone rubber tape
- Triangular cross-section with centre line for precise half-overlapping
- Resistant to creepage and surface erosion
- Fuses into solid mass after application
- Weather, UV and oil resistant
- Recommended use for high temperature silicone insulated cables and outdoor machinery and transformers



HelaTape Power 800 is a silicone rubber tape with triangular cross-section.

MATERIAL	Silicone (SI)
Operating Temperature	-54 °C to +180 °C
Intermittent Operating Temperature	+260 °C
Tensile Strength	7.0 N/mm ²
Elongation at break (min.)	400 %
Volume Resistance	10 ¹⁴ Ω cm
Dielectric Strength	23.5 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER800	0.51	25.0	9.1 m	Grey (GY)	711-10400

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – High Voltage Rubber Tape

HelaTape Power 810

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Self-amalgamating tape for insulating and jacketing splices up to 69 kV
- Halogen-free with outstanding corona, ozone and UV-resistance
- Ideal for sealing of terminations, electrical connections and cable jacket repair
- Void-free, electrically stable layering
- Protects e.g. bus bars against corrosion and contact
- Excellent moisture, corrosion and chemical resistance
- Compatible with all extruded cable insulations



HelaTape Power 810 for primary insulation up to 69 kV.

MATERIAL	Ethylene Propylene Rubber (EPR)
Operating Temperature	+90 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.06 %
Tensile Strength	2.4 N/mm ²
Elongation at break (min.)	750 %
Volume Resistance	10 ¹⁶ Ω cm
Dielectric Strength	30 kV/mm

HF ✓

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER810	0.76	19.0	9.1 m	Black (BK)	711-10401

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes – High Voltage Rubber Tape (Linerless)

HelaTape Power 820

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- Self-amalgamating, linerless tape for insulating and jacketing splices up to 69 kV
- Excellent electrical, chemical and physical properties
- Building stress cones and jacketing of terminations, bus bars and joints
- Quicker application due to linerless design
- The lack of liner causes less waste
- Uniform and void-free layering
- Very flexible to conform to the most complex shapes
- Compatible with all extruded cable insulations



HelaTape Power 820 provides substantial time saving due to the linerless design.

MATERIAL	Ethylene Propylene Rubber (EPR)
Operating Temperature	-30 °C to +90 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.06 %
Tensile Strength	2.8 N/mm ²
Elongation at break (min.)	750 %
Volume Resistance	10 ¹⁶ Ω cm
Dielectric Strength	31.5 kV/mm

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER820	0.76	19.0	9.1 m	Black (BK)	711-10402

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Technical Tapes – Vinyl Bundling Tape

HelaTape Allround 1500

Allround 1500 – Electricians Duct Tape is designed for bundling, holding, fixing and maintenance applications. It can be also used as temporary surface protection of steel and aluminium parts.

Features and benefits

- Vinyl film coated with high quality rubber adhesive
- Excellent performance and durability
- Easy to tear
- No cloth – does not absorb water
- Used for bundling, holding, fixing and maintenance
- This product has no electrical insulating properties



HelaTape Allround 1500 – universal and very strong vinyl bundling tape.

MATERIAL	Polyvinylchloride (PVC)
Adhesion to Steel	1.5 N/10 mm
Adhesion to Backing	1.5 N/10 mm
Elongation at break (min.)	150 %
Operating Temperature	-10 °C to +90 °C

RoHS

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-ALLROUND1500	0.15	51.0	46.0 m	Grey (GY)	710-01000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Technical Tapes - Cloth Tape

HelaTape Tex

HellermannTyton offers a wide range of products for bundling, insulating, sealing and labeling cables and wires. PVC insulation tapes for low-voltage applications are available in various colors and dimensions. Self-welding, rubber-based tapes are ideal for insulating and sealing cables and connections from low to high and extra-high voltage ranges. HelaTape Tex fabric tapes are versatile and easy to write on.

Features and benefits

- High quality PE-coated cloth tape with good weather resistance
- Total thickness of 0.31 mm for high tensile strength
- Highly tear-resistant in longitudinal direction
- Easy to tear-off by hand in transverse direction
- Matt surface finish for use in stage constructions and for exhibitions to avoid light reflections
- Useful for various applications like bundling, fixing, identification, marking and protection
- HelaTape Tex can be removed without residues due to high quality rubber based adhesive



HelaTape Tex is available in various colours and sizes.

MATERIAL	Cotton (CO)
Operating Temperature	-30 °C to +80 °C
Adhesion to Backing	3.0 N/10 mm
Elongation at break (min.)	10 %
Breaking Strength	64 N/10 mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-TEX-19x10	0.31	19.0	10.0 m	Black (BK)	712-00204
	0.31	19.0	10.0 m	Blue (BU)	712-00200
	0.31	19.0	10.0 m	Green (GN)	712-00203
	0.31	19.0	10.0 m	Grey (GY)	712-00206
	0.31	19.0	10.0 m	Red (RD)	712-00201
	0.31	19.0	10.0 m	White (WH)	712-00205
	0.31	19.0	10.0 m	Yellow (YE)	712-00202
HTAPE-TEX-19x50	0.31	19.0	50.0 m	Black (BK)	712-00504
	0.31	19.0	50.0 m	Blue (BU)	712-00500
	0.31	19.0	50.0 m	Green (GN)	712-00503
	0.31	19.0	50.0 m	Grey (GY)	712-00506
	0.31	19.0	50.0 m	Red (RD)	712-00501
	0.31	19.0	50.0 m	White (WH)	712-00505
	0.31	19.0	50.0 m	Yellow (YE)	712-00502
HTAPE-TEX-50x50	0.31	50.0	50.0 m	Black (BK)	712-00904
	0.31	50.0	50.0 m	Blue (BU)	712-00900
	0.31	50.0	50.0 m	Green (GN)	712-00903
	0.31	50.0	50.0 m	Grey (GY)	712-00906
	0.31	50.0	50.0 m	Red (RD)	712-00901
	0.31	50.0	50.0 m	White (WH)	712-00905
	0.31	50.0	50.0 m	Yellow (YE)	712-00902

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Wire Harness Tape – Hand-tearable Cloth Tape

HelaTape Protect 180

HelaTape Protect tapes are preferably used for cable harnessing in different industries.

Features and benefits

- High quality polyester fabric harnessing tape
- Rubber-based adhesive offers very good heat and media resistance
- High temperature stability from -40 °C to +125 °C
- Temperature resistance tested according to LV312
- Very good resistance against abrasion
- Material is very flexible and tearable by hand
- Excellent ageing resistance, and resistant to rotting in wet or damp conditions such as e.g. white goods and automotive, etc.



HelaTape Protect 180 is very flexible and used for cable harnessing.

MATERIAL	Polyester (PET)
Operating Temperature	-40 °C to +125 °C
Adhesion to Steel	3.0 N/10 mm
Adhesion to Backing	3.0 N/10 mm
Elongation at break (min.)	15 %
Breaking Strength	65 N/10 mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-PROTECT180	0.18	19.0	25.0 m	Black (BK)	712-10002

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Wire Harness Tape – Strong, High Temperature Cloth Tape

HelaTape Protect 250

HelaTape Protect tapes are preferably used for cable harnessing in different industries.

Features and benefits

- High temperature polyester fabric harnessing tape
- Special acrylate-based adhesive offers very good heat and media resistance
- Very high temperature stability from -40 °C to +150 °C
- Temperature and humidity resistance tested according to LV312
- Very good resistance against abrasion
- Material is very flexible and easy to handle
- Provides long term reliability under varying and extreme environmental conditions
- Excellent ageing resistance, and resistant to rotting in wet or damp conditions such as e.g. white goods and automotive, etc.



HelaTape Protect 250 is designed for cable harnessing and offers a very high temperature resistance.

MATERIAL	Polyester (PET)
Operating Temperature	-40 °C to +150 °C
Adhesion to Steel	3.2 N/10 mm
Adhesion to Backing	3.2 N/10 mm
Elongation at break (min.)	20 %
Breaking Strength	180 N/10 mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-PROTECT250	0.25	19.0	25.0 m	Black (BK)	712-10003

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Wire Harness Tape – Soft and Flexible Fleece Tape

HelaTape Protect 300

HelaTape Protect tapes are preferably used for cable harnessing in different industries.

Features and benefits

- Soft polyester fleece harnessing tape
- High noise reduction and very high resistance against abrasion
- Synthetic rubber based adhesive offers good heat and media resistance
- High temperature stability from -40 °C to +105 °C
- Material is very flexible and tearable by hand
- Excellent ageing resistance, and resistant to rotting in wet or damp conditions such as e.g. white goods and automotive, etc.



HelaTape Protect 300 provides high noise reduction and media resistance.

MATERIAL	Polyester (PET)
Operating Temperature	-40 °C to +105 °C
Adhesion to Steel	2.0 N/10 mm
Adhesion to Backing	2.0 N/10 mm
Elongation at break (min.)	10 %
Breaking Strength	30 N/10 mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-PROTECT300	0.30	19.0	25.0 m	Black (BK)	712-10001

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Connectors - For all Types of Wire

HelaCon Plus Releasable

The HelaCon Plus Releasable connectors are used for all types of wire to connect cable and conductors in the field of electrical installation. The connectors can be used in all kinds of junction boxes either on-wall or flush-mounted. HellaCon offers the best possible solution when convenient processing and maximum safety is required.

Features and benefits

- Universal push-in wire connector for solid, stranded and fine-stranded wires
- Compact size connector
- Wire clamping range: 0.2 - 4.0 mm²
- Separate voltage test entry on the top
- For proper fixing that can be visually checked through transparent housing
- Safe application, installation and maintenance



HelaCon Plus Releasable Box and Blister 2.

MATERIAL	Polycarbonate (PC)
Max Current	32 A
Max Voltage	450 V
Wire Range (VDE) in mm²	0.2 to 4.0 mm ² all types of wire
Stripping Length	10 mm
Flammability	UL 94 V0
Operating Temperature	-30 °C to +85 °C

HF ✓

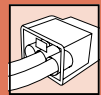
RoHS ✓

TYPE	Drawing	Number of Conductors	Colour	Width (W)	Height (H)	Length (L)	Pack Cont.	Article-No.
HCRN-2-Blister		2	Transparent (CL)	20.5	14.0	12.0	10 pcs.	148-90062
HCRN-2		2	Transparent (CL)	20.5	14.0	12.0	80 pcs.	148-90059
HCRN-3-Blister		3	Transparent (CL)	20.5	14.0	17.0	8 pcs.	148-90063
HCRN-3		3	Transparent (CL)	20.5	14.0	17.0	50 pcs.	148-90060
HCRN-5-Blister		5	Transparent (CL)	20.5	14.0	26.0	5 pcs.	148-90064
HCRN-5		5	Transparent (CL)	20.5	14.0	26.0	30 pcs.	148-90061

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Connectors - For Solid and Stranded Wires

HelaCon Plus Mini

HelaCon connectors are used for fast, easy and reliable connection and distribution of cable and conductors in electrical installation applications. The new generation of HelaCon Plus Mini wire connectors can be applied tool-free using the push-in technology. HelaCon Plus Mini uses a double spring which is approved for solid and stranded wires.

Features and benefits

- 40 % smaller – Space saving design
- Low insertion force – Easy to use, saves time on installation
- Easy access to voltage test entry and innovative port shape design
- Correct installation can be visually checked through transparent housing
- Different colour codes for easy identification of size
- Allows different conductor diameters in each entry
- Safe application, installation and maintenance
- Practical Variobox with 350 pcs. of selected HCPM wire connectors available (148-90046)

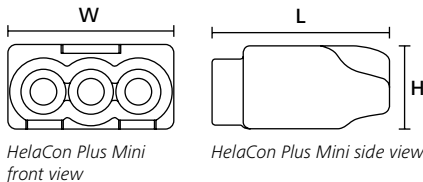


HelaCon Plus Mini fits perfect in every space limited situation.

MATERIAL	Polycarbonate (PC)	
Max Current	24 A	
Max Voltage	450 V	600 V
Wire Range (VDE) in mm²	0.5 to 2.5 mm ² solid wires / 1.0 to 2.5 mm ² stranded wires	
Stripping Length	11 mm	
Flammability	UL 94 V0	
Operating Temperature	-30 °C to +85 °C	

HF ✓

RoHS ✓



TYPE	Drawing	Number of Conductors	Colour	Width (W)	Height (H)	Length (L)	Pack Cont.	Article-No.
HCPM-2-Blister		2	Transparent (CL), Yellow (YE)	10.8	7.7	16.5	20 pcs.	148-90054
HCPM-2		2	Transparent (CL), Yellow (YE)	10.8	7.7	16.5	150 pcs.	148-90036
HCPM-3		3	Orange (OG), Transparent (CL)	15.1	7.7	16.5	100 pcs.	148-90037
HCPM-3-Blister		3	Transparent (CL), Orange (OG)	15.1	7.7	16.5	18 pcs.	148-90055
HCPM-4-Blister		4	Transparent (CL)	19.4	7.7	16.5	10 pcs.	148-90056
HCPM-4		4	Transparent (CL)	19.4	7.7	16.5	100 pcs.	148-90038

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

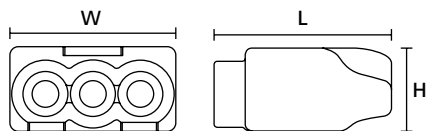


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Connectors - For Solid and Stranded Wires

HelaCon Plus Mini

HelaCon Plus Mini
front view

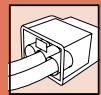
HelaCon Plus Mini side view

TYPE	Drawing	Number of Conductors	Colour	Width (W)	Height (H)	Length (L)	Pack Cont.	Article-No.
HCPM-5-Blister		5	Transparent (CL), Blue (BU)	23.7	7.7	16.5	10 pcs.	148-90057
HCPM-5		5	Transparent (CL), Blue (BU)	23.7	7.7	16.5	75 pcs.	148-90039
HCPM-6		6	Transparent (CL), Violet (VT)	28.0	7.7	16.5	50 pcs.	148-90040
HCPM-8		8	Transparent (CL), Black (BK)	36.6	7.7	16.5	50 pcs.	148-90041
HCPM Variobox 350		-	Transparent (CL)	120.0	7.7	16.5	350 pcs.	148-90046

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Connectors - For Lighting Installation

HelaCon Lux

The typical application is lighting installation, where the solid conductor from concealed cabling has to be connected to a flexible cable for lighting or other device. The 2/1 variant allows the looping through of the supply lines for additional devices.

There are two types of cable insertion port on each side of the HelaCon Lux connector, one is a conventional push in wire type suitable for solid cable, whilst the other side is suitable for flexible cable and is inserted by pressing the locking mechanism and can be released in the same way at any time. The lighting side can accept any kind of conductor and makes HelaCon Lux connectors also useful to connect devices that use flexible connecting cables such as control devices for smart home applications e.g. for blinds, fans, heating & cooling.

Features and benefits

- Best suitable to connect solid with flexible wire
- Combines push-in connector with lock / unlock spring mechanism
- For solid, stranded and fine-stranded conductors at lighting input from 0.5 to 2.5 mm²
- For solid wires from 0.75 up to 2.5 mm² on the installation side
- Use with typical housing current of 450 V / 24 A
- Either one or two inputs for solid conductor on installation side
- Very flexible application
- Tool-free application for easy, time-saving, safe connection
- Especially for overhead work and when wires are difficult to access

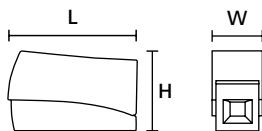


Quick installation and release of lights with HelaCon Lux.

MATERIAL	Polyamide 6.6 (PA66)
Max Current	24 A
Max Voltage	450 V
Wire Range (VDE) in mm²	0.5 mm ² - 2.5 mm ²
Stripping Length	11 mm
Flammability	UL 94 V2
Operating Temperature	-5 °C to +100 °C

HF ✓

RoHS ✓



HelaCon Lux side view

HelaCon Lux front view

TYPE	Drawing	Number of Conductors	Colour	Width (W)	Height (H)	Length (L)	Pack Cont.	Article-No.
HECL-1/1		2	Grey (GY)	8.1	15.8	20.8	100 pcs.	148-90022
HECL-2/1-Blister		3	White (WH)	9.5	15.8	20.8	10 pcs.	148-90058
HECL-2/1		3	White (WH)	9.5	15.8	20.8	100 pcs.	148-90023

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable Installation System - Cable Scout+

Cable Scout+ Rod Sets

Cable Scout+ is a professional cable routing tool which enables installers to easily route cables, saving time, even with the most challenging installations. The rods are manufactured from high quality Glass Reinforced Plastic (GRP), which enables a load carrying capacity of up to 200 kg. Cable Scout+ offers a range of features which allows the installer to illuminate, grip, inspect and retrieve by using the range of accessories. Cable Scout+ is supplied in a useful durable bag which contains the rods and accessories all in one place.

Features and benefits

- Professional cable installation tool
- Enables time savings to be achieved even with challenging installations
- Rods manufactured from high quality Glass Reinforced Plastic (GRP)
- Load carrying capacity of 200 kg
- Range of accessories enabling the installer to illuminate, grip inspect and retrieve.
- Rods & accessories contained in a useful durable storage bag



All components stored neat and tidy with the Cable Scout+ Deluxe set.



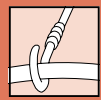
Basic Set.



Handy Set.

TYPE	Description	Content Rods	Rod Capacity (m)	Content Accessories	Article-No.
CS-SB	Basic Set: designed to perform basic cable installation	10 rods x 1 m (white)	10.0 m	15 cm white flexi lead, gender changer, tuff hook, mini eye	897-90000
CS-SD	Deluxe Set: the most comprehensive set aimed for carrying out larger installations	2 rods x 1 m (white) 6 rods x 1 m (red) 2 rods x 1 m (blue)	10.0 m	15 cm white flexi lead, split ring, gender changer, tuff hook, mini eye, domed bullet, flat bullet, beam, single magnet	897-90001
CS-SH	Handy Set: Made up for fitting in a tool box	1 rod x 40 cm (white) 2 rods x 40 cm (red) 1 rod x 40 cm (blue)	1.6 m	40 cm white flexi lead, domed bullet, mini hook, mini eye	897-90003

Subject to technical changes.



Cable Installation System - Cable Scout+

Cable Scout+ Rod Pairs

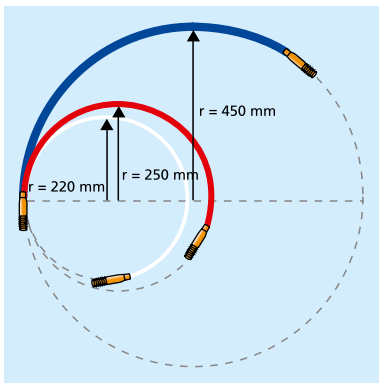
Additionally available pairs of rods.

Features and benefits

- Professional cable installation tool
- Enables time savings to be achieved even with challenging installations
- Rods manufactured from high quality Glass Reinforced Plastic (GRP)
- Load carrying capacity of 200 kg
- Range of accessories enabling the installer to illuminate, grip inspect and retrieve.
- Rods & accessories contained in a useful durable storage bag



Overview of the rods selection.



Overview on Cable Scout+ marginal bending radii.

TYPE	Content Rods	Flexibility	Ø (D)	Article-No.
CS-P6	A pair of 1 m blue rods	strong	6.0	897-90007
CS-PN	A pair of 1 m nylon rods	fully flexible	5.0	897-90008
CS-P5	A pair of 1 m red rods	medium	5.0	897-90006
CS-P4	A pair of 1 m white rods	flexible	4.0	897-90005

All dimensions in mm. Subject to technical changes.



Cable Installation System - Cable Scout+

Cable Scout+ Accessories

Cable Scout+ is supplied with a range of useful standard accessories. Additional accessories can be purchased separately. Cable Grips are designed to grip objects and provide reliable and time saving method of securing cables & pipes to the rods. Just open the grip by compressing the braid, push the grip over the cable or pipe and release the grip, which will contract and establish a tight grip on the cable or pipe to the rod set.

Features and benefits

- Accessory kit includes a lot of useful tools
- User can inspect and retrieve
- Cable grips allows a very fast way to pull cables
- Whisk glides smoothly over obstacles
- Strong magnet lifts metallic tools up to 2.5 kg weight



Cable Grips are available in five different sizes to attach a wide range of cable diameters.



Cable Scout+ and Grip.



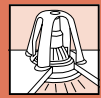
The whisk allows the rod to glide over obstructions easily.



Cable Pulling Lubricant reduces friction during the installation of cables.

TYPE	Drawing	Description	Article-No.
CS-SA		Accessory Kit: Includes a 15 cm long flexi lead, gender changer, mini hook, tuff hook, mini eye, split ring, round bullet, flat bullet, single magnet, chain	897-90004
CS-ACG1630		Cable Grip: Suitable for diameter 1.6 - 3.0 cm	897-90027
CS-ACG0415		Cable Grip: Suitable for diameters 0.4 - 1.5 cm	897-90026
CS-AWL		Large whisk: designed to glide over more uneven surfaces such as roof tiles.	897-90019
CS-AW		Whisk: Enables cables to glide over rough and uneven surfaces.	897-90018
CABLESCOUT-GEL		Cable pulling lubricant: provides reliable protection against cable jacket damage by reducing the frictional resistance up to 80 %.	897-90031

Subject to technical changes.



Downlight Covers - For Residential Buildings

SpotClip-I

SpotClip-I is a unique solution developed for mounting LED downlights in plasterboard and ceiling tiles. This innovative 4-leg downlight cover offers outstanding safety and installation features and is suitable for use in both panelling and plasterboard ceilings. SpotClip-I is made from non-flammable, fibreglass reinforced polyamide, offering a range of thermal and mechanical benefits. It can be installed both during or after construction. The SpotClip-I downlight cover is an optimal solution for a wide variety of applications in existing and new buildings. It can be used in ceiling cavities with diameters of 62 to 90 mm and ensures the safety distance between the downlight, insulation foil and insulation material. SpotClip-I reduces the risk of damage caused to insulation material as a result of overheating and heat accumulation, while potentially increasing the life span of light bulbs.

Features and benefits

- Ensures safety distance between downlight, damp-proof foil and insulation material
- Flexible installation both during or after construction
- Additional spikes at the end of the legs prevent SpotClip shifting
- Suitable for fixing into holes from 62 - 90 mm diameter
- Maximum downlight height 70 mm
- Intelligent cable routing with eyelet at the top
- Prevents damage to insulation material caused by overheating
- Remains rigid even at higher temperatures
- Faster and easier installation and replacement of bulbs
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



SpotClip-I ensures reliability and safety of lighting installations.



Cable retainers hold the downlight supply cable in place.



1. Use the delivered tool to install SpotClip in the fixing hole as easy as possible.



2. Push the spikes into the plasterboard to prevent shifting and disconnect the tool.

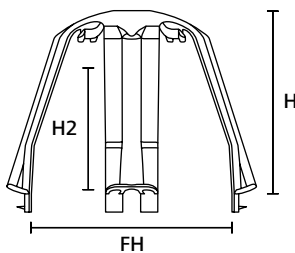


3. Start the installation of the downlight in a safe way.

MATERIAL	Polyamide 6.6, glass-fibre reinforced (PA66GF15)
Operating Temperature	-20 °C to +120 °C
Flammability	Glow Wire Test (960 °C), UL 94 V0

HF ✓

RoHS ✓



SpotClip-I

TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Colour	Pack Cont.	Article-No.
SpotClip-I	62.0	90.0	82.0	70.0	Black (BK)	10 pcs.	148-00076

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



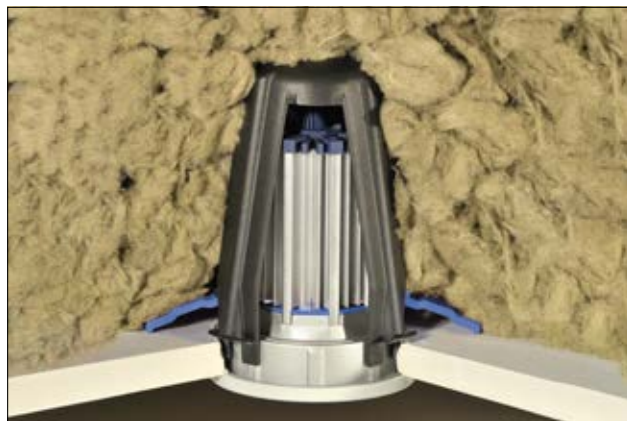
Downlight Covers - For Residential Buildings

SpotClip-II

SpotClip-II has been developed for use with large LED spotlights. Additional, flexible legs allow use with blown-in insulation material. The legs can be easily removed to facilitate cable installation. The downlight cover can be inserted easily into the ceiling cavity and offers valuable savings on installation time. SpotClip creates a reliable gap between the light bulb and the insulation material, reducing the risk of overheating and heat accumulation.

Features and benefits

- SpotClip-II has been developed for bulbs up to 95 mm height
- Ensures safety distance between downlight, damp-proof foil and insulation material
- Flexible installation during or after construction
- Additional spikes at the end of the legs prevent SpotClip shifting
- Suitable for fixing into holes from 62 - 90 mm diameter
- Remains rigid even at higher temperatures
- Flame retardant material according to UL94-V0
- Improves life span and reliability of lamps
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



The additional 4 legs on SpotClip-II allow use with blown-in cavity insulation.



SpotClip-II downlight cover with 4 additional flexible legs.



SpotClip-II shown using standard insulation wool.



SpotClip-I and SpotClip-II for maximum downlight heights of 70 mm and 95 mm respectively.



Retaining spikes and support wings hold SpotClip-II in the required position.



1. Use the delivered tool to install SpotClip-II in the fixing hole as easy as possible.



2. Push the spikes into the plasterboard to prevent shifting and disconnect the tool.



3. Start the installation of the downlight in a safe way.

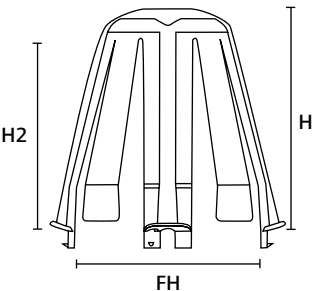
Downlight Covers - For Residential Buildings

SpotClip-II

MATERIAL	Polyamide 6.6, glass-fibre reinforced (PA66GF15)
Operating Temperature	-20 °C to +120 °C
Flammability	Glow Wire Test (960 °C), UL 94 V0

HF✓

RoHS✓



SpotClip-II

TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Colour	Pack Cont.	Article-No.
SpotClip-II	62.0	90.0	107.0	95.0	Black (BK)	10 pcs.	148-00098

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Downlight Covers - For Residential Buildings

SpotClip-III

This further development of SpotClip-II allows the use of an existing power supply. In the case of a spot without power supply, this added straight leg can be cut easily and removed manually. It helps to avoid contact between the insulation and the external power supply of the spot. SpotClip-III will fit to all standard applications with solid insulation material. It is delivered flat with flexible legs. They can be locked within seconds. The height of the this mounting device is depending on the fixing hole diameter. SpotClip-III is suitable for LED and Halogen downlights with a fixing hole diameter from 62 mm to 120 mm. The maximum product height is 130 mm depending on the fixing hole diameter.

Features and benefits

- A mounting support for the external power supply unit provides more space for the downlight installation
- Ensures safety distance between the downlight, damp-proof foil and insulation material
- Flexible installation during or after construction
- Additional spikes at the end of the legs prevent SpotClip shifting
- Prevents damage to insulation material caused by overheating
- Flame retardant material according to UL94 V2
- Improves life span and reliability of lamps
- Faster and easier installation and replacement of bulbs
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



SpotClip-III downlight cover.



SpotClip-III downlight cover- Easy-to-mount legs with one click folding function.



SpotClip-III for downlight application with external power supply.



One cable retainer to fix the power supply cable at the top.



Click and fix mounting mechanism for the 3 flexible legs.



New leg design combined with retaining spikes for high stability throughout installation.



1. Insert the mounting support through the fixing hole.



2. Press the spikes into the plasterboard to ensure stability of SpotClip-III.



3. Install the downlight.



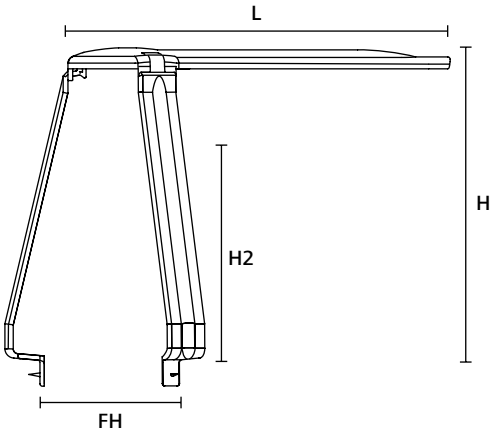
Downlight Covers - For Residential Buildings

SpotClip-III



4. Connect the power supply unit and fix the cable in the cable retainer.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2, Glow Wire Test (960 °C)



SpotClip-III

TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)*	Height (H2)*	Length (L)	Colour	Pack Cont.	Article-No.
SpotClip-III	62.0	120.0	130.0	115.0	160.0	Black (BK)	5 pcs.	148-00121

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. * For fixing hole diameter 65 mm.



Downlight covers - For residential buildings

SpotClip-IV-Slim

The SpotClip-IV-Slim ensures a safety distance between downlight, damp-proof foil and insulation material and can thereby prevent the risk of overheating and premature deterioration of the lighting. It is developed for safe use and installation of ultra-flat LED lights and suitable for ceiling cut-outs with a recessed diameter of 73 to 83 mm. Four additional and flexible tabs prevent contact between loose insulation material and the luminaire, making it ideal for use with bulk and blown insulation materials. Removable tabs allow to accommodate a transformer or to facilitate cable installation. The SpotClip-IV-Slim can be installed during or after construction. It is tested according to EN 60598-1, EN 60598-2-2, and NF C 15100.

Features and benefits

- Adaptation and dimensioning to the booming LED lighting market
- Reduction of size of more than 50%
- Simplify installation in tight spaces
- Suitable only for extra flat LED recessed luminaires



SpotClip-IV-Slim - Application with injected wool.



SpotClip-IV-Slim shown using standard insulation wool/ glass wool.

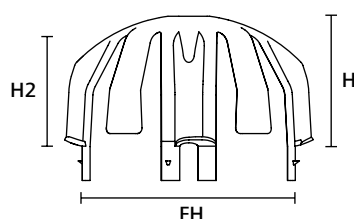


Application on the ceiling.

MATERIAL	Polyamide 6.6, glass-fibre reinforced (PA66GF15)
Operating Temperature	-20 °C to +120 °C
Flammability	Glow Wire Test (960 °C), UL 94 V0

HF ✓

RoHS ✓



SpotClip-IV-Slim

TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Colour	Pack Cont.	Article-No.
SpotClip-IV-Slim	73.0	83.0	50.0	43.0	Black (BK)	10 pcs.	148-00146

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Downlight Covers - For Residential Buildings

SpotClip-Box

SpotClip-Box has been designed especially for passive houses. This innovative downlight cover prevents contact between insulation material and the bulb. The insulation remains continuous, thus avoiding any breach in the integrity of insulation in the passive house. SpotClip-Box is suitable for LED and compact fluorescent-lamp downlights with a diameter of up to 75 mm and a maximum height of 130 mm. It is available as a complete kit, including HelaCon Lux wire connectors and all necessary mounting components.

Features and benefits

- Suitable for all types of suspended ceilings and a variety of insulation materials
- Ensures safety distance between the downlight, damp-proof foil and insulation material
- Additional spikes at the bottom of the product prevent shifting during installation
- Connection without the need for screws, with HelaCon Lux connectors included
- Prevents damage to insulation material caused by overheating
- Improves life span and reliability of lamps
- Quick and easy one-click installation with bayonet mechanism
- Can also be used to install downlights and speakers in concrete ceilings constructed on-site
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



SpotClip-Box is a downlight cover supplied as a complete kit.



SpotClip-Box - Especially designed for passive house applications.



View inside the SpotClip-Box.



HelaCon Lux connected to the power supply.



Seal the complete SpotClip-box using the end cap and grommet.



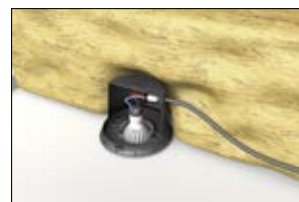
1. Mount the bottom plate over the drilled fixing hole and install the downlight housing.



2. Connect the power supply to the lamp socket with the HelaCon Lux wire connectors included and lock it with the bayonet coupling.



3. Connect the bulb to the socket and lock into the correct position.



4. Insulation material can now be applied.

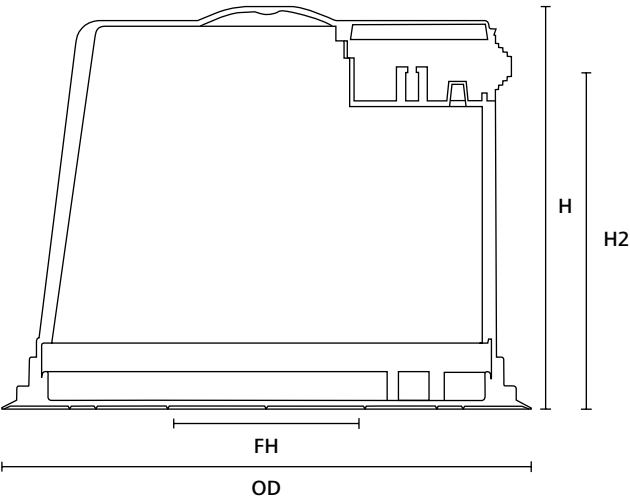
Downlight Covers - For Residential Buildings

SpotClip-Box

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2, Glow Wire Test (960 °C)

HF✓

RoHS✓



SpotClip-Box

TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Outside Ø (OD)	Colour	Pack Cont.	Article-No.
SpotClip-Box FR	75.0	75.0	140.0	130.0	184	Black (BK)	1 pc.	148-00123

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Downlight Covers - For Industrial Buildings

SpotClip-Kit

SpotClip-Kit has been designed for use primarily in industrial and office buildings for downlights with larger dimensions. The packaging kit consists of three legs and a mounting plate. The legs are available in two different lengths (150 mm and 240 mm). SpotClip-Kit has six selectable fixing positions in the mounting plate, making it suitable for downlights of differing dimensions. SpotClip-Kit 150 is suitable for downlights with a diameter from 100 mm up to 270 mm and with a maximum height of 140 mm. SpotClip-Kit 240 is suitable for downlights with a diameter from 170 mm up to 310 mm and with a maximum height of 230 mm. SpotClip-Kit can be combined with SpotClip-Plate.

Features and benefits

- Installation from the top or bottom in all types of suspended ceilings
- Ensures safety distance between downlight, damp-proof foil and insulation material
- Flexible installation during or after construction, suitable for use in existing and new buildings
- Additional spikes at the end of the legs prevents shifting during installation
- Intelligent cable routing with eyelet at the top
- Prevents damage to insulation material caused by overheating
- Heavy-duty leg design prevents long-term deformation
- Improves life span and reliability of the lamp
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



SpotClip-Kit downlight cover is available in two sizes.



SpotClip-Kit 150 used in a suspended ceiling.



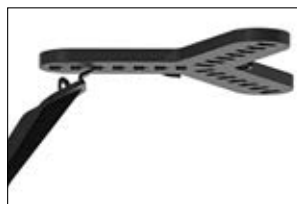
SpotClip-Kit 240 applied with a fixed sheet of insulating material.



SpotClip-Kit 150 is used for fixing hole diameters from 100 mm to 270 mm.



SpotClip-Kit 240 is used for fixing hole diameters from 170 mm to 310 mm.



The feet position can be very easily adjusted using the click and release system.



A robust design combined with retaining spikes ensures high stability.



SpotClip-Kit 150 is delivered as a self-assembly set.



SpotClip-Kit 240 is delivered as a self-assembly set.



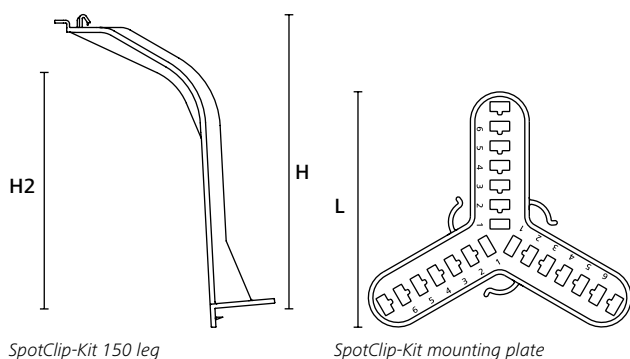
Downlight Covers - For Industrial Buildings

SpotClip-Kit

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2, Glow Wire Test (960 °C)

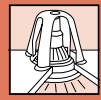
HF ✓

RoHS ✓



TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Length (L)	Colour	Pack Cont.	Article-No.
SpotClip-Kit 150	100.0	270.0	157.0	140.0	120.0	Black (BK)	1 pc.	148-00119
SpotClip-Kit 240	170.0	310.0	247.0	230.0	120.0	Black (BK)	1 pc.	148-00120

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Downlight Covers - For Industrial Buildings

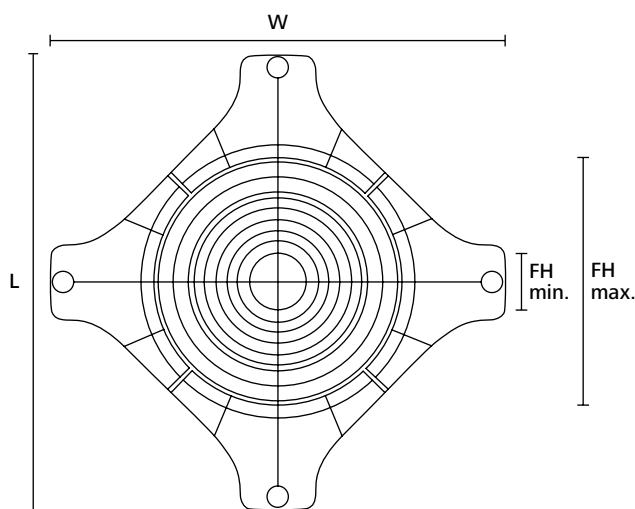
SpotClip-Plate

SpotClip-Plate has been developed especially for installation in suspended grid ceilings in order to avoid damage and cracks in the ceiling plates caused by the weight of heavy downlights. The product dimensions of 592 mm x 592 mm mean that it fits perfectly into standard grid ceilings with a width of 600 mm. The pre-cut design makes it suitable for installation of the most commonly used downlights with a diameter from 75 mm to 314 mm.

Please check if your grid ceiling size corresponds to the side length of 600 mm. Depending on the manufacturer and country this can vary between 600 mm and 625 mm.

Features and benefits

- SpotClip-Plate distributes the load of the downlight equally across the suspended ceiling construction
- Flexible installation during or after construction, useful for both existing and new buildings
- Remains rigid even at higher temperature
- Flame retardant material according to UL94-V2
- Improves life span and reliability of lamps
- Faster and easier installation and replacement of bulbs
- Tested according to EN 60598-1, EN 60598-2-2, and NF C 15100



SpotClip-Plate



SpotClip-Plate fits perfect into standard grid ceilings with a width of 600 mm.



SpotClip-Plate has been developed for applications with heavy downlights in suspended grid ceilings.



SpotClip-Plate comes in 16 pre-cut fixing hole diameter sizes.



Choose the required diameter and cut with a handsaw.



Use the SpotClip-Plate as a stencil to cut the fixing hole into the ceiling plate.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2, Glow Wire Test (960 °C)



TYPE	Hole Ø (FH) min.	Hole Ø (FH) max.	Height (H)	Height (H2)	Length (L)	Width (W)	Colour	Pack Cont.	Article-No.
SpotClip-Plate 600	75.0	314.0	35.0	5.0	592.0	592.0	Black (BK)	10 pcs.	148-00117

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



SpotClip-Plate - Further Accessories

SpotClip-Caps

SpotClip-Plate can be used to ensure the safety distance between the downlight and insulation material. We offer three different solutions to prevent damage to insulation material caused by overheating of the bulb.

1. Place two plates on top of each other and use IRL standard tubes between these to achieve the required distance
2. Use SpotClip-Caps and IRL standard tubes to achieve the required distance between the plate and insulation material
3. Combine SpotClip-Kit with SpotClip-Plate for a fast solution

Features and benefits

- Different solutions to ensure safety distance between downlight, damp-proof foil and insulation material
- SpotClip-Plate can be combined with SpotClip-Kit, SpotClip-Caps or placed on top of each other with IRL standard tubes to ensure the required distance
- Prevents damage to insulation material caused by overheating
- Improves life span and reliability of lamps
- Faster and easier installation and replacement of bulbs



SpotClip-Caps offered in a pack of 40 pieces.

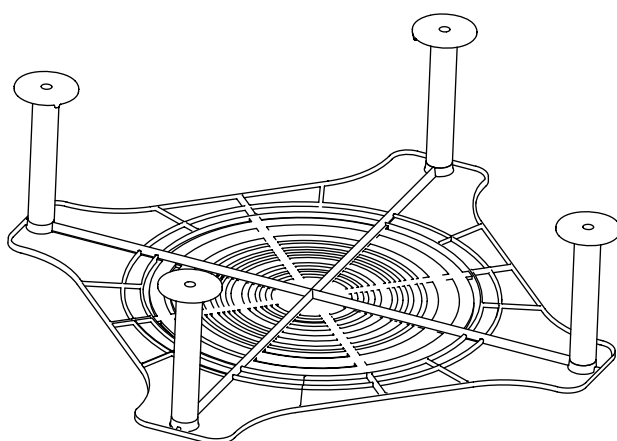


SpotClip-Plate combined with SpotClip-Caps.

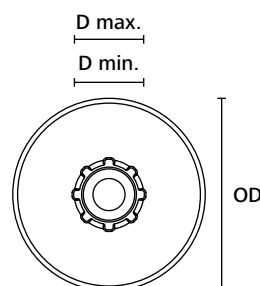
MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2, Glow Wire Test (960 °C)

HF ✓

RoHS ✓



SpotClip-Plate in combination with IRL standard tubes and SpotClip-Caps



SpotClip-Cap

TYPE	Height (H)	Height (H2)	Outside Ø (OD)	Ø D min.	Ø D max.	Colour	Pack Cont.	Article-No.
SpotClip-Caps 16/25	30.0	25.0	60.0	16.0	22.0	Black (BK)	40 pcs.	148-00102

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



VarioPlate Cable Entry System

VarioPlate Frames

The VarioPlate Cable Entry System is used to install multiple cables of different diameters, with or without pre-terminated plugs or connectors, or wherever space is limited. It is available in 4 different frame sizes which correspond to the cut-out dimensions commonly used in panel building and for industrial machinery. Combinable grommets with 1, 2 or 4 holes, are available for cable diameters ranging from 3-16 mm (size S) and 16-33 mm (size L).

Features and benefits

- Time and space saving design
- Easy assembly, subsequent changes possible
- Wall gasket included in frame design
- Modular application for both insert sizes (S and L)
- Integrated strain relief
- Suitable for all common standard cut-out dimensions and drilling patterns
- Integrated cable diameter tolerance compensation
- For cut-out sizes up to 36 x 115 mm
- IP 65 and IP 66



MATERIAL	Polyamide 6.6, glass-fibre reinforced (PA66GF25)
Colour	Black (BK)
IP-Rating	IP66



TYPE	Drawing	Length (L)	Width (W)	Article-No.
VarioPlate-4_Frame		61.0	72.8	440-00000
VarioPlate-10_Frame		61.0	96.5	440-00001
VarioPlate-16_Frame		61.0	116.5	440-00002
VarioPlate-24_Frame		61.0	143.5	440-00003

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



VarioPlate Cable Entry System

VarioPlate Insert Grommets

VarioPlate cable entry system inserts grommets are used in combination with VarioPlate frames for time and space saving cable installation on all types of panel builder housings and control boxes. The versatile design covers cable diameter from 3 to 33mm. Inserts grommets are available in one, two, four holes and blindplugs.

Features and benefits

- Integrated cable diameter tolerance compensation
- Modular application for both insert sizes (S and L)
- Integrated strain relief
- IP 65 and IP 66



MATERIAL	Thermoplastic Elastomer (TPE)
Operating Temperature	-40 °C to +100 °C

HF ✓

RoHS ✓

TYPE	Drawing	Length (L)	Height (H)	Cable Ø min	Cable Ø max	Article-No.
VP-L_16-17_Ins-sgl		42.2	20.0	16.0	17.0	440-00024
VP-L_17-18_Ins-sgl		42.2	20.0	17.0	18.0	440-00025
VP-L_18-19_Ins-sgl		42.2	20.0	18.0	19.0	440-00026
VP-L_19-20_Ins-sgl		42.2	20.0	19.0	20.0	440-00027
VP-L_20-21_Ins-sgl		42.2	20.0	20.0	21.0	440-00028
VP-L_21-22_Ins-sgl		42.2	20.0	21.0	22.0	440-00029
VP-L_22-23_Ins-sgl		42.2	20.0	22.0	23.0	440-00030
VP-L_23-24_Ins-sgl		42.2	20.0	23.0	24.0	440-00031
VP-L_24-25_Ins-sgl		42.2	20.0	24.0	25.0	440-00032
VP-L_25-26_Ins-sgl		42.2	20.0	25.0	26.0	440-00033
VP-L_26-27_Ins-sgl		42.2	20.0	26.0	27.0	440-00034
VP-L_27-28_Ins-sgl		42.2	20.0	27.0	28.0	440-00035
VP-L_28-29_Ins-sgl		42.2	20.0	28.0	29.0	440-00036
VP-L_29-30_Ins-sgl		42.2	20.0	29.0	30.0	440-00037
VP-L_30-31_Ins-sgl		42.2	20.0	30.0	31.0	440-00038
VP-L_31-32_Ins-sgl		42.2	20.0	31.0	32.0	440-00039
VP-L_32-33_Ins-sgl		42.2	20.0	32.0	33.0	440-00040

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



VarioPlate Cable Entry System

VarioPlate Insert Grommets

VarioPlate cable entry system inserts grommets are used in combination with VarioPlate frames for time and space saving cable installation on all types of panel builder housings and control boxes. The versatile design covers cable diameter from 3 to 33mm. Inserts grommets are available in one, two, four holes and blindplugs.

Features and benefits

- Integrated cable diameter tolerance compensation
- Modular application for both insert sizes (S and L)
- Integrated strain relief
- IP 65 and IP 66



MATERIAL	Thermoplastic Elastomer (TPE)
Operating Temperature	-40 °C to +100 °C



TYPE	Drawing	Length (L)	Height (H)	Cable Ø min	Cable Ø max	Article-No.
VP-S_0_Blindinsert		21.1	20.0	-	-	440-00004
VP-S_3-4_Ins-sgl		21.1	20.0	3.0	4.0	440-00005
VP-S_4-5_Ins-sgl		21.1	20.0	4.0	5.0	440-00006
VP-S_5-6_Ins-sgl		21.1	20.0	5.0	6.0	440-00007
VP-S_6-7_Ins-sgl		21.1	20.0	6.0	7.0	440-00008
VP-S_7-8_Ins-sgl		21.1	20.0	7.0	8.0	440-00009
VP-S_8-9_Ins-sgl		21.1	20.0	8.0	9.0	440-00010
VP-S_9-10_Ins-sgl		21.1	20.0	9.0	10.0	440-00011
VP-S_10-11_Ins-sgl		21.1	20.0	10.0	11.0	440-00012
VP-S_11-12_Ins-sgl		21.1	20.0	11.0	12.0	440-00013
VP-S_12-13_Ins-sgl		21.1	20.0	12.0	13.0	440-00014
VP-S_13-14_Ins-sgl		21.1	20.0	13.0	14.0	440-00015
VP-S_14-15_Ins-sgl		21.1	20.0	14.0	15.0	440-00016
VP-S_15-16_Ins-sgl		21.1	20.0	15.0	16.0	440-00017
VP-S_2/4-5_Ins-dbl		21.1	20.0	4.0	5.0	440-00018
VP-S_2/5-6_Ins-dbl		21.1	20.0	5.0	6.0	440-00019
VP-S_2/6-7_Ins-dbl		21.1	20.0	6.0	7.0	440-00020
VP-S_2/7-8_Ins-dbl		21.1	20.0	7.0	8.0	440-00021
VP-S_4/4-5_Ins-quad		21.1	20.0	4.0	5.0	440-00022
VP-S_4/5-6_Ins-quad		21.1	20.0	5.0	6.0	440-00023

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



VarioPlate Cable Entry System

VarioPlate Blindplugs

VarioPlate cable entry system inserts grommets are used in combination with VarioPlate frames for time and space saving cable installation on all types of panel builder housings and control boxes. The versatile design covers cable diameter from 3 to 33mm. Inserts grommets are available in one, two, four holes and blindplugs.

MATERIAL	Plastic (PL)
Operating Temperature	-40 °C to +100 °C

HF ✓

RoHS ✓

Features and benefits

- Blind grommets are needed to replace the cable grommets that are not equipped with wires
- The IP protection class is retained

TYPE	Drawing	Ø (D)	Cable Ø min	Cable Ø max	Article-No.
VP_3-5_Blindplug		-	3.0	5.0	440-00041
VP_S_5_Blindplug		5.0	5.0	5.0	440-00049
VP_5-7_Blindplug		-	5.0	7.0	440-00042
VP_S_7_Blindplug		7.0	7.0	7.0	440-00050
VP_7-9_Blindplug		-	7.0	9.0	440-00043
VP_9-11_Blindplug		-	9.0	11.0	440-00044
VP_11-13_Blindplug		-	11.0	13.0	440-00045
VP_13-15_Blindplug		-	13.0	15.0	440-00046
VP_15-16_Blindplug		-	15.0	16.0	440-00047

All dimensions in mm. Subject to technical changes.



VarioPlate Cable Entry System

VarioPlate Mounting Tool

- Features and benefits
- Assembly aid for VarioPlate
 - Simple application

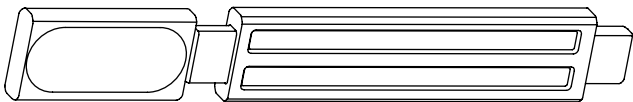


VarioPlate Mounting Tool.

MATERIAL	Polyamide 6.6, glass-fibre reinforced (PA66GF25)
Operating Temperature	-40 °C to +140 °C

HF ✓

RoHS ✓



TYPE	Article-No.
VP_Mounting_Tool	440-00048

All dimensions in mm. Subject to technical changes.



Connection Products

Nylon Cable Glands

Nylon domed headed cable glands are quick and easy to install and cater for a wide range of cable sizes.

A range of quality nylon cable glands that can be used on a wide range of applications when connecting cable to electrical equipment (but not steel wire armoured cable).

Features and benefits

- Material Nylon 66
- Low smoke, zero halogen
- IP rating IP 68
- Metric thread
- available in red, black, white, grey, dark grey
- Complete with lock nut and washer
- Euro slot packaging



MATERIAL	Polyamide 6.6 (PA66)
IP-Rating	IP68

HF ✓

RoHS ✓

TYPE	Thread Size	Colour	Hole Ø (FH)	Pack Cont.	Article-No.
NGM12BK	M12	Black (BK)	3.0 - 6.5	10 pcs.	901-02000
NGM12DGY	M12	Dark Grey (DKGY)	3.0 - 6.5	10 pcs.	901-02001
NGM12GY	M12	Grey (GY)	3.0 - 6.5	10 pcs.	901-02002
NGM12RD	M12	Red (RD)	3.0 - 6.5	10 pcs.	901-02003
NGM12WE	M12	White (WH)	3.0 - 6.5	10 pcs.	901-02004
NGM16BK	M16	Black (BK)	5.0 - 10.0	10 pcs.	901-02005
NGM16DGY	M16	Dark Grey (DKGY)	5.0 - 10.0	10 pcs.	901-02006
NGM16GY	M16	Grey (GY)	5.0 - 10.0	10 pcs.	901-02007
NGM16RD	M16	Red (RD)	5.0 - 10.0	10 pcs.	901-02008
NGM16WE	M16	White (WH)	5.0 - 10.0	10 pcs.	901-02009
NGM20SBK	M20	Black (BK)	6.0 - 12.0	10 pcs.	901-02014
NGM20BK	M20	Black (BK)	10.0 - 14.0	10 pcs.	901-02010
NGM20SDGY	M20	Dark Grey (DKGY)	6.0 - 12.0	10 pcs.	901-02015
NGM20DGY	M20	Dark Grey (DKGY)	10.0 - 14.0	10 pcs.	901-02011
NGM20SGY	M20	Grey (GY)	6.0 - 12.0	10 pcs.	901-02016
NGM20GY	M20	Grey (GY)	10.0 - 14.0	10 pcs.	901-02012
NGM20SRD	M20	Red (RD)	6.0 - 12.0	10 pcs.	901-02017
NGM20RD	M20	Red (RD)	10.0 - 14.0	10 pcs.	901-02013
NGM20SWE	M20	White (WH)	6.0 - 12.0	10 pcs.	901-02018
NGM20WE	M20	White (WH)	10.0 - 14.0	10 pcs.	901-02019
NGM25BK	M25	Black (BK)	13.0 - 18.0	10 pcs.	901-02020
NGM25DGY	M25	Dark Grey (DKGY)	13.0 - 18.0	10 pcs.	901-02021
NGM25GY	M25	Grey (GY)	13.0 - 18.0	10 pcs.	901-02022
NGM25RD	M25	Red (RD)	13.0 - 18.0	10 pcs.	901-02023
NGM25WE	M25	White (WH)	13.0 - 18.0	10 pcs.	901-02024
NGM32BK	M32	Black (BK)	18.0 - 25.0	5 pcs.	901-02025
NGM32DGY	M32	Dark Grey (DKGY)	18.0 - 25.0	5 pcs.	901-02026
NGM32GY	M32	Grey (GY)	18.0 - 25.0	5 pcs.	901-02027
NGM32RD	M32	Red (RD)	18.0 - 25.0	5 pcs.	901-02028
NGM32WE	M32	White (WH)	18.0 - 25.0	5 pcs.	901-02029

All dimensions in mm. Subject to technical changes.



Connection Products

Nylon Cable Glands

TYPE	Thread Size	Colour	Hole Ø (FH)	Pack Cont.	Article-No.
NGM40BK	M40	Black (BK)	22.0 - 32.0	5 pcs.	901-02030
NGM40DGY	M40	Dark Grey (DKGY)	22.0 - 32.0	5 pcs.	901-02031
NGM40GY	M40	Grey (GY)	22.0 - 32.0	5 pcs.	901-02032
NGM40RD	M40	Red (RD)	22.0 - 32.0	5 pcs.	901-02033
NGM40WE	M40	White (WH)	22.0 - 32.0	5 pcs.	901-02034
NGM50BK	M50	Black (BK)	30.0 - 38.0	2 pcs.	901-02035
NGM50DGY	M50	Dark Grey (DKGY)	30.0 - 38.0	2 pcs.	901-02036
NGM50GY	M50	Grey (GY)	30.0 - 38.0	2 pcs.	901-02037
NGM50RD	M50	Red (RD)	30.0 - 38.0	2 pcs.	901-02038
NGM50WE	M50	White (WH)	30.0 - 38.0	2 pcs.	901-02039
NGM63BK	M63	Black (BK)	34.0 - 44.0	2 pcs.	901-02040
NGM63DGY	M63	Dark Grey (DKGY)	34.0 - 44.0	2 pcs.	901-02041
NGM63GY	M63	Grey (GY)	34.0 - 44.0	2 pcs.	901-02042
NGM63RD	M63	Red (RD)	34.0 - 44.0	2 pcs.	901-02043
NGM63WE	M63	White (WH)	34.0 - 44.0	2 pcs.	901-02044

All dimensions in mm. Subject to technical changes.



5.0 Technical Information

Product Selection

Product Selection Guide:	
Labels, Heat Shrink Markers and Cable Tags	502
Size Selection Guide:	
Heat Shrink - Cable Diameters	504
Size Selection Guide:	
Self-laminating Labels - Cable Diameters	505
Product Selection Guide: Printers and Ribbons	506



5.1 Wire and Cable Markers

Shrinkable markers "Continuous Tube", thermal transfer

TCGT – 3:1 Commercial Grade Tubing	508
TULT – 3:1 Military and Electronics	510
TLFX – 2:1 Rail Limited Fire Hazard	514
HHS - 2:1 Heat Shrink Tube Tapes	516

Shrinkable markers "Ladder Style", thermal transfer

TULT DS – 3:1 Military and Electronics	512
TLFX DS - 2:1 Rail Limited Fire Hazard	517
TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant	519

Identification tags for cable bundle, thermal transfer

TIPTAG HF – Rail Limited Fire Hazard, Halogen free	521
TIPTAG PU – UV-stabilised Tiptags, Polyurethane	522
TIPTAG MC – Metal Content Tiptags	523

Identification tags for cable bundle "Ladder Style", thermal transfer

TAGPU – UV-stabilised Tiptags	524
TAGPU LOOP - UV Tags without cable ties	526
TAGLF – Rail - Limited Fire Hazard Tiptags	527

Self-laminating and flag labels, thermal transfer

HelaTag 896 (White-Transparent)	528
Helatag 1232 (White-Transparent)	530
Helatag 323, high temperature (White-Transparent)	531
Helatag 934 (White)	533

Self-laminating labels, laser printer

Helatag 1104 (White-Transparent)	534
Helatag 1105 (White-Transparent)	536

Self-laminating and flag labels, manual marking

RiteOn Self-laminating, 1401	537
RiteOn Flagger, 1504	538
HELASIGN 1402, Booklet	539

Indelible Marker Pens

T82	540

Pre-printed cable markers

Helagrip, slide on, chevron cut	541
Ovalgrip, slide on, straight cut	544
WIC, snap on	546
WIC Tool and accessories	548

Identification for marking cable bundles

Arrowtag – Identification plates	549
IMP and IT Plates – Identification plates	550
IT Ties – Identification cable ties	551

Adhesive labels for ties and plates, thermal transfer

Helatag 892 (White)	553

Cable marking carrier, laser printer

Helafix HC and HCR Carriers	554
Helafix HFX Labels	556



5.2 Control Panel Labelling

Labels for control panel identification, thermal transfer

Helatag 880, removable (Yellow matt)	558
Helatag 1211 (Yellow gloss)	557

Labels for control panel identification, laser printer

Helatag 1102 (Yellow)	559
Helatag 1101 (White)	560

Labels for control panel identification, manual marking

HELASIGN 270 (Yellow), Booklet	561



5.3 Industrial Identification

Panel plate labels, thermal transfer	
Helatag 1220 (White)	562
Helatag 1221 (Silver)	563
Type label identification, thermal transfer	
Helatag 1204 (Silver-matt)	564
Asset identification label, thermal transfer	
Helatag 1206 (White gloss)	566
Type label identification, laser printer	
Helatag 1102 (Yellow)	568
Helatag 1101 (White)	569
Warehouse and pipe labelling, thermal transfer	
Helatag 1213 (Various colours)	571
HTZ Laminated Label Tapes (Various colours)	573



5.4 RFID Cable Ties and Accessories

Product Selection	
RFID technology solutions	574



5.5 Security Labelling

Tamper-evident security labelling, thermal transfer	
Helatag 1203 (Silver)	576
Helatag 1251 (Silver, Transparent), 2 parts	578



5.6 Hazardous Area Identification

Stainless steel printing system	
M-BOSS Compact Printer	579
M-BOSS Compact Printer and Organiser	580
M-BOSS Compact Markers	581



5.7 Printers and Software

Labelling software	
TagPrint Pro 5	582
Thermal transfer printers	
TT431, Small to medium volume printing	583
TT431 accessories and spare parts	583
TT4030, High volume printing	584
TT4030 accessories and spare parts	584
TT4030DS, High volume double side printing	585
TT4030DS accessories and spare parts	585
HLP0612, Handheld Label Printer	586
Product Selection	
Selection matrix: materials and ribbons	587
Thermal transfer ribbons for	
Adhesive Labels	588
Thermal printer ribbons for	
Heatshrink and Tiptags	589

Product Selection Guide: Labels, Heat Shrink Markers and Cable Tags

Use our flowchart to find the right label or identification material.

Please note that we have highlighted the respective printer technology (thermal transfer, matrix or laser printer, etc.) in colour. When selecting the material, the general rule is that a higher quality material can of

course be used for lower requirements (e.g. a material for operating temperatures of over +90 °C can also be used for temperatures below +90 °C).

Labels				
Temperature	Features	Certifications	Material	Page
up to +90 °C	UV-stabilised	permanent	Helatag 892	553
			Helatag 1211	557
			Helatag 1213	571
			Helatag 1220*	562
			Helatag 1221*	563
			Helasign 270	561
over +90 °C	UV-stabilised	permanent	Helatag 880	558
			Helatag 1101	560/569
			Helatag 1102	559/568
			Helatag 1204*	564
			Helatag 1206*	566
			Helatag 1203*	576
	tamper evident	UL/CSA	Helatag 1251*	578

Labels - for cables and tubes					
Temperature	Features		Certifications	Material	Page
up to +90 °C		permanent	UL	Helatag 896*	528
				Helatag 934	533
			HTZ	573	
				RiteOn 1401	537
					Helasign 1402
over +90 °C	UV-stabilised	permanent	UL	Helatag 323*	531
				Helatag 1232	530
	UL		Helatag 1104	534	
			Helatag 1105*	536	
			RiteOn 1504	538	

Labelling material for:

	Thermal transfer printer		Laser printer
	Manual Marking		

* For this labelling material you can also use laser beam.

Heat shrink markers				
Temperature	Material/Application	Certifications	Material	Page
over +90 °C		CSA/MIL STD	TCGT*	508
			HHS	516
	for electronics	UL/CSA/MIL STD	TULT*	510
			TULT DS*	512
	for rail	NFPA130	TLFX DS*	517
		EN45545-2	TLFX*	514
		EN50343	TLFD DS*	519

Cable Tags TIPTAGs				
Temperature	Material/Application	Certifications	Material	Page
over +90 °C	UV-stabilised		TIPTAG PU*	522
	for rail	EN45545-2	TAGLF*	527
up to +90 °C	for rail	EN45545-2	TIPTAG HF*	521
	for food and pharma		TIPTAG MC	523
	UV-stabilised		TAGPU/LOOP*	524/526

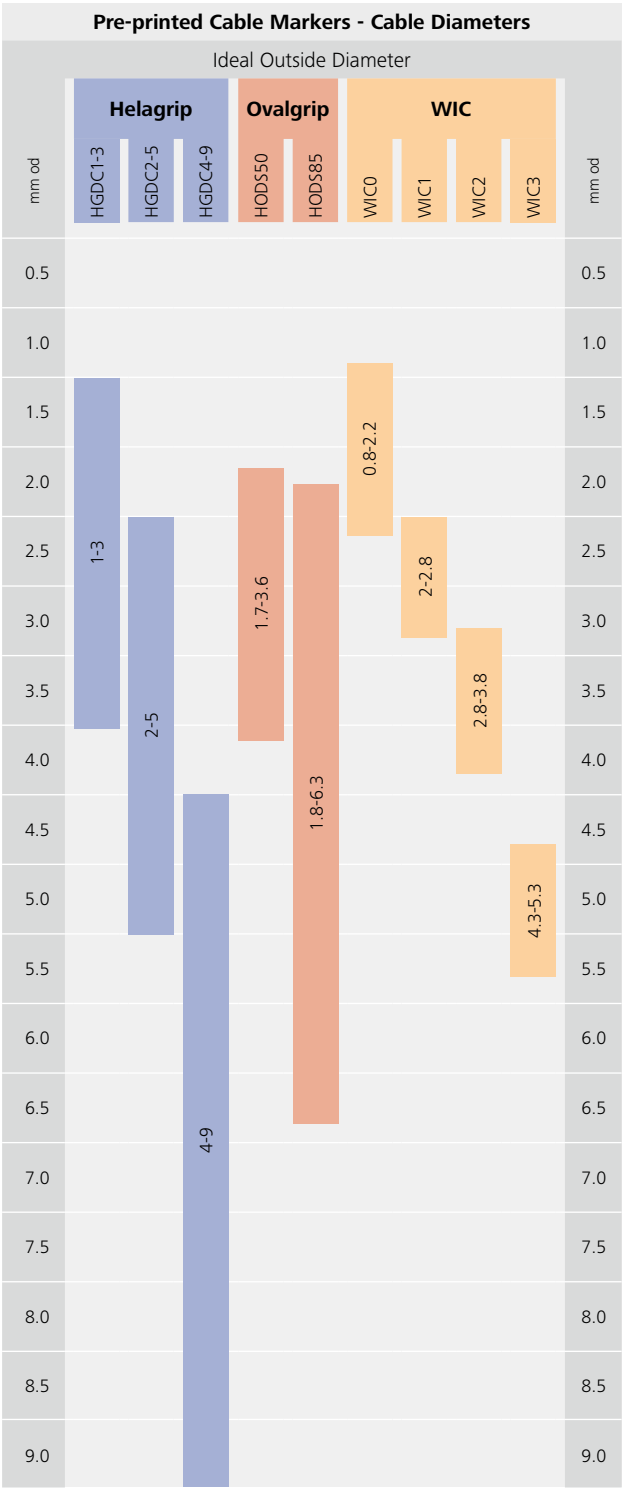
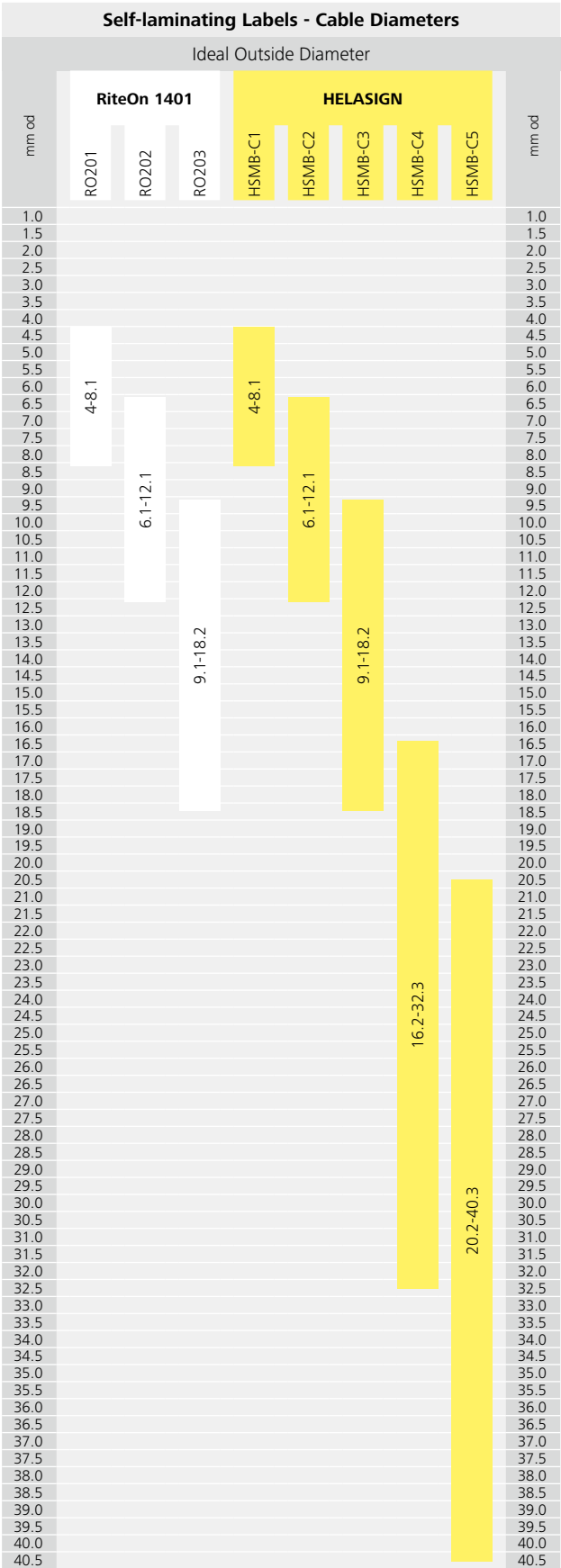


Size Selection Guide

Heat Shrink Markers - Cable Diameters		
Ideal Outside Diameter		
TULT, TULT DS, TCGT (3:1)		
mm od		mm od
1.0	2.4-0.8	1.0
2.0	3-1	2.0
3.0	4.8-1.6	3.0
4.0	6-2	4.0
5.0	9-3	5.0
6.0	12-4	6.0
7.0	18-6	7.0
8.0	24-8	8.0
9.0	39-13	9.0
10.0		10.0
11.0		11.0
12.0		12.0
13.0		13.0
14.0		14.0
15.0		15.0
16.0		16.0
17.0		17.0
18.0		18.0
19.0		19.0
20.0		20.0
21.0		21.0
22.0		22.0
23.0		23.0
24.0		24.0
25.0		25.0
26.0		26.0
27.0		27.0
28.0		28.0
29.0		29.0
30.0		30.0
31.0		31.0
32.0		32.0
33.0		33.0
34.0		34.0
35.0		35.0
36.0		36.0
37.0		37.0
38.0		38.0
39.0		39.0
40.0		40.0
41.0		41.0
42.0		42.0
43.0		43.0
44.0		44.0
45.0		45.0
46.0		46.0

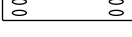
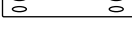
Heat Shrink Markers - Cable Diameters		
Ideal Outside Diameter		
TLFX, TLFX DS, TLFD DS (2:1)		
mm od		mm od
1.0	2.4/1.2	1.0
2.0	3.2/1.6	2.0
3.0	4.8/2.4	3.0
4.0	6.4/3.2	4.0
5.0	9.5/4.8	5.0
6.0	12.7/6.4	6.0
7.0	19.0/9.5	7.0
8.0	25.4/12.7	8.0
9.0	38.1/19.0	9.0
10.0	50.8/25.4	10.0
11.0		11.0
12.0		12.0
13.0		13.0
14.0		14.0
15.0		15.0
16.0		16.0
17.0		17.0
18.0		18.0
19.0		19.0
20.0		20.0
21.0		21.0
22.0		22.0
23.0		23.0
24.0		24.0
25.0		25.0
26.0		26.0
27.0		27.0
28.0		28.0
29.0		29.0
30.0		30.0
31.0		31.0
32.0		32.0
33.0		33.0
34.0		34.0
35.0		35.0
36.0		36.0
37.0		37.0
38.0		38.0
39.0		39.0
40.0		40.0
41.0		41.0
42.0		42.0
43.0		43.0
44.0		44.0
45.0		45.0
46.0		46.0

Size Selection Guide



Product Selection Guide: Printers and Ribbons

This table will help you select the correct printer and ribbon for specific materials, labels and markers types. Please refer to the page indicated in the last column of the table for additional information.

							
			TT4030DS (High volume, double side printing)	TT4030 (High volume printing)	TT431 (Small to medium volume printing)		
Material	Label / Marker type	Printing method	Printing Software: TagPrint Pro			Ribbon	Page
TCGT		 	•	•	•	TTDTHOUT TTRW TT822OUT8	508
TULT		 	•	•	•	TTDTHOUT TTRW TT822OUT8	510
TULT DS		 	•	•	•	TTDTHOUT	512
TLFX		 	•	•	•	TTDTHOUT	514
TLFX DS		 	•	•	•	TTDTHOUT	517
TLFD DS			•	•	•	TTDTHOUT	519
TIPTAG HF		 	–	•	•	TTDTHOUT	521
TIPTAG PU		 	–	•	•	TTRC+	522
TIPTAG MC			–	•	•	TTDTHOUT TTRW	523
TAGPU/LOOP		 	–	•	•	TT287/TTRC+	524/526
TAGLF		 	–	•	•	TTDTHOUT	527
Helatag 896		 	–	•	•	TT932DOUT	528
Helatag 1232		 	–	•	•	TT822OUT	530
Helatag 323			–	•	•	TT932OUT	531
Helatag 934			–	•	•	TT822OUT	533
Helatag 892			–	•	•	TT822OUT	553



Thermal transfer printing



Laser printing



Laser beam



Manual writing/marketing



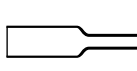
Self-laminating label



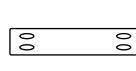
Plain label



Continuous reel



Heat shrink marker



Cable Tag



TT4030DS
(High volume,
double side printing)



TT4030
(High
volume printing)



TT431
(Small to medium
volume printing)

Material	Label / Marker type	Printing method	Printing Software: TagPrint Pro			Ribbon	Page
Helatag 1211			–	•	•	TT822OUT	557
Helatag 880			–	•	•	TT822OUT	558
Helatag 1220			–	•	•	TT822OUT TT122OUT	562
Helatag 1221			–	•	•	TT822OUT TT122OUT	563
Helatag 1204			–	•	•	TT822OUT	564
Helatag 1206			–	•	•	TT822OUT	566
Helatag 1213			–	•	•	TT822OUT TT287	571
Helatag 1203			–	•	•	TT822OUT	576
Helatag 1251			–	•	•	TT822OUT	578

Material	Label type	Printing method	Page
Helatag 1104			534
Helatag 1105			536
Helafix HFX			556
Helatag 1102			559/568
Helatag 1101			560/569

Material	Label type	Printing method	Page
RiteOn 1401			537
RiteOn 1504			538
HELASIGN 1402			539
HELASIGN 270			561



Thermal transfer printing



Laser printing



Laser beam



Manual writing/marketing



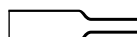
Self-laminating label



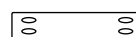
Plain label



Continuous reel



Heat shrink marker



Cable Tag

Shrinkable markers, "Continuous Tube", thermal transfer

TCGT – 3:1 Commercial Grade

TCGT is a commercial grade 3:1 heat shrink marker material supplied as a continuous tube and printable on both sides. TCGT's polyolefin compound has good mechanical strength and resistance to organic solvents and chemicals. The surface of the tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

Features and benefits

- Shrink ratio 3:1
- Available in black, blue, red, white and yellow
- Cable range from 39 mm to 1 mm
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes

For size matrix please refer to page 504.



TCGT continuous tube – printable on both sides.



TCGT – 5 colours of printable tube to cover a wide range of diameters.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Shrink Ratio	3:1
Recommended Ribbon Type	TTDTHOUT, TTRW, TT822OUT8
Thermal Transfer Printer	TT431, TT4030DS, TT4030



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TCGT3-1BK	3.0	1.0	0.56	176 m	Black (BK)	553-30352
TCGT3-1BU	3.0	1.0	0.56	176 m	Blue (BU)	553-30353
TCGT3-1RD	3.0	1.0	0.56	176 m	Red (RD)	553-30354
TCGT3-1WH	3.0	1.0	0.56	176 m	White (WH)	553-30351
TCGT3-1YE	3.0	1.0	0.56	176 m	Yellow (YE)	553-30350
TCGT4.8-1.6BK	4.8	1.6	0.56	110 m	Black (BK)	553-30452

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers, "Continuous Tube", thermal transfer

TCGT – 3:1 Commercial Grade

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TCGT4.8-1.6BU	4.8	1.6	0.56	110 m	Blue (BU)	553-30453
TCGT4.8-1.6RD	4.8	1.6	0.56	110 m	Red (RD)	553-30454
TCGT4.8-1.6WH	4.8	1.6	0.56	110 m	White (WH)	553-30451
TCGT4.8-1.6YE	4.8	1.6	0.56	110 m	Yellow (YE)	553-30450
TCGT6-2BK	6.0	2.0	0.64	110 m	Black (BK)	553-30652
TCGT6-2BU	6.0	2.0	0.64	110 m	Blue (BU)	553-30653
TCGT6-2RD	6.0	2.0	0.64	110 m	Red (RD)	553-30654
TCGT6-2WH	6.0	2.0	0.64	110 m	White (WH)	553-30651
TCGT6-2YE	6.0	2.0	0.64	110 m	Yellow (YE)	553-30650
TCGT9-3BK	9.0	3.0	0.64	72 m	Black (BK)	553-30952
TCGT9-3BU	9.0	3.0	0.64	72 m	Blue (BU)	553-30953
TCGT9-3RD	9.0	3.0	0.64	72 m	Red (RD)	553-30954
TCGT9-3WH	9.0	3.0	0.64	72 m	White (WH)	553-30951
TCGT9-3YE	9.0	3.0	0.64	72 m	Yellow (YE)	553-30950
TCGT12-4BK	12.0	4.0	0.68	54 m	Black (BK)	553-31252
TCGT12-4BU	12.0	4.0	0.68	54 m	Blue (BU)	553-31253
TCGT12-4RD	12.0	4.0	0.68	54 m	Red (RD)	553-31254
TCGT12-4WH	12.0	4.0	0.68	54 m	White (WH)	553-31251
TCGT12-4YE	12.0	4.0	0.68	54 m	Yellow (YE)	553-31250
TCGT18-6BK	18.0	6.0	0.90	26 m	Black (BK)	553-31852
TCGT18-6BU	18.0	6.0	0.90	26 m	Blue (BU)	553-31853
TCGT18-6RD	18.0	6.0	0.90	26 m	Red (RD)	553-31854
TCGT18-6WH	18.0	6.0	0.90	26 m	White (WH)	553-31851
TCGT18-6YE	18.0	6.0	0.90	26 m	Yellow (YE)	553-31850
TCGT24-8BK	24.0	8.0	0.98	26 m	Black (BK)	553-32452
TCGT24-8BU	24.0	8.0	0.98	26 m	Blue (BU)	553-32453
TCGT24-8RD	24.0	8.0	0.98	26 m	Red (RD)	553-32454
TCGT24-8WH	24.0	8.0	0.98	26 m	White (WH)	553-32451
TCGT24-8YE	24.0	8.0	0.98	26 m	Yellow (YE)	553-32450
TCGT39-13BK	39.0	13.0	1.08	10 m	Black (BK)	553-33952
TCGT39-13BU	39.0	13.0	1.08	10 m	Blue (BU)	553-33953
TCGT39-13RD	39.0	13.0	1.08	10 m	Red (RD)	553-33954
TCGT39-13WH	39.0	13.0	1.08	10 m	White (WH)	553-33951
TCGT39-13YE	39.0	13.0	1.08	10 m	Yellow (YE)	553-33950

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Continuous Tube", thermal transfer

TULT – 3:1 Military and Electronics

TULT is a UL recognized 3:1 heat shrink marker material supplied as a continuous tube and printable on both sides. TULT's polyolefin compound has good mechanical strength and resistance to organic solvents and chemicals. The surface of the tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

Features and benefits

- Shrink ratio 3:1
- Available in black, blue, red, white and yellow
- Cable range from 39 mm to 1 mm
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes

For size matrix please refer to page 504.



TULT – good mechanical strength and resistance to organic solvents and chemicals.



TULT – five colours of UL recognised printable tube to cover a wide range of diameters.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Shrink Ratio	3:1
Recommended Ribbon Type	TTDTHOUT, TTRW, TT822OUT8
Thermal Transfer Printer	TT431, TT4030DS, TT4030

RoHS



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT3-1BK	3.0	1.0	0.56	176 m	Black (BK)	553-40352
TULT3-1BU	3.0	1.0	0.56	176 m	Blue (BU)	553-40353
TULT3-1RD	3.0	1.0	0.56	176 m	Red (RD)	553-40354
TULT3-1WH	3.0	1.0	0.56	176 m	White (WH)	553-40351
TULT3-1YE	3.0	1.0	0.56	176 m	Yellow (YE)	553-40350

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Continuous Tube", thermal transfer

TULT – 3:1 Military and Electronics

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT4.8-1.6BK	4.8	1.6	0.56	110 m	Black (BK)	553-40452
TULT4.8-1.6BU	4.8	1.6	0.56	110 m	Blue (BU)	553-40453
TULT4.8-1.6RD	4.8	1.6	0.56	110 m	Red (RD)	553-40454
TULT4.8-1.6WH	4.8	1.6	0.56	110 m	White (WH)	553-40451
TULT4.8-1.6YE	4.8	1.6	0.56	110 m	Yellow (YE)	553-40450
TULT6-2BK	6.0	2.0	0.64	110 m	Black (BK)	553-40652
TULT6-2BU	6.0	2.0	0.64	110 m	Blue (BU)	553-40653
TULT6-2RD	6.0	2.0	0.64	110 m	Red (RD)	553-40654
TULT6-2WH	6.0	2.0	0.64	110 m	White (WH)	553-40651
TULT6-2YE	6.0	2.0	0.64	110 m	Yellow (YE)	553-40650
TULT9-3BK	9.0	3.0	0.64	72 m	Black (BK)	553-40952
TULT9-3BU	9.0	3.0	0.64	72 m	Blue (BU)	553-40953
TULT9-3RD	9.0	3.0	0.64	72 m	Red (RD)	553-40954
TULT9-3WH	9.0	3.0	0.64	72 m	White (WH)	553-40951
TULT9-3YE	9.0	3.0	0.64	72 m	Yellow (YE)	553-40950
TULT12-4BK	12.0	4.0	0.68	54 m	Black (BK)	553-41252
TULT12-4BU	12.0	4.0	0.68	54 m	Blue (BU)	553-41253
TULT12-4RD	12.0	4.0	0.68	54 m	Red (RD)	553-41254
TULT12-4WH	12.0	4.0	0.68	54 m	White (WH)	553-41251
TULT12-4YE	12.0	4.0	0.68	54 m	Yellow (YE)	553-41250
TULT18-6BK	18.0	6.0	0.90	26 m	Black (BK)	553-41852
TULT18-6BU	18.0	6.0	0.90	26 m	Blue (BU)	553-41853
TULT18-6RD	18.0	6.0	0.90	26 m	Red (RD)	553-41854
TULT18-6WH	18.0	6.0	0.90	26 m	White (WH)	553-41851
TULT18-6YE	18.0	6.0	0.90	26 m	Yellow (YE)	553-41850
TULT24-8BK	24.0	8.0	0.98	26 m	Black (BK)	553-42452
TULT24-8BU	24.0	8.0	0.98	26 m	Blue (BU)	553-42453
TULT24-8RD	24.0	8.0	0.98	26 m	Red (RD)	553-42454
TULT24-8WH	24.0	8.0	0.98	26 m	White (WH)	553-42451
TULT24-8YE	24.0	8.0	0.98	26 m	Yellow (YE)	553-42450
TULT39-13BK	39.0	13.0	1.08	10 m	Black (BK)	553-43952
TULT39-13BU	39.0	13.0	1.08	10 m	Blue (BU)	553-43953
TULT39-13RD	39.0	13.0	1.08	10 m	Red (RD)	553-43954
TULT39-13WH	39.0	13.0	1.08	10 m	White (WH)	553-43951
TULT39-13YE	39.0	13.0	1.08	10 m	Yellow (YE)	553-43950

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Ladder Style", thermal transfer

TULT DS – 3:1 Military and Electronics "Ladder Style"

TULT DS is a UL recognised 3:1 heat shrink marker material pre-cut and formatted into a convenient "ladder" system. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. TULT's polyolefin compound has good mechanical strength and resistance to organic solvents and chemicals. The surface of the tubing has been especially prepared so that print performance is excellent at all times using HellermannTyton's printer range.

Features and benefits

- Shrink ratio 3:1
- 50 mm, 25 mm and 16 mm pre-cut marker options as standard, other lengths available on request
- Available in white or yellow
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes



TULT DS – shrinkable markers with good mechanical strength for a wide range of applications.

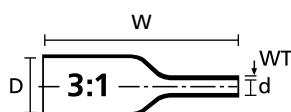


Shrinkable markers TULT DS for military and electronics industry.

For size matrix please refer to page 504.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Shrink Ratio	3:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030DS, TT4030

RoHS



TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT2.4-0.8DS-2x25WH	2.4	0.8	25.0	0.53	2000 pcs.	White (WH)	553-71002
TULT2.4-0.8DS-2x25YE	2.4	0.8	25.0	0.53	2000 pcs.	Yellow (YE)	553-71003
TULT2.4-0.8DS-1x50WH	2.4	0.8	50.0	0.53	1000 pcs.	White (WH)	553-71000
TULT2.4-0.8DS-1x50YE	2.4	0.8	50.0	0.53	1000 pcs.	Yellow (YE)	553-71001
TULT3-1DS-2x25WH	3.0	1.0	25.0	0.56	2000 pcs.	White (WH)	553-71008
TULT3-1DS-2x25YE	3.0	1.0	25.0	0.56	2000 pcs.	Yellow (YE)	553-71009

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Ladder Style", thermal transfer

TULT DS – 3:1 Military and Electronics "Ladder Style"

TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT3-1DS-1x50WH	3.0	1.0	50.0	0.56	1000 pcs.	White (WH)	553-71006
TULT3-1DS-1x50YE	3.0	1.0	50.0	0.56	1000 pcs.	Yellow (YE)	553-71007
TULT4.8-1.6DS-2x25WH	4.8	1.6	25.0	0.56	2000 pcs.	White (WH)	553-71014
TULT4.8-1.6DS-2x25YE	4.8	1.6	25.0	0.56	2000 pcs.	Yellow (YE)	553-71015
TULT4.8-1.6DS-1x50WH	4.8	1.6	50.0	0.56	1000 pcs.	White (WH)	553-71012
TULT4.8-1.6DS-1x50YE	4.8	1.6	50.0	0.56	1000 pcs.	Yellow (YE)	553-71013
TULT6-2DS-2x25WH	6.0	2.0	25.0	0.64	2000 pcs.	White (WH)	553-71020
TULT6-2DS-2x25YE	6.0	2.0	25.0	0.64	2000 pcs.	Yellow (YE)	553-71021
TULT6-2DS-1x50WH	6.0	2.0	50.0	0.64	1000 pcs.	White (WH)	553-71018
TULT6-2DS-1x50YE	6.0	2.0	50.0	0.64	1000 pcs.	Yellow (YE)	553-71019
TULT9-3DS-2x25WH	9.0	3.0	25.0	0.64	1000 pcs.	White (WH)	553-71026
TULT9-3DS-2x25YE	9.0	3.0	25.0	0.64	1000 pcs.	Yellow (YE)	553-71027
TULT9-3DS-1x50WH	9.0	3.0	50.0	0.64	500 pcs.	White (WH)	553-71024
TULT9-3DS-1x50YE	9.0	3.0	50.0	0.64	500 pcs.	Yellow (YE)	553-71025
TULT12-4DS-2x25WH	12.0	4.0	25.0	0.68	1000 pcs.	White (WH)	553-71032
TULT12-4DS-2x25YE	12.0	4.0	25.0	0.68	1000 pcs.	Yellow (YE)	553-71033
TULT12-4DS-1x50WH	12.0	4.0	50.0	0.68	500 pcs.	White (WH)	553-71030
TULT12-4DS-1x50YE	12.0	4.0	50.0	0.68	500 pcs.	Yellow (YE)	553-71031
TULT18-6DS-2x25WH	18.0	6.0	25.0	0.90	1000 pcs.	White (WH)	553-71038
TULT18-6DS-2x25YE	18.0	6.0	25.0	0.90	1000 pcs.	Yellow (YE)	553-71039
TULT18-6DS-1x50WH	18.0	6.0	50.0	0.90	500 pcs.	White (WH)	553-71036
TULT18-6DS-1x50YE	18.0	6.0	50.0	0.90	500 pcs.	Yellow (YE)	553-71037
TULT24-8DS-2x25WH	24.0	8.0	25.0	1.08	500 pcs.	White (WH)	553-71044
TULT24-8DS-2x25YE	24.0	8.0	25.0	1.08	500 pcs.	Yellow (YE)	553-71045
TULT24-8DS-1x50WH	24.0	8.0	50.0	1.08	250 pcs.	White (WH)	553-71042
TULT24-8DS-1x50YE	24.0	8.0	50.0	1.08	250 pcs.	Yellow (YE)	553-71043
TULT39-13DS-2x25WH	39.0	13.0	25.0	1.08	500 pcs.	White (WH)	553-71050
TULT39-13DS-2x25YE	39.0	13.0	25.0	1.08	500 pcs.	Yellow (YE)	553-71051
TULT39-13DS-1x50WH	39.0	13.0	50.0	1.08	250 pcs.	White (WH)	553-71048
TULT39-13DS-1x50YE	39.0	13.0	50.0	1.08	250 pcs.	Yellow (YE)	553-71049

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Continuous Tube", thermal transfer

TLFX – 2:1 Rail Limited Fire Hazard

TLFX is a halogen free European rail approved 2:1 heat shrink marker material supplied as a continuous tube and printable on both sides. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- Available in yellow or white
- Cable range 50.8 mm to 1.2 mm
- Delivery in convenient storage boxes



TLFX- high performance halogen free heat shrink tube.



TLFX – European rail approved heat shrink marker material.

For size matrix please refer to page 504.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+70 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030DS, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓

LFH ✓

RoHS ✓

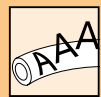


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24WH	2.4	1.2	0.57	144 m	White (WH)	554-51000
TLFX24YE	2.4	1.2	0.57	144 m	Yellow (YE)	554-51001
TLFX32WH	3.2	1.6	0.58	126 m	White (WH)	554-51100
TLFX32YE	3.2	1.6	0.58	126 m	Yellow (YE)	554-51101
TLFX48WH	4.8	2.4	0.61	108 m	White (WH)	554-51200
TLFX48YE	4.8	2.4	0.61	108 m	Yellow (YE)	554-51201

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Continuous Tube", thermal transfer

TLFX – 2:1 Rail Limited Fire Hazard

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX64WH	6.4	3.2	0.61	90 m	White (WH)	554-51300
TLFX64YE	6.4	3.2	0.61	90 m	Yellow (YE)	554-51301
TLFX95WH	9.5	4.8	0.66	72 m	White (WH)	554-51400
TLFX95YE	9.5	4.8	0.66	72 m	Yellow (YE)	554-51401
TLFX127WH	12.7	6.4	0.68	54 m	White (WH)	554-51500
TLFX127YE	12.7	6.4	0.68	54 m	Yellow (YE)	554-51501
TLFX190WH	19.0	9.5	0.69	30 m	White (WH)	554-51600
TLFX190YE	19.0	9.5	0.69	30 m	Yellow (YE)	554-51601
TLFX254WH	25.4	12.7	0.69	30 m	White (WH)	554-51700
TLFX254YE	25.4	12.7	0.69	30 m	Yellow (YE)	554-51701
TLFX381WH	38.1	19.0	0.70	13 m	White (WH)	554-51800
TLFX381YE	38.1	19.0	0.70	13 m	Yellow (YE)	554-51801
TLFX508WH	50.8	25.4	0.73	10 m	White (WH)	554-50900
TLFX508YE	50.8	25.4	0.73	10 m	Yellow (YE)	554-50901

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Continuous Tube", thermal transfer

HHS - 2:1 Heat Shrink Tube Tapes

HHS Heat Shrink Tapes are designed for durable and labelling of cables and wires. These tapes use heat-shrinkable tubing that, when heated, shrinks 2:1 to fit around cables ensuring a secure and professional marking. Ideal for electrical, datacom, and industrial applications, this will help keep your cables and wires organized and easily identifiable.

Features and benefits

- HHS heat shrink tapes are easy to use and come in various sizes and colours
- Shrink ratio 2:1
- Resistant to abrasion, chemicals, and fading, ensuring they remain intact over time
- Cable range Ø from 1.7 mm to 14.3 mm
- Printing of markers is quicker than using a desktop printer, providing convenience, especially in remote areas where traditional printing equipment may be limited



HHS - Heatshrink tube tape.



HTZ and HHS Tapes - delivered in convenient small boxes.



Tape Cartridge.

HLP0612 printer is suitable up to 12mm width tapes. More info on page 586.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+70 °C
Shrink Ratio	2:1
Thermal Transfer Printer	HLP0612

RoHS



TYPE	Width (W)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Pack Cont.	Colour	Article-No.
HHS221	9.0	5.1	2.6	0.20	1.5 m	1 pc.	Black (BK), White (WH)	556-99221
HHS621	9.0	5.1	2.6	0.20	1.5 m	1 pc.	Black (BK), Yellow (YE)	556-99621
HHS231	12.0	7.0	3.6	0.20	1.5 m	1 pc.	Black (BK), White (WH)	556-99231
HHS631	12.0	7.0	3.6	0.20	1.5 m	1 pc.	Black (BK), Yellow (YE)	556-99631
HHS241	18.0	10.6	5.4	0.20	1.5 m	1 pc.	Black (BK), White (WH)	556-99241
HHS641	18.0	10.6	5.4	0.20	1.5 m	1 pc.	Black (BK), Yellow (YE)	556-99641
HHS251	24.0	14.3	7.3	0.20	1.5 m	1 pc.	Black (BK), White (WH)	556-99251
HHS651	24.0	14.3	7.3	0.20	1.5 m	1 pc.	Black (BK), Yellow (YE)	556-99651

All dimensions in mm. Subject to technical changes.



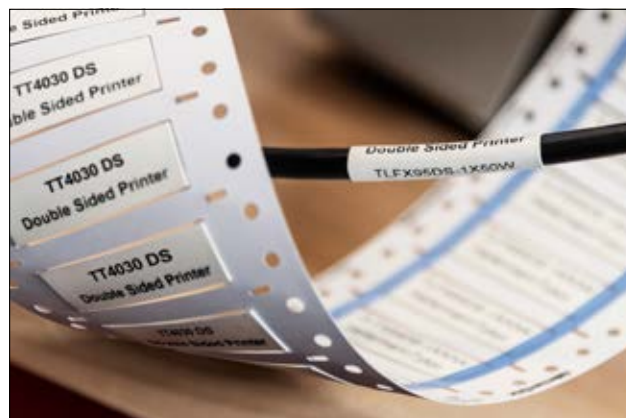
Shrinkable markers "Ladder Style", thermal transfer

TLFX DS – 2:1 Rail Limited Fire Hazard "Ladder Style"

TLFX DS is a halogen free European rail approved 2:1 heat shrink marker material supplied pre-cut and formatted into a convenient "ladder" system. Special material properties show low smoke propagation, density and toxicity. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- 50 mm, 25 mm and 16 mm pre-cut marker options as standard
- Available in yellow or white
- Other lengths and colours available on request
- Cable range 38.1 mm to 1.2 mm
- Delivery in convenient storage boxes



Shrinkable rail approved markers TLFX DS.

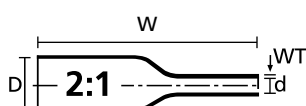
MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +105 °C
Min. Shrink Temperature	+100 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030DS, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓

LFH ✓

RoHS ✓

For size matrix please refer to page 504.



TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24DS-2x25WH	2.4	1.2	25.0	0.52	10000 pcs.	White (WH)	553-60020
TLFX24DS-2x25YE	2.4	1.2	25.0	0.52	10000 pcs.	Yellow (YE)	553-60029
TLFX24DS-1x50WH	2.4	1.2	50.0	0.52	5000 pcs.	White (WH)	553-60000
TLFX24DS-1x50YE	2.4	1.2	50.0	0.52	5000 pcs.	Yellow (YE)	553-60010
TLFX32DS-2x25WH	3.2	1.6	25.0	0.64	10000 pcs.	White (WH)	553-60021
TLFX32DS-2x25YE	3.2	1.6	25.0	0.64	10000 pcs.	Yellow (YE)	553-60030
TLFX32DS-1x50WH	3.2	1.6	50.0	0.64	5000 pcs.	White (WH)	553-60001
TLFX32DS-1x50YE	3.2	1.6	50.0	0.64	5000 pcs.	Yellow (YE)	553-60011
TLFX48DS-2x25WH	4.8	2.4	25.0	0.64	10000 pcs.	White (WH)	553-60022

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

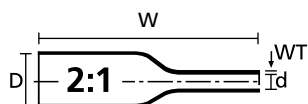
EN 45545-2 **ASTM** **NFPA 130**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Ladder Style", thermal transfer

TLFX DS – 2:1 Rail Limited Fire Hazard "Ladder Style"



TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX48DS-2x25YE	4.8	2.4	25.0	0.64	10000 pcs.	Yellow (YE)	553-60031
TLFX48DS-1x50WH	4.8	2.4	50.0	0.64	5000 pcs.	White (WH)	553-60002
TLFX48DS-1x50YE	4.8	2.4	50.0	0.64	5000 pcs.	Yellow (YE)	553-60012
TLFX64DS-2x25WH	6.4	3.2	25.0	0.73	6000 pcs.	White (WH)	553-60023
TLFX64DS-2x25YE	6.4	3.2	25.0	0.73	6000 pcs.	Yellow (YE)	553-60032
TLFX64DS-1x50WH	6.4	3.2	50.0	0.73	3000 pcs.	White (WH)	553-60003
TLFX64DS-1x50YE	6.4	3.2	50.0	0.73	3000 pcs.	Yellow (YE)	553-60013
TLFX95DS-2x25WH	9.5	4.8	25.0	0.70	5000 pcs.	White (WH)	553-60024
TLFX95DS-2x25YE	9.5	4.8	25.0	0.70	5000 pcs.	Yellow (YE)	553-60033
TLFX95DS-1x50WH	9.5	4.8	50.0	0.70	2500 pcs.	White (WH)	553-60004
TLFX95DS-1x50YE	9.5	4.8	50.0	0.70	2500 pcs.	Yellow (YE)	553-60014
TLFX127DS-2x25WH	12.7	6.4	25.0	0.70	3000 pcs.	White (WH)	553-60025
TLFX127DS-2x25YE	12.7	6.4	25.0	0.70	3000 pcs.	Yellow (YE)	553-60034
TLFX127DS-1x50WH	12.7	6.4	50.0	0.70	1500 pcs.	White (WH)	553-60005
TLFX127DS-1x50YE	12.7	6.4	50.0	0.70	1500 pcs.	Yellow (YE)	553-60015
TLFX190DS-2x25WH	19.0	9.5	25.0	0.78	3000 pcs.	White (WH)	553-60026
TLFX190DS-2x25YE	19.0	9.5	25.0	0.78	3000 pcs.	Yellow (YE)	553-60035
TLFX190DS-1x50WH	19.0	9.5	50.0	0.78	1500 pcs.	White (WH)	553-60006
TLFX190DS-1x50YE	19.0	9.5	50.0	0.78	1500 pcs.	Yellow (YE)	553-60016
TLFX254DS-2x25WH	25.4	12.7	25.0	0.93	2000 pcs.	White (WH)	553-60027
TLFX254DS-2x25YE	25.4	12.7	25.0	0.93	2000 pcs.	Yellow (YE)	553-60036
TLFX254DS-1x50WH	25.4	12.7	50.0	0.93	1000 pcs.	White (WH)	553-60007
TLFX254DS-1x50YE	25.4	12.7	50.0	0.93	1000 pcs.	Yellow (YE)	553-60017
TLFX381DS-2x25WH	38.1	19.1	25.0	0.98	1000 pcs.	White (WH)	553-60028
TLFX381DS-2x25YE	38.1	19.1	25.0	0.98	1000 pcs.	Yellow (YE)	553-60037
TLFX381DS-1x50WH	38.1	19.1	50.0	0.98	500 pcs.	White (WH)	553-60008
TLFX381DS-1x50YE	38.1	19.1	50.0	0.98	500 pcs.	Yellow (YE)	553-60018

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 **ASTM** **NFPA 130**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Shrinkable markers "Ladder Style", thermal transfer

TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant "Ladder Style"

TLFD DS is an innovative 2:1 heat shrink marker which is halogen free, low fire hazard and fluid resistant. This rail and EN approved material is supplied pre-cut and formatted into a convenient "ladder" system. The TLFD DS marker's material properties are ideal for applications where fire protection is of great importance. TLFD DS shows low smoke propagation, density and toxicity and is also ideal for applications where resistance to organic fluids, common fuels, lubricants and solvents properties are required.

The pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

Features and benefits

- Shrink ratio 2:1
- Halogen free and fluid resistant
- Low smoke propagation and toxicity
- Fluid resistant
- "Ladder Style" format for ease of use
- Available in yellow and white
- 50 mm and 25 mm pre-cut markers as standard



TLFD DS shrinkable markers for more safety and clarity in the switchboard.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+120 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030DS, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓

LFH ✓

RoHS ✓

For size matrix please refer to page 504.



TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFD24DS-2X25WH	2.59	1.2	25.0	0.49	10000 pcs.	White (WH)	533-65001
TLFD24DS-2X25YE	2.59	1.2	25.0	0.49	10000 pcs.	Yellow (YE)	533-65019
TLFD24DS-1X50WH	2.59	1.2	50.0	0.49	5000 pcs.	White (WH)	533-65000
TLFD24DS-1X50YE	2.59	1.2	50.0	0.49	5000 pcs.	Yellow (YE)	533-65018
TLFD32DS-2X25WH	3.41	1.6	25.0	0.51	10000 pcs.	White (WH)	533-65003
TLFD32DS-2X25YE	3.41	1.6	25.0	0.51	10000 pcs.	Yellow (YE)	533-65021
TLFD32DS-1X50WH	3.41	1.6	50.0	0.51	5000 pcs.	White (WH)	533-65002
TLFD32DS-1X50YE	3.41	1.6	50.0	0.51	5000 pcs.	Yellow (YE)	533-65020
TLFD48DS-2X25WH	5.01	2.4	25.0	0.54	10000 pcs.	White (WH)	533-65005
TLFD48DS-2X25YE	5.01	2.4	25.0	0.54	10000 pcs.	Yellow (YE)	533-65023
TLFD48DS-1X50WH	5.01	2.4	50.0	0.54	5000 pcs.	White (WH)	533-65004
TLFD48DS-1X50YE	5.01	2.4	50.0	0.54	5000 pcs.	Yellow (YE)	533-65022
TLFD64DS-2X25WH	6.64	3.2	25.0	0.56	6000 pcs.	White (WH)	533-65007

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

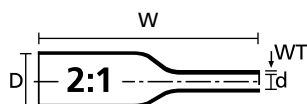
EN 45545-2 **EN 50343**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Shrinkable markers "Ladder Style", thermal transfer

TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant
"Ladder Style"



TYPE	Supplied Ø D min.	Recov. Ø d max.	Width (W)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFD64DS-2X25YE	6.64	3.2	25.0	0.56	6000 pcs.	Yellow (YE)	533-65025
TLFD64DS-1X50WH	6.64	3.2	50.0	0.56	3000 pcs.	White (WH)	533-65006
TLFD64DS-1X50YE	6.64	3.2	50.0	0.56	3000 pcs.	Yellow (YE)	533-65024
TLFD95DS-2X25WH	9.88	4.8	25.0	0.59	5000 pcs.	White (WH)	533-65009
TLFD95DS-2X25YE	9.88	4.8	25.0	0.59	5000 pcs.	Yellow (YE)	533-65027
TLFD95DS-1X50WH	9.88	4.8	50.0	0.59	2500 pcs.	White (WH)	533-65008
TLFD95DS-1X50YE	9.88	4.8	50.0	0.59	2500 pcs.	Yellow (YE)	533-65026
TLFD127DS-2X25WH	13.14	6.4	25.0	0.60	3000 pcs.	White (WH)	533-65011
TLFD127DS-2X25YE	13.14	6.4	25.0	0.60	3000 pcs.	Yellow (YE)	533-65029
TLFD127DS-1X50WH	13.14	6.4	50.0	0.60	1500 pcs.	White (WH)	533-65010
TLFD127DS-1X50YE	13.14	6.4	50.0	0.60	1500 pcs.	Yellow (YE)	533-65028
TLFD190DS-2X25WH	19.70	9.6	25.0	0.62	3000 pcs.	White (WH)	533-65013
TLFD190DS-2X25YE	19.70	9.6	25.0	0.62	3000 pcs.	Yellow (YE)	533-65031
TLFD190DS-1X50WH	19.70	9.6	50.0	0.62	1500 pcs.	White (WH)	533-65012
TLFD190DS-1X50YE	19.70	9.6	50.0	0.62	1500 pcs.	Yellow (YE)	533-65030
TLFD254DS-2X25WH	26.25	12.7	25.0	0.63	2000 pcs.	White (WH)	533-65015
TLFD254DS-2X25YE	26.25	12.7	25.0	0.63	2000 pcs.	Yellow (YE)	533-65033
TLFD254DS-1X50WH	26.25	12.7	50.0	0.63	1000 pcs.	White (WH)	533-65014
TLFD254DS-1X50YE	26.25	12.7	50.0	0.63	1000 pcs.	Yellow (YE)	533-65032
TLFD381DS-2X25WH	39.29	19.1	25.0	0.64	1000 pcs.	White (WH)	533-65017
TLFD381DS-2X25YE	39.29	19.1	25.0	0.64	1000 pcs.	Yellow (YE)	533-65035
TLFD381DS-1X50WH	39.29	19.1	50.0	0.64	500 pcs.	White (WH)	533-65016
TLFD381DS-1X50YE	39.29	19.1	50.0	0.64	500 pcs.	Yellow (YE)	533-65034

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 **EN 50343**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Identification tags for cable bundle, thermal transfer

TIPTAG HF – Rail Limited Fire Hazard, Halogen free

The Tiptag HF cable markers have been designed to identify larger wires and cable bundles not only in the electronics and general cabling environments but also in the railway industry. Tiptag HF is halogen free and its material properties show low smoke propagation, density and toxicity. Tiptags are presented in a special perforated format which include fastening slots for easy fitting with cable ties. They are also suitable for retrofit purposes. Print from the reel with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print quality and longevity.

Features and benefits

- Ideal for marking larger wire and cable bundles
- Halogen free
- Low smoke propagation and toxicity
- Perforated format that includes fastening slots for cable ties
- Available in various colours



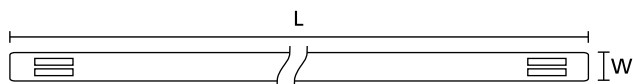
TIPTAG - high performance cable bundle marking.

MATERIAL	Polyolefin (PO)
Operating Temperature	-40 °C to +90 °C, (+160 °C, for 200 h)
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓

LFH ✓

RoHS ✓



TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TIPTAG5X50WH-2	50.0	5.5	500 pcs.	White (WH)	556-81500
TIPTAG11X65BU	65.0	11.0	190 pcs.	Blue (BU)	556-20066
TIPTAG11X65RD	65.0	11.0	190 pcs.	Red (RD)	556-20062
TIPTAG11X65WH	65.0	11.0	190 pcs.	White (WH)	556-20069
TIPTAG11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-20064
TIPTAG15X65WH	65.0	15.0	190 pcs.	White (WH)	556-21069
TIPTAG15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-21064
TIPTAG11X100BU	100.0	11.0	120 pcs.	Blue (BU)	556-20080
TIPTAG11X100RD	100.0	11.0	120 pcs.	Red (RD)	556-20091
TIPTAG11X100WH	100.0	11.0	120 pcs.	White (WH)	556-20079
TIPTAG11X100YE	100.0	11.0	120 pcs.	Yellow (YE)	556-20074
TIPTAG15X100RD	100.0	15.0	120 pcs.	Red (RD)	556-21096
TIPTAG15X100WH	100.0	15.0	120 pcs.	White (WH)	556-21079
TIPTAG15X100YE	100.0	15.0	120 pcs.	Yellow (YE)	556-21074

All dimensions in mm. Subject to technical changes.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Identification tags for cable bundle, thermal transfer

TIPTAG PU – UV-stabilised Tiptags, Polyurethane

The Tiptag PU cable markers consist of a robust and flexible polyurethane material. It is especially suited for harsh environments where the material is exposed to chemical, fluids or abrasion. Tiptag PU's are presented in a special perforated format which include fastening slots for easy fitting with cable ties. They are also suitable for retrofit purposes.

Print from the reel with HellermannTyton's premium range of thermal transfer printers.

A special ribbon has been developed for Tiptag PU to create a "tattoo" effect so that the marking cannot be rubbed off and is particularly durable and resistant to harsh abrasion.

Features and benefits

- Durable and robust polyurethane material
- For large cable bundles and wires
- Flame retardant
- Weather resistant
- Abrasion resistant
- Good resistance to chemicals
- Available in white and yellow as standard
- Perforated format with fastening slots for cable ties



TIPTAG PU – printed mark has a tattoo-like permanency.

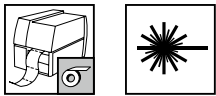
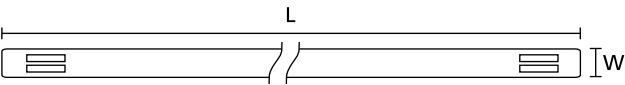


TIPTAG PU - Identification markers suitable for harsh environments.

MATERIAL	Polyurethane (PUR)
Operating Temperature	-65 °C to +120 °C, intermittent +150 °C
Flammability	UL 94 V0 (3 mm)
UV-Stabilised	Yes
Recommended Ribbon Type	TTRC+
Thermal Transfer Printer	TT431, TT4030

HF✓

RoHS✓



TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TTAGPU11X65WH	65.0	11.0	190 pcs.	White (WH)	556-25012
TTAGPU11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-25019
TTAGPU15X65WH	65.0	15.0	190 pcs.	White (WH)	556-25007
TTAGPU15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-25011
TTAGPU11X100WH	100.0	11.0	125 pcs.	White (WH)	556-25021
TTAGPU11X100YE	100.0	11.0	125 pcs.	Yellow (YE)	556-25020
TTAGPU15X100WH	100.0	15.0	125 pcs.	White (WH)	556-25006
TTAGPU15X100YE	100.0	15.0	125 pcs.	Yellow (YE)	556-25010

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

Identification tags for cable bundles, thermal transfer

TIPTAG MC - Metal Content Tiptags

The TIPTAG MC cable markers have been especially designed for applications where materials need to be metal detectable. Small metal particles have been included into the entire length of the marker making it ideal for marking larger cables, wires and bundles in the food and pharmaceutical industries. TIPTAG MCs come in a special perforated format that includes holes for fastening with cables ties (MCT).

Print from the reel with HellermannTyton's premium range of thermal transfer printers.

Features and benefits

- Metal detectable
- For marking larger cables in food and pharma industries
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

Can support quality assurance in the production of food stuffs, for example HACCP.



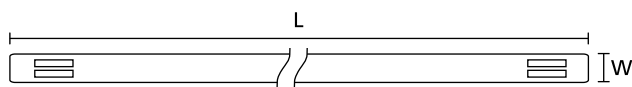
Metal content identification tags TIPTAG MC for a safe and clean production process.



Metal content TIPTAG MC for the permanent identification of cables and wires.

MATERIAL	Polyolefin (PO), Metal (MET)
Operating Temperature	-40 °C to +85 °C
Recommended Ribbon Type	TTDTHOUT, TTRW
Thermal Transfer Printer	TT431, TT4030

RoHS



TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TTAGMC11BEX65S	20.0	20.0	190 pcs.	Blue (BU)	556-26500
TTAGMC15BEX65S	65.0	15.0	190 pcs.	Blue (BU)	556-26502
TTAGMC11BEX100S	100.0	11.0	120 pcs.	Blue (BU)	556-26501
TTAGMC15BEX100S	100.0	15.0	120 pcs.	Blue (BU)	556-26503

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

Identification tags for cable bundle, "Ladder Style", thermal transfer

TAGPU – UV-stabilised Tiptags

TAGPU is a specially designed cable marker for identifying larger wire and cable bundles, where a permanently legible and UV resistant marking is required. The cable markers consist of a robust and flexible polyurethane material and are especially suited for harsh environments. They are supplied pre-cut and have been formatted into a convenient "ladder" system. The markers are applied to cable and harness assemblies with cable ties, and are also suitable for retrofit purposes. The material has been conditioned for printing on both thermal transfer and laser beam printers. Simply print and press out the required TAGPU and apply with cable ties.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

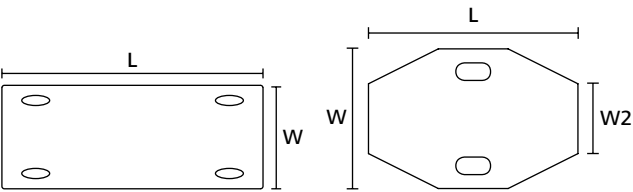
Features and benefits

- UV-stabilised
- For larger cables and wires, bundles
- Robust and flexible material
- Thermal transfer or laser beam printable
- Available in various colours
- Halogen Free
- Good mechanical strength and highly flexible
- Delivery in convenient storage boxes



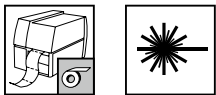
TAGPU

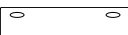
MATERIAL	Polyurethane (PUR)
Operating Temperature	-25 °C to +105 °C
Flammability	UL 94 V0 (3 mm)
UV-Stabilised	Yes
Recommended Ribbon Type	TT287, TTRC+
Thermal Transfer Printer	TT431, TT4030



Identification tag with four fixing holes.

Identification tag with diamond shape.

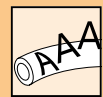


TYPE	Drawing	Length (L)	Width (W)	Width (W2)	Pack Cont.	Colour	Article-No.
TAGPU10X51-4		51.5	10.4	-	2000 pcs.	White (WH)	556-80529
		51.5	10.4	-	2000 pcs.	Yellow (YE)	556-80542
TAGPU20X51-4		51.5	20.4	-	1000 pcs.	White (WH)	556-80530
		51.5	20.4	-	1000 pcs.	Yellow (YE)	556-80531

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Identification tags for cable bundle, "Ladder Style", thermal transfer

TAGPU – UV-stabilised Tiptags

TYPE	Drawing	Length (L)	Width (W)	Width (W2)	Pack Cont.	Colour	Article-No.
TAGPU20X30-2		30.0	20.0	11.0	1000 pcs.	Black (BK)	556-80555
		30.0	20.0	11.0	1000 pcs.	Blue (BU)	556-80556
		30.0	20.0	11.0	1000 pcs.	Brown (BN)	556-80558
		30.0	20.0	11.0	1000 pcs.	Green (GN)	556-80560
		30.0	20.0	11.0	1000 pcs.	Red (RD)	556-80557
		30.0	20.0	11.0	1000 pcs.	White (WH)	556-80527
		30.0	20.0	11.0	1000 pcs.	Yellow (YE)	556-80528
		30.0	20.0	11.0	1000 pcs.	Orange (OG)	556-80561
TAGPU12X60-4		60.0	11.6	-	1000 pcs.	Black (BK)	556-80516
		60.0	11.6	-	1000 pcs.	Blue (BU)	556-80513
		60.0	11.6	-	1000 pcs.	Brown (BN)	556-80564
		60.0	11.6	-	1000 pcs.	Green (GN)	556-80566
		60.0	11.6	-	1000 pcs.	Grey (GY)	556-80565
		60.0	11.6	-	1000 pcs.	Orange (OG)	556-80567
		60.0	11.6	-	1000 pcs.	Pink (PK)	556-80569
		60.0	11.6	-	1000 pcs.	Red (RD)	556-80512
		60.0	11.6	-	1000 pcs.	Violet (VT)	556-80568
		60.0	11.6	-	1000 pcs.	White (WH)	556-80515
		60.0	11.6	-	1000 pcs.	Yellow (YE)	556-80514
TAGPU15X75-4		75.0	14.4	-	1000 pcs.	Black (BK)	556-80532
		75.0	14.4	-	1000 pcs.	Blue (BU)	556-80518
		75.0	14.4	-	1000 pcs.	Brown (BN)	556-80523
		75.0	14.4	-	1000 pcs.	Green (GN)	556-80521
		75.0	14.4	-	1000 pcs.	Grey (GY)	556-80524
		75.0	14.4	-	1000 pcs.	Orange (OG)	556-80522
		75.0	14.4	-	1000 pcs.	Pink (PK)	556-80526
		75.0	14.4	-	1000 pcs.	Red (RD)	556-80517
		75.0	14.4	-	1000 pcs.	Violet (VT)	556-80525
		75.0	14.4	-	1000 pcs.	White (WH)	556-80520
		75.0	14.4	-	1000 pcs.	Yellow (YE)	556-80519
TAGPU25X75-4		75.0	24.3	-	500 pcs.	Black (BK)	556-80535
		75.0	24.3	-	500 pcs.	Blue (BU)	556-80536
		75.0	24.3	-	500 pcs.	Brown (BN)	556-80570
		75.0	24.3	-	500 pcs.	Green (GN)	556-80538
		75.0	24.3	-	500 pcs.	Grey (GY)	556-80571
		75.0	24.3	-	500 pcs.	Orange (OG)	556-80539
		75.0	24.3	-	500 pcs.	Pink (PK)	556-80573
		75.0	24.3	-	500 pcs.	Red (RD)	556-80537
		75.0	24.3	-	500 pcs.	Violet (VT)	556-80572
		75.0	24.3	-	500 pcs.	White (WH)	556-80533
		75.0	24.3	-	500 pcs.	Yellow (YE)	556-80534

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Identification tags for cable bundle, "Ladder Style", thermal transfer

TAGPU LOOP - UV Tags without cable ties

TAGPU LOOP is a specially designed cable marker for identifying wires and cables without using a cable tie. The markers are looped on cables and wires from 2.8 mm to 35 mm, where a permanently legible and UV resistant marking is required. The cable markers consist of a robust and flexible polyurethane material and are especially suited for harsh environments. The material has been conditioned for printing on both thermal transfer and laser beam printers. Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

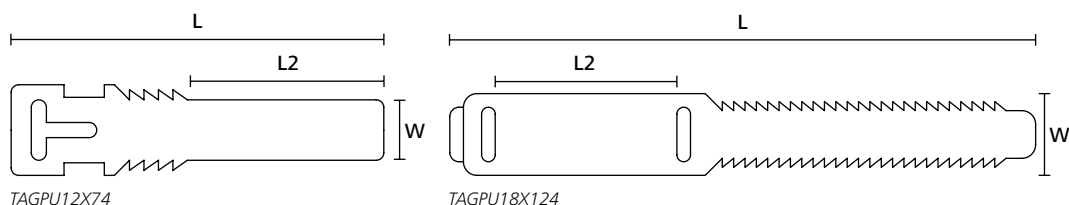
Features and benefits

- Using without cable ties - Cost and time savings
- UV-stabilised
- Robust and flexible material
- Thermal transfer or laser beam printable
- Available in various colours
- Halogen Free
- Good mechanical strength and highly flexible
- Delivery in convenient storage boxes



TAGPU LOOP - Cable marking solutions for labelling on the inverter.

MATERIAL	Polyurethane (PUR)
Operating Temperature	-25 °C to +105 °C
Flammability	UL 94 V0 (3 mm)
UV-Stabilised	Yes
Recommended Ribbon Type	TT287, TTRC+
Thermal Transfer Printer	TT431, TT4030



TYPE	Drawing	Length (L)	Length (L2)	Width (W)	Bundle Ø min.	Bundle Ø max.	Pack Cont.	Colour	Article-No.
TAGPU12X74-LOOP		74.0	40.0	12.0	2.8	8.0	500 pcs.	Blue (BU)	556-80586
		74.0	40.0	12.0	2.8	8.0	500 pcs.	Red (RD)	556-80587
		74.0	40.0	12.0	2.8	8.0	500 pcs.	White (WH)	556-80584
		74.0	40.0	12.0	2.8	8.0	500 pcs.	Yellow (YE)	556-80585
TAGPU18X124-LOOP		124.0	40.0	18.0	4.0	35.0	300 pcs.	Blue (BU)	556-80590
		124.0	40.0	18.0	4.0	35.0	300 pcs.	Red (RD)	556-80591
		124.0	40.0	18.0	4.0	35.0	300 pcs.	White (WH)	556-80588
		124.0	40.0	18.0	4.0	35.0	300 pcs.	Yellow (YE)	556-80589

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Identification tags for cable bundle "Ladder Style", thermal transfer

TAGLF – Rail - Limited Fire Hazard Tiptags

TAGLF is a halogen free cable marker for mass transit applications specifically in the railway industry or for all areas where limited fire hazard material is needed. TAGLF's material properties show low smoke propagation, density and toxicity. They are supplied pre-cut and have been formatted into a convenient "ladder" system. Simply print and press out the required TAGLF and apply with cable ties, they are also suitable for retrofit purposes.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

Features and benefits

- Limited fire hazard cable marker
- Halogen free
- For larger cables and wires, bundles
- Thermal transfer or laser beam printable
- Good mechanical strength and highly flexible
- Delivered on reel in convenient storage boxes



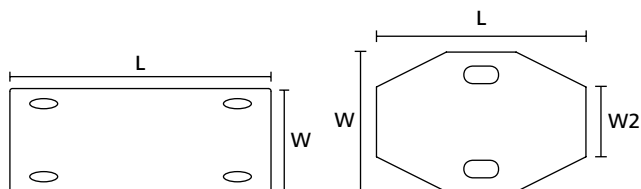
Limited fire hazard identification tags TAGLF.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-40 °C to +105 °C
Flammability	ASTM D635
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT431, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓

LFH ✓

RoHS ✓



Identification tag with four fixing holes.

Identification tag with diamond shape.



TYPE	Drawing	Length (L)	Width (W)	Width (W2)	Pack Cont.	Colour	Article-No.
TAGLF10X51-4		51.5	10.4	-	2000 pcs.	White (WH)	556-83013
		51.5	10.4	-	2000 pcs.	Yellow (YE)	556-83014
TAGLF12X60-4		60.0	11.6	-	1000 pcs.	White (WH)	556-83028
		60.0	11.6	-	1000 pcs.	Yellow (YE)	556-83029
TAGLF15X75-4		75.0	14.4	-	1000 pcs.	White (WH)	556-83033
		75.0	14.4	-	1000 pcs.	Yellow (YE)	556-83034
TAGLF20x30-2		30.0	20.0	11.0	1000 pcs.	White (WH)	556-83038
		30.0	20.0	11.0	1000 pcs.	Yellow (YE)	556-83012

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 **ASTM** **MIL** **SAE**

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-laminating and flag labels "Ladder Style", thermal transfer

Helatag 896

The specially formulated adhesive labels give the highest quality print clarity when printed on thermal transfer printers. The range of materials and ribbons have been developed to suit the needs of most users. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength
- Other colours available on request



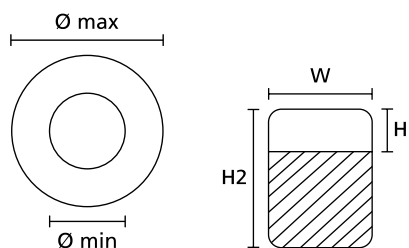
Helatag 896 offers an excellent protection against abrasion and environmental impact.



Helatag 896, with an outstanding print clarity quality.

MATERIAL	Type 896, Vinyl (896)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	80 µm
Chem. Material Properties	flame retardant, resistant to oils, water and wide range of solvents.
Recommended Ribbon Type	TT932DOUT
Thermal Transfer Printer	TT431, TT4030

RoHS



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG51TD3	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-51896
TAG26TD6	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10000 pcs.	White (WH), Transparent (CL)	596-26896
TAG36TD7	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10000 pcs.	White (WH), Transparent (CL)	596-36896

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Self-laminating and flag labels "Ladder Style", thermal transfer

Helatag 896

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG2TD6	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-02896
TAG22TD2	3.5	7.6	25.4	12.7	36.5	56.6	2 pcs.	2000 pcs.	White (WH), Transparent (CL)	596-22189
TAG22TD3	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-22896
TAG24TD1	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1000 pcs.	White (WH), Transparent (CL)	596-24896
TAG23TD5	4.5	10.0	19.1	12.7	44.5	101.6	5 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-23896
TAG25TD3	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-25896
TAG9TD3	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-09896
TAG10TD2	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-10896
TAG03TD2	7.1	14.3	31.8	22.9	67.7	70.0	2 pcs.	1500 pcs.	White (WH), Transparent (CL)	596-03897
TAG1TD2	8.5	18.2	48.2	19.1	79.2	101.6	2 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-01896
TAG3TD3	10.0	22.2	25.4	25.4	95.3	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-03896
TAG6TD1	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-06896
TAG107TD3	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-10789
TAG38TD3	20.8	47.5	25.4	38.1	187.2	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-38896
TAG07TD1	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-70896

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Self-laminating and flag labels, thermal transfer

Helatag 1232

These self-laminating labels are ideal for marking hoses and pipes in harsh environments, e.g. as they can be found in the hydraulics industry. Helatag 1232 consists of a white printable area with a protective laminate ensure the printed text is shielded from negative environmental influences - such as humidity, dirt, debris and mechanical abrasion.

Features and benefits

- High-quality self-laminating labels made of polyester
- Suitable for marking of wires and cables in harsh environments
- Flexible but also tear and impact resistant material
- Excellent resistance to alcohol, gasoline, cleaning agents and hydraulic oils
- Very temperature and UV-resistant
- Perforation allows demand-based shortening of the protective laminate for smaller outer diameters
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength

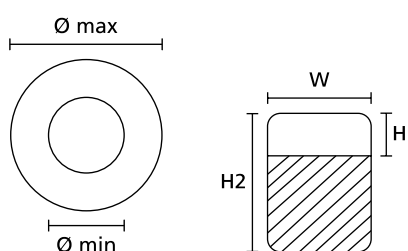


Helatag 1232 – self-laminating labels with good resistance to alcohol and hydraulic oils.

MATERIAL	Type 1232, Polyester, white transparent, self-laminating (1232)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +2 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
UV-Stabilised	Yes
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030

HF

RoHS



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG32-135TD1	14.0	30.9	31.8	39.9	134.6	38.0	1 pc.	650 pcs.	White (WH), Transparent (CL)	596-01904
TAG32-230TD1	30.2	50.8	31.8	60.0	228.6	38.0	1 pc.	400 pcs.	White (WH), Transparent (CL)	596-01903

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Self-laminating and flag labels, thermal transfer

Helatag 323, high temperature

This self-laminating label consists of a printable area with a protective laminate ensure the printed text is shielded from negative environmental influences - such as humidity, dirt, debris and mechanical abrasion. It is ideally suited for wire and cable marking in both high temperature and outside environments, particular used in industry as well as military technology.

Features and benefits

- High temperature self-laminating labels with an inscription field
- Extremely scratch and chemical resistant
- Protective laminating foil ensures optimal protection against humidity, dirt, debris, and mechanical abrasion
- Survives 5 years external weathering in central European climate

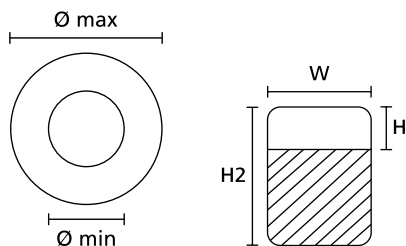


Easy marking of flexible, semi-rigid and rigid cables and wires.

MATERIAL	Type 323, Polyvinylidene Fluoride (323)
Operating Temperature	-40 °C to +140 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	25 µm
Chem. Material Properties	Excellent resistance against water, weather influence and solvents based on petroleum.
UV-Stabilised	Yes
Recommended Ribbon Type	TT932DOUT
Thermal Transfer Printer	TT431, TT4030

HF

RoHS



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG51TD3	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-51320
TAG26TD6	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10000 pcs.	White (WH), Transparent (CL)	596-26320
TAG36TD7	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10000 pcs.	White (WH), Transparent (CL)	596-36320
TAG2TD6	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-02320
TAG22TD3	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-22320

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

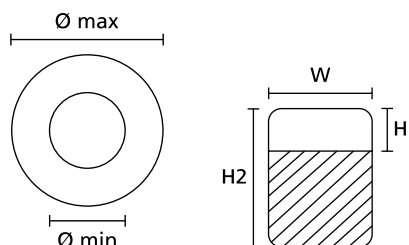


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-laminating and flag labels, thermal transfer

Helatag 323, high temperature

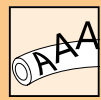


TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG24TD1	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1000 pcs.	White (WH), Transparent (CL)	596-24320
TAG23TD5	4.5	10.0	19.1	12.7	44.5	101.6	5 pcs.	5000 pcs.	White (WH), Transparent (CL)	596-23320
TAG25TD3	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-25320
TAG9TD3	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2500 pcs.	White (WH), Transparent (CL)	596-09320
TAG25.4-57.1TD1L	5.5	12.1	25.4	19.1	57.1	-	1 pc.	1000 pcs.	White (WH), Transparent (CL)	596-12285
TAG10TD2	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-10320
TAG1TD2	8.5	18.2	48.2	19.1	79.2	101.6	2 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-01320
TAG3TD3	10.0	22.2	25.4	25.4	95.3	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-03320
TAG6TD1	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-06320
TAG107TD3	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-10732
TAG38TD3	20.8	47.5	25.4	38.1	187.2	82.0	3 pcs.	1000 pcs.	White (WH), Transparent (CL)	596-38320
TAG07TD1	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-07320

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-laminating and flag labels, thermal transfer

Helatag 934

The Helatag 934 cable flag labels are ideal for permanent and clearly legible marking of cables and wires. Thanks to their special design, they offer clear, double-sided legible labeling, which is particularly advantageous in complex cabling. The robust material quality ensures high resistance to abrasion, moisture and external influences, making them perfect for use in demanding industrial and electrical installations.

Features and benefits

- Cable flag labels for permanent identification
- Easy handling for effortless installation and clearly visible legibility
- Legible on both sides for optimum visibility
- Other lengths and colours available on request



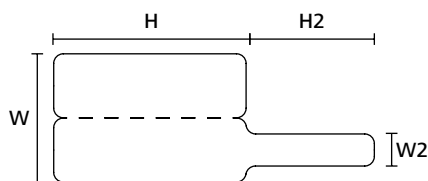
P-Flags are durable cable labels designed for fast, one-handed application.



P-Flags adhesive cable labels designed for fast, one-handed application.



P-Flags cable labels with two-sided flag design for 360° visibility.



MATERIAL	Type 934, Polypropylene, white (934)
Operating Temperature	-30 °C to +80 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	19 µm
Chem. Material Properties	Resistant to water, alcohol, gasoline, cleaning solutions and hydraulic oils
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030

RoHS ✓

TYPE	Width (W)	Width (W2)	Height (H)	Height (H2)	Pack Cont.	Colour	Article-No.
TAG20-50T1FL	20.0	5.0	30.0	20.0	1.000 pcs.	White (WH)	596-00159
TAG20-65T1FL	20.0	5.0	30.0	35.0	1.000 pcs.	White (WH)	596-00160
TAG30-40T1FL	30.0	10.0	20.0	20.0	1.000 pcs.	White (WH)	596-00161
TAG30-55T1FL	30.0	10.0	20.0	35.0	1.000 pcs.	White (WH)	596-00162

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-laminating labels, laser printer

Helatag 1104 (White-Transparent)

A specially developed material for use in labels required to wrap around cables and wires. The structure of the label ensures that once the label is applied to the wire it remains in place without lifting. The rounded edge construction gives additional bonding features not found in straight edge label designs.

The information is printed onto the white inscription area. The printed information area is placed onto the wire and the transparent tail is wrapped around the wire and covers the text; this gives excellent protection from abrasion, dust and debris.

TagPrint Pro labelling program comes pre-loaded with all our labels. Designing labels is simply done; just choose inbuilt graphics or download your own and add data from ERP system or standard office programs such as Excel. Barcodes are created in a couple of clicks.

Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength
- Standard material (25 micron) for standard labels
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensure labels stay as good as new



Laminating the mark gives long-term print survivability.

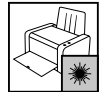
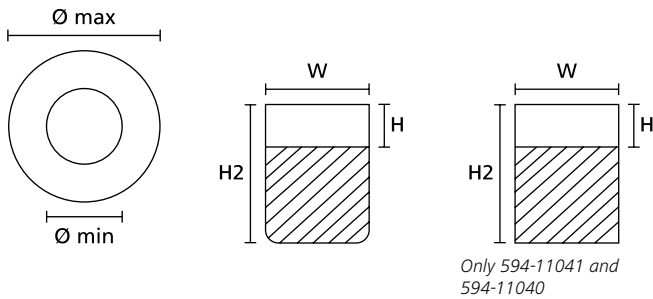
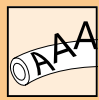
MATERIAL	Type 1104, Polyester, white transparent, self-laminating (1104)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	25 µm
Chem. Material Properties	Excellent resistance to alcohol, gasoline, cleaning solvents, butanol, ethyl and Butylcellosolve solvent, battery acid.

HF ✓

RoHS ✓

Software TagPrint Pro for troublefree printing see page 582.

For MS-Windows Word design templates for simple applications please refer to www.HellermannTyton.com/templates.



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Labels per Sheet	Pack Cont.	Colour	Article-No.
TAG26LA4	1.5	3.0	12.7	9.5	19.1	180 pcs.	5000 pcs.	White (WH), Transparent (CL)	594-11041
TAG130LA4	2.4	4.8	12.7	9.0	24.0	165 pcs.	5000 pcs.	White (WH), Transparent (CL)	594-21104
TAG49LA4	2.6	5.3	25.4	8.8	25.4	70 pcs.	2500 pcs.	White (WH), Transparent (CL)	594-11042
TAG131LA4	3.8	7.6	12.7	12.7	36.5	105 pcs.	2500 pcs.	White (WH), Transparent (CL)	594-31104
TAG132LA4	3.8	7.6	20.3	12.7	36.5	63 pcs.	2500 pcs.	White (WH), Transparent (CL)	594-41104
TAG02LA4	3.8	7.6	25.4	12.7	36.5	49 pcs.	2450 pcs.	White (WH), Transparent (CL)	594-01104
TAG133LA4	5.1	10.1	19.1	12.7	44.5	60 pcs.	2500 pcs.	White (WH), Transparent (CL)	594-51104
TAG134LA4	5.1	10.1	25.4	12.7	44.5	42 pcs.	1000 pcs.	White (WH), Transparent (CL)	594-61104
TAG09LA4	5.8	11.6	25.4	19.1	55.5	35 pcs.	1000 pcs.	White (WH), Transparent (CL)	594-11104
TAG135LA4	6.7	13.5	48.5	12.7	55.0	20 pcs.	500 pcs.	White (WH), Transparent (CL)	594-71104
TAG137LA4	7.1	14.3	31.8	22.9	67.7	24 pcs.	1000 pcs.	White (WH), Transparent (CL)	594-91104
TAG136LA4	7.7	15.5	25.4	19.1	67.7	28 pcs.	1000 pcs.	White (WH), Transparent (CL)	594-81104
TAG145LA4	11.1	22.3	25.4	25.4	95.3	21 pcs.	1000 pcs.	White (WH), Transparent (CL)	594-11040

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Self-laminating labels, laser printer

Helatag 1105 (White-Transparent)

These labels are ideal for marking cables of a larger diameter. The type 1105 self-laminating labels exceed the length of 100 mm and are made of a thicker material than type 1104.

Because of its greater material rigidity these labels can be easily removed from the sheet and applied by hand to larger cables and hoses.

Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength
- Thicker material (50 micron) for longer labels
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensure labels stay as good as new



Laminating the mark gives long-term print survivability.



Helatag self-laminating labels for office laser printers.

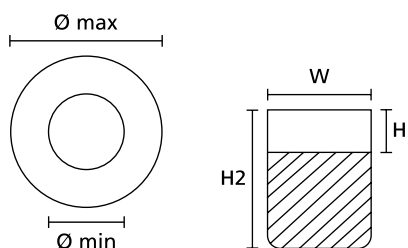
Software TagPrint Pro for troublefree printing see page 582.

For MS-Windows Word design templates for simple applications please refer to www.HellermannTyton.com/templates.

MATERIAL	Type 1105, Polyester, white transparent, self-laminating (1105)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +2 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to alcohol, gasoline, cleaning solvents, butanol, ethyl and Butylcellosolve solvent, battery acid.

HF ✓

RoHS ✓



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Labels per Sheet	Pack Cont.	Colour	Article-No.
TAG138LA4	11.8	23.6	38.1	19.1	93.1	15 pcs.	500 pcs.	White (WH), Transparent (CL)	594-13876
TAG139LA4	18.2	36.4	38.1	25.4	139.7	10 pcs.	500 pcs.	White (WH), Transparent (CL)	594-13976

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Self-laminating and flag labels, manual marking

RiteOn Self-laminating, 1401

A specially developed material for use in labels required to wrap around cables and wires. The conformable structure of the label ensures that once the label is applied to the wire it remains in place without lifting. The SPRO200-1401-WH Starter Pack contains all you need to start work identifying your wires,

1 x RiteOn dispenser

1 x RO202 reel of 150 self-laminating labels for cable diameters ranging from 6 mm to 12 mm

1 x T82S-BK black indelible ink marker pen

Features and benefits

- Palm sized hand held self-laminating label dispenser
- Easy to write on and dispense labels
- Wide range of wire diameters covered as standard
- Ideal for low volume maintenance and repair work
- Write text with specially formulated fast-drying ink T82 pens

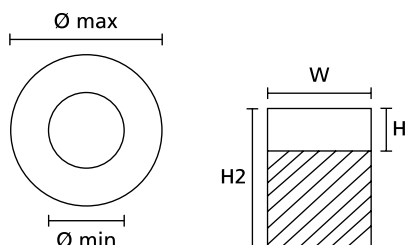
Please find corresponding marker pens on page 540.



Easy to write and dispense labels with RiteOn label dispenser.

MATERIAL	Type 1401, Vinyl (1401)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	80 µm
Chem. Material Properties	Resistant to water, oil and many solvents.

RoHS 



TYPE	Description	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Pack Cont.	Colour	Article-No.
SPRO200	Starter pack	6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-14010
RO201	Filled dispenser	4.0	8.1	12.7	12.7	38.1	200 pcs.	White (WH), Transparent (CL)	550-14011
RO202	Filled dispenser	6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-14012
RO203	Filled dispenser	9.1	18.2	19.1	25.4	76.2	100 pcs.	White (WH), Transparent (CL)	550-14013
RO201REF	Refill pack	4.0	8.1	12.7	12.7	38.1	200 pcs.	White (WH), Transparent (CL)	550-14014
RO202REF	Refill pack	6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-11401
RO203REF	Refill pack	9.1	18.2	19.1	25.4	76.2	100 pcs.	White (WH), Transparent (CL)	550-71401

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



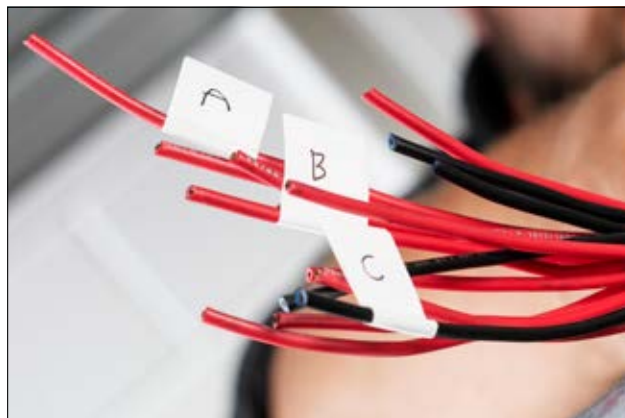
Self-laminating and flag labels, manual marking

RiteOn Flagger, 1504

HellermannTyton Rite-On Flaggers offer a superior solution for wire and cable identification. These innovative flaggers enable faster marking than traditional tape and boast exceptional tear resistance, even when pulled through demanding plenum spaces. Designed for convenience, they provide a quick and permanent labeling method for various electrical applications. Users can choose to flag or wrap the labels around cables, and the writable surface accommodates gel pens, Sharpies, standard pens, pencils, or paint pens. For added practicality, Rite-On Flaggers are conveniently dispensed and easily reloaded.

Features and benefits

- Exceptional Tear Resistance: Stays intact and resilient, even when pulled through challenging plenum spaces.
- Versatile Application: Effortlessly flags or wraps securely around cables.
- Smear-Proof Labeling: Reliably accepts markings from pencils, pens, paint pens, and Sharpies without smudging.
- Compact and Convenient Design: Ensures comfortable and efficient handling.
- Refillable Dispenser: Comes in a practical, replenishable dispenser.

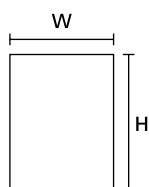


RiteOn Flagger, ideal for durable flag labelling.

MATERIAL	Type 1504, Polyethylene Foil, white (1504)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +2 °C
Adhesive	Acrylate
Thickness of Foil	87 µm
UV-Stabilised	Yes
Chem. Material Properties	Excellent resistance to alcohol, gasoline, cleaning agents, butanol, ethyl and butyl cellosolve solvents, battery acid, and UV light.

Please find corresponding marker pens on page 540.

RoHS



TYPE	Description	Width (W)	Height (H)	Pack Cont.	Colour	Article-No.
ROF204	Filled dispenser	19.0	50.8	125 pcs.	White (WH)	590-00008
ROF204REF	Refill pack	19.0	50.8	125 pcs.	White (WH)	590-00007
SPROF204	Starter pack	19.0	50.8	125 pcs.	White (WH)	590-00006

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Self-laminating and flag labels, manual marking

HELASIGN 1402, Booklet

A quick and simple on-site solution, for either permanent or temporary marking of wires, cables and pipes.

Features and benefits

- Self-laminating labels supplied in handy pocket-sized booklets
- Booklet cover protects labels when stored
- Ideal for low volume maintenance and repair work
- Easy to write on and dispense labels
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Applicator tool for clean application enclosed
- Write text with specially formulated fast-drying ink T82 pens

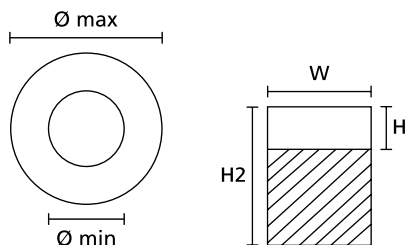


HELASIGN self-laminating labels for quick and easy wire and cable identification.

Please find corresponding marker pens on page 540.

MATERIAL	Type 1402, Vinyl (1402)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +8 °C
Adhesive	Acrylic
Thickness of Foil	80 µm
Chem. Material Properties	Resistant to water, oil and many solvents.

RoHS



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Pack Cont.	Colour	Article-No.
HSMB-C2	6.1	12.1	19.1	12.7	50.8	120 pcs.	Blue (BU), Transparent (CL)	598-11402
	6.1	12.1	19.1	12.7	50.8	120 pcs.	Green (GN), Transparent (CL)	598-01402
	6.1	12.1	19.1	12.7	50.8	120 pcs.	Orange (OG), Transparent (CL)	598-14028
	6.1	12.1	19.1	12.7	50.8	120 pcs.	Red (RD), Transparent (CL)	598-14027
	6.1	12.1	19.1	12.7	50.8	120 pcs.	White (WH), Transparent (CL)	598-14026
	6.1	12.1	19.1	12.7	50.8	120 pcs.	Yellow (YE), Transparent (CL)	598-14029
HSMB-C3	9.1	18.2	25.4	19.1	76.2	60 pcs.	Blue (BU), Transparent (CL)	598-71402
	9.1	18.2	25.4	19.1	76.2	60 pcs.	Green (GN), Transparent (CL)	598-61402
	9.1	18.2	25.4	19.1	76.2	60 pcs.	Orange (OG), Transparent (CL)	598-41402
	9.1	18.2	25.4	19.1	76.2	60 pcs.	Red (RD), Transparent (CL)	598-31402
	9.1	18.2	25.4	19.1	76.2	60 pcs.	White (WH), Transparent (CL)	598-21402
	9.1	18.2	25.4	19.1	76.2	60 pcs.	Yellow (YE), Transparent (CL)	598-51402
HSMB-C4	16.2	32.3	25.4	25.4	127.0	30 pcs.	White (WH), Transparent (CL)	598-40402
HSMB-C5	20.2	40.3	25.4	25.4	152.0	30 pcs.	White (WH), Transparent (CL)	598-50402

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Indelible Marker Pen

T82 Marker Pen

The T82 marker pens are ideally suitable for marking a wide variety of materials.

Features and benefits

- Ideal for writing on RiteOn, HELASIGN, Arrowtags, IMP Plates
- Also works on identification ties
- Very quick-drying ink
- Extremely UV resistant
- Packs of two in red or black



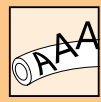
T82 Marker Pen.



T82.

TYPE	Description	Pack Cont.	Colour	Article-No.
T82S-BK	Indelible Marker Pen	2 pcs.	Black (BK)	500-50820
T82R-RD	Indelible Marker Pen	2 pcs.	Red (RD)	500-50822

Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Pre-printed cable markers

Helagrip, slide on, chevron cut

The Helagrip range consists of pre-printed markers that slide easily onto cables and wires. The anti-skew chevron-cut ensures that markers are locked together and stay in place.

The markers are ideally suited for panel building, mass transit, utilities, telecommunications and electrical contracting.

Markers are available as standard in international resistor colour code and yellow material marked in black. White material marked in black is available to special order.

Characters are 0-9, A-Z and standard electrical symbols.

Features and benefits

- Easily apply one size marker to wide range of cables
- Markers are applied before termination takes place
- Chevron cut to lock markers together ensuring text remains in place
- Traditional wire marking available in yellow, white and colour code
- Flexible material so product returns securely on the wire
- Applicator tool TJC available



Perfect for precision marking in confined spaces.



Helagrip; easy slide-on application.



Helagrip chevron cut.

The products have been tested in-house according to UL224.

MATERIAL	Flexible Polyvinyl Chloride, cadmium free (PVC)
Operating Temperature	-65 °C to +105 °C, intermittent +135 °C
Flammability	UL 94 V0 (3 mm)

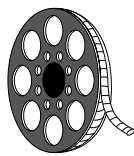
RoHS ✓



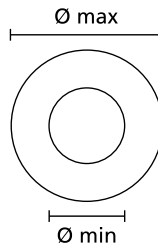
Helagrip Side view



Helagrip chevron cut



Packaging format



TYPE	Bundle Ø min.	Bundle Ø max.	Length (L)	Pack Cont.	Application Tool
HGDC1-3	1.0	3.0	3.5	1000 pcs.	TJC1-3
HGDC2-5	2.0	5.0	3.5	1000 pcs.	TJC2-5
HGDC4-9	4.0	9.0	5.0	250 pcs.	TJC4-9

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Pre-printed cable markers

Helagrip, slide on, chevron cut, HGDC1-3

	Article-No.
	515-01014
	515-01024
	515-01034
	515-01044
	515-01054
	515-01064
	515-01074
	515-01084
	515-01094
	515-01104
	515-01114
	515-01124
	515-01134
	515-01144
	515-01154
	515-01164
	515-01174
	515-01184
	515-01194
	515-01204
	515-01214
	515-01224
	515-01234
	515-01244
	515-01254

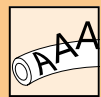
	Article-No.
	515-01264
	515-01604
	515-01614
	515-01624
	515-01634
	515-01644
	515-01654
	515-01664
	515-01674
	515-01684
	515-01694
	515-01704
	515-01714
	515-01724
	515-01734
	515-01804
	515-01600
	515-01611
	515-01622
	515-01633
	515-01655
	515-01666
	515-01677
	515-01688
	515-01699

Pre-printed cable markers

Helagrip, slide on, chevron cut, HGDC2-5

	Article-No.
	515-02014
	515-02024
	515-02034
	515-02044
	515-02054
	515-02064
	515-02074
	515-02084
	515-02094
	515-02104
	515-02114
	515-02124
	515-02134
	515-02144
	515-02154
	515-02164
	515-02174
	515-02184
	515-02194
	515-02204
	515-02214
	515-02224
	515-02234
	515-02244
	515-02254

	Article-No.
	515-02264
	515-02604
	515-02614
	515-02624
	515-02634
	515-02644
	515-02654
	515-02664
	515-02674
	515-02684
	515-02694
	515-02704
	515-02714
	515-02715
	515-02724
	515-02734
	515-02600
	515-02611
	515-02622
	515-02633
	515-02655
	515-02666
	515-02677
	515-02688
	515-02699



Pre-printed cable markers

Helagrip, slide on, chevron cut, HGDC4-9

	Article-No.		Article-No.
	515-03014		515-03264
	515-03024		515-03604
	515-03034		515-03614
	515-03044		515-03624
	515-03054		515-03634
	515-03064		515-03644
	515-03074		515-03654
	515-03084		515-03664
	515-03094		515-03674
	515-03104		515-03684
	515-03114		515-03694
	515-03124		515-03704
	515-03134		515-03714
	515-03144		515-03724
	515-03154		515-01946
	515-03164		515-01947
	515-03174		515-03600
	515-03184		515-03611
	515-03194		515-03622
	515-03204		515-03633
	515-03214		515-03655
	515-03224		515-03666
	515-03234		515-03677
	515-03244		515-03688
	515-03254		515-03699



Pre-printed cable markers

Ovalgrip, slide on, straight cut

The Ovalgrip range consists of pre-printed markers that slide easily onto cables and wires. The markers are ideally suited to panel building, mass transit, utilities, telecommunications and electrical contracting. These markers are supplied as standard on a disk / reel.

They are available as a standard in yellow material marked in black, and international resistor colour code. Characters are 0-9, A-Z and standard electrical symbols.

White material marked in black available on special request.

AT1 Arrowtags will fit 7 size 50 markers.

AT2 Arrowtags will fit 8 size 85 markers.

AT3 Arrowtags will fit 14 size 85 markers.

Features and benefits

- Oval shaped markers designed to fit AT1, AT2 or AT3 (depends on Ovalgrip size)
- Ideal for use in maintenance and repair and fixed with cable ties
- Direct application to wire and cable before termination is also recommended



Simply slide on, for quick and clear cable identification.



Ovalgrip; easy slide-on application.



Ovalgrip pre-printed cable markers.

For details on Arrowtags please see page 549.

MATERIAL	Flexible Polyvinyl Chloride, cadmium free (PVC)
Operating Temperature	-65 °C to +105 °C, intermittent +135 °C
Flammability	UL 94 V0 (3 mm)

The products have been tested in-house according to UL224.

RoHS



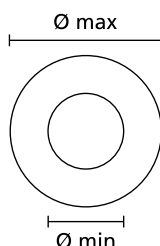
Ovalgrip Side view



Ovalgrip straight cut



Packaging format



TYPE	Bundle Ø min.	Bundle Ø max.	Length (L)	Pack Cont.	For Size
HODS50	1.7	3.7	4.0	1000 pcs.	AT1
HODS85	1.8	6.0	4.5	1000 pcs.	AT2/AT3

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Pre-printed cable markers

Ovalgrip, slide on, straight cut, HODS50

	Article-No.
A	531-15014
B	531-15024
C	531-15034
D	531-15044
E	531-15054
F	531-15064
G	531-15074
H	531-15084
I	531-15094
J	531-15104
K	531-15114
L	531-15124
M	531-15134
N	531-15144
O	531-15154
P	531-15164
Q	531-15174
R	531-15184
S	531-15194
T	531-15204
U	531-15214
V	531-15224
W	531-15234
X	531-15244
Y	531-15254

Pre-printed cable markers

Ovalgrip, slide on, straight cut, HODS85

	Article-No.
A	531-07935
B	531-07936
C	531-07937
D	531-07938
E	531-07939
F	531-07940
G	531-07941
H	531-07942
I	531-07943
J	531-07944
K	531-07945
L	531-07946
M	531-07947
N	531-07948
O	531-07949
P	531-07950
Q	531-07951
R	531-07952
S	531-07953
T	531-07954
U	531-07955
V	531-07956
W	531-07957
X	531-07958
Y	531-07959

	Article-No.
Z	531-07960
0	531-07925
1	531-07926
2	531-07927
3	531-07928
4	531-07732
5	531-07930
6	531-07931
7	531-07932
8	531-07933
9	531-07934
.	531-00384
/	531-07961
⏏	531-00386
+	531-07924
-	531-07923
0	531-07728
1	531-07729
2	531-07730
3	531-07731
5	531-07733
6	531-07734
7	531-07735
8	531-07736
9	531-07737



Pre-printed cable markers

WIC, snap on

The WIC range of pre-printed cable markers easily snap onto cables and wires. The WIC tool ensures an easy application of the markers – simply insert the markers into the tool, slide down and press the markers onto the wire while twisting. Markers for fibre cables should be applied by hand.

All markers come with a locking mechanism to ensure perfect text alignment.

The two WICA accessories are ideal for marking cables of larger diameters (6 mm² - 95 mm²).

Features and benefits

- Fast and easy to use pre-printed nylon snap-on marker
- Ideal where termination is completed or for maintenance and repair
- Markers lock together to give perfect text alignment
- Vibration resistant markers, WIC markers lock onto wire and cable tightly
- WIC tool holds 20 WIC markers in all four sizes
- Gripping system locks markers onto wire and resists rotation
- Popular 2 digit markings such as L1, L2, L3, PE are available in yellow or colour code
- Dispenser colour denotes marker size: WIC0 (green), WIC1 (red), WIC2 (black), WIC3 (yellow)
- Two accessories available to identify cables from 6 mm² up to 25 mm² (WICA-AC10-25) and up to 95 mm² (WICA-ACT-BK)



WIC, snap on cable markers.



WIC - pre-printed cable markers.

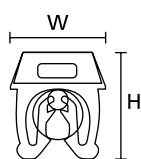


WIC delivered in a convenient dispenser format.

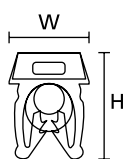
MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V0



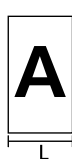
Customized marking on request



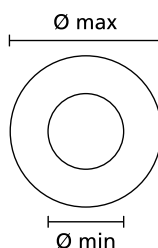
WIC0



WIC1, WIC2, WIC3



WIC Snap on



	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Wire Size Range (mm ²)	Pack Cont.	Application Tool
WIC0	0.8	2.2	5.0	5.5	3.0	0,15-0,75	1000 pcs.	WIC Tool
WIC1	2.0	2.8	5.0	6.4	3.0	0,50-1,50	1000 pcs.	WIC Tool
WIC2	2.8	3.8	5.6	7.1	3.0	1,50-2,50	1000 pcs.	WIC Tool
WIC3	4.3	5.3	8.0	9.6	3.0	4,00-6,00	500 pcs.	WIC Tool

All dimensions in mm. Subject to technical changes.

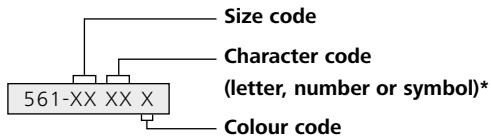


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Pre-printed cable markers

WIC, snap on

Use our coding system, to easily order the markers suitable for your use.



* For the assortment and the symbols please use the code with three digits.

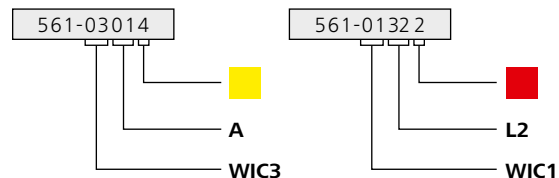


WIC – pre-printed wire and cable markers.

Step 1: Choose your size.

SIZE	WIC0	WIC1	WIC2	WIC3
Code	00	01	02	03

Example:



Step 2: Choose your letter, symbol, number or assortment.

LETTER	A	B	C	D	E	F	G	H	I	J	K
Code	01	02	03	04	05	06	07	08	09	10	11
LETTER	L	M	N	O	P	Q	R	S	T	U	V
Code	12	13	14	15	16	17	18	19	20	21	22
LETTER	W	X	Y	Z							
Code	23	24	25	26							

SYMBOL	L1	L2	L3	PE	+	-	/	↓	.
Code	31	32	33	34	70	71	72	73	74
SYMBOL			=						
Code	75	76	77	000	001				

NUMBER	0	1	2	3	4	5	6	7	8	9
Code	60	61	62	63	64	65	66	67	68	69

ASSORTMENT	0	1	2	3	4	5	6	7	8	9
Code										
ASSORTMENT	A	E	L	N	R	S	T	+	-	
Code										
ASSORTMENT	G	H	Y	Z	O	Q	J	K	X	L
Code										
ASSORTMENT	L1	L1	L2	L2	L3	L3	N	N	↓	↓
Code										
ASSORTMENT	L1	L1	L2	L2	L3	L3	N	N	↓	↓
Code										

ASSORTMENT	0	1	2	3	4	5	6	7	8	9
Code										
ASSORTMENT	B	C	U	V	W	P	D	F	I	M
Code										
ASSORTMENT	.	/	---	↓	+	-	~	=	*	
Code										
ASSORTMENT	L1	L1	L2	L2	L3	L3	N	N	↓	↓
Code										
ASSORTMENT	L1	L1	L2	L2	L3	L3	N	N	↓	↓
Code										

Step 3: Choose your colour.

COLOUR										
Code	0	1	2	3	4	5	6	7	8	9

Customized marking
on request



Pre-printed cable markers

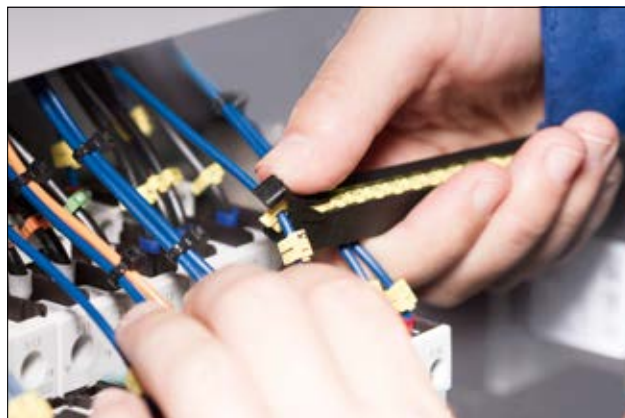
WIC Tool and accessories

The WIC range includes three accessories designed to make cable identification quicker, cleaner, and more reliable than ever – even with high-diameter cables.

WIC Tool: A universal application tool for inserting WIC markers with speed and precision. Simply load, slide, and twist.

WICA-AC 10-25 for Snap-On Support: Designed for cables from 10 to 25 mm², this accessory securely clips onto the cable and holds up to 8 markers for clear and organized identification.

WICA-ACT for Tie-On Application: Ideal for larger cables, this version is secured with a cable tie (included) to provide maximum flexibility and stability.



WIC Tool, for easy application of WIC markers.



WICA-ACT; adapter for WIC markers with a cable tie attached.

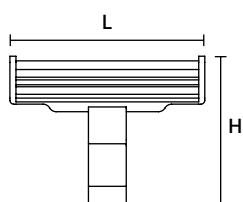


WICA-AC; snap-on accessory for WIC markers.

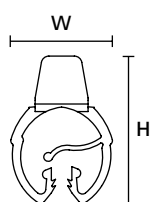
MATERIAL	Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS)	Polyamide 6, glass-fibre reinforced (PA6GF15)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)	-40 °C to +85 °C
Flammability	UL 94 HB	UL 94 V0

HF ✓

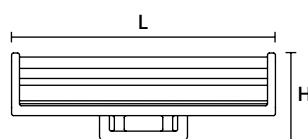
RoHS ✓



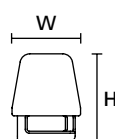
WICA-AC (front view)



WICA-AC (side view)



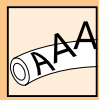
WICA-ACT (front view)



WICA-ACT (side view)

TYPE	Description	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Material	Marker tiles per carrier	Pack Cont.	Article-No.
WIC Tool	Applicator	-	-	-	-	-	PA6GF15	-	5 pcs.	561-00001
WICA-AC10-25	Snap-on accessory	5.5	9.5	13.5	19.4	25.8	PA66HIRHS	8	100 pcs.	561-06001
WICA-ACT-BK	WIC adapter set for fixing with cable ties	3.0	38.0	7.0	8.9	26.7	PA66HIRHS	8	100 pcs.	561-06000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Identification ties and plates for marking cable bundles

Arrowtag

The plates are suitable for applying to larger pipes and cables before or after termination has taken place. They can be marked with Ovalgrip markers or manually using the T82 series of indelible markers pens.

Features and benefits

- Blank nylon arrowhead shape plate fixed with a cable tie
- Identify with a T82 pen or Ovalgrip markers
- AT1 for 7 size 50 Ovalgrip markers
- AT2 for 8 size 85 Ovalgrip markers
- AT3 for 14 size 85 Ovalgrip markers
- Custom printed plaques are available on request

Please find corresponding marker pens on page 540.



A clearly better way of identifying cables and pipes.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



AT1



AT2



AT3



TYPE	Length (L)	Width (W)	Strap Width max. (G)	Pack Cont.	Colour	Article-No.
AT1	62.5	4.7	7.4	100 pcs.	Black (BK)	151-41110
	62.5	4.7	7.4	100 pcs.	Natural (NA)	151-41119
AT2	63.0	9.0	6.4	100 pcs.	Black (BK)	151-41210
	63.0	9.0	6.4	100 pcs.	Natural (NA)	151-41219
AT3	100.0	9.0	6.4	100 pcs.	Black (BK)	151-41310
	100.0	9.0	6.4	100 pcs.	Natural (NA)	151-41319

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Identification ties and plates for marking cable bundles

IMP and IT Plates

The IMP and IT range of marker plates are suitable for applying to large cable bundles before or after termination has taken place. The marker plates can also be riveted if required.

They are secured with cable ties of any length with a maximum width of 4.8 mm.

They can be written on by hand using either a black or red T82 indelible marker pen.

Features and benefits

- IT and IMP plates for identifying large cable bundles or flat surfaces
- Mark IT and IMP plates with printable labels or T82 pens
- Fix with cable ties or rivets
- Custom printed plaques are available on request

Please find the corresponding labels on page 553.

Please find corresponding marker pens on page 540.



Unlimited cable bundle diameters can be securely identified.

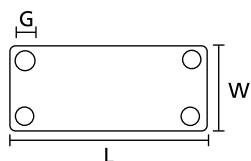


Marker pens are ideally suited for manual inscription onto RiteOn, Helasign, Arrowtags, IMP Plates, and identification ties.

MATERIAL	Polyamide 6.6 (PA66)	
Operating Temperature	-40 °C to +85 °C	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	UL 94 V2	

HF ✓

RoHS ✓



IT1, IMP



TYPE	Length (L)	Width (W)	Strap Width max. (G)	Pack Cont.	Colour	Recommended Labels	Article-No.
IMP1.5	38.1	19.1	4.8	100 pcs.	White (WH)	TAG18-16TD1	151-42159
IT1	44.0	19.0	4.8	100 pcs.	Natural (NA)	TAG28-16TD1	151-42119
IMP2	50.8	19.3	4.8	100 pcs.	White (WH)	TAG28-16TD1	151-42229
IMP2.5	63.5	19.3	4.8	100 pcs.	White (WH)	TAG43-16TD1	151-42259
IMP2.5W1.75	63.5	44.7	4.8	100 pcs.	White (WH)	TAG43-41TD1	151-42269
IMP3.5	88.9	19.3	4.8	100 pcs.	White (WH)	TAG68-16TD1	151-42359

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

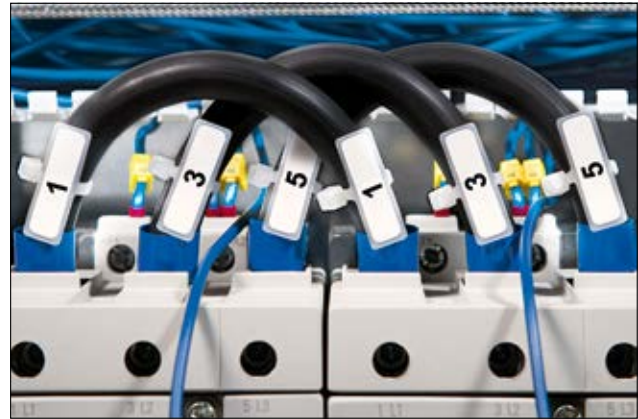
Identification ties and plates for marking cable bundles

IT Ties

One of the major benefits is the ability to both secure and identify cable bundles at different times.

Features and benefits

- Identification ties made of Polyamide 6.6
- For simple identification and securing of cable bundles in one step
- Printable labels are available for a professional finish
- Manual or temporary marking is possible with an indelible pen (T825-BK / T82R-RD)



One operation with two user benefits.



Identification ties and tags.

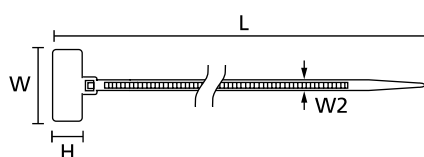


Cable tie features an identification plate to easily identify bundles.

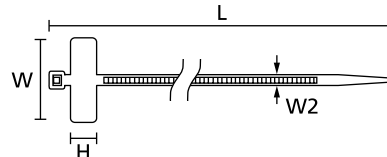
MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2

HF ✓

RoHS ✓



IT18FL



IT18R



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Recommended Labels	Colour	Pack Cont.	Tools	Article-No.
IT18FL	1.5	19.0	20.5	9.0	110.0	2.5	80	TAG18-07TD1	Natural (NA)	100 pcs.	2;5	111-81919
IT18R	6.0	22.0	25.0	8.0	100.0	2.5	80	TAG23-06TD1	Natural (NA)	100 pcs.	2;5	111-81821

Recommended Tools: 2=MK20, 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

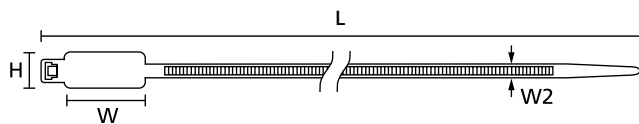


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

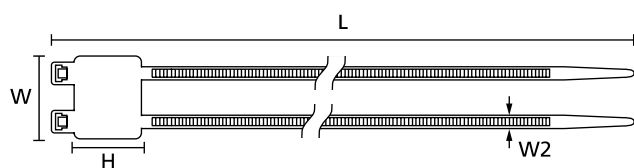


Identification ties and plates for marking cable bundles

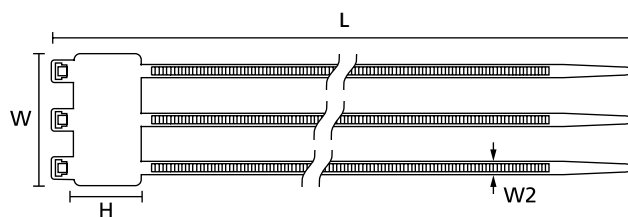
IT Ties



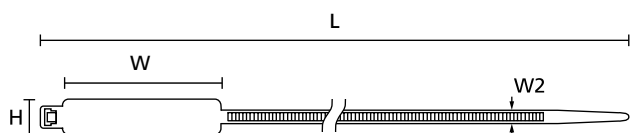
IT50R



IT50RD



IT50RT



IT50L



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)		Recommended Labels	Colour	Pack Cont.	Tools	Article-No.
IT18FL	1.5	19.0	20.5	9.0	110.0	2.5	80	TAG18-07TD1	Black (BK)	100 pcs.	2;5	111-81910
IT18R	6.0	22.0	25.0	8.0	100.0	2.5	80	TAG23-06TD1	Black (BK)	1000 pcs.	2;5	111-81860
IT50R	9.5	44.5	28.0	12.9	203.2	4.6	225	TAG23-10TD1	Natural (NA)	100 pcs.	2;5	111-85019
IT50RD	10.0	44.0	29.0	26.3	203.2	4.7	225	TAG26-21TD1	Natural (NA)	50 pcs.	2;5	111-85219
IT50RT	10.0	44.0	46.0	26.3	203.2	4.7	225	TAG43-21TD1	Natural (NA)	50 pcs.	2;5	111-85119
	10.0	44.0	46.0	26.3	203.2	4.7	225	TAG43-21TD1	Black (BK)	50 pcs.	2;5	111-85100
IT50L	19.0	100.0	56.0	12.8	390.0	4.7	225	TAG52-10TD1	Natural (NA)	100 pcs.	2;5	111-85319

Recommended Tools: 2=MK20, 5=EVO7i. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

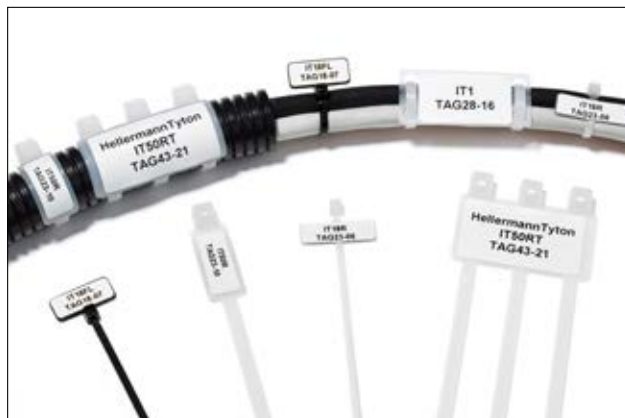
Labels for IT ties and IMP plates, thermal transfer

Helatag 892

These labels are specially tailored to the sizes used in the IT marking tie and IMP/IT plates. The flexible material sticks to the marking tie or tag, even on rounded surfaces. Print with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print results. Using unique numbering, graphics or barcodes the labels give excellent asset identification possibilities. This solution produces professional marking of tubes, pipes, cables and other parts.

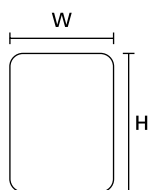
Features and benefits

- Suited to the slightly rough surfaces of IT ties and IMP/IT plates
- Adheres to rounded surfaces
- Rounded corners ensure better long term durability of adhesion
- White labels give excellent contrast



Identification ties and tags.

MATERIAL	Type 892, Vinyl, white (892)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	83 µm
Chem. Material Properties	Good resistance against water, oils and most solvents.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



RoHS

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	For Size	Pack Cont.	Colour	Article-No.
TAG18-07TD1	18.0	7.0	24.0	1 pc.	IT18FL	5000 pcs.	White (WH)	596-12253
TAG18-16TD1	18.0	16.0	24.0	1 pc.	IMP1.5	2500 pcs.	White (WH)	596-12254
TAG23-06TD1	23.0	6.0	30.0	1 pc.	IT18R	5000 pcs.	White (WH)	596-12255
TAG23-10TD1	23.0	10.0	30.0	1 pc.	IT50R	5000 pcs.	White (WH)	596-12256
TAG26-21TD2	26.0	21.0	57.0	2 pcs.	IT50RD	2500 pcs.	White (WH)	596-12257
TAG28-16TD1	28.0	16.0	34.0	1 pc.	IT1, IMP2	2500 pcs.	White (WH)	596-12258
TAG43-16TD1	43.0	16.0	50.0	1 pc.	IMP2.5	2500 pcs.	White (WH)	596-12259
TAG43-21TD1	43.0	21.0	50.0	1 pc.	IT50RT	2500 pcs.	White (WH)	596-12260
TAG43-41TD1	43.0	41.0	50.0	1 pc.	IMP2.5W1.75	1000 pcs.	White (WH)	596-12261
TAG52-10TD1	52.0	10.0	58.0	1 pc.	IT50L	5000 pcs.	White (WH)	596-12262
TAG63TD1	63.5	38.1	70.0	1 pc.	-	1000 pcs.	White (WH)	596-12263
TAG68-16TD1	68.0	16.0	74.0	1 pc.	IMP3.5	2500 pcs.	White (WH)	596-12264
TAG102-64TD1	102.0	64.0	106.0	1 pc.	-	250 pcs.	White (WH)	596-12265

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable marking carrier, laser printer

Helafix HC and HCR Carriers

Marking of cable looms, cables, pipes, transport systems, valves, sensors, for inventory marking on machines or other parts.

Features and benefits

- Versatile transparent carriers for HFX labels used for temporary or permanent marking
- Fixed in place using T18 series cable ties, screws or rivets (carrier HC06, no rivet hole)
- Protects inserted HFX label against damp, dirt, damage and UV radiation
- Helafix HC supplied as cut lengths in bags, pre-cut and pre-punched rivet hole (carrier HC06 has no punched hole)
- Helafix HCR supplied in continuous tube format and can be cut to size with HCT tool
- Helafix HFX labels designed to fit into HC and HCR carriers

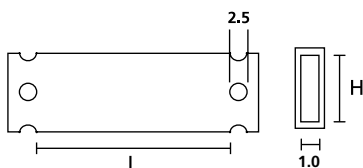


Multi-purpose identification potential: Helafix HC and HCR.

MATERIAL	Ethylenevinylacetate (EVA)
Operating Temperature	-60 °C to +65 °C
Flammability	UL 94 HB
Chem. Material Properties	Resistance to water and a variety of solvents.

HF ✓

RoHS ✓



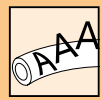
TYPE	Length (L)	Height (H)	Reel Length	Pack Cont.	Recommended Labels	Tools	Article-No.
HC06-17	17.5	7.0	-	50 pcs.	-	-	525-07173
HC09-17	17.5	10.0	-	50 pcs.	HFX9-17P	-	525-10173
HC12-17	17.5	13.0	-	50 pcs.	-	-	525-13173
HCR06	25.0 m	7.0	25 m	25 m	-	-	525-07003
HCR09	25.0 m	10.0	25 m	25 m	HFX9	50	525-10003
HCR12	25.0 m	13.0	25 m	25 m	HFX12	51	525-13003
HCR18	25.0 m	19.0	25 m	25 m	-	-	525-19003
HCR24	25.0 m	25.0	25 m	25 m	HFX24	-	525-25003
HC06-35	35.0	7.0	-	50 pcs.	-	-	525-07353
HC09-35	35.0	10.0	-	50 pcs.	HFX9-35P	-	525-10353
HC12-35	35.0	13.0	-	50 pcs.	HFX12-35P	-	525-13353
HC18-35	35.0	19.0	-	50 pcs.	-	-	525-19353
HC09-52	52.0	10.0	-	50 pcs.	HFX9-52P	-	525-10523
HC12-52	52.0	13.0	-	50 pcs.	HFX12-52P	-	525-13523
HC18-52	52.0	19.0	-	50 pcs.	-	-	525-19523

Recommended Tools: 50=HCT1, 51=HCT2. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable marking carrier, laser printer

Helafix HC and HCR Carriers

TYPE	Length (L)	Height (H)	Reel Length	Pack Cont.	Recommended Labels	Tools	Article-No.
HC24-52	52.0	25.0	-	50 pcs.	-	-	525-25523
HC12-70	70.0	13.0	-	50 pcs.	-	-	525-13703
HC18-70	70.0	19.0	-	50 pcs.	-	-	525-19703
HC24-70	70.0	25.0	-	50 pcs.	-	-	525-25703

Recommended Tools: 50=HCT1, 51=HCT2. For more information on toolings please refer to the Application Tooling chapter on page 593.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Cable marking carrier, laser printer

Helafix HFX Labels

Use marking pen T82 or print the labels with laser printer. For indoor use in bundle applications in machines, panel building or wherever flexible self marked marking is needed.

Features and benefits

- Laser printable non-adhesive labels for Helafix carrier strip (HC and HCR) range
- Every sheet in two colours (front yellow, back white)
- A4 format
- Simple and efficient label design and printing with TagPrint Pro software
- Mark manually with T82 series indelible markers pens
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word

Please find corresponding marker pens on page 540.



A precise match for Helafix, for permanent identification coding.

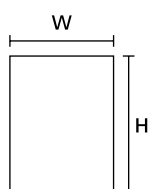


Multi-purpose identification potential: Helafix HC and HCR.

MATERIAL	Polyester (SP)
Operating Temperature	-70 °C to +125 °C
Chem. Material Properties	Resistance to a variety of solvents.

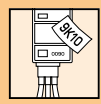
HF ✓

RoHS ✓



TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Colour	Article-No.
HFX9-17P	17.5	9.0	319 pcs.	20 pcs.	Yellow (YE), White (WH)	526-01014
HFX9-35P	35.0	9.0	145 pcs.	20 pcs.	Yellow (YE), White (WH)	526-01514
HFX12-35P	35.0	12.0	110 pcs.	20 pcs.	Yellow (YE), White (WH)	526-01714
HFX9-52P	52.5	9.0	124 pcs.	20 pcs.	Yellow (YE), White (WH)	526-02014
HFX12-52P	52.5	12.0	92 pcs.	20 pcs.	Yellow (YE), White (WH)	526-02214
HFX12-105P	105.0	12.0	44 pcs.	20 pcs.	Yellow (YE), White (WH)	526-02514
HFX24-105P	105.0	24.0	22 pcs.	20 pcs.	Yellow (YE), White (WH)	526-03014
HFX12-210P	210.0	12.0	22 pcs.	20 pcs.	Yellow (YE), White (WH)	526-05014
HFX24-210P	210.0	24.0	11 pcs.	20 pcs.	Yellow (YE), White (WH)	526-05514

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labels for control panel identification, thermal transfer

Helatag 1211

These labels are suitable for the permanent identification of components and preassembled units within electrical industry as well as asset identification. Print with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print results. They can also be used in the design and setup as well as in the repair and expansion of control cabinets and control units. Due to the structure of the vinyl label they are suitable for rougher surfaces.

Features and benefits

- Suited to labelling electrical panels
- Where high label visibility is required
- Partially suitable for critical surfaces
- Rounded corners ensure better long term durability of adhesion

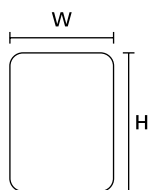


Switchgear application.



Helatag 1211 for permanent control panel identification.

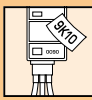
MATERIAL	Type 1211, Vinyl, yellow gloss (1211)
Operating Temperature	-20 °C to +80 °C
Curing Temperature	from +5 °C
Adhesive	Acrylic
Thickness of Foil	84 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG15-09TE	15.0	9.0	89.0	5 pcs.	10000 pcs.	Yellow gloss (GSYE)	596-21211
TAG16-06TE	16.5	6.0	101.6	5 pcs.	20000 pcs.	Yellow gloss (GSYE)	596-01211
TAG20-08TE	20.0	8.0	101.6	4 pcs.	10000 pcs.	Yellow gloss (GSYE)	596-11211
TAG38-11TE	38.0	11.0	85.1	2 pcs.	5000 pcs.	Yellow gloss (GSYE)	596-41211
TAG56-22TE	56.0	22.0	62.0	1 pc.	2000 pcs.	Yellow gloss (GSYE)	596-51211

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labels for control panel identification, thermal transfer

Helatag 880, removable

These labels are suitable for the permanent identification of components and preassembled units within electrical industry as well as asset identification. Print with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print results. They can also be used in the design and setup as well as in the repair and expansion of control cabinets and control units. Due to the structure of the vinyl label they are suitable for rougher surfaces.

Features and benefits

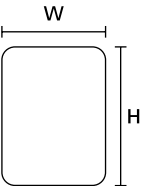
- Suited to labelling electrical panels
- Where high label visibility is required
- Partially suitable for critical surfaces
- Rounded corners ensure better long term durability of adhesion
- Easily remove or reposition labels as required
- No sticky residue on removal



Switchgear application.



Helatag 880 labels, easily removable when needed.

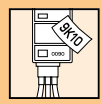


MATERIAL	Type 880, Vinyl (880)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	80 µm
Chem. Material Properties	Good resistance to water, oil and most solvents.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG15-09TE	15.0	9.0	89.0	5 pcs.	10000 pcs.	Yellow matt (MTYE)	596-12174
TAG16-06TE	16.5	6.0	101.6	5 pcs.	20000 pcs.	Yellow matt (MTYE)	596-12172
TAG19-11TE	19.0	11.0	89.0	4 pcs.	10000 pcs.	Yellow matt (MTYE)	596-12175
TAG20-08TE	20.0	8.0	101.6	4 pcs.	10000 pcs.	Yellow matt (MTYE)	596-12173
TAG38-11TE	38.0	11.0	85.1	2 pcs.	5000 pcs.	Yellow matt (MTYE)	596-12176
TAG56-22TE	56.0	22.0	62.0	1 pc.	2000 pcs.	Yellow matt (MTYE)	596-12177

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labels for control panel identification, laser printer

Helatag 1102 (Yellow)

These yellow labels come in various sizes and are ideal for marking flat surfaces inside control panels to ensure easy wire and cable management. The labels can be easily printed with office laser printers. All label templates are already stored in HellermannTyton's TagPrint Pro software so label design including barcodes or logos has been made easy even with office printers.

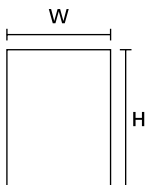
Features and benefits

- Yellow rating labels for component marking and control cabinets
- For use on flat and smooth surfaces
- Crisp and clear text, barcodes and graphics
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensures labels stay as good as new



Clearly identified labels ensure easy network wire and cable management.

MATERIAL	Type 1102, Polyester, yellow (1102)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	55 µm
Chem. Material Properties	Excellent resistance against water, alcohol, most oils, lubricants, fuels, aliphatic solvents, weak acid, salts and alkalis.
UV-Stabilised	Yes



TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG122LA4	15.0	9.0	372 pcs.	27 pcs.	10000 pcs.	Yellow (YE)	594-21102
TAG120LA4	15.2	6.4	528 pcs.	19 pcs.	10000 pcs.	Yellow (YE)	594-01102
TAG154LA4	17.0	9.0	341 pcs.	30 pcs.	10000 pcs.	Yellow (YE)	594-51102
TAG124LA4	19.0	11.0	260 pcs.	20 pcs.	5000 pcs.	Yellow (YE)	594-41102
TAG13LA4	19.1	6.4	440 pcs.	23 pcs.	10000 pcs.	Yellow (YE)	594-31102
TAG121LA4	20.0	8.0	315 pcs.	32 pcs.	10000 pcs.	Yellow (YE)	594-11102
TAG62LA4	31.8	9.5	180 pcs.	28 pcs.	5000 pcs.	Yellow (YE)	594-81102

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



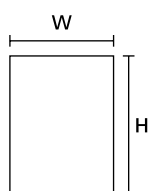
Labels for control panel identification, laser printer

Helatag 1101 (White)

These white labels come in various sizes and are ideal for marking flat surfaces inside control panels to ensure easy wire and cable management. The labels can be easily printed with office laser printers. All label templates are already stored in HellermannTyton's TagPrint Pro software so label design including barcodes or logos has been made easy even with office printers.

Features and benefits

- White rating labels for component marking as well as for control cabinets
- For use on flat and smooth surfaces
- Crisp and clear text, barcodes and graphics
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensures labels stay as good as new



Clearly identified labels ensure easy network wire and cable management.

MATERIAL	Type 1101, Polyester, white (1101)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	55 µm
Chem. Material Properties	Excellent resistance against water, alcohol, most oils, lubricants, fuels, aliphatic solvents, weak acid, salts and alkalis.
UV-Stabilised	Yes

HF ✓

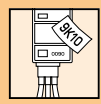
RoHS ✓

TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG156LA4	10.2	10.2	532 pcs.	19 pcs.	10000 pcs.	White (WH)	594-81101
TAG122LA4	15.0	9.0	372 pcs.	27 pcs.	10000 pcs.	White (WH)	594-31101
TAG120LA4	15.2	6.4	528 pcs.	19 pcs.	10000 pcs.	White (WH)	594-11101
TAG11LA4	16.5	5.1	605 pcs.	17 pcs.	10000 pcs.	White (WH)	594-01101
TAG154LA4	17.0	9.0	341 pcs.	30 pcs.	10000 pcs.	White (WH)	594-61101
TAG124LA4	19.0	11.0	260 pcs.	20 pcs.	5000 pcs.	White (WH)	594-11017
TAG13LA4	19.1	6.4	440 pcs.	23 pcs.	10000 pcs.	White (WH)	594-41101
TAG121LA4	20.0	8.0	315 pcs.	32 pcs.	10000 pcs.	White (WH)	594-21101
TAG155LA4	25.4	8.5	231 pcs.	22 pcs.	5000 pcs.	White (WH)	594-71101
TAG15LA4	25.4	12.7	154 pcs.	33 pcs.	5000 pcs.	White (WH)	594-91101
TAG162LA4	38.1	12.7	110 pcs.	23 pcs.	2500 pcs.	White (WH)	594-11010

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Labels for control panel identification, manual marking

HELASIGN 270 (Yellow), Booklet

These handwritten labels are made of yellow fabric and have been designed for fast on-site identification of component parts, switching devices and other operating equipment. The synthetic rubber adhesive allows the easy removal or repositioning of the label when needed. For professional handwriting we recommend the marking pen T82, equipped with a fast-drying and UV-resistant ink.

Features and benefits

- Yellow fabric adhesive labels
- Supplied in handy pocket-sized booklets
- Booklet cover protects labels when stored
- Easily remove or reposition labels as required
- No sticky residue on removal
- Labels available with or without black border
- Also suitable for difficult surfaces
- Use T82 marker pen for market leading mark endurance



Applicator tool for clean application enclosed.

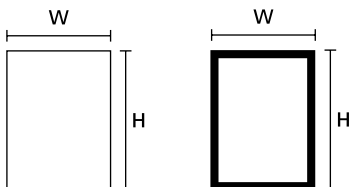


Always on hand: Labels in a convenient, pocket sized and lightweight booklet.



Safety and clarity in control cabinets with HELASIGN labels.

Please find corresponding marker pens on page 540.



RoHS

MATERIAL	Type 270, Cotton cloth, yellow (270)
Operating Temperature	-29 °C to +80 °C
Curing Temperature	from +10 °C
Adhesive	Synthetic rubber
Thickness of Foil	150 µm
Chem. Material Properties	Good resistance to water, oils and most solvents, alcohols and gasoline.

TYPE	Drawing	Width (W)	Height (H)	Labels per Sheet	Pack Cont.	Colour	Article-No.
TAG120B		15.0	6.0	105 pcs.	1050 pcs.	Yellow (YE)	598-12027
TAG122B		15.0	9.0	70 pcs.	700 pcs.	Yellow (YE)	598-12227
TAG124B		19.0	11.0	44 pcs.	440 pcs.	Yellow (YE)	598-12427
TAG121B		20.0	8.0	60 pcs.	600 pcs.	Yellow (YE)	598-12127
TAG122FB		15.0	9.0	70 pcs.	700 pcs.	Yellow (YE)	598-92227
TAG124FB		19.0	11.0	44 pcs.	440 pcs.	Yellow (YE)	598-92427
TAG121FB		20.0	8.0	60 pcs.	600 pcs.	Yellow (YE)	598-92127
TAG125FB		38.0	11.0	22 pcs.	220 pcs.	Yellow (YE)	598-92527

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Panel plate labels, thermal transfer

Helatag 1220

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The white glossy colour is suited to industrial control panels, switchgear, data racks and general equipment labelling. Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

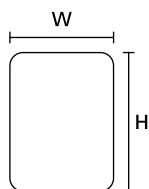
Features and benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT



Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

MATERIAL	Type 1220, Polyester, white (1220)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to ageing and weathering. Extensive resistance to the influence of chemicals and solvents.
UV-Stabilised	Yes
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT431, TT4030



RoHS

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1	13.0	7.0	21.0	1 pc.	1000 pcs.	White (WH)	596-00560
TAG22-22TDK1	22.0	22.0	28.0	1 pc.	1000 pcs.	White (WH)	596-00561
TAG27-08TDK1	27.0	8.0	33.0	1 pc.	1000 pcs.	White (WH)	596-00562
TAG27-12.5TDK1	27.0	12.5	33.0	1 pc.	1000 pcs.	White (WH)	596-00558
TAG27-15TDK1	27.0	15.0	33.0	1 pc.	1000 pcs.	White (WH)	596-00563
TAG27-18TDK1	27.0	18.0	33.0	1 pc.	1000 pcs.	White (WH)	596-00564
TAG27-27TDK1	27.0	27.0	33.0	1 pc.	1000 pcs.	White (WH)	596-00565
TAG35-18TDK1	35.0	18.0	41.0	1 pc.	1000 pcs.	White (WH)	596-00566
TAG45-15TDK1	45.0	15.0	51.0	1 pc.	1000 pcs.	White (WH)	596-00567
TAG45-25TDK1	45.0	25.0	51.0	1 pc.	1000 pcs.	White (WH)	596-00568
TAG60-30TDK1	60.0	30.0	66.0	1 pc.	500 pcs.	White (WH)	596-00569
TAG90-45TDK1	90.0	45.0	96.0	1 pc.	500 pcs.	White (WH)	596-00570
TAG100-30TDK1	100.0	30.0	106.0	1 pc.	250 pcs.	White (WH)	596-00571
TAG100-70TDK1	100.0	70.0	106.0	1 pc.	250 pcs.	White (WH)	596-00572

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Panel plate labels, thermal transfer

Helatag 1221

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The silver colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

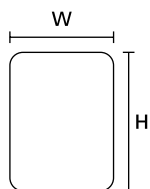
Features and benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT



Panel labels are an ideal replacement for engraved plates.

MATERIAL	Type 1221, Polyester, silver (1221)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to ageing and weathering. Extensive resistance to the influence of chemicals and solvents.
UV-Stabilised	Yes
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT431, TT4030



RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1	13.0	7.0	21.0	1 pc.	1000 pcs.	Silver (SR)	596-00573
TAG22-22TDK1	22.0	22.0	28.0	1 pc.	1000 pcs.	Silver (SR)	596-00574
TAG27-08TDK1	27.0	8.0	33.0	1 pc.	1000 pcs.	Silver (SR)	596-00575
TAG27-12.5TDK1	27.0	12.5	33.0	1 pc.	1000 pcs.	Silver (SR)	596-00576
TAG27-15TDK1	27.0	15.0	33.0	1 pc.	1000 pcs.	Silver (SR)	596-00577
TAG27-18TDK1	27.0	18.0	33.0	1 pc.	1000 pcs.	Silver (SR)	596-00578
TAG27-27TDK1	27.0	27.0	33.0	1 pc.	1000 pcs.	Silver (SR)	596-00579
TAG35-18TDK1	35.0	18.0	41.0	1 pc.	1000 pcs.	Silver (SR)	596-00580
TAG45-15TDK1	45.0	15.0	51.0	1 pc.	1000 pcs.	Silver (SR)	596-00581
TAG45-25TDK1	45.0	25.0	51.0	1 pc.	1000 pcs.	Silver (SR)	596-00582
TAG60-30TDK1	60.0	30.0	66.0	1 pc.	500 pcs.	Silver (SR)	596-00583
TAG90-45TDK1	90.0	45.0	96.0	1 pc.	500 pcs.	Silver (SR)	596-00584
TAG100-30TDK1	100.0	30.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00585
TAG100-70TDK1	100.0	70.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00586

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Type label identification, thermal transfer

Helatag 1204

This silver-matt label is scratch-resistant and is ideal for usage as identification or name plate in industrial environments. The high temperature range suits a wide range of applications on flat surfaces. The adhesive is also suitable for critical surfaces like plastic and paint. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

Features and benefits

- Replacement option for aluminium plates
- For applications on flat surfaces
- Allows the identification on critical surfaces, e.g. paints and plastic variants
- Print labels with customer unique references
- Use text, graphics and barcodes as required

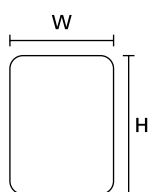


Professional type plate on a heating unit.



Type label Helatag 1204

MATERIAL	Type 1204, Polyester (1204)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	53 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6	12.7	11.1	101.6	6 pcs.	15000 pcs.	Silver-matt (MTSR)	596-12071
TAG13TD4	19.1	6.4	101.6	4 pcs.	10000 pcs.	Silver-matt (MTSR)	596-12043
TAG34TD3	25.4	9.5	85.1	3 pcs.	7500 pcs.	Silver-matt (MTSR)	596-34120
TAG15TD3	25.4	12.7	85.1	3 pcs.	7500 pcs.	Silver-matt (MTSR)	596-12045
TAG35TD3	31.8	9.5	101.6	3 pcs.	7500 pcs.	Silver-matt (MTSR)	596-12035
TAG17TD2	38.1	6.4	85.1	2 pcs.	5000 pcs.	Silver-matt (MTSR)	596-12047

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Type label identification, thermal transfer

Helatag 1204

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG27TD2	38.1	19.1	85.1	2 pcs.	5000 pcs.	Silver-matt (MTSR)	596-27120
TAG67TD2	38.1	31.8	85.1	2 pcs.	1000 pcs.	Silver-matt (MTSR)	596-12067
TAG69TD2	40.6	22.9	89.0	2 pcs.	2500 pcs.	Silver-matt (MTSR)	596-12069
TAG77TD1	50.8	22.9	55.0	1 pc.	2000 pcs.	Silver-matt (MTSR)	596-12077
TAG73TD1	50.8	25.4	55.0	1 pc.	2000 pcs.	Silver-matt (MTSR)	596-73124
TAG66TD1	50.8	36.5	56.8	1 pc.	1000 pcs.	Silver-matt (MTSR)	596-12066
TAG63TD1	63.5	38.1	70.0	1 pc.	1000 pcs.	Silver-matt (MTSR)	596-12063
TAG76TD1	63.5	50.8	70.0	1 pc.	500 pcs.	Silver-matt (MTSR)	596-12076
TAG72TD1	69.9	31.8	76.0	1 pc.	1000 pcs.	Silver-matt (MTSR)	596-12072
TAGR70TD1	70.0	-	70.0	1 pc.	25 m	Silver-matt (MTSR)	596-00367
TAG65TD1	76.2	36.5	82.0	1 pc.	1000 pcs.	Silver-matt (MTSR)	596-12065
TAG62TD1	76.2	50.8	82.0	1 pc.	500 pcs.	Silver-matt (MTSR)	596-12062
TAG64TD1	88.9	36.5	95.0	1 pc.	1000 pcs.	Silver-matt (MTSR)	596-12064
TAG97TD1	101.6	74.0	106.0	1 pc.	500 pcs.	Silver-matt (MTSR)	596-71204
TAG02TD1	104.0	12.0	104.0	1 pc.	5000 pcs.	Silver-matt (MTSR)	596-21204
TAGR3TD1	104.0	-	108.0	1 pc.	75 m	Silver-matt (MTSR)	596-31204

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Asset identification label, thermal transfer

Helatag 1206

This label is scratch-resistant and is ideal for usage as identification or name plate in industrial environments. The high temperature range suits a wide range of applications on flat surfaces. The adhesive is also suitable for critical surfaces like plastic and paint.

Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

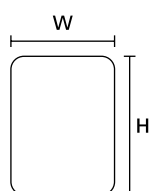
Features and benefits

- Ideal for machinery operating in high temperature areas (up to +150 °C)
- For applications on flat surfaces
- Chemical resistant polyester foil
- For permanent and ageing-resistant identification
- Barcodes and alphanumeric text remain pin sharp on this high quality material



Helatag labels for permanent asset identification.

MATERIAL	Type 1206, Polyester (1206)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6	12.7	11.1	101.6	6 pcs.	15000 pcs.	White gloss (GSWH)	596-12671
TAG13TD4	19.1	6.4	101.6	4 pcs.	10000 pcs.	White gloss (GSWH)	596-12061
TAG16TD3	22.9	6.4	80.0	3 pcs.	10000 pcs.	White gloss (GSWH)	596-12616
TAG61TD3	25.4	4.8	89.0	3 pcs.	10000 pcs.	White gloss (GSWH)	596-12661
TAG01TD3	25.4	6.4	89.0	3 pcs.	7500 pcs.	White gloss (GSWH)	596-01120
TAG34TD3	25.4	9.5	85.1	3 pcs.	7500 pcs.	White gloss (GSWH)	596-12634
TAG15TD3	25.4	12.7	85.1	3 pcs.	7500 pcs.	White gloss (GSWH)	596-12615

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Asset identification label, thermal transfer

Helatag 1206

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG31TD3	25.4	19.1	85.1	3 pcs.	5000 pcs.	White gloss (GSWH)	596-12631
TAG35TD3	31.8	9.5	101.6	3 pcs.	7500 pcs.	White gloss (GSWH)	596-12635
TAG17TD2	38.1	6.4	85.1	2 pcs.	5000 pcs.	White gloss (GSWH)	596-12617
TAG27TD2	38.1	19.1	85.1	2 pcs.	2500 pcs.	White gloss (GSWH)	596-12627
TAG67TD2	38.1	31.8	85.1	2 pcs.	2500 pcs.	White gloss (GSWH)	596-12667
TAG69TD2	40.6	22.9	89.0	2 pcs.	2500 pcs.	White gloss (GSWH)	596-12669
TAG77TD1	50.8	22.9	55.0	1 pc.	2000 pcs.	White gloss (GSWH)	596-71206
TAG73TD1	50.8	25.4	55.0	1 pc.	2000 pcs.	White gloss (GSWH)	596-12673
TAG60-110TD1	60.0	110.0	64.0	1 pc.	1000 pcs.	White gloss (GSWH)	596-00171
TAG68TD1	63.5	25.4	69.0	1 pc.	2000 pcs.	White gloss (GSWH)	596-12668
TAG63TD1	63.5	38.1	70.0	1 pc.	1000 pcs.	White gloss (GSWH)	596-12663
TAG76TD1	63.5	50.8	70.0	1 pc.	500 pcs.	White gloss (GSWH)	596-61206
TAG4TD1	65.0	20.0	70.0	1 pc.	2500 pcs.	White gloss (GSWH)	596-41206
TAG72TD1	69.9	31.8	76.0	1 pc.	1000 pcs.	White gloss (GSWH)	596-12672
TAG65TD1	76.2	36.5	82.0	1 pc.	1000 pcs.	White gloss (GSWH)	596-12665
TAG62TD1	76.2	50.8	82.0	1 pc.	500 pcs.	White gloss (GSWH)	596-12662
TAG64TD1	88.9	36.5	95.0	1 pc.	1000 pcs.	White gloss (GSWH)	596-12664

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Type label identification, laser printer

Helatag 1102 (Yellow)

These yellow labels come in various sizes and are ideal for the identification of industrial assets.

The labels can be easily printed with office laser printers. All label templates are already stored in HellermannTyton's TagPrint Pro software so label design including barcodes or logos has been made easy even with office printers.

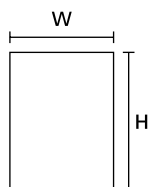
Features and benefits

- Yellow rating labels for component marking and control cabinets
- For use on flat and smooth surfaces
- Crisp and clear text, barcodes and graphics
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensures labels stay as good as new



Optimal print results with a range of office laser printers.

MATERIAL	Type 1102, Polyester, yellow (1102)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	55 µm
Chem. Material Properties	Excellent resistance against water, alcohol, most oils, lubricants, fuels, aliphatic solvents, weak acid, salts and alkalis.
UV-Stabilised	Yes



TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG156LA4	10.2	10.2	532 pcs.	19 pcs.	10000 pcs.	Yellow (YE)	594-61102
TAG122LA4	15.0	9.0	372 pcs.	27 pcs.	10000 pcs.	Yellow (YE)	594-21102
TAG120LA4	15.2	6.4	528 pcs.	19 pcs.	10000 pcs.	Yellow (YE)	594-01102
TAG154LA4	17.0	9.0	341 pcs.	30 pcs.	10000 pcs.	Yellow (YE)	594-51102
TAG124LA4	19.0	11.0	260 pcs.	20 pcs.	5000 pcs.	Yellow (YE)	594-41102
TAG13LA4	19.1	6.4	440 pcs.	23 pcs.	10000 pcs.	Yellow (YE)	594-31102
TAG121LA4	20.0	8.0	315 pcs.	32 pcs.	10000 pcs.	Yellow (YE)	594-11102
TAG62LA4	31.8	9.5	180 pcs.	28 pcs.	5000 pcs.	Yellow (YE)	594-81102
TAG171LA4	210.0	297.0	1 pc.	25 pcs.	25 pcs.	Yellow (YE)	594-71102

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Type label identification, laser printer

Helatag 1101 (White)

Used where clarity of print is most important and is ideally suited for printing barcodes and high definition graphics.
A range of sizes and materials are available to suit most cable marking and asset identification needs.
For problem-free printing, we recommend our easy to use windows based TagPrint Pro software program, which comes pre-loaded with all our standard label templates so you can start producing labels immediately.

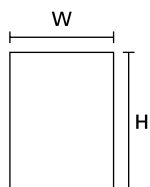
Features and benefits

- White rating labels for component marking as well as for control cabinets
- For use on flat and smooth surfaces
- Crisp and clear text, barcodes and graphics
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from www.HellermannTyton.com/templates for those wishing to use MS Word
- Clear protective box to ensures labels stay as good as new



Helatag label for permanent asset identification.

MATERIAL	Type 1101, Polyester, white (1101)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	55 µm
Chem. Material Properties	Excellent resistance against water, alcohol, most oils, lubricants, fuels, aliphatic solvents, weak acid, salts and alkalis.
UV-Stabilised	Yes



TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG156LA4	10.2	10.2	532 pcs.	19 pcs.	10000 pcs.	White (WH)	594-81101
TAG122LA4	15.0	9.0	372 pcs.	27 pcs.	10000 pcs.	White (WH)	594-31101
TAG120LA4	15.2	6.4	528 pcs.	19 pcs.	10000 pcs.	White (WH)	594-11101
TAG111LA4	16.5	5.1	605 pcs.	17 pcs.	10000 pcs.	White (WH)	594-01101
TAG154LA4	17.0	9.0	341 pcs.	30 pcs.	10000 pcs.	White (WH)	594-61101
TAG124LA4	19.0	11.0	260 pcs.	20 pcs.	5000 pcs.	White (WH)	594-11017
TAG13LA4	19.1	6.4	440 pcs.	23 pcs.	10000 pcs.	White (WH)	594-41101
TAG121LA4	20.0	8.0	315 pcs.	32 pcs.	10000 pcs.	White (WH)	594-21101
TAG155LA4	25.4	8.5	231 pcs.	22 pcs.	5000 pcs.	White (WH)	594-71101
TAG15LA4	25.4	12.7	154 pcs.	33 pcs.	5000 pcs.	White (WH)	594-91101

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

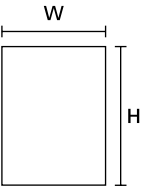


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Type label identification, laser printer

Helatag 1101 (White)

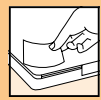


TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG62LA4	31.8	9.5	180 pcs.	28 pcs.	5000 pcs.	White (WH)	594-11016
TAG162LA4	38.1	12.7	110 pcs.	23 pcs.	2500 pcs.	White (WH)	594-11010
TAG150LA4	48.3	8.5	132 pcs.	19 pcs.	2500 pcs.	White (WH)	594-51101
TAG163LA4	48.3	12.7	88 pcs.	29 pcs.	2500 pcs.	White (WH)	594-11011
TAG165LA4	48.3	21.2	52 pcs.	20 pcs.	1000 pcs.	White (WH)	594-11012
TAG169LA4	48.3	33.9	32 pcs.	32 pcs.	1000 pcs.	White (WH)	594-11013
TAG170LA4	63.5	33.9	24 pcs.	21 pcs.	500 pcs.	White (WH)	594-11014
TAG171LA4	210.0	297.0	1 pc.	25 pcs.	25 pcs.	White (WH)	594-11015

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Warehouse and pipe labelling, thermal transfer

Helatag 1213

These coloured labels are used to identify storage systems with barcode and location information. They are also suitable for general marking of parts and components, samples and blocked goods in quality assurance, storage boxes and barrels.

Features and benefits

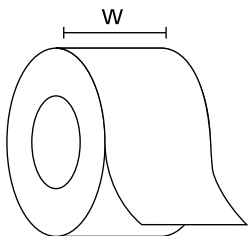
- Pipe, warehouse and shelving label
- Supplied on a continuous roll and cut by hand or automated with printer cutters
- Also for rough surfaces
- Good resistance in outdoor applications



Large and highly visible pipe marking.

MATERIAL	Type 1213, Vinyl, glossy colours (1213)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +8 °C
Adhesive	Acrylic
Thickness of Foil	95 µm
UV-Stabilised	Yes
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT, TT287

RoHS



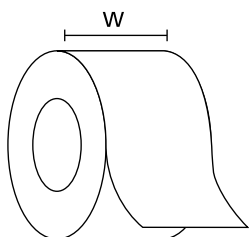
TYPE	Width (W)	Pack Cont.	Colour	Article-No.
TAGR4TD1	25.0	200 m	Blue (BU)	596-03104
	25.0	200 m	Green (GN)	596-03105
	25.0	200 m	Orange (OG)	596-03107
	25.0	200 m	Red (RD)	596-03106
	25.0	200 m	White gloss (GSWH)	596-03108
	25.0	200 m	Yellow gloss (GSYE)	596-03103

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



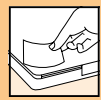
Warehouse and pipe labelling, thermal transfer

Helatag 1213



TYPE	Width (W)	Pack Cont.	Colour	Article-No.
TAG108TD1	40.0	100 m	Blue (BU)	596-12181
	40.0	100 m	Green (GN)	596-12166
	40.0	100 m	Grey (GY)	596-12188
	40.0	100 m	Orange (OG)	596-12189
	40.0	100 m	Pink (PK)	596-00971
	40.0	100 m	Red (RD)	596-12190
	40.0	100 m	White gloss (GSWH)	596-12191
	40.0	100 m	Yellow gloss (GSYE)	596-12167
TAGR50TD1	50.0	100 m	Blue (BU)	596-03111
	50.0	100 m	Green (GN)	596-03112
	50.0	100 m	Orange (OG)	596-03115
	50.0	100 m	Red (RD)	596-03113
	50.0	100 m	White gloss (GSWH)	596-03116
	50.0	100 m	Yellow gloss (GSYE)	596-12180
TAGR1TD1	101.6	50 m	Blue (BU)	596-03118
	101.6	50 m	Green (GN)	596-12170
	101.6	50 m	Orange (OG)	596-03119
	101.6	50 m	Red (RD)	596-12168
	101.6	50 m	White gloss (GSWH)	596-12171
	101.6	50 m	Yellow gloss (GSYE)	596-12169

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Warehouse and pipe labelling, thermal transfer

HTZ – Laminated Label Tapes

HTZ Laminated Label Tapes are designed to withstand the toughest conditions, making them perfect for a wide range of applications. Whether you need to label files, cables, or equipment, these tapes offer durability and clarity. Their unique laminated surface protects against water, chemicals, abrasion, and fading, ensuring your labels remain legible and intact even in harsh environments, ideal for both indoor and outdoor use.

Features and benefits

- HTZ laminated label tapes provide exceptionally clear and detailed printing
- Ideal for individual or sequential characters and barcodes
- Available in variety of sizes and colours to suit different requirements



HTZ - Laminated label tape.

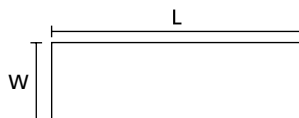


HTZ and HHS Tapes - delivered in convenient small boxes.



Tape Cartridge.

HLP0612 printer is suitable up to 12mm width tapes. More info on page 586.



MATERIAL	Polyester, acrylic adhesive (PET)
Operating Temperature	+10 °C to +55 °C
Curing Temperature	+10 °C
Adhesive	Acrylic
Thickness of Foil	25 µm
Thermal Transfer Printer	HLP0612

RoHS ✓

TYPE	Width (W)	Length (L)	Thickness (T)	Pack Cont.	Colour	Article-No.
HTZ211	6.0	8.0 m	0.12	1 pc.	Black (BK), White (WH)	596-99211
HTZ421	9.0	8.0 m	0.12	1 pc.	Black (BK), Red (RD)	596-99421
HTZ121	9.0	8.0 m	0.12	1 pc.	Black (BK), Transparent (CL)	596-99121
HTZ221	9.0	8.0 m	0.12	1 pc.	Black (BK), White (WH)	596-99221
HTZ621	9.0	8.0 m	0.12	1 pc.	Black (BK), Yellow (YE)	596-99621
HTZ131	12.0	8.0 m	0.12	1 pc.	Black (BK), Transparent (CL)	596-99131
HTZ231	12.0	8.0 m	0.12	1 pc.	Black (BK), White (WH)	596-99231
HTZ631	12.0	8.0 m	0.12	1 pc.	Black (BK), Yellow (YE)	596-99631
HTZ233	12.0	8.0 m	0.12	1 pc.	Blue (BU), White (WH)	596-99233
HTZ232	12.0	8.0 m	0.12	1 pc.	Red (RD), White (WH)	596-99232
HTZ241	18.0	8.0 m	0.12	1 pc.	Black (BK), White (WH)	596-99241
HTZ641	18.0	8.0 m	0.12	1 pc.	Black (BK), Yellow (YE)	596-99641
HTZ251	24.0	8.0 m	0.12	1 pc.	Black (BK), White (WH)	596-99251
HTZ651	24.0	8.0 m	0.12	1 pc.	Black (BK), Yellow (YE)	596-99651

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



RFID technology solutions

Radio Frequency Identification (RFID) uses radio waves to identify, track and manage assets wirelessly – no line of sight needed. Compared to barcodes, multiple RFID tags can be read at once, even in harsh environments. That means faster, more accurate data capture, improved automation and more efficient asset management.

Why choose RFID?

RFID brings practical advantages to asset tracking and process control:

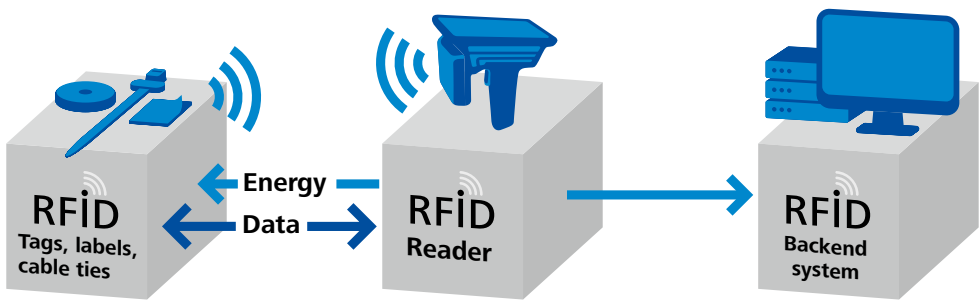
- **Contactless reading:** no line of sight is needed.
- **Bulk scanning:** hundreds of tags can be read at once.
- **Durability:** withstands dirt, moisture and heat.
- **More data:** tags can carry more data than barcodes.
- **Real-time:** instant, up-to-date asset visibility.

How it works

RFID solutions combine three main components:

- **Tags:** tiny devices with a microchip and antenna that store unique or custom data.
- **Readers:** capture signals from tags and convert them into digital data.
- **Backend system:** processes, stores, and manages data for real-time tracking.

RFID tags work on LF, HF or UHF frequencies, offering different read ranges – from a few centimeters to several metres. Choosing the right frequency and tag is key to optimal performance across supply chains, production lines or field use.



HellermannTyton RFID products

HellermannTyton offers a complete **RFID hardware range, from cable ties, hard tags and labels to readers** designed to meet the diverse needs of various industries:

RFID Cable Ties and Security Seals				RFID Hard Tags			RFID Labels	RFID Readers
LF (125 kHz) HF (13,56 MHz) UHF (860-960 MHz)				HF (13,56 MHz) UHF (860-960 MHz)			HF (13,56 MHz) UHF (840-960 MHz)	HF (13,56 MHz) UHF (840-960 MHz)
 T50RFID (standard cable ties)	 MBTRFID (metal cable ties)	 MCTRFID (detectable cable ties)	 Security Seals	 FlexLine (very flexible)	 HardLine (robust)	 ToughLine (extremely robust)	 RFID Labels	 Readers

Customised RFID solutions

HellermannTyton also provides **custom RFID solutions for specialised industrial needs**. With extensive **experience and strong market partnerships**, we can develop high-performance solutions at any scale. **Please contact us to discuss your requirements.**



Our RFID product range

Our portfolio consists of the following series:

RFID Cable Ties

Simple, fast, and durable for permanent or temporary use. Built with our decades of expertise in cable tie manufacturing, available in various sizes, colours, and materials (polyamide and stainless steel) for maximum reliability in any environment.



RFID Hard Tags and Labels



FlexLine: Highly flexible hard tags

- Robust and resilient
- Affix with cable ties or bolts
- LF, HF and UHF options.



HardLine: Rigid hard tags

- Impact resistant
- For bolt-on installation
- Ideal for machinery, bins, pallets and more.
- HF and UHF options.



ToughLine: Extremely robust hard tags

- Built for harsh conditions
- For bolt-on installation
- Ideal for heavy duty usage.
- HF and UHF options.



RFID Labels

- Self adhesive and cost-effective.
- Customisable for digital asset tracking.
- Available in HF and UHF options.

RFID Readers

Choose from handheld, desktop or stationary readers for HF and UHF applications. In partnerships with leading manufacturers, we can provide **full system setups** or help you **integrate RFID into your existing infrastructure**.

Need help choosing?

The right RFID solution depends on factors such as the environment, asset type, read range, and durability. We offer you a wide range of options, from compact, durable tags for industrial use, to flexible solutions for irregular surfaces.

Learn more on our website or get in touch with us directly for advice.





Tamper-evident security labelling, thermal transfer

Helatag 1203

These labels are ideal for tamper-proof marking of valuable inventory items as well as for type labels, security and guarantee labels for components and housings.

Features and benefits

- Tamper-evident labels leave clear reminder that label has been removed
- Mark assets securely and unambiguously
- Print labels with customer unique references
- Use text, graphics and barcodes as required

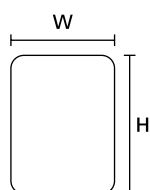


Highly visible tamper evidence.



Helatag 1203 tamper-evident security labels.

MATERIAL	Type 1203, Polyester, silver matt, tamper-proof (1203)
Operating Temperature	-40 °C to +120 °C
Curing Temperature	from +7 °C
Adhesive	Acrylic
Thickness of Foil	53 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, freezing fluid, brake fluid, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6	12.7	11.1	101.6	6 pcs.	15000 pcs.	Silver (SR)	596-71120
TAG15TD3	25.4	12.7	85.1	3 pcs.	7500 pcs.	Silver (SR)	596-51203
TAG27TD2	38.1	19.1	85.1	2 pcs.	2500 pcs.	Silver (SR)	596-71203
TAG67TD2	38.1	31.8	85.1	2 pcs.	1000 pcs.	Silver (SR)	596-67120
TAG73TD1	50.8	25.4	55.0	1 pc.	2000 pcs.	Silver (SR)	596-73120

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Tamper-evident security labelling, thermal transfer

Helatag 1203

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG66TD1	50.8	36.5	56.8	1 pc.	1000 pcs.	Silver (SR)	596-66120
TAG68TD1	63.5	25.4	69.0	1 pc.	2000 pcs.	Silver (SR)	596-68120
TAG63TD1	63.5	38.1	70.0	1 pc.	1000 pcs.	Silver (SR)	596-63120
TAG76TD1	63.5	50.8	70.0	1 pc.	500 pcs.	Silver (SR)	596-76120
TAG62TD1	76.2	50.8	82.0	1 pc.	500 pcs.	Silver (SR)	596-21203
TAG64TD1	88.9	36.5	95.0	1 pc.	1000 pcs.	Silver (SR)	596-64120
TAG98TD1	101.0	160.0	105.0	1 pc.	250 pcs.	Silver (SR)	596-98120
TAG97TD1	101.6	74.0	106.0	1 pc.	500 pcs.	Silver (SR)	596-97120

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Tamper-evident security labelling, thermal transfer

Helatag 1251, 2 parts

These labels are primarily used for tamper-proof type label applications in the automotive and electrical industries.

They are ideally suited for labelling flat surfaces, e.g. on vehicle frames and can be used as a replacement for conventional aluminium plates.

The transparent protective laminate guarantees good resistance to dirt and abrasion and can be easily applied by hand.

Features and benefits

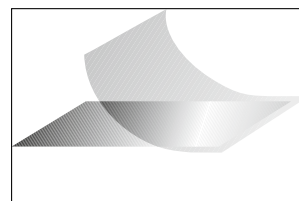
- 2-part label, delivered on reel together with the protective label
- Designed for highly visible and rugged identification on trucks and trailers
- Tamper-evident, when pulled off a checkered pattern will be visible as evident
- High durability in outside use
- Meets requirements of the KBA (Kraftfahrtbundesamt [German Federal Motor Transport Authority])
- Particularly suitable as type label for vehicles



Type plate of an HGV trailer with protective laminate.

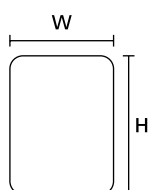


Tamper evident labels supplied in a convenient roll format.



The printed silver type plate is protected by the transparent laminate.

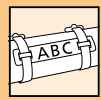
MATERIAL	Type 1251, Polyester, silver and Polyester, transparent (1251)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C (label), from +4 °C (laminate)
Adhesive	Acrylic
Thickness of Foil	63 µm, 35 µm
Chem. Material Properties	Resistant to gasoline, mineral oils, greases, aliphatic solvents, weak acids, salts and alkalis.
UV-Stabilised	Yes
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG50.8-25.4T1-SET	50.8	25.4	56.8	1 pc.	1000 pcs.	Silver (SR), Transparent (CL)	596-90001
TAG63.5-50.8T1-SET	63.5	50.8	69.5	1 pc.	500 pcs.	Silver (SR), Transparent (CL)	596-90002
TAG101-74T1-SET	101.6	74.0	107.0	1 pc.	250 pcs.	Silver (SR), Transparent (CL)	596-90003
TAG101-160T1-SET	101.6	160.0	105.8	1 pc.	250 pcs.	Silver (SR), Transparent (CL)	596-90000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Stainless steel embossing system

M-BOSS Compact

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with TagPrint Pro 4.0. Simply open the easy to use program to create print lists.

Improved cooling system now ensures a continuous operation between 8-10 hours.

Marker plates are attached to pipes and cables using 4.6 mm width MBT cable ties and a MK9SST hand tool.

Features and benefits

- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro labelling software with pre-loaded templates to simplify print jobs
- 42 piece character set as standard - can be upgraded to 60 characters
- Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- Numbers: 0 1 2 3 4 5 6 7 8 9
- Symbols: & - / . , ' ,
- Other symbols available on request

1.5 million strikes per character without maintenance

For problem-free printing we recommend TagPrint Pro, page 582.



A quiet, durable, and easy to use metal plate embossing printer.



M-BOSS Compact embossing process.

Print Method	embossing
Power Supply	AC 110V-240V, 45/65 Hz, 1.5A-3A
Cycle Time	< 1 second per character
Interfaces	USB 2.0
System Requirements	Win 7, 8, 10, 11
Dimensions W x H x D	480 mm x 355 mm x 570 mm
Weight	41.0 kg



TYPE	Article-No.
M-BOSS Compact	544-20000

Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Stainless steel embossing system

M-BOSS Compact including Organiser

The M-BOSS Compact with included Organiser system gives the added advantage of a self-contained storage system within the print unit. The organiser is a 10 container carousel storage system that can be programmed to hold either an individual or a pre-defined set of marker plates. This means that users have the flexibility to manage how they work with the printed output. A simple input screen on the top of the machine is used to specify the quantity per container within the carousel. The carousel drawer when opened extends 430 mm from the front of the printer.

Features and benefits

- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 removable marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Carousel system will hold up to 400 markers
- Each container can hold 40 marker plates



A simple solution to managing your printer output.



Organiser for M-BOSS Compact.

TYPE	Article-No.
M-BOSS Compact Organiser	544-21000

Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Stainless steel printing system

M-BOSS Compact Markers

M-BOSS Compact Markers are used in all areas where severe mechanical or chemical conditions occur e.g. offshore industry, marine engineering, petrochemical industry, mining, underground or on radio and cellular masts where mark permanence is critical.

The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker. The physical characteristics of the metal and the height of the embossed mark allows users to apply a stiff or metallic brush to the surface and remove excess layers of paint or grease without damaging the integrity of the text.

Features and benefits

- Raised marking ensure text visibility even when covered in dust, debris, grease and oil
- Made of stainless steel grade SS316L, suited for use in harsh environments
- Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
- Apply ties with a MK9SST metal cable tie tool
- Corrosion and weather resistant
- Outstanding chemical resistance
- Non-burning



Marker plates designed to survive the harshest environments.



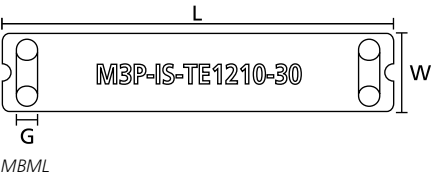
A range of metal plate sizes to suit your needs.

MATERIAL	Stainless Steel (SS316L)
Operating Temperature	-80 °C to +538 °C
UV-Stabilised	Yes
Fixing Method Identification	MBT Metal ties max width 4.6 mm

HF✓

LFH✓

RoHS✓



TYPE	Strap Width max. (G)	Number of lines	Characters per line	Number of characters	Width (W)	Length (L)	Pack Cont.	Article-No.
MBML10X45	4.6	1	8	8	10.0	44.5	1000 pcs.	544-80101
MBML10X90	4.6	1	23	23	10.0	89.5	500 pcs.	544-80102
MBML20X45	4.6	3	8	24	20.0	44.5	1000 pcs.	544-80201
MBML20X90	4.6	3	23	69	20.0	89.5	500 pcs.	544-80202

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labelling software

TagPrint Pro 5

TagPrint Pro 5 is the powerful software for the professional design and automated printing of labels, cable labelling, shrink sleeves and signs - perfectly matched to all HellermannTyton printing systems. The new template wizard makes it particularly quick to get started: select product, customise layout, add elements - done. TagPrint Pro impresses with a wide range of intelligent functions for efficient, customised and data-based labelling solutions - intuitive to use and easy to integrate into existing work processes.

TagPrint Pro 5 is the complete solution for professional, automated labelling.

Features and benefits

- Intuitive user interface with a modern design
- Innovative template wizard for a quick start
- Text, graphic and barcode functions
- Open Excel files - no import needed
- New file format for combining layout and data
- Printing on multiple devices simultaneously
- Project explorer for automated printing processes
- Multilingual user interface



Printing Software TagPrint Pro 5. Effortless labelling, powerful results.



One-step printing of label jobs to one or more printers simultaneously.

Find out more about TagPrint Pro here:
www.HellermannTyton.com/tagprint-pro

System Requirements

IBM compatible PC
Microsoft Windows 10, Windows 11
4 GB of RAM (recommended)
160 MB of available hard-disk space



TYPE	Description	Article-No.
TagPrintPro5-EMEA	Single-user license	556-00066
TagPrintPro5-Upgrade-EMEA	Single-user license - Upgrade from TagPrint Pro 4.0	556-00065

Subject to technical changes.



Thermal transfer printer

TT431, Small to medium volume printing

The TT431 thermal transfer printer is perfect for printing on HellermannTyton materials such as self-adhesive labels, shrinkable tubing and identification tags. Thanks to its low weight and compact construction, the TT431 integrates seamlessly into any workstation. It is easy to use due to its intuitive colour LCD touch display and clear status messages which can be shown in multiple languages. The optional cutter and perforator make this printer ideal for a wide range of applications. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and benefits

- Small to medium volume single sided printing
- Print on HellermannTyton cable markers and labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 150 mm/s
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 Bit Windows Vista, 7, 8, 10, 11, Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019



TT431 thermal transfer printer designed for ease of operation.

Print Method	thermal transfer print
Print Head Type	300 dpi, flat type
Print Speed	up to 150 mm/s
Max. Print Width	105.70 mm
Print Material Height Max (metric)	4000 mm
Interfaces	USB 2.0, Ethernet 10/100 Base T, RS232
Supported Barcodes	Standard and 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	253 mm x 189 mm x 322 mm
Weight	5.52 kg

RoHS ✓

TYPE	Article-No.
TT431	556-00400

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

TT431 accessories and spare parts

TYPE	Description	Article-No.
TT Printer Adapter	Printer Adapter for TT Printers	556-00012
TT430/TT431 300dpi Printhead	Printhead for TT431	556-00453
TT430/TT431 Print Roller	Print Roller for TT431	556-00454
S430 Cutter	Cutter for TT431	556-00452
P430 Perforator	Perforator for TT431	556-00456
TT External Reel Holder	External Reel Holder	556-00451
TTER120	External label rewinder	556-00013

Subject to technical changes.



Thermal transfer printer

TT4030, High volume printing

HellermannTyton's premium printer TT4030 is specifically designed for medium and heavy duty industrial applications. The 300 dpi print head fulfils all standard requirements for printing bar codes, warning signs, logos and written information. Optional premium quality accessories such as a perforator and cutter are designed to work seamlessly with the printer and will suit the most demanding needs.

Printing high definition graphics such as 2d barcodes, standard bar codes, numbers and text on adhesive labels, thermo plastics such as heat shrink and cable markers (Tiptags) is easily done.

A colour LCD Touchscreen with modern user interface helps intuitive operation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton's label creation software TagPrint Pro.

Whether in stand-alone mode, as a PC application or in a network - the robust TT4030 printers can meet every requirement.

Features and benefits

- High volume single sided printing
- Print on HellermannTyton heatshrink tubing, cable markers and labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 300 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, 8, 10, 11



TT4030 thermal transfer printer for high volumes.

Print Method	thermal transfer print
Print Head Type	300 dpi, flat type
Print Speed	up to 300mm/s
Max. Print Width	105.70 mm
Print Material Height Max (metric)	2000 mm
Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes	Standard, 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	252 mm x 288 mm x 460 mm
Weight	11.38 kg

RoHS ✓

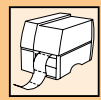
TYPE	Article-No.
TT4030	556-04037

Subject to technical changes.

TT4030 accessories and spare parts

TYPE	Description	Article-No.
TT Printer Adapter	Printer Adapter for TT Printers	556-00012
TT4030 Printhead	Printhead for TT4030	556-04041
Printer Roller TT4030/TT4000+	Printer Roller for TT4030/TT4000+	556-04005
S4030 Cutter	S4030 Cutter for TT4030	556-04050
P4030 Perforator	Perforator for TT4030	556-04051
TT External Reel Holder	External Reel Holder	556-00451
TTER120	External label rewinder	556-00013

Subject to technical changes.



Thermal transfer printer

TT4030DS, Double Sided

The TT4030DS is a high-performance printer for double-sided printing. This printer is perfect for double-sided printing on HellermannTyton shrinkable tubing. With two print heads mounted one on top of the other, the TT4030DS prints onto both sides of the material at the same time. High reliability and multiple peripherals enable applications and solutions tailored to specific customer requirements. It is easy to use thanks to its colour touchscreen display and clear status messages which can be shown in multiple languages. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and benefits

- High volume double-sided printing
- Prints perfectly on HellermannTyton heat shrink ladder style products
- Colour touchscreen display
- Print resolution 300 dpi
- Print heating can be assigned separately to each print head
- Printing labels using only print head 2
- Optimized printing by ribbon saving option
- Multiple language selection



TT4030DS thermal transfer printer, ideal for shrinkable cable markers.

Print Method	thermal transfer print
Print Head Type	300 dpi, flat type
Print Speed	150 mm/s max.
Max. Print Width	105.7 mm
Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Dimensions W x H x D	248 mm x 395 mm x 594 mm
Weight	24.7 kg

RoHS

TYPE	Article-No.
TT4030DS	556-04061

All dimensions in mm. Subject to technical changes.

TT4030DS accessories and spare parts

TYPE	Description	Article-No.
TT4030 Printhead	Printhead for TT4030	556-04041
Printer Roller TT4030/TT4000+	Printer Roller for TT4030/TT4000+	556-04005
S4030 Cutter	S4030 Cutter for TT4030	556-04050
P4030 Perforator	Perforator for TT4030	556-04051
TT External Reel Holder	External Reel Holder	556-00451
TTER120	External label rewinder	556-00013

All dimensions in mm. Subject to technical changes.



Handheld thermal transfer printer

HLP0612, Handheld Label Printer

Handheld label printer can be used to label and organize in construction sites, electricity enclosures, factory environments, telecommunication, lab, postboxes, fixed assets and others, including electricians, technicians and outdoor operations.

22 languages supported by the HLP0612: Czech, Danish, German, English, Spanish, French, Croatian, Italian, Hungarian, Dutch, Norwegian, Polish, Portuguese, Romanian, Slovak, Slovenian, Finnish, Swedish, Turkish, Estonian, Latvian, Lithuanian. Printed manual in English only.

Package includes:

- 1 x label printer
- 1 x USB Type C power cord
- 1 x 12mm white label tape

Features and benefits

- Support 6/9/12mm label print
- Manual full cut
- Support 22 kinds of system language
- Special key to realize input variant form of the Latin letters
- Can print Flag/Wrap label, barcode



HLP0612 Handheld Label Printer.



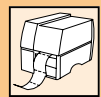
Print easily on HTZ and HHS Tapes with the portable printer HLP0612.

MATERIAL	Plastic (PL)
Print Method	thermal transfer print
Print Head Type	180 dpi
Print Speed	10mm/s
Max. Print Width	12 mm
Supported Barcodes	CODABAR, CODE39, ITF25, CODE128, EAN-13, EAN-8, UPC-A, UPC-E
Dimensions W x H x D	109 mm x 213 mm x 61.5 mm
Weight	0.72 kg

RoHS

TYPE	Article-No.
HLP0612	556-00014

All dimensions in mm. Subject to technical changes.



Selection matrix: materials and ribbons

Use this selection matrix to find the right combination of material and ribbon to suit your application.

● yes — no

yes — no		Resistance to							Market (suggested)							
Material (Page)	Thermal Transfer Ribbon	Smudgeproof	Scratchproof	Partly smudgeproof	Oils / benzenes	Alcoholic solvents	Etching	Approved	Aerospace	Automotive	Electronics	Machine Building	Military	Process Control	Rail	Food & Pharma
Labels																
Helatag 1232 (530)	TT822OUT	●	●	—	●	—	—	—	—	—	●	●	—	●	—	—
Helatag 323 (531)	TT932DOUT	●	—	—	—	—	—	—	—	—	●	●	—	●	—	—
Helatag 896 (528)	TT932DOUT	●	—	—	—	—	—	—	—	—	●	●	—	●	—	—
Helatag 934 (533)	TT822OUT	●	●	—	●	—	—	—	—	—	●	●	—	—	—	—
Helatag 1206 (566)	TT822OUT	●	●	—	●	—	—	●	—	—	●	●	—	●	—	—
Helatag 1251 (578)	TT822OUT	●	●	—	●	—	—	●	—	●	●	●	—	—	—	—
Helatag 880 (558)	TT822OUT	●	●	—	●	—	—	—	—	—	—	●	—	●	—	—
Helatag 892 (553)	TT822OUT	●	●	—	●	—	—	—	—	—	—	●	—	●	—	—
Helatag 1203 (576)	TT822OUT	●	●	—	●	—	—	●	—	—	●	●	—	●	—	—
Helatag 1204 (564)	TT822OUT	●	●	—	●	—	—	●	—	●	●	●	—	●	—	—
Helatag 1211 (557)	TT822OUT	●	●	—	●	—	—	—	—	—	—	●	—	●	—	—
Helatag 1213 (571)	TT822OUT	●	●	—	●	—	—	—	—	—	—	●	—	●	—	—
Helatag 1220 (562), Helatag 1221 (563)	TT122OUT	●	●	—	●	●	—	—	—	—	●	●	—	●	—	—
	TT822OUT	●	●	—	●	—	—	—	—	—	●	●	—	●	—	—
Heat shrink markers																
TCGT (508), TULT (510)	TT822OUT8	—	—	●	—	—	—	—	●	—	●	●	●	●	—	—
	TTDTHOUT	●	●	—	●	●	—	—	●	●	●	●	●	●	—	—
	TTRW	—	—	●	—	—	—	—	●	—	●	●	●	●	—	—
TULT DS (512)	TTDTHOUT	●	●	—	●	●	—	—	●	●	●	●	●	●	—	—
TLFX (514), TLFX DS (517), TLFD DS (519)	TTDTHOUT	●	●	—	●	●	—	—	—	—	—	●	—	—	●	—
Cable Tags TIPTAGs																
TAGLF (527), TIPTAG HF (521)	TTDTHOUT	●	●	—	●	●	—	—	—	—	—	●	—	—	●	—
TAGPU (524), TAGPU LOOP (526)	TT287, TTRC+	●	●	—	●	●	—	—	—	—	●	●	—	●	—	—
TIPTAG PU (522)	TTRC+	●	●	—	●	●	●	—	—	—	●	●	—	●	—	—
TIPTAG MC (523)	TTDTHOUT	—	—	—	●	●	—	—	—	—	—	—	—	—	—	●
	TTRW	—	—	—	●	●	—	—	—	—	—	—	—	—	—	●



Thermal transfer ribbons for

Adhesive Labels

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

Features and benefits

- Thermal transfer ribbons for highest quality and performance of printed labels
- Ribbons are specifically designed to maximise print performance for the recommended material

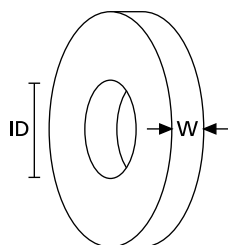


Easy application of ribbons on HellermannTyton thermal transfer printers.



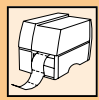
Ribbons for printing on adhesive labels.

ID: The standard inside core diameter for all the ribbons is 25.4 mm.



TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TT822OUT 60MM	323, 892, 934, 1203, 1204, 1206, 1211, 1213, 1221, 1232, 1251	Black (BK)	60.0	300 m	556-00111
TT822OUT 110MM	323, 892, 1203, 1204, 1206, 1211, 1213, 1220, 1221, 1232, 1251	Black (BK)	110.0	300 m	556-00101
TT932DOUT 85MM	323, 896	Black (BK)	85.0	300 m	556-00117
TT932DOUT 110MM	323, 896	Black (BK)	110.0	300 m	556-00118
TT122OUT 60MM	1220, 1221	Black (BK)	60.0	300 m	556-00060
TT122OUT 110MM	1220, 1221	Black (BK)	110.0	300 m	556-00061
TTRR 110	1220, 1221	Red (RD)	110.0	300 m	556-00208
TT287-110MM	TAGPU/LOOP/1213	White (WH)	110.0	300 m	556-00246

All dimensions in mm. Subject to technical changes.



Thermal printer ribbons for

Heatshrink and Tiptags

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

Features and benefits

- Thermal transfer ribbons for high quality print results on heat shrink tubing and Tiptag identification tags
- Ribbons are specifically designed to maximize print performance for the recommended material

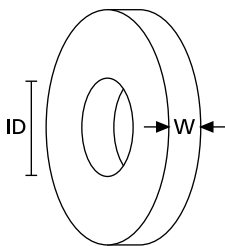


Easy application of ribbons on HellermannTyton thermal transfer printers.



Ribbons for printing on tubes and Tiptags.

ID: The standard inside core diameter for all the ribbons is 25.4 mm.



TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TT287-100MM	TAGPU/LOOP	Black (BK)	100.0	300 m	556-00245
TT287-110MM	TAGPU/LOOP/1213	White (WH)	110.0	300 m	556-00246
TT822OUT8 110MM	TCGT, TULT	Silver (SR)	110.0	300 m	556-00161
TTDTHOUT 40MM	TCGT, TULT, TLFX, TLFD, TIPTAG	Black (BK)	40.0	300 m	556-00139
TTDTHOUT 60MM	TCGT, TULT, TLFX, TLFD, TIPTAG	Black (BK)	60.0	300 m	556-00140
TTDTHOUT 100MM	TCGT, TULT, TLFX, TLFD, TIPTAG	Black (BK)	100.0	300 m	556-00141
TTRW 30MM	TCGT, TULT, TTAGMC	White (WH)	30.0	300 m	556-00125
TTRW 60MM	TCGT, TULT, TTAGMC	White (WH)	60.0	300 m	556-00137
TTRC+ 30MM	TIPTAG PU, TAGPU/LOOP	Black (BK)	30.0	300 m	556-00114
TTRC+ 60MM	TIPTAG PU, TAGPU/LOOP	Black (BK)	60.0	300 m	556-00115
TTRC+ 100MM	TIPTAG PU, TAGPU/LOOP	Black (BK)	100.0	300 m	556-00103

All dimensions in mm. Subject to technical changes.



6.0 Technical Information

Bundling efficiency has a name	592
Product Selection	
Tool Overview for Cable Ties	593
Flowchart for optimum tool selection	594
Tool Overview	595



6.1 Automatic Cable Tying System

Automatic bundling up to Ø 20 mm	
Autotool CPK hybrid T18RA	596
Cable ties for Autotool CPK hybrid	597
Waste-free bundling up to Ø 100 mm	
Autotool System ATS flex	598
Cable ties for Autotool System ATS	599



6.2 Application Tooling for Cable Ties

Battery-powered tool, tensioning and cutting hand-applied cable ties	
ProCut	600
Manual tensioning tool plastic housing	
EVO7i, EVO7ISP	601
EVO9i, EVO9ISP, EVO9IHT, EVO9SG	602
Accessory for EVO family	
CALTOOL	602
Pneumatic tensioning tool metal housing	
MK3PNP2	603

Pneumatic tensioning tool plastic housing	
MK9P	604
Manual tensioning tool for cable ties with low profile head	
MK10-SB	605
Manual tensioning tool, simple version	
MK20, MK21	605
Manual tensioning tool for KR-Series	
EVO KR	606
KR6/8	606
Pneumatic tensioning tool for KR8-Series	
KR8PNSE	607
Manual tensioning tool for metal ties MBT-Series	
MK9SST	608
Pneumatic tensioning tool plastic housing	
MK9PSST	608
Manual tensioning tool for metal ties MBT-, MLT- and AMT-Series	
HDT16	609
Manual tensioning tool for metal ties MBT-Series	
KST-STG200	609
Manual tensioning tool for metal ties MST-Series	
MST6	610
MST9	610



6.3 Application Tooling for Cutting Plastic Ties

Manual cutting tool for plastic ties

EVO cut	611



6.3 Application Tooling for Snappers

Manual Tool

ASNP, MSNP snapper tools	612



6.3 Application Tooling for Heat Shrinkable Tubing

Gas powered hot air tool

CHG900	613



6.3 Application Tooling for Non Shrinkable Tubing

Three-pronged pliers for sleeves and grommets

TPPexpand 3	614
VA2.5/5 - reinforced	615



6.3 Application Tooling for Braided Sleeves

Helagaine Braided Slewing

HSG0 hot cutting tool	616



6.3 Application Tooling for Identification

Manual Tool for Helafix HCR

Helafix HCT application tool	617

Bundling efficiency has a name: Cable tie guns by HellermannTyton

Our application tools are the perfect solution for optimum tensioning and cutting of cable ties - whether manual, semi-automatic or fully automatic.

You want to automate your process? Let's talk about our Autotool Series with the CPK hybrid and ATS flex and your project. They can be integrated in fully automated production lines and provide extensive data evaluation and monitoring the process – with power pack, with battery or waste-free.

Seeing is believing. Are you interested in semi-automatic or fully automated application tools? Contact us today:

toolsystems@HellermannTyton.com



TOOL SYSTEMS. LEADING TYING TECHNOLOGY.



AUTOTOOLS

Fully automatic. Fast. Constant.

Efficient and automatic tool program for fully automation of the production process.

Tools for binding.



SEMI-AUTOMATIC TOOLS

Pneumatic. Electric. Long-lasting.

Flexible and hand-operated tool program to speed up the production processes.

Tools for binding.



HAND TOOLS

Manual. Precise. Reliable.

Manual and varied tool program to improve production processes with the patented TLC-technology.

Tools for binding and cutting.



The patented TLC-technology delivers increased productivity:

- Application force and effort are significantly reduced
- Precise cutting of the cable tie right at the head
- Smooth fastening of the cable tie without recoil
- Protects muscles and joints and herewith the health of the user



Automatic Cable Tying System



CPK hybrid.
See page 596.



ATS flex.
See page 598.

Which tool for which cable tie? Please refer to the reference numbers in the data tables in Chapter 1.

Manual and pneumatic tensioning tools for plastic cable ties



ProCut.
See page 600.

6



EVO7i/EVO7iSP.
See page 601.

5



EVO9i/EVO9iSP, EVO9SG.
See page 602.

7, 8



EVO9iHT.
See page 602.

9



MK3PNSP2.
See page 603.

4



MK9P.
See page 604.

10



MK10-SB.
See page 605.

1



MK20, MK21.
See page 605.

2, 3

Manual and pneumatic tensioning tools for plastic cable ties KR-Series



KR6/8.
See page 606.

11



EVO KR.
See page 606.

12



KR8PNSE.
See page 607.

13

Manual and pneumatic tensioning tools for metal cable ties



MK9SST.
See page 608.

15



MK9PSST.
See page 608.

16



HDT16.
See page 609.

17



KST-STG200.
See page 609.

18



MST6.
See page 610.

19



MST9.
See page 610.

20



Flowchart for optimum tool selection

Cable Tie Type	Bandwidth	Tool Type	Tool Name	Page
Conventional plastic cable ties	≤ 4.8 mm	Manual	EVO7i/EVO7iSP	601
			MK10-SB	605
			MK20	605
	≥ 4.8 mm	Semi-automatic/ Pneumatic	MK3PNSP2	603
		Manual	EVO9i, EVO9iSP, EVO9iHT	602
			MK10-SB	605
			MK21	605
		Semi-automatic/ Electric	ProCut	600
		Semi-automatic/ Pneumatic	MK9P	604
		2.5 mm	Automatic and electrically operated	CPK hybrid
	4.5 mm	ATS flex		598
Plastic cable ties KR-Series	6.0 mm	Manual	EVO KR, KR6/8	606
	8.0 mm		KR8PNSE	607
	Metal cable ties MBT-Series	≤ 12.3 mm	Manual	KST-STG200
≤ 16.0 mm		MK9SST		608
		HDT16		609
		Semi-automatic/ Electric		MK9PSST
Metal cable ties AMT- and MLT-Series	≤ 16.0 mm	Manual	HDT16	609
Metal cable ties MST-Series	5.9 mm	Manual	MST6	610
	8.9 mm		MST9	610

Application Tooling for Cutting Plastic Ties



EVO cut.
See page 611.

25

Application Tooling for Snappers



MSNP, ASNP.
See page 612.



ASNP.
See page 612.

Application Tooling for Heat Shrinkable Tubing



CHG900.
See page 613.

32

Application Tooling for Non Shrinkable Tubing



TPPexpand 3.
See page 614.

37, 38



VA.
See page 615.

39–41

Which tool for which product? Please refer to the reference numbers in the data tables in each chapter.

Application Tooling for Braided Sleeves



HSG0.
See page 616.

45

Application Tooling for Identification



HCT1, HCT2.
See page 617.

50–51



Automatic bundling up to Ø 20 mm

Autotool CPK hybrid

The Autotool CPK hybrid T18RA offers full flexibility for automated cable tying. Choose your option: Cordless operation with rechargeable batteries, corded with main power via power pack or a mixture of both – When working on several projects, at different locations or in tight spaces without power supply.

The CPK hybrid has been developed to: Speed up bundling processes, make the production more consistent and efficient and simplify the operation and user-friendly ergonomics. It offers a display for the settings and presets, user information and the software "HT Data Management CPK".

The CPK hybrid is ideally suited for handling high volume applications – With either the Bench mount kit CPK or the Overhead suspension CPK, the CPK hybrid is suitable for both stationary and flexible applications.

Features and benefits

- Cable tying system operated electrically via Power supply (Power pack CPK – Input: 100-240 V a.c., 50/60 Hz; Output: 25.2 V d.c., max. 150 W) or use with 18V 2,0 Ah quick rechargeable Li-Ion Battery (8.000 bindings can be applied with a fully charged battery)
- Well established cooperation with metabo for battery and charger
- Removable handle for space-saving integration into fully automated production lines (Power pack CPK with control box necessary)
- HT Data Management CPK software (included for extensive data evaluation and export function for manufacturing data, further service functions and consistent documentation of every binding process)
- Smart Cable for updating the tool without Power pack
- Bandoliers of 50 cable ties as well as reels of 3,500 cable ties can be used
- Bench mount kit CPK for stationary use or Overhead suspension CPK for flexible use



Battery-operated Autotool CPK hybrid applying cable ties from bandolier.



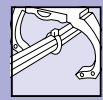
Bench mount kit CPK with foot pedal (also shown Autotool CPK hybrid, Power pack CPK and T18RA3500).



Overhead suspension CPK with Autotool CPK hybrid battery operated (also shown T18RA3500).

TYPE	Description	Weight	Article-No.
Autotool_CPK_hybrid	Autotool CPK hybrid T18RA	1.813 kg	106-60000
Bench mount kit CPK	Bench mount kit CPK	10.1 kg	106-00040
Autotool_CPK_hybrid_Battery_Set	CPK hybrid Battery Set	3.184 kg	106-66000
NP CPK smart cable	CPK smart cable	0.091 kg	123-90142
Overhead suspension CPK	Overhead suspension CPK	3.88 kg	106-00050
Power pack CPK	Power pack CPK	1.6 kg	106-00100
Power pack CPK with control box	Power pack CPK with control box	1.18 kg	106-00110
SP_CAS_Battery_18V_2Ah	CAS Battery 18V 2Ah	0.396 kg	106-06020
SP_CAS_Battery_Charger	CAS Battery Charger	0.547 kg	106-06021

Subject to technical changes.



Automatic bundling up to Ø 20 mm

Cable ties for Autotool CPK hybrid

The inside-serrated cable ties are designed for use specifically in the automatic cable tying systems. The Autotool CPK hybrid is ideally suited for handling high volumes applications in wire harness facilities, automotive and industrial companies as wells as the packaging sector.

Features and benefits

- Available in bandoliers of 50 cable ties or reels of 3,500 cable ties
- Repetitive tension on the bundles
- Easily recyclable



Cable ties for Autotool CPK hybrid.

Please find the corresponding Bundling Clips on page 142.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)	Polyamide 6.6, heat and UV-resistant (PA66HSW)	Polyamide 4.6 (PA46)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)		-40 °C to +150 °C, (+195 °C, 500 h)
Flammability	UL 94 V2		

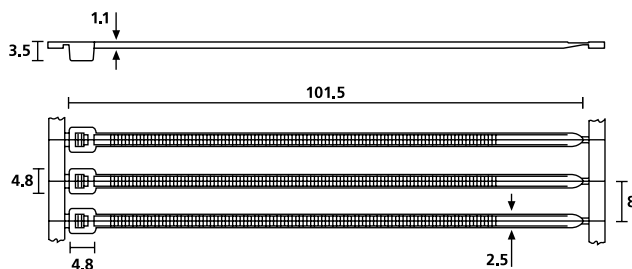
HF ✓

RoHS ✓

HF ✓

LFH ✓

RoHS ✓



Bandolier T18RA

TYPE	Bundle Ø max.	N	Colour	Material	Pack Cont.	Article-No.
T18RA50	20.0	80	Black (BK)	PA66HSW	2000 pcs.	120-40020
T18RA3500	20.0	80	Black (BK)	PA66HSW	3500 pcs.	120-50010
	20.0	80	Natural (NA)	PA46	3500 pcs.	120-46009
T18RA50	20.0	80	Natural (NA)	PA66HS	2000 pcs.	120-40019
T18RA3500	20.0	80	Natural (NA)	PA66HS	3500 pcs.	120-50009

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. More colours on request. Please contact us. N = Minimum Loop Tensile Strength for Cable Ties (newton)

Halogen-free according to the interdictions of the GADSL list and compulsory registration of the SVHC list.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Waste-free bundling up to Ø 100 mm

Autotool System ATS flex

The Autotool System ATS flex is an automated and electric cable tying system. It has been developed to speed up bundling processes and operates waste-free.

The advantage of three quick-changeable jaw sizes allows the Autotool System ATS flex to adapt perfectly to different bundle diameters up to Ø 100 mm.

With either the Bench mount kit ATS or the Overhead suspension ATS, the Autotool System ATS flex is suitable for both stationary and flexible applications. The Autotool System ATS flex can also be integrated into fully automated production lines.

Custom designed jaws are available to enable bundling of foot parts on production lines.



Autotool ATS flex on the harness board (also shown: Overhead suspension ATS).

Features and benefits

- Electrically operated cable tying system (Power pack ATS flex)
- Power supply through Power pack ATS flex - Input: 240/150 V a.c., 50/60 Hz; Output: 24 V d.c., max. 100 W
- High quality, waste-free bundling up to Ø 100 mm with flush cut off
- Jaws with diameters of 30, 50 and 80 mm - included in delivery
- 100 mm jaw size solution as accessory on request
- Cycle time 1.1-2.4 seconds depending on bundle diameter
- Bundle diameter mechanically detected
- Integration into Bench mount kit ATS (vertical or horizontal) for stationary use or Overhead suspension ATS for flexible use possible
- Integration into fully automated production lines possible
- Foot part bundling with custom jaw design Ø 50 mm



Bench mount kit ATS (also shown: Autotool System ATS flex).



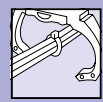
Overhead suspension ATS (also shown: Autotool System ATS flex and consumables).

TYPE	Description	Weight	Article-No.
ATS_flex	Autotool System ATS flex	2.443 kg	102-60000
Bench_mount_kit_automatic_ATS	Bench mount kit automatic ATS	17.0 kg	102-00042
Bench_mount_kit_horizontal_ATS	Bench mount kit horizontal ATS	14.0 kg	102-00041
Bench_mount_kit_ATS	Bench mount kit movable ATS	25.3 kg	102-00040
Overhead_suspension_ATS	Overhead suspension ATS	11.0 kg	102-00050
Power_pack_ATS_flex_24V	Power pack ATS flex	1.16 kg	102-00150

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Waste-free bundling up to Ø 100 mm

Cable ties for Autotool System ATS

The outside serrated strap is perfectly suitable for sensitive surfaces and can be used for bundling and fixing of cables, pipes and hoses, as well as for bag sealing.

The materials are particularly appropriate for high volume bundling applications in cable assembly, automotive, industrial and packaging applications.

Features and benefits

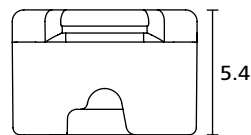
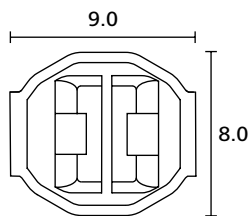
- Innovative two-piece consumables: closure and strap
- Outside serrated strap protects the bundle
- Available on reels of 500 m strap and 5,000 pcs. closures



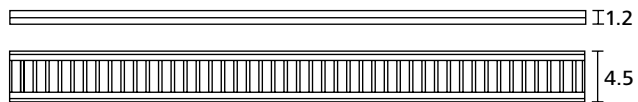
Closures and strap for Autotool System ATS.

Please find the corresponding Bundling Clips on page 142.

MATERIAL	Polyamide 6.6, high impact modified, heat and UV-stabilised (PA66HIRHSUV)	Polyamide 6.6, heat and UV-stabilised (PA66HSUV)	
Operating Temperature	-40 °C to +95 °C, (+105 °C, 5000 h; +145 °C, 500 h)	-40 °C to +105 °C	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL 94 HB	UL 94 V2	



Closure ATS



Strap

TYPE	Description	Bundle Ø max.	N	Colour	Material	Pack Cont.	Article-No.
Closures_Black_ATS	Closures Black ATS	100.0	225	Black (BK)	PA66HSUV	5000 pcs.	102-66210
Closures_Natural_ATS	Closures Natural ATS	100.0	225	Natural (NA)	PA66HSUV	5000 pcs.	102-66209
Strap_Black_ATS	Strap Black ATS	100.0	225	Black (BK)	PA66HIRHSUV	500 m	102-66110
Strap_Natural_ATS	Strap Natural ATS	100.0	225	Natural (NA)	PA66HIRHSUV	500 m	102-66109

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. N = Minimum Loop Tensile Strength for Cable Ties (newton)



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Battery-powered tool for tensioning and cutting cable ties

ProCut

The ProCut battery powered cable tie tool system automatically tensions and cuts T50-T250 and wide strap cable ties. A single pull of the trigger does all the work. Its 16 tension settings ensure precision results. Designed for professionals with an ergonomic, soft-grip handle and low-force trigger to reduce hand strain. A secondary trigger button on the rear assists in hard-to-reach applications. The ProCut can produce up to 2,000 cycles per charge utilizing the included Metabo CAS battery (also used on our CPK Hybrid tool) and charger.

Features and benefits

- Cordless operation means less hand strain and no cord to get in the way.
- Auto calibration after every cycle means exceptionally consistent performance.
- Flush cut nose piece and blade ensure clean, safe cuts.
- Included Metabo CAS 2.0 Ah battery and charger are compatible with several other tool brands.



ProCut: battery-powered application tool for cable tying in heavy-duty.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
ProCut 9 no battery	ProCut	13.5	2.0	1.149 kg	104-10010
ProCut_Battery_Set	ProCut Set (incl. 2 batteries and 1 charger)	13.5	2.0	5.612 kg	104-11000
SP_CAS_Battery_18V_2Ah	CAS Battery 18V 2Ah	-	-	0.396 kg	106-06020
SP_CAS_Battery_Charger	CAS Battery Charger	-	-	0.547 kg	106-06021

All dimensions in mm. Subject to technical changes.



Manual tensioning tool plastic housing

EVO7i up to 4.8 mm strap width

HellermannTyton's EVO7i industrial-grade, mechanical hand tool is ergonomically designed to reduce the risks of repetitive stress injuries to operators while simultaneously increasing productivity. The EVO7i Tension/Lock/Cut Technology delivers performance, safety and comfort for operators. Calibrated tensioning assures consistent wire-bundle tension before flush cut-off. Available in a standard grip span (EVO7i) or short grip span (EVO7iSP), for smaller hands. Additional accessories are available.

Features and benefits

- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Extended, slim nose for use in narrow spaces
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (90 mm) and short grip span (80 mm) available



The EVO7i: Maximum performance with minimum effort.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO7i	4.8	1.5	0.236 kg	110-77001
EVO7iSP	4.8	1.5	0.279 kg	110-77002

All dimensions in mm. Subject to technical changes.



Manual tensioning tool plastic housing

EVO9i up to 13.5 mm strap width

HellermannTyton's EVO9i industrial-grade, mechanical hand tool is ergonomically designed to reduce the risks of repetitive stress injuries to operators while simultaneously increasing productivity. The EVO9i Tension/Lock/Cut Technology delivers performance, safety and comfort for operators. Calibrated tensioning assures consistent wire-bundle tension before flush cut-off. Available in a standard grip span (EVO9i) or short grip span (EVO9iSP) for smaller hands. The EVO9iHT is the "high tension" version of the EVO9i family. Additional accessories are available.

Features and benefits

- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (90 mm) and short grip span (80 mm) available
- EVO9iHT for high tension applications
- EVO9SG is a modified EVO9 tool that is suitable for the application of Soft Grip ties



Manual tensioning tool EVO9i.

EVO9SG for the application of Soft Grip ties!

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO9i	13.5	2.0	0.369 kg	110-88001
EVO9iSP	13.5	2.0	0.369 kg	110-88002
EVO9iHT	13.5	2.0	0.373 kg	110-88003
EVO9SG	12.7	2.9	0.357 kg	110-80130

All dimensions in mm. Subject to technical changes.

Manual Processing Tools

CALTOOL for calibration of EVO family

The CALTOOL serves for the fine or readjustment of the EVO family.

Features and benefits

- The factory setting (setting 0-8) of the EVO family can be changed



CALTOOL for calibration of EVO family.

TYPE	Weight	Article-No.
EVO Calibration Tool	0.032 kg	110-70089

Subject to technical changes.



Pneumatic tensioning tool metal housing

MK3PNSP2 up to 4.8 mm strap width

The MK3PNSP2 pneumatic bundling tool is characterised by its unique repeatability at high bundling performance. The cut end of the tie is automatically ejected. The usual work interruptions to remove the cable tie sections omitted. The pneumatic tensioning tool ensures high process reliability in production, above all in the automotive industry.

Features and benefits

- Pneumatic tensioning tool
- Tough metal housing
- For cable ties up to 4.8 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- High application speed
- Reliable and low maintenance



The pneumatic tensioning tool MK3PNSP2 for plastic cable ties with max. width of 4.8 mm.

Air Supply	non oiled, oiled
Air Pressure (min.)	5.5 Bar
Air Pressure (max.)	6 Bar
Hose Internal Diameter	4.0 mm
L x W x H	225 mm x 40 mm x 140 mm



TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK3PNSP2	4.8	1.5	0.555 kg	110-03400

All dimensions in mm. Subject to technical changes.



Pneumatic tensioning tool plastic housing

MK9P up to 13.5 mm strap width

The MK9P is constructed with heavy duty parts to ensure optimum performance. It is ideally designed to apply heavy-duty ties like they are used in vehicle construction like trucks, busses and railways.

Features and benefits

- Pneumatic tensioning tool
- Glass-fibre-reinforced housing
- For cable ties up to 13.5 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- High application speed
- Holding ring for a balancer
- Optional with lower or upper air attachment



The pneumatic tensioning tool MK9P for plastic cable ties with max. width of 13.5 mm.



MK9P is also available with upper air attachment.

Air Supply	non oiled, oiled
Air Pressure (min.)	3 Bar
Air Pressure (max.)	6 Bar
Hose Internal Diameter	4.0 mm
L x W x H	280 mm x 55 mm x 200 mm

RoHS ✓

TYPE	Strap Width max.	Strap Thickness max.	Air att. Position	Weight	Article-No.
MK9P	13.5	2.5	lower air connection	0.82 kg	110-09100
MK9P w/ Upper air	13.5	2.5	top air connection	1.057 kg	110-09110

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for cable ties with low profile head

MK10-SB up to 9.5 mm strap width

Features and benefits

- Ideal for easy handling of entire HellermannTyton RPE, PE and LPH series
- Tensions and cuts off pre-looped cable ties flush at the head



MK10-SB.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK10-SB	9.5	2.5	0.372 kg	110-10001

All dimensions in mm. Subject to technical changes.

Manual tensioning tool for cable ties, simple version

MK20 up to 4.8 mm strap width

MK21 up to 7.6 mm strap width

Features and benefits

- Lightweight, ergonomic tools
- For tensioning and cutting standard cable ties 4.8 - 7.6 mm width
- Ideal for on-site assembly
- Mounted and pretensioned ties are cut off by twisting tool
- Simply apply cable tie, tension and twist to cut



Manual tensioning tools MK20 and MK21.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK20	4.8	1.5	0.05 kg	110-20006
MK21	7.6	2.5	0.05 kg	110-21016

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for KR-Series

EVO KR

The EVO KR is designed to apply KR cable ties. Due to its special design the application is secure and offers a high vibration resistance. The EVO KR tool crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection. One reason for customers, especially in the railway and automotive industry, to take this system as a preferred solution.

Features and benefits

- One-hand operation
- Sideway insertion of the cable tie
- Lightweight plastic housing
- One front plate to apply 6 mm and 8 mm KR cable ties
- Tension adjustment and possibility to calibrate EVO KR tool



The manual tensioning tool EVO KR for KR-Series cable ties.

TYPE	For Ties	Strap Width max.	Weight	Article-No.
EVO-KR	KR6, KR8	8.0	0.537 kg	121-68000

All dimensions in mm. Subject to technical changes.

Manual tensioning tool for KR-Series

KR6/8

Application tool KR6/8 crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection.

Features and benefits

- Tough metal tool for applying KR cable ties only
- For tensioning, fixing and cutting KR cable ties
- Simply change the front plate to apply 6 mm or 8 mm straps



The manual tensioning tool KR6/8 for KR-Series cable ties.

TYPE	For Ties	Strap Width max.	Weight	Article-No.
KR6/8	KR6, KR8	8.0	0.69 kg	121-00680

All dimensions in mm. Subject to technical changes.



Pneumatic tensioning tool for KR8-Series

KR8PNSE

Application tool KR8PNSE crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection.

Features and benefits

- Pneumatic tool with tough metal housing
- For applying KR8 cable ties only
- For tensioning, fixing and automatic cutting KR8 cable ties
- Tension force can be adapted depending on air pressure
- Holding ring for a balancer



The pneumatic tensioning tool KR8PNSE for KR8-Series cable ties.

Air Supply	non oiled, oiled
Air Pressure (min.)	3 Bar
Air Pressure (max.)	4 Bar
Hose Internal Diameter	6.0 mm
L x W x H	320 mm x 50 mm x 210 mm

RoHS

TYPE	For Ties	Strap Width max.	Weight	Article-No.
KR8PNSE	KR8	8.0	1.537 kg	121-00889

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for metal ties MBT-Series

MK9SST up to 16.0 mm strap width

The MK9SST is constructed with heavy duty parts to ensure optimum performance. It is designed to apply our MBT cable ties with a strap width of up to 16 mm. The tool is ideally suited for use in most arduous environments such as found on board ships, oil rigs, constructions or in nuclear power stations.

Features and benefits

- Glass fiber reinforced housing for extra durability.
- Ergonomic design protects against repetitive strain injuries.
- Calibrated for consistent tensioning and cutting of MBT/MAT-series metal ties.



MK9SST.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK9SST	16.0	0.5	0.514 kg	110-95000

All dimensions in mm. Subject to technical changes.

Pneumatic tensioning tool for metal ties MBT-Series

MK9PSST up to 16.0 mm strap width

The MK9PSST pneumatic stainless steel tool is constructed with heavy-duty parts to ensure optimum performance in demanding environments. It is ideally designed to apply stainless steel metal ball tie series (MBT) up to 16.0 mm width.

Features and benefits

- Unique levels of repeatability and accuracy
- High application speed and low maintenance
- Improved compressed air supply for faster tensioning piston movement
- Shorter processing time and greater volume of connecting tie application
- Ergonomic design
- Automatic ejection of cut-off cable tie end
- Ideally designed to apply stainless steel MBT-Series up to 16.0 mm width
- On air pressure between 3 and 6 bar



MK9PSST.

Air Supply	non oiled, oiled
Air Pressure (min.)	3 Bar
Air Pressure (max.)	6 Bar
Hose Internal Diameter	4.0 mm
L x W x H	280 mm x 55 mm x 200 mm

RoHS ✓

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK9PSST	16.0	0.5	0.972 kg	110-95350

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for metal ties MBT-, MLT- and AMT-Series

HDT16 up to 16.0 mm strap width

The HDT16 application tool is designed for installing heavy duty stainless steel cable ties within a range of industries such as shipbuilding, oil rigs, mining and mass transit. The tool can easily be adjusted making it suitable for applying both MBT, MLT and AMT cable ties with a strap width of up to 16 mm.

Features and benefits

- Two way nose piece for use with MBT-Series and AMT-, MLT-Series stainless steel cable ties
- Easy adjustment of the handles to ensure the most ergonomic position for the operator
- Integrated cutting mechanism delivering a flush cut and professional finish every time
- The ideal tool for achieving a perfect installation of MBT, MLT and AMT cable ties



HDT16.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
HDT16	16.0	0.8	0.8 kg	110-41000

All dimensions in mm. Subject to technical changes.

Manual tensioning tool for metal ties MBT-Series

KST-STG200 up to 12.3 mm strap width

The KST-STG200 application tool is designed for installing heavy duty stainless steel cable ties within a range of industries such as shipbuilding, oil rigs, mining and mass transit. The tensioning strength can be adjusted while pulling the trigger. The tool is easy to handle and far more reliable than trying to tension the ties by hand.

Features and benefits

- Tough metal tool
- Operator controlled tensioning
- Cut off by pulling the hand lever



KST-STG200.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
KST-STG200	12.3	0.4	0.562 kg	110-09950

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for metal ties MST-Series

MST6 for 5.9 mm strap width

The MST6 tool has been specially developed for reliably applying HellermannTyton metal cable ties of the MST-S series. Due to the punch-lock mechanism the tie is mechanically crimped and leads to metal deformation of the tie ends. This punch-lock mechanism ensures a reliable bundling with perfect resistance to vibration. The tension force is freely adjustable by the operator.

Features and benefits

- Tough metal tool
- Ergonomic design
- Consistent tensioning and automatically cutting of metal ties
- Designed for use with MST-S Series ties (5.9 mm)
- For tensioning, fixing and cutting MST-S metal ties only



MST6.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MST6	5.9	0.3	0.532 kg	110-61000

All dimensions in mm. Subject to technical changes.

Manual tensioning tool for metal ties MST-Series

MST9 for 8.9 mm strap width

The MST9 tool has been specially developed for reliably applying HellermannTyton metal cable ties of the MST-M series. Due to the punch-lock mechanism the tie is mechanically crimped and leads to metal deformation of the tie ends. This punch-lock mechanism ensures a reliable bundling with perfect resistance to vibration. The tension force is freely adjustable by the operator.

Features and benefits

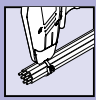
- Tough metal tool
- Ergonomic design
- Consistent tensioning and automatic cutting of metal ties
- Designed for use with MST-M Series ties (8.9 mm)
- For tensioning, fixing and cutting MST-M metal ties only



MST9.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MST9	8.9	0.3	0.532 kg	110-13000

All dimensions in mm. Subject to technical changes.



Manual cutting tool for plastic ties

EVO cut

The EVO cut is a cutting tool for plastic ties, which ensures the cut of the strap or head while preserving wires and harnesses from being damaged. This applies to flexible cables, bundles and lines as well as rigid bundled goods. Its use is recommended in many applications for which wires and harnesses have a high value added. Especially for sensitive cable harnesses the use of the EVO cut is recommended. The cutting tool is made of a lightweight plastic housing and an ergonomic, non-slip handle for a comfortable and secure grip. The tool includes eight interchangeable nosepieces for plastic cable ties and KR-Series ties of varying widths and thicknesses.

Features and benefits

- Cutting tool for plastic ties and KR-Series
- Tie can be cut off at any part of the strap or the cable tie head
- Ensures the cable isolation from being damaged
- Light-weighting plastic housing, ergonomic design
- Single-handed operation
- Includes eight interchangeable nosepieces for respective cable tie width, thickness and head size



Zip tie cutter EVO cut: Cutting tool for plastic cable ties and heads.



Zip tie cutter EVO cut: Securely removes cable ties from bundling good.



Zip tie cutter EVO cut: Nosepieces designed for secure cutting.



Secure cutting of cable tie straps with the EVO cut zip tie cutter.



Zip tie cutter EVO cut: Easily exchanged nosepieces.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO_cut	8.0	2.1	0.317 kg	110-05105

All dimensions in mm. Subject to technical changes.



Snapper Tools

- MSNP1-70 for Snapper Size 1 to 70
- ASNP2-22 for Snapper Size 2 to 22
- ASNP24-70 for Snapper Size 24 to 70

Features and benefits

- For efficient fixing of the snapper hose clips
- MSNP tool: handy for installation on site
- ASNP tool: suitable for series production. Retaining screw limits the draw-in area prevents overstretching of the snapper

Snapper hose clips for tubes and harnesses see page N/A.

Pneumatic Tools for Snapper are available on request. Contact us!



Snapper Application Tools MSNP1-70 and ASNP24-70.



Snapper Application Tool ASNP2-22.

TYPE	Application	Weight	Material	Colour	Article-No.
MSNP1-70	SNP-Series 1 up to 70	0.18 kg	Metal (MET), Plastic (PL)	Yellow (YE)	191-01700
ASNP2-22	SNP-Series 2 up to 22	0.2 kg	Metal (MET), Plastic (PL)	Blue (BU)	191-02220
ASNP24-70	SNP-Series 24 up to 70	0.25 kg	Metal (MET), Plastic (PL)	Red (RD)	191-24700

Subject to technical changes.



Cordless Heat Gun - Gas powered

CHG900

The HellermannTyton CHG900 Cordless Heat Gun is powered by P445 gas cartridges, providing autonomous working of 60 minutes in one go. The tool is designed to produce flameless heat which makes it the ideal hot-air gun to apply a huge variety of heat shrink tubing and heat shrink wire markers as well as molded shapes or heat shrink boots, transition shapes, end caps and cable repair sleeves especially in harsh outdoor conditions covering freezing temperatures as low as -8 °C.

Features and benefits

- Cordless heat gun powered by P445 gas cartridges
- Flameless heat - no direct flame outlet
- Autonomous operating time: 1 hour
- Qualified for harsh outdoor conditions (-8 °C)
- Lightweight 440 g tool (555 g incl. cartridge)
- Hands-free operation due to integrated standing pod
- Quick start piezo ignition
- Instant turnaround due to antifiare feature
- Precise gas flow adjustment
- Ergonomic rugged design
- Quick gas cartridge exchange
- Tool-free maintenance



HellermannTyton Cordless Heat Gun Kit - CHG900.



Gas Nozzle for CHG900 Heat Gun.



Piezo Ignition Trigger for CHG900 Heat Gun.

TYPE	Description	Article-No.
CHG900	Cordless Heat Gun - CHG900 Set incl. P445 Gas Cartridge and 2 nozzles.	391-90010
Piezo CHG900	CHG900 Spare Part - Piezo Ignition Trigger.	391-90011
Gas Nozzle	CHG900 Spare Part - Gas Nozzle.	391-90012
P445	P445 Gas Cartridge (Butane, Propane, Propene).	391-90101

Subject to technical changes.



Three-pronged pliers for sleeves and grommets

TPPexpand 3

Three-pronged pliers are ideal for widening plastic mouldings, sections, or thicker rubber parts.

Simply slide the grommet onto the prong, squeeze the pliers together, pull it over the cable, release the grommet – and it's perfectly positioned!

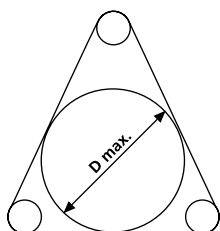
Features and benefits

- Easy installation of all types of grommets on cables and wires
- Ergonomic design, compact and lightweight for maximum comfort
- Flexible use for both right- and left-handed users
- Prong replacement without special tools
- Compatible consumables available – Helsyn grommets and Hellerine lubricant



Powerful and secure application with TPPexpand 3 - Three Pronged Pliers.

**For Hellerine
lubricant see page
N/A.**



Three-prong pliers D = max.
application diameter

TYPE	Description	Ø D min.	Ø D max.	Max. length of marker	Article-No.
TPPexpand_3.3	Three-Pronged Plier TPPexpand 3.3	4	14	26	621-30000
TPPexpand_3.7	Three-Pronged Plier TPPexpand 3.7	6	15	37	621-30002
TPPexpand3.3_Prong	Replacement prongs TPPexpand 3.3	4	14	26	621-30003
TPPexpand3.7_Prong	Replacement prongs TPPexpand 3.7	6	15	37	621-30005

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Three-pronged pliers for sleeves and grommets

VA2.5/5 - reinforced

Expansion tools are used to ensure speedy and precise application of expandable markers and sleeves.

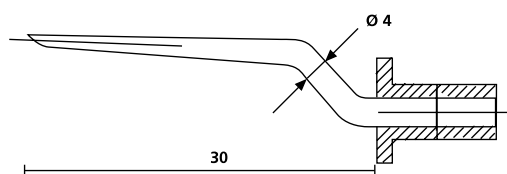
Features and benefits

- Suitable for expanding tubing cut lengths and rubber parts
- Withstands high loading
- Set of 3 2.5/5 pins
- Adaptable to larger diameters with replacement prong sizes 8 and 18
- Hellerine lubricant recommended for easy operation

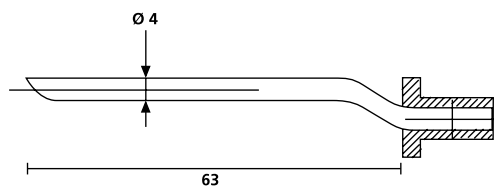


VA2.5/5.

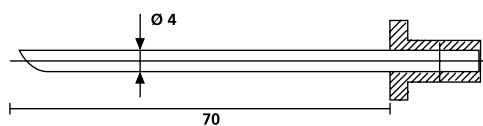
**For Hellerine
lubricant see page
N/A.**



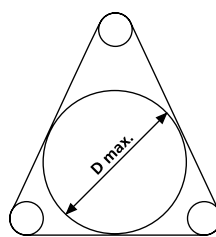
Replacement prong size 2.5/5



Replacement prong size 8



Replacement prong size 18



Three-prong pliers D = max.
application diameter

TYPE	Description	Ø D min.	Ø D max.	Article-No.
VA2.5/5	Expansion tool VA2.5/5	3	15.5	621-00200
VA-2.5/5 PRONG	Replacement prongs size 2.5/5	3	15.5	621-01200
VA2.5/5 PRONG 8	Replacement prongs size 8	8	17	621-02200
VA2.5/5 PRONG 18	Replacement prongs size 18	18	22	621-03200

All dimensions in mm. Subject to technical changes.



Hot cutting tool

HSG0

The HSG0 hand tool is used to cut braided sleeving cleanly and without fraying.

Features and benefits

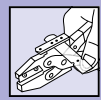
- Light and sturdy
- Heats up quickly with the press of button and cuts in seconds
- The yarn melts and fuses together
- No fraying of the sleeving



The HSG0 hot cutting tool prevents the braided sleeving from fraying.

TYPE	Description	Weight	Colour	Article-No.
HSG0	Hot cutting tool	1.15 kg	Blue (BU)	170-99001
HSG0BLADE	Replacement blade	0.027 kg	Metal (ML)	170-99002

Subject to technical changes.



Helafix Tool

HCT1 for carrier size HCR09
HCT2 for carrier size HCR12

HCT1 and HCT2 tools are ideal for cleanly cutting the carrier strip as well as punching out the securing holes. For HCR06, HCR18 and HCR24, the front part of the pliers can be used. To fix the character holders HC and HCR simply use the T18 range of cable ties, fixings or rivets.

Features and benefits

- Cleanly cut Helafix HCR carrier tubing
- Punch securing holes on edges of HCR09 (HCT1) and HCR12 (HCT2)
- Apply punched HCR09 and HCR12 with T18 range of cable ties
- Suitable for punching rivet holes in HCR06, HCR18 and HCR24 tubing
- Punch hole diameter 2.5 mm
- Fix with T18 range of cable ties or suitable rivets



Any length can be used...



...just cut to suit.

TYPE	For Carrier Width	For Size	Ø (D)	Article-No.
HCT1	10.0	HCR09	2.5	525-00010
HCT2	13.0	HCR12	2.5	525-00013

All dimensions in mm. Subject to technical changes.



7.1 Product Approvals and Specifications

Standards Overview

620



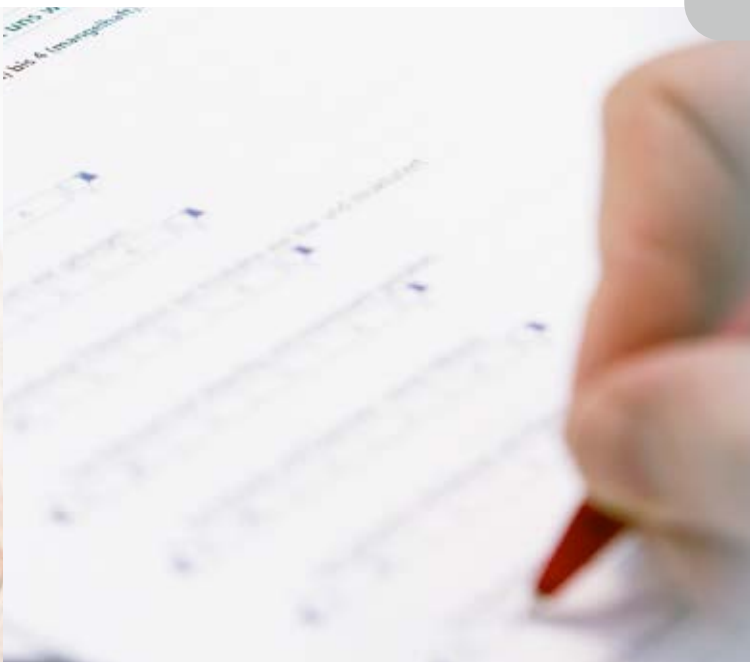
7.2 Numerical Index

623



7.3 Alphanumerical Index

643





Standards/Standards Organisations/Authorities

ABS	American Bureau of Shipping	USA	
ASN	AeroSpatiale Normalisation	France	
ASTM	ASTM International	USA	
BS	British Standard	Great Britain	
DAN	Deutsche Airbus Norm	Europe	
DEF STAN	Defence Standard	Great Britain	
DNV	Det Norske Veritas	Norway	
ECE	World Vehicle and Vehicle Law Harmonization Forum	Europe	
EN 45545-2	European Standard EN 45545-2	Europe	
EN 50343	European Standard EN 50343	Europe	
FCC	Federal Communications Commission	USA	
LEA	Liste des Equivalences Approuvés	France	
MIL	Military Specification	USA	
MS	Military Standard	USA	
NASM	National Aerospace Standard, Metric	USA	
NF F	Norme Française Ferroviaire	France	
RINA	Registro Italiano Navale (RINA)	Italy	
SAE	Society of Automotive Engineers	USA	



Standards/Standards Organisations/Authorities

STD	Standard for Dassault	France	
UL	Underwriters Laboratories	USA	
UNI CEI	Ente Nazionale Italiano di Unificazione Comitato Elettrotecnico Italiano	Italy	
VG	Verteidigungsgerätenorm der Bundeswehr	Germany	

References

NSA	Norm Sud Aviation	France	

Testing Institute/Certifying Company

BV	Bureau Veritas	France	
CSA	Canadian Standards Association	Canada	
DEMKO	Danske Elektriske Materialekontrol	Denmark	
DNV	Det Norske Veritas	Norway	
IMQ	Certificazione di prodotti	Italy	
FIMKO	Suomalainen testaus ja sertifiointiyritys	Finland	
KEMA KEUR	KEMA Quality B.V.	Netherlands	
LR	Lloyd's Register	Great Britain	
NEMKO	Norges Elektriske Materiellkontroll	Norway	
SEMKO	Sveriges Elektriska Materielkontroll	Sweden	
UL Recognized	Underwriters Laboratories Recognized Canada and US	Canada, USA	
VDE	Verband der Elektrotechnik, Elektronik, Informationstechnik	Germany	



Certification mark

ATEX	ATEX (Atmosphères Explosibles) Directive	International	
CE	Conformité Européenne	Europe	
CEBEC	Comité for electrotechnical Belgium European Community	Belgium	
ECE	World Vehicle and Vehicle Law Harmonization Forum	Europe	
EN 45545-2	European Standard EN 45545-2	Europe	
EN 50343	European Standard EN 50343	Europe	
ENEC	European Norms Electrical Certification	Europe	
GS	Geprüfte Sicherheit	Europe	
JAR/FAR	Joint Aviation Regulations / Federal Aviation Regulations	Europe, USA	
JN	Particular Specification developed for Eurofighter Program		
NFPA	National Fire Protection Association	USA	
UL	Underwriters Laboratories	USA	
UL Recognized	Underwriters Laboratories Recognized	USA	
cULus	Canadian Underwriters Laboratories	Canada, USA	
VDE	Verband der Elektrotechnik, Elektronik, Informationstechnik	Germany	

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
102-00040	Bench_mount_kit_ATS		598	110-88003	EVO9iHT		602	111-01500	MBT17XHFC		82
102-00041	Bench_mount_kit_horizontal_ATS		598	110-95000	MK9SST		608	111-01503	MBT43XHFC		82
102-00042	Bench_mount_kit_automatic_ATS		598	110-95350	MK9PSST		608	111-01512	MBT14UHFC		82
102-00050	Overhead_suspension_ATS		598	111-00000	T18R	YES	33	111-01513	MBT17UHFC		82
102-00150	Power_pack_ATS_flex_24V	YES	598	111-00118	LK2A		39	111-01514	MBT20UHFC		82
102-60000	ATS_flex	YES	598	111-00124	T150M		24	111-01515	MBT23UHFC		82
102-66109	Strap_Natural_ATS	YES	599	111-00127	LK2A		39	111-01516	MBT27UHFC		82
102-66110	Strap_Black_ATS	YES	599	111-00153	T120M		31	111-01518	MBT33UHFC		82
102-66209	Closures_Natural_ATS	YES	599	111-00222	T50I		32	111-01521	MBT27UHDFC		83
102-66210	Closures_Black_ATS	YES	599	111-00253	LFPC129		87	111-01549	MST200S		84
102-67040	ATS62x122-2DOP90		124	111-00254	LFPC132		87	111-01550	MST360S		84
102-67042	ATS62x122-2DOP		124	111-00255	LFPC163		87	111-01551	MST500S		84
102-67050	ATSFT5LG		124	111-00257	LFPC83		87	111-01552	MST700S		84
102-67062	ATSFT6LG		124	111-00264	T30R		35	111-01625	T40R		28
102-67066	ATSBCFT6LG		144	111-00288	MBT5SFC		81	111-01626	T40R		23
102-67067	ATSFT6		124	111-00289	MBT8SFC		81	111-01627	T40R		30
102-67081	ATSFT8GSD		124	111-00290	MBT14SFC		81	111-01631	MST360M		84
102-68350	ATSEC35		239	111-00291	MBT20SFC		81	111-01632	MST500M		84
102-68355	ATS8CEC35		148	111-00292	MBT27SFC		81	111-01633	MST700M		84
102-68360	ATSEC36		239	111-00293	MBT33SFC		81	111-01664	MCTPP18R		46
102-68365	ATS8CEC36		148	111-00294	MBT8HFC		81	111-01665	MCTPP30R		46
102-68366	ATS8CEC36		148	111-00295	MBT14HFC		81	111-01666	MCTPP50R		46
102-68368	ATSBC60SOC20SB55		147	111-00296	MBT20HFC		81	111-01667	MCTPP50L		46
102-68370	ATSEC37		239	111-00297	MBT27HFC		82	111-01668	MCTPP120R		46
102-68375	ATS8CEC37		148	111-00298	MBT33HFC		82	111-01718	T18R	YES	38
102-68380	ATSEC38		239	111-00299	MBT14XHFC		82	111-01719	T30R	YES	38
102-68385	ATS8CEC38		148	111-00300	MBT20XHFC		82	111-01720	T50S	YES	38
102-68390	ATSEC19		239	111-00301	MBT27XHFC		82	111-01721	T50R	YES	38
102-69065	ATSBCSFT6.5-MD		142	111-00302	MBT33XHFC		82	111-01910	T18R		23
102-69066	ATSBCSFT6.5		142	111-00317	T50I		34	111-01917	T18R	YES	37
102-69067	ATSBCSFT6.5		142	111-00388	T80L		31	111-01919	T18R		23
102-69068	ATSBC2KSFT6.5		142	111-00447	T120R	YES	33	111-01922	T18R	YES	37
102-69080	ATSBCOWSFT6.5		142	111-00525	T50R		35	111-01950	T18R		30
102-69089	ATSBCSFT6.5PT2.3-3.3		142	111-00526	T50L		35	111-01959	T18R		30
104-10010	ProCut 9 no battery		600	111-00659	T18R		36	111-01960	T18R		28
104-11000	ProCut_Battery_Set		600	111-00698	T30R		36	111-02043	T18L		34
106-00040	Bench mount kit CPK		596	111-00718	T50L		36	111-02049	T18L		30
106-00050	Overhead suspension CPK		596	111-00732	T50R		36	111-02110	T18L		23
106-00100	Power pack CPK		596	111-00819	T120R(E)		35	111-02119	T18L		23
106-00110	Power pack CPK with control box		596	111-00824	T50R		35	111-02159	T18L		30
106-06020	SP_CAS_Battery_18V_2Ah	596, 600		111-00829	MCT30R		44	111-02160	T18L		28
106-06021	SP_CAS_Battery_Charger	596, 600		111-00830	MCT50R		44	111-02217	T50I	YES	38
106-60000	Autotool_CPK_hybrid		596	111-00831	MCT50L		44	111-02319	T18I		23
106-66000	Autotool_CPK_hybrid_Battery_Set		596	111-00937	MCTRELK2M	YES	71	111-02358	T18I		30
108-00004	X80R		41	111-01125	T120R		36	111-02359	T18I		30
108-00018	X80I		41	111-01136	MCT120R		44	111-02360	T18I		28
108-00028	X80L		41	111-01168	MCT50L		44	111-02370	T18I		23
108-00040	X120R		41	111-01225	MCT18R		44	111-02500	T25L		23
108-00045	X250I		41	111-01235	PT220		40	111-02519	T25L		23
108-00050	X250R		41	111-01301	MBT14UH		79	111-02619	T25LL		23
108-00052	X250R		41	111-01302	MBT20UH		79	111-02660	T25LL		28
110-03400	MK3PNSP2		603	111-01304	MBT33UH		79	111-02809	T18S		23
110-05105	EVO_cut		611	111-01305	MBT43UH		79	111-03004	T30R		26
110-09100	MK9P		604	111-01306	MBT49UH		79	111-03006	T30R		26
110-09110	MK9P w/ Upper air		604	111-01307	MBT27XHD		80	111-03008	T30R		26
110-09950	KST-STG200		609	111-01311	MBT60XHD		80	111-03009	T30R		23
110-10001	MK10-SB		605	111-01312	MBT27UHD		80	111-03014	T30R		26
110-13000	MST9		610	111-01313	MBT33UHD		80	111-03017	T30R	YES	37
110-20006	MK20		605	111-01341	MCTS100		45	111-03050	T30R		30
110-21016	MK21		605	111-01342	MCTS150		45	111-03083	T30R	YES	33
110-41000	HDT16		609	111-01343	MCTS200		45	111-03210	T30R		23
110-61000	MST6		610	111-01381	MCTS150		45	111-03259	T30R		30
110-70089	EVO Calibration Tool		602	111-01382	MCTS200		45	111-03260	T30R		28
110-77001	EVO7i		601	111-01385	MCTS200		45	111-03410	T30L		23
110-77002	EVO7ISP		601	111-01399	MCTS300		45	111-03419	T30L		23
110-80130	EVO9SG		602	111-01400	MCTS300		45	111-03450	T30L		30
110-88001	EVO9i		602	111-01401	MCTS300		45	111-03459	T30L		30
110-88002	EVO9ISP		602	111-01402	MCTS300		45	111-03460	T30L		28

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
111-03500	T30LL		23	111-12402	T120L		32	111-81910	IT18FL		552
111-03529	T30LL		23	111-12403	T120L		24	111-81919	IT18FL		551
111-03569	T30LL		30	111-12429	T120L		24	111-85019	IT50R		552
111-03570	T30LL		28	111-12430	T120L		29	111-85100	IT50RT		552
111-03660	T30LL		30	111-12440	T120L		31	111-85119	IT50RT		552
111-03970	T40R		30	111-12449	T120L		31	111-85219	IT50RD		552
111-04800	T50R		26	111-12610	T120M		24	111-85319	IT50L		552
111-04801	T50R		26	111-12619	T120M		24	111-85339	T50SSL5		100
111-04804	T50R		26	111-12660	T120M		29	111-85395	T50SSL5		100
111-04805	T50R		26	111-12700	T120XM		31	111-85480	RT50SD6	YES	96
111-04889	T50R		28	111-12701	T120XM		24	111-85720	T50RSFM		100
111-04890	T50R		32	111-12704	T120XM		24	111-85729	T50RSFM		100
111-04928	T50R	YES	37	111-12719	T120XM		31	111-85739	T50SSFM		100
111-04931	T50R	YES	37	111-12829	T120S		24	111-85810	T50RFT10		116
111-04950	T50R		30	111-12830	T120S		29	111-85871	T50RFT7		115
111-05000	T50R		24	111-14810	T150R		24	111-85880	T50RFT8		115
111-05013	T50R		24	111-14819	T150R		24	111-91000	MLT8SSC5		85
111-05018	T50R	YES	33	111-14860	T150R(H)		29	111-91121	MLT12SSC5		85
111-05019	T80R		24	111-15050	T150R(H)		31	111-91123	MLT12SSC10		86
111-05059	T80R		31	111-15069	T150R(H)		31	111-91161	MLT16SSC5		86
111-05060	T80R		29	111-15300	T150XLL		25	111-91163	MLT16SSC10		86
111-05210	T50I		24	111-15305	T150XLL		29	111-91181	MLT24SSC10		86
111-05219	T50I		24	111-15405	T150L		24	111-91210	T120R(E)		34
111-05220	T50I		35	111-15410	T150L		31	111-91400	MLT24SS5		85
111-05250	T50I		31	111-15419	T150L		24	111-91819	T18R		34
111-05259	T50I		31	111-15460	T150L		29	111-93000	LFPC70		87
111-05260	T50I		28	111-15500	T150XL		24	111-93019	T30R		34
111-05400	T50L		24	111-15502	T150XL		29	111-93058	MBT5SS		76
111-05402	T50L		26	111-15510	T150XL		31	111-93059	MBT5S		78
111-05404	T50L		26	111-15519	T150XL		24	111-93088	MBT8SS		76
111-05406	T50L		26	111-15609	T150M		31	111-93089	MBT8S		78
111-05409	T50L		24	111-15619	T150M		24	111-93148	MBT14SS		76
111-05410	T80L		24	111-15660	T150M		29	111-93149	MBT14S		78
111-05419	T80L		24	111-24601	T250L		25	111-93208	MBT20SS		76
111-05428	T50L		26	111-24803	T250R		25	111-93209	MBT20S		78
111-05436	T50L		31	111-24805	T250R		29	111-93278	MBT27SS		76
111-05438	T50L		34	111-25001	T250M		25	111-93279	MBT27S		78
111-05440	T50L		28	111-25002	T250M		25	111-93338	MBT33SS		76
111-05441	T50L		32	111-25102	T250X		25	111-93339	MBT33S		78
111-05450	T50L		31	111-25200	T250XL		25	111-94000	LFPC103		87
111-05459	T80L		31	111-25219	T250I		25	111-94088	MBT8HS		76
111-05460	T80L		29	111-30000	TELS-1	YES	61	111-94089	MBT8H		78
111-05810	T50S		23	111-31000	EL-TY (TELSH)	YES	61	111-94120	MLT12SS5		85
111-05819	T50S		23	111-32000	EL-TY (TELS-SPK2)	YES	61	111-94148	MBT14HS		76
111-05850	T50S		30	111-50000	SGT100S		57	111-94149	MBT14H		79
111-05859	T50S		30	111-50001	SGT100S		57	111-94208	MBT20HS		76
111-05860	T50S		28	111-60104	LK2A		39	111-94209	MBT20H		79
111-06200	T50M		24	111-60106	LK2A		39	111-94278	MBT27HS		76
111-06201	T50M		24	111-60108	LK2A		39	111-94279	MBT27H		79
111-06206	T50M		28	111-60110	LK2A		39	111-94338	MBT33HS		76
111-08010	T80R		24	111-60119	LK2A		39	111-94339	MBT33H		79
111-08210	T80I		24	111-60136	LK2A		39	111-95000	LFPC150		87
111-08229	T80I		24	111-60150	LK2A		39	111-95019	T50R		34
111-08259	T80I		31	111-60160	LK2A		39	111-95120	MLT12SS10		85
111-08290	T80I		29	111-60219	LK2		39	111-95148	MBT14XHS		77
111-08313	T120R	YES	37	111-60501	LK5		39	111-95149	MBT14XH		79
111-12001	T120R(E)		27	111-60510	LK5		39	111-95208	MBT20XHS		77
111-12002	T120R(E)		27	111-60519	LK5		39	111-95209	MBT20XH		79
111-12010	T120R(E)		24	111-60559	LK5		39	111-95278	MBT27XHS		77
111-12019	T120R(E)		24	111-60560	LK5		39	111-95279	MBT27XH		79
111-12032	T120R(E)		32	111-70110	RLT150	YES	63	111-95338	MBT33XHS		77
111-12050	T120R(E)		31	111-70119	RLT150	YES	63	111-95339	MBT33XH		79
111-12059	T120R(E)		31	111-70159	RLT150	YES	63	112-00006	RPE350	YES	54
111-12060	T120R(E)		29	111-70160	RLT150	YES	63	112-00024	CTT150L		42
111-12203	T120I		32	111-70319	RLT120	YES	63	112-00033	LPH500		55
111-12210	T120I		24	111-70361	RLT120	YES	63	112-00034	LPH750		55
111-12219	T120I		24	111-81821	IT18R		551	112-00082	SPH175	YES	56
111-12230	T120I		29	111-81860	IT18R		552	112-00083	SPH275	YES	56

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
112-00084	SPH350	YES	56	115-28898	SOFTFIX XXL	YES	69	121-63555	KR6/35		58
112-00203	LPH175		55	115-31100	DCT11		180	121-63560	KR6/35		58
112-00303	LPH275		55	115-40200	REZ200	YES	70	121-68000	EVO-KR		606
112-00403	LPH350		55	115-40300	REZ300	YES	70	121-74359	KR8/43		58
112-18060	PE180		53	116-01812	T18R		26	121-74360	KR8/43		58
112-18061	PE180		53	116-01814	T18R		26	121-82119	KR8/21		58
112-18200	PE400SH		53	116-01815	T18R		26	121-82155	KR8/21		58
112-18201	PE400SH		53	116-01816	T18R		26	121-82160	KR8/21		58
112-18202	PE400SH		53	116-05412	T80L		27	121-83319	KR8/33		58
112-18203	PE400SH		53	116-05414	T80L		27	121-83355	KR8/33		58
112-27560	RPE275	YES	54	116-05415	T80L		27	121-83360	KR8/33		58
112-35060	RPE350	YES	54	116-05416	T80L		27	121-83378	KR8/33		58
112-51919	CTT20R		42	116-08012	T80R		26	121-83380	KR8/33		58
112-51960	CTT20R		42	116-08014	T80R		26	121-98151	KR8/S1	YES	60
112-52112	CTT60R		42	116-08015	T80R		26	121-98160	KR8/S1	YES	60
112-53060	PE530		53	116-08016	T80R		26	123-90142	NP CPK smart cable		596
112-56019	CTT60R		42	116-15012	T150R(H)		27	126-00000	T50SOSEC13E		224
113-01810	T18MR		189	116-15014	T150R(H)		27	126-00017	T50SST5		91
113-01819	T18MR		189	116-15016	T150R(H)		27	126-00065	T50SOSSFT6.5E-MS-MD		97
113-03010	T30MR		189	117-00008	T50LDH		43	126-00075	T50SOSKSFT5.4E		91
113-03019	T30MR		189	117-05000	T50RDH		43	126-00081	T50SOSKSFT6.5E		91
113-05010	T50MR		189	117-05002	T50RDH		43	126-00086	T50SOSKSFT6.5S2-E		91
113-05019	T50MR		189	117-05050	T50RDH		43	126-00099	T50SOSKSFT5S-E		91
113-05060	T50MR		189	117-05060	T50RDH		43	126-00163	T50SAH		100
113-05419	T50ML		189	117-05168	T50RDH		43	126-00183	PT2ASFT6.5PT0.7-1.5-E		91, 94
113-12020	T120MR		189	117-05350	T50IDH		43	126-00235	T50SOSEC20-E		225
113-12029	T120MR		189	117-05360	T50IDH		43	126-00253	T50SOSEC12E		224
113-12060	T120MR		189	118-00018	T50MOS		47	126-00255	T30SOS-AS-SFT6.5-E		91
114-01879	T18R		35	118-00032	PT2A		51	126-00327	T50SSFM		100
114-03079	T30R		35	118-00035	T18ROS		47	126-00329	T30RSF		105
114-12179	T120R(E)		35	118-00044	T30LOS		47	126-00330	T30RSF		105
115-00000	SpeedyTie (RTT750HR)	YES	72	118-00066	T120ROS		48	126-00341	T30SOSASSFT6.5x4.0E		91, 99
115-00001	SpeedyTie (RTT750HR)	YES	72	118-00067	T120ROS		48	126-00416	T18RSF		100
115-00002	LR55R	YES	66	118-00079	T18ROS		47	126-00419	T18RSF		100
115-00003	LR55R	YES	66	118-00080	T30LOS		47	126-00426	T50SOSEC34E		225
115-00004	LR55R	YES	66	118-00081	T50MOS		47	126-00429	T30SOSASDHA6x11E		120
115-00005	LR55R	YES	66	118-00082	T120ROS		48	126-00450	T30SOSASFMB4APT-A-E		157
115-00006	LR55R	YES	66	118-00089	V150R		52	126-00465	S50SOSEC1.5-4TVE	YES	223
115-00008	LR55R	YES	66	118-00116	PT3B		51	126-00471	S50SOSEC1.5-4.0SVE	YES	223
115-00027	REL180	YES	65	118-00127	T50ROS		47	126-01104	T50SSFM		100
115-00030	SpeedyTie (RTT750HR)	YES	72	118-00128	T50MOS		47	126-01900	T50SL8		100
115-00034	DCT9		180	118-00130	T120ROS		48	126-02204	T50SSL5		100
115-00043	REZ300	YES	70	118-00149	T50ROS	YES	47, 49	126-02300	T50SST5		91
115-00106	REZ200	YES	70	118-00173	T50MOS	YES	47, 49	126-03000	YQR10016		104
115-00132	REZ200	YES	70	118-00174	T120ROS	YES	48-49	126-03100	T50SOSSFT6.5E-MDL		97
115-00138	REZ300	YES	70	118-00270	S50ROS	YES	50	126-03102	T50SOSSFT6.5E		91
115-00147	REZ200	YES	70	118-00272	S50ROS	YES	50	130-00012	TEXTIE S	YES	73
115-00161	ORF150-S	YES	67	118-04701	T18ROS		47	130-00013	TEXTIE M	YES	73
115-02000	RELK2M	YES	62	118-04800	T30ROS		47	130-00014	TEXTIE M	YES	73
115-02101	RELK2I	YES	62	118-04900	T30LOS		47	130-00016	TEXTIE M	YES	73
115-02202	RELK2R	YES	62	118-05040	T50ROS		47	130-00017	TEXTIE M	YES	73
115-02300	RELK2L	YES	62	118-05059	T50ROS		47	130-00018	TEXTIE M	YES	73
115-06729	RELK2M	YES	62	118-05078	T50ROS		47	130-00019	TEXTIE L	YES	73
115-06760	RELK2I	YES	62	118-05850	T50SOS		47	130-00020	TEXTIE 5M	YES	73
115-06919	RELK2L	YES	62	118-05900	T50LOS		47	130-00021	TEXTIE M	YES	73
115-06960	RT50SFK	YES	104	120-40019	T18RA50		597	130-00022	TEXTIE 25M	YES	73
115-07010	RT50RSF	YES	104	120-40020	T18RA50		597	131-21010	REL100	YES	65
115-07189	SRT1807	YES	68	120-46009	T18RA3500		597	131-21019	REL100	YES	65
115-07190	SOFTFIX XS	YES	69	120-50009	T18RA3500		597	131-21410	REL140	YES	65
115-07269	SRT2607	YES	68	120-50010	T18RA3500		597	131-21419	REL140	YES	65
115-07270	SOFTFIX S	YES	69	121-00680	KR6/8		606	131-22510	REL250	YES	65
115-11269	SRT26011	YES	68	121-00889	KR8PNSE		607	131-22519	REL250	YES	65
115-11270	SOFTFIX M	YES	69	121-05019	KR8/50		59	131-22560	REL250	YES	65
115-11349	SRT34011	YES	68	121-06019	KR8/60		59	131-75510	RT250XL	YES	64
115-11350	SOFTFIX L	YES	69	121-06060	KR8/60		59	131-75519	RT250XL	YES	64
115-28589	SRT58028	YES	68	121-58551	KR8/C5	YES	60	131-75610	RT250M	YES	64
115-28590	SOFTFIX XL	YES	69	121-58560	KR8/C5	YES	60	131-75619	RT250M	YES	64
115-28889	SRT88028	YES	68	121-63519	KR6/35		58	131-75620	RT250M	YES	64

Article-No.	Type	☺*	Page
133-00034	T50RFT8GSD		115
133-00059	T40XEC5SP-E		224
133-01553	T50SOSWSP5E-2		177
148-00076	SpotClip-I		481
148-00098	SpotClip-II		483
148-00102	SpotClip-Caps 16/25		492
148-00117	SpotClip-Plate 600		491
148-00119	SpotClip-Kit 150		490
148-00120	SpotClip-Kit 240		490
148-00121	SpotClip-III		485
148-00123	SpotClip-Box FR		488
148-00146	SpotClip-IV-Slim		486
148-00200	T50S0SEC12E		224
148-90022	HECL-1/1		477
148-90023	HECL-2/1		477
148-90036	HCPM-2		475
148-90037	HCPM-3		475
148-90038	HCPM-4		475
148-90039	HCPM-5		476
148-90040	HCPM-6		476
148-90041	HCPM-8		476
148-90046	HCPM Variobox 350		475-476
148-90054	HCPM-2-Blister		475
148-90055	HCPM-3-Blister		475
148-90056	HCPM-4-Blister		475
148-90057	HCPM-5-Blister		476
148-90058	HECL-2/1-Blister		477
148-90059	HCRN-2		474
148-90060	HCRN-3		474
148-90061	HCRN-5		474
148-90062	HCRN-2-Blister		474
148-90063	HCRN-3-Blister		474
148-90064	HCRN-5-Blister		474
150-00700	T50IFT7		115
150-01700	FT220DP7		108
150-15493	T80RSFT		90
150-31090	T30RFT6LG		113
150-31091	T50RFT6LG		113
150-31096	T80IFT6LG		113
150-31099	T50ROSFT6LG		113
150-37591	T50RFT6OVAL		102
150-37691	T50RSFT6.5D18		92
150-37791	T50ROSSFT6.5-16-3		92
150-37792	T50RSFT6.5 16-3		92
150-37799	T50ROSSFT6.5 16-3MD		98
150-40581	T50ROSEC5B		229
150-40582	T50REC5B		229
150-40583	T50S0SEC5B		229
150-40591	T50ROSEC5A		229
150-40593	T50S0SEC5A		229
150-48396	T80RFT6X12		101
150-48397	T80RFT6X12		101
150-52690	T30RFT6SD		113
150-55500	REL30SDP6	YES	110
150-55610	T18RDP5		107
150-55850	T30RFT5		113
150-56193	T50SDSBS5		181
150-56199	T50ROSDSBS5		181
150-76079	T50ROSEC4B		227
150-76080	T30REC4B		227
150-76090	T30REC4A		227
150-76091	T50REC4A		227
150-76093	T50S0SEC4A		227
150-76099	T50ROSEC4A		227
150-77941	T50RFT6		114
150-77950	T30RFT6		114
150-83499	MSMP4	YES	222
150-92300	RCC D21		135

Article-No.	Type	☺*	Page
150-93100	T50ROSSFT6.5-D16-2 MD		98
150-93130	T50S0SFT6.5-D16-2		92
151-00016	BC30		147
151-00018	CTC10FT6LG		136
151-00019	CTC13FT6LG		136
151-00100	SAC1		172
151-00134	HDM19	YES	209
151-00161	EC27		238
151-00195	IAHC5T		132
151-00200	SAC2		172
151-00207	IAHC4T		132
151-00215	TC4FT6LG		144
151-00300	SAC3		172
151-00324	MB5	YES	195
151-00333	TRIM PLUG 5		141
151-00370	AHC3BHR		131
151-00372	AHC3SB		188
151-00382	IAHC4AH		130
151-00401	PLUG5.5		141
151-00437	HDM25	YES	209
151-00439	HDM312	YES	209
151-00502	RB14		169
151-00505	RB14		169
151-00644	DSWS4		151
151-00653	KR6G5	YES	200
151-00654	KR8G5	YES	200
151-00680	HC48FT6		134
151-00757	CTAM1	YES	201
151-00758	CTAM2	YES	201
151-00783	CTCFT6		134
151-00822	Beam Clamp B		236
151-00823	Beam Clamp C		236
151-00831	RB20		169
151-00837	SSPC4		202
151-00838	SSPC5		202
151-00839	SSPC6		202
151-00851	BCUWS5-D5-25		147
151-00886	Beam Clamp D		236
151-00950	MCKR6G5	YES	200
151-00997	MCCTAM1	YES	201
151-01010	S3SB15CBM8		213
151-01020	MCKR8G5-5	YES	200
151-01022	LOC15-19FT6LG		133
151-01038	CNCTC8FT6.5LG		137
151-01040	S3CBM8		213
151-01049	LOC15-19FTOVAL		133
151-01078	AHC223FT6LG		131
151-01166	LOC10-14FT6LG		133
151-01170	MCMB4	YES	196
151-01186	Beam Clamp B with foam		236
151-01187	Beam Clamp C with foam		236
151-01188	Beam Clamp D with foam		236
151-01198	AHC25FT6LG		131
151-01224	HDM400	YES	210
151-01306	LOC5-9FTOVAL		133
151-01377	AHC45BH2		131
151-01390	RCB180SM10	YES	216
151-01405	HC48FT5		134
151-01416	RCA180SM8	YES	215
151-01437	RCA90LM8	YES	215
151-01440	RCB180SM8	YES	216
151-01441	RCB180SM12	YES	216
151-01457	RCB90SM8	YES	216
151-01460	RCB90LM8	YES	216
151-01474	RCC180SM8	YES	217
151-01492	RCC90SM8	YES	217
151-01495	RCC90LM8	YES	217
151-01499	RCD180SM8	YES	217

Article-No.	Type	☺*	Page
151-01521	RCD90LM8	YES	217
151-01529	RCTT	YES	218
151-01530	RCINSERTA	YES	218
151-01531	RCINSERTB	YES	218
151-01532	RCINSERTC	YES	218
151-01533	RCINSERTD	YES	218
151-01600	SFC		122
151-01637	RCA180SM6	YES	215
151-01638	RCA180MM6	YES	215
151-01639	RCA180LM6	YES	215
151-01643	RCA90SM6	YES	215
151-01645	RCB180SM6	YES	216
151-01651	RCB90SM6	YES	216
151-01653	RCC180SM6	YES	217
151-01655	RCC180LM6	YES	217
151-01659	RCC90SM6	YES	217
151-01660	RCC90LM6	YES	217
151-01800	MB2A		161
151-01802	MB2A		161
151-01843	KSFT6.5OC1-3		128
151-01844	KSFT6.5OC7-9		128
151-01863	HCEC3.0SP-C		238
151-01880	LC9FTOVAL		137
151-01882	ATSBCSOC6.2x12.2		146
151-01907	SFC3		122
151-01909	SFC3		122
151-02000	SFC2		122
151-02092	S3SBM8		213
151-02094	HDM320	YES	210
151-02096	HDM500	YES	210
151-02099	SAM320B-R		212
151-02102	SAM400B-R		212
151-02104	HDM375BDM4W-R	YES	210
151-02157	TY8F1	YES	205
151-02219	FMB4APT-A		155
151-02243	MB2APT-A		160
151-02244	MB3APT-A		160
151-02245	MB4APT-A		160
151-02246	MB4APT-A		160
151-02247	MB5APT-A		160
151-02258	CL8	YES	206
151-02259	CL8	YES	206
151-02260	SBH1		186
151-02266	RCC D24		135
151-02279	SBH3		186
151-02575	PMB3		154
151-02588	EC1-3TL7OTP		238
151-02858	ACFM2W10PT6	YES	125
151-02874	AHC1AH		130
151-02881	AHC2AH		130
151-02882	AHC2BH		131
151-02883	IAHC1T		132
151-02884	IAHC3T		132
151-02942	ACFM1W13PT3.5	YES	125
151-02964	RCD-CT-INSERT		218
151-02965	DHC12.2-18.2FTOVAL		246
151-02966	DHC12.2-18.2FTOVAL		246
151-02967	THC12.2-18.2FTOVAL		247
151-02968	THC12.2-18.2FTOVAL		247
151-02973	QM30APT-A		158
151-02974	QM30APT-A		158
151-02978	MB3APT-A		160
151-03176	ACFM4W8PT2.2	YES	125
151-03192	ACFM5W8PT4.5	YES	125
151-03193	ACFM7W10PT5.3	YES	125
151-03196	PMB8		154
151-03248	ACFM8W6.2PT2.75	YES	125
151-03286	KR6G5	YES	200

Article-No.	Type	☒*	Page	Article-No.	Type	☒*	Page	Article-No.	Type	☒*	Page
151-03301	CTMS5		187	151-11310	TY3G1S		166	151-30600	CTM3	YES	200
151-03309	CTMM6B		209	151-11319	TY3G1S		166	151-30605	CTM3	YES	200
151-03333	CTMM8B		209	151-11810	TY8G1S		166	151-30700	CTM4	YES	200
151-03334	SMB4APT-A		162	151-11819	TY8G1S		166	151-30703	CTM4	YES	200
151-03393	RA6APT-A		167	151-12819	TY8H1S		171	151-31103	CTAM1	YES	201
151-03396	RA9APT-A		167	151-13018	RA3	YES	167	151-31203	CTAM2	YES	201
151-03404	EC14		148	151-13019	RA6	YES	167	151-40119	TM1SF		122
151-03417	CTMSBM8		209	151-13020	RA9	YES	167	151-41110	AT1	YES	549
151-03540	CMRCBLM6	YES	219	151-13021	RA13	YES	167	151-41119	AT1	YES	549
151-03547	CMRCCCHM6	YES	219	151-13119	RA18	YES	167	151-41210	AT2	YES	549
151-03550	CMRCLLM6	YES	219	151-13201	RA13APT-A		167	151-41219	AT2	YES	549
151-03555	CMRCCSMM6	YES	219	151-13405	RA6APT-A		167	151-41310	AT3	YES	549
151-03556	CMRCCSMM8	YES	219	151-13601	RB8		169	151-41319	AT3	YES	549
151-03560	CMRCDHM10	YES	219	151-13606	RB8		169	151-42119	IT1		550
151-03606	RB14APT-A		169	151-14006	RB5APT-A		169	151-42159	IMP1.5		550
151-03607	RA18APT-A		167	151-14059	RB5		169	151-42229	IMP2		550
151-03846	EC1-3SPDHC6-7	YES	238	151-14311	CTC10FT6		136	151-42259	IMP2.5		550
151-03847	QM20APT-HT		158	151-14312	CTC13FT6		136	151-42269	IMP2.5W1.75		550
151-03878	FMB3RB5APT-A		156	151-14313	CTC7.5FT6LG		136	151-42359	IMP3.5		550
151-03953	CTMM8		209	151-14314	CTC4.5FT6LG		136	151-61119	FH18	YES	206
151-03954	DCTMSBM8		211	151-15250	FKH25A		165	151-61319	FH30	YES	206
151-03955	DCTMM8		211	151-15300	FKH30A		165	151-75059	WPC5		126
151-03957	HC10.5WPM6.3	YES	127	151-15500	FKH50A		165	151-75109	WPC10		126
151-03961	CC11FT6.5FT5-2		174	151-15800	FKH80A		165	151-75159	WPC15		126
151-03963	CC11FT6.5FT5		174	151-16250	FKH25		198	151-75209	WPC20		126
151-04010	EC1-3SPDHC6-7	YES	238	151-16300	FKH30		198	151-80110	LOK01	YES	138
151-04088	QGDHC5.2-8.0M		248	151-16500	FKH50		198	151-80210	LOK02	YES	203
151-04089	QGDHC5.2-8.0M	YES	248	151-16800	FKH80		198	151-80500	LOK01B		138
151-04121	LC5-8-10SFT8.5	YES	129	151-21319	TY3G1	YES	197	151-80700	LOK05		138
151-04125	DCTMM6B		211	151-24219	MP2M3	YES	222	152-11209	TY5K2		139
151-04199	DLOC12EC3-6TP	YES	238	151-24319	MP3M3	YES	222	152-11309	TY5K3		139
151-04209	EC1-3SVDHC6-7	YES	238	151-24419	MP4M3	YES	222	152-11359	TY5K3/5		139
151-04249	FrameClampB5-SET		235	151-24619	KR6G5	YES	200	152-11409	TY5K4		139
151-04254	CC11FT6.5E3		174	151-24660	KR6G5	YES	200	152-51059	TY5K1		139
151-04283	CC7FT6.5LGE3		174	151-24819	KR8G5	YES	200	152-55059	TY5K5		139
151-04285	CC7FT6.5E3		174	151-24850	KR8G5	YES	200	155-01600	STAND-OFF-CLIP-2		143
151-04322	PMB6		154	151-25219	NY3256	YES	203	155-11601	BCSFT6.5 16-3MD		142
151-04326	IRCAPMB6CC	YES	153	151-25519	MSMP5/10	YES	222	155-16301	WICKELCLIP-VDS		144
151-04328	IRCBPMB6CC	YES	153	151-25619	MSMP6/6	YES	222	155-17801	CTC10FT9		136
151-04330	IRCCPMB6CC	YES	153	151-26250	SBH2		186	155-25201	CTC22FT9		136
151-04332	IRCDPMB6CC	YES	153	151-26301	LKM	YES	206	155-30602	T50SBS5OT-E		175
151-04379	ATSDBCFT62X122		145	151-26304	LKM	YES	206	155-31602	CTC7.5FT9		136
151-04387	EC1-3SPDHC6-7	YES	238	151-27010	LKC	YES	203	155-37104	T18REC9SD		228
151-04426	FMB3APT-A		155	151-27019	LKC	YES	203	155-38304	T18REC10SD		228
151-04446	DCTMM8B		211	151-27202	LKCSF1	YES	203	155-41102	T50SAH		100
151-04455	EC1-3SVDHC6-7	YES	238	151-27219	LKCSF1	YES	203	155-42002	T50ROSFT6.5S-16-2MD		98
151-04461	MAGMB2	YES	164	151-28119	MB1	YES	204	156-00003	T30REC5A		229
151-04462	MAGMB3	YES	164	151-28210	MB2	YES	204	156-00006	T50ROSEC23		231
151-04463	MAGRB5	YES	170	151-28219	MB2	YES	204	156-00007	T50ROSEC24		231
151-04464	MAGRB8	YES	170	151-28320	MB3A		161	156-00010	T50ROSEC21		229
151-04465	MAGRA13	YES	168	151-28349	MB3A		161	156-00011	T50ROSEC22		229
151-04466	MAGRA3	YES	168	151-28359	MB3	YES	195	156-00015	T50SOSEC10		228
151-04467	MAGRA9	YES	168	151-28412	MB4A		161	156-00016	T50SOSEC20		230
151-04468	MAGRA6	YES	168	151-28469	MB4A		161	156-00017	T50SOSEC21		229
151-04529	EC1-3SVDHC6-7	YES	238	151-28479	MB4	YES	195	156-00019	T50SOSEC9SD		228
151-06500	DSWS4		151	151-28529	MB5A		161	156-00020	T50ROSEC20		230
151-06502	DSWS5		151	151-28602	MB5A		161	156-00025	T50RFT5		113
151-07100	HDM321	YES	209	151-29400	S2CM25		211	156-00049	CBT30MR		232
151-07300	HDM401	YES	209	151-29403	S2HM25		211	156-00057	T30RFT7		115
151-07500	HDM501	YES	209	151-29500	S3STM50		123	156-00067	T120RFT9A		116
151-10904	QM20A		159	151-29600	SAM83		212	156-00068	WSSF9A		116
151-10905	QM30A		159	151-29701	SAQM82		212	156-00071	T120RFT9B		116
151-10906	QM40A		159	151-30300	CTM0	YES	200	156-00076	T50ROSFT6		114
151-10914	QM20A		159	151-30303	CTM0	YES	200	156-00085	T50ROSFT6SD		113
151-10915	QM30A		159	151-30400	CTM1	YES	200	156-00109	T50SOSEC4B		227
151-10916	QM40A		159	151-30404	CTM1	YES	200	156-00120	T50ROSFT10		116
151-10920	CTQM5	YES	199	151-30500	CTM2	YES	200	156-00133	T50SOSDSFT6.5		106
151-10930	CTQM5	YES	199	151-30504	CTM2	YES	200	156-00136	T50SVCOC19-24.5		242

Article-No.	Type	☑*	Page	Article-No.	Type	☑*	Page	Article-No.	Type	☑*	Page
156-00154	T50SFT6LG1SD		114	156-03572	S50ROSEC21	YES	229	157-00237	T50SOSFT6LG-E4		108
156-00155	T50SVC6.5		241	156-03573	S50ROSEC5A	YES	229	157-00241	T50SOSFT6E3		108
156-00200	T120IFT9		116	156-03574	S50ROSEC10	YES	228	157-00242	T50SOSFT6LG-E2		108
156-00235	T50RFT8GSD		115	156-03575	S50ROSEC4A	YES	227	157-00243	T30SOS-AS-FT6-E		108
156-00264	T50SOSFT6.5E-MDL		97	156-03576	S50ROSEC23	YES	231	157-00414	T50SOS-AS-DFTOVAL-E		109
156-00275	T120RCOUPLER		149	156-03577	S50ROSEC20	YES	230	157-00448	T30SOS-AS-FT5-E		107
156-00276	T50RCOUPLER		149	156-03578	S50ROSEC19	YES	230	157-04016	T50SOSASSO20AP5E		178
156-00306	T50ROC1B		243	156-03579	S50ROSEC9	YES	228	157-04018	T50SOSASSO12.5AP5E		178
156-00318	T50SVC4S	YES	240	156-03580	S50ROSEC4B	YES	227	157-04020	T50SOSASSO25AP5E		178
156-00338	T18RFT3		112	156-03581	S50ROSFT8	YES	115	161-41000	SBPE1.5		400
156-00379	T50XROSSFT6.5-E-MDL		97	156-03582	S50ROSEC22	YES	229	161-41001	SBPE1.5		400
156-00380	CBTOS50RSTUD5		232	156-03583	S50ROSEC5B	YES	229	161-41002	SBPE1.5		400
156-00382	T50RCOUPLER		149	156-03584	S50ROSEC24	YES	231	161-41100	SBPE4		400
156-00406	T120RHDM6		190	156-03585	S50ROSFT10	YES	116	161-41101	SBPE4		400
156-00407	T120RHDM6		190	156-03586	S50ROS1DOP62x122	YES	119	161-41102	SBPE4		400
156-00408	T120RHDM8		190	156-03587	S50ROSFT8GSD	YES	115	161-41103	SBPE4D		400
156-00409	T120RHDM8		190	156-03588	S50ROSDSBS5	YES	181	161-41104	SBPE4D		400
156-00410	T50RHDM6		190	156-03589	S50ROSEC4B	YES	227	161-41105	SBPE4D		400
156-00412	T50RHDM8		190	156-03590	S50ROSSFT6.5	YES	102	161-41150	SBPE6		400
156-00429	T120SHDM8		190	156-03592	S50ROSMB4APT-A-SET	YES	163	161-41151	SBPE6		400
156-00432	T50SOSFT5SD		113	156-03593	S50ROSCPCM6	YES	192	161-41152	SBPE6D		400
156-00446	T50RFT62x122HR		102	156-03594	S50ROSCoupler	YES	149	161-41153	SBPE6D		400
156-00456	T50ROSP2SFT6.5		95	156-03626	HDEC10-12		237	161-41154	SBPE6		400
156-00457	T50RFT7HD		115	156-03627	HDEC8-10		237	161-41155	SBPE6D		400
156-00570	T50ROSEC4A		227	156-03628	HDEC6-8		237	161-41200	SBPE9		400
156-01045	T50SVCOC10-14		242	156-03629	HDEC12-14		237	161-41201	SBPE9		400
156-01090	PT2AP1SFT6.5		95	156-03630	HDEC14-16		237	161-41202	SBPE9		400
156-01091	PT2AP2SFT6.5		95	156-03631	HDEC6-8-PRE		237	161-41203	SBPE9D		400
156-01096	X120RDHDM6		191	156-03632	HDEC8-10-PRE		237	161-41204	SBPE9D		400
156-01097	X120RDHDM8		191	156-03633	HDEC10-12-PRE		237	161-41205	SBPE9D		400
156-01134	T50RSINGLECOUPLER		149	156-03634	HDEC12-14-PRE		237	161-41300	SBPE16		400
156-01146	PT2AP3SFT6.5		95	156-03635	HDEC14-16-PRE		237	161-41301	SBPE16		400
156-01155	T50RDHAB.4x20		121	156-03960	T50ROSDDEC1-3SP		234	161-41302	SBPE16		400
156-01203	T50RDHAB.5x15		121	156-04096	SGT100SM6O		194	161-42000	SBPA1.5		402
156-01225	T18RFT5		113	156-04097	SGT100SAHD6.5S2.0		93	161-42100	SBPA4		402
156-01231	T18REC21		229	156-04098	SGT100SDSBS5-6		182	161-42150	SBPA6		402
156-01280	T50REC9		228	156-04600	T18ROSEC19		230	161-42200	SBPA9		402
156-01316	T30RFT5		113	156-04601	T50SOSSEC19		230	161-42300	SBPA16		402
156-01336	PT2AFT6LG		113	156-04602	T50ROSEC19		230	161-43000	SBPEFR1.5		401
156-01466	X120RHDM65x160		190	156-05902	T50ROSFT6SD		113	161-43001	SBPEFR1.5		401
156-01485	T120ROSDHDM6		191	156-05903	T50ROSEC9		228	161-43100	SBPEFR4		401
156-01542	T30ROSEC0.5-2.5TPVA		226	156-05904	T50ROSEC10		228	161-43101	SBPEFR4		401
156-01543	T30ROSEC0.5-2.5TP-SD		226	156-06200	T50SOSFT5		113	161-43150	SBPEFR6		401
156-01546	T30ROSEC0.5-2.5SP-SVB		226	157-00028	T50SOSFT6D10E		107	161-43151	SBPEFR6		401
156-01577	One Click FERRO-T50ROSSFT725		103	157-00033	T50SOSFT6E1		108	161-43200	SBPEFR9		401
156-01601	CBTO50R		232	157-00034	WS8MM		179	161-43201	SBPEFR9		401
156-01693	T50RFT6		114	157-00035	WS8MM		179	161-43300	SBPEFR16		401
156-01697	T50RSFT6.5		92	157-00039	T50SOSBSBD-M8		176	161-43301	SBPEFR16		401
156-01705	T50RFT6LGSD-HEX		114	157-00040	T50SOSBSBD-M10		176	161-44000	SBPAV01.5		403
156-01728	T80REC21		229	157-00045	T50SOSFT6D10E		107	161-44100	SBPAV04		403
156-01797	T30ROSEC0.5-2.5SP-SVA		226	157-00059	T50SOSFT6E1		108	161-44150	SBPAV06		403
156-02416	T120RCOUPLER		149	157-00065	T50SOSBSBU-M6		176	161-44200	SBPAV09		403
156-02700	T50ROSEC6-8		231	157-00066	T50SOSBSBU-M8		176	161-44300	SBPAV016		403
156-02742	SRC150M8	YES	193	157-00067	T50SOSBSBU-M10		176	161-45000	SBPTE1.5		404
156-03077	S50ROSDSBS5-6H	YES	181	157-00072	T50SOSFT8E		108	161-45100	SBPTE4		404
156-03119	T50SOSASVCD-SO17		150	157-00083	T50SSBS6OT-E		175	161-45200	SBPTE9		404
156-03240	T50ROSCMD26SBS-6		183	157-00085	T50SOSFT6E2		107	161-46000	SBPEMC1.5		405
156-03242	T50ROSCMD16D26SBS-6		184	157-00115	T50SOSFT8E		108	161-46100	SBPEMC4		405
156-03259	S50ROSCC11A		173	157-00119	T50ROSFT6SO25A		111	161-46200	SBPEMC9		405
156-03261	S50ROSCC11B		173	157-00120	T50ROSFT8SO25A		111	161-46300	SBPEMC16		405
156-03268	SGT100SFT6.7		114, 118	157-00130	T50ROSFT6SO12.5A		111	161-60001	HAT8		399
156-03276	T50RSOC13.9FT6.5		117	157-00131	T50ROSFTM6SO12.5B		111	161-60002	HAT16		399
156-03281	T50SHC11-15FT6.5		245	157-00145	T50ROSFT6SO12.5A		111	161-60003	HAT20		399
156-03291	T50ROSDDEC1.5-4SP		233	157-00164	T50ROSFT6SO25R		111	161-60004	HAT25		399
156-03293	T50SDSBS5-6		181	157-00169	T50ROSFT6SO25B		111	161-60005	HAT30		399
156-03295	T50SDSBS5-6H		181	157-00172	T50ROSFTM6SO25B		111	161-60006	HAT40		399
156-03377	T50RIAHCI1TICR		244	157-00196	T50ROSFT825SO		111	161-63101	HWPVAV08		395
156-03416	T50RSBDS5-6SD		185	157-00228	T50SOSFT6LGE		107	161-63201	HWPVAV016		395

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
161-63301	HWPAV020		395	166-11100	HG-SW10		368	166-22207	HG42-90-M40		374
161-63401	HWPAV025		395	166-11101	HG-SW11		368	166-22208	HG54-90-M50		375
161-63501	HWPAV030		395	166-11102	HG-SW13		368	166-22209	HG67-90-M63		375
161-64002	HWCLIP08		397	166-11103	HG-SW16		368	166-22220	HG11-90-M12		374
161-64004	HWCLIP16		397	166-11104	HG-SW21		368	166-22222	HG25-90-M25		374
161-64006	HWCLIP20		397	166-11105	HG-SW28		368	166-22223	HG42-90-M50		374
161-64008	HWCLIP25		397	166-11106	HG-SW34		368	166-22224	HG54-90-M63		375
161-64010	HWCLIP30		397	166-11109	HG-SW67		368	166-25700	PACC13		390
161-64013	HWBASEA		398	166-11110	HG-SW16		368	166-25701	PACC16		390
161-64015	HWBASE		398	166-11111	HG-SW21		368	166-25702	PACC21		390
161-64101	HWPP8	YES	392	166-11112	HG-SW28		368	166-25703	PACC28		390
161-64102	HWPP8	YES	392	166-11113	HG-SW42		368	166-25704	PACC34		390
161-64103	HWPP8	YES	392	166-11114	HG-SW54		368	166-25705	PACC42		390
161-64104	HWPP8	YES	392	166-11118	HG-SW34		368	166-25706	PACC54		390
161-64201	HWPP16	YES	392	166-11200	HG-LW10		369	166-25707	PACC10		390
161-64202	HWPP16	YES	392	166-11201	HG-LW11		369	166-30100	SC10		376
161-64203	HWPP16	YES	392	166-11202	HG-LW13		369	166-30101	SC12		376
161-64204	HWPP16L2	YES	394	166-11203	HG-LW16		369	166-30102	SC16		376
161-64205	HWPP16L2	YES	394	166-11204	HG-LW21		369	166-30103	SC20		376
161-64206	HWPP16L2	YES	394	166-11205	HG-LW28		369	166-30104	SC25		376
161-64207	HWPP16	YES	392	166-11206	HG-LW34		369	166-30105	SC32		376
161-64215	HWPP16L2	YES	394	166-11207	HG-LW42		369	166-30106	SC40		376
161-64301	HWPP20	YES	393	166-11208	HG-LW54		369	166-30107	SC50		376
161-64302	HWPP20	YES	393	166-11209	HG-LW67		369	166-30200	SSC10		377
161-64303	HWPP20	YES	393	166-11400	HG-FR10		370	166-30201	SSC12		377
161-64304	HWPP20	YES	393	166-11401	HG-FR13		370	166-30202	SSC16		377
161-64401	HWPP25	YES	393	166-11402	HG-FR16		370	166-30203	SSC20		377
161-64402	HWPP25	YES	393	166-11403	HG-FR21		370	166-30204	SSC25		377
161-64403	HWPP25	YES	393	166-11404	HG-FR28		370	166-30205	SSC32		377
161-64404	HWPP25L2	YES	394	166-11405	HG-FR34		370	166-30206	SSC40		377
161-64405	HWPP25L2	YES	394	166-11406	HG-FR42		370	166-30207	SSC50		377
161-64406	HWPP25L2	YES	394	166-11407	HG-FR54		370	166-30300	SC10-FM-M12		378
161-64407	HWPP25	YES	393	166-11410	HG-FR67		370	166-30301	SC12-FM-M16		378
161-64415	HWPP25L2	YES	394	166-11800	HG-DC11		371	166-30302	SC16-FM-M16		378
161-64501	HWPP30	YES	393	166-11801	HG-DC13		371	166-30303	SC16-FM-M20		378
161-64502	HWPP30	YES	393	166-11802	HG-DC16		371	166-30304	SC20-FM-M20		378
161-64503	HWPP30	YES	393	166-11803	HG-DC21		371	166-30305	SC25-FM-M25		378
161-64504	HWPP30	YES	393	166-11804	HG-DC28		371	166-30306	SC32-FM-M32		378
161-64601	HWPP40	YES	393	166-11805	HG-DC34		371	166-30307	SC40-FM-M40		378
161-66000	HWPPMC8	YES	396	166-11806	HG-DC42		371	166-30308	SC50-FM-M50		378
161-66100	HWPPMC16	YES	396	166-11807	HG-DC54		371	166-30700	PCS10		379
161-66200	HWPPMC20	YES	396	166-21000	HG10-S-M12		372	166-30701	PCS12		379
161-66300	HWPPMC25	YES	396	166-21001	HG13-S-M16		372	166-30702	PCS16		379
161-66400	HWPPMC30		396	166-21002	HG16-S-M16		372	166-30703	PCS20		379
162-30000	SBPPHDR10		406	166-21003	HG16-S-M20		372	166-30704	PCS25		379
162-30100	SBPPHDR15		406	166-21004	HG21-S-M20		372	166-30705	PCS32		379
162-30200	SBPPHDR20		406	166-21005	HG28-S-M25		372	166-30706	PCS40		379
162-30300	SBPPHDR25		406	166-21006	HG34-S-M32		372	166-30707	PCS50		379
162-30400	SBPPHDR30		406	166-21007	HG42-S-M40		373	166-30708	PCS63		379
162-30500	SBPPHDR35		406	166-21008	HG54-S-M50		373	166-30709	PCS75		379
162-30600	SBPPHDR40		406	166-21009	HG67-S-M63		373	166-31000	PCS10-FM-M12		380
162-30700	SBPPHDR50		406	166-21020	HG10-S-M16		372	166-31001	PCS12-FM-M16		380
162-31000	SBPPHDF10		407	166-21021	HG11-S-M12		372	166-31002	PCS16-FM-M16		380
162-31100	SBPPHDF15		407	166-21022	HG13-S-M12		372	166-31003	PCS16-FM-M20		380
162-31200	SBPPHDF20		407	166-21023	HG13-S-M20		372	166-31004	PCS20-FM-M20		380
162-31300	SBPPHDF25		407	166-21025	HG20-S-M20		372	166-31005	PCS25-FM-M25		380
162-31400	SBPPHDF30		407	166-21026	HG25-S-M25		372	166-31006	PCS32-FM-M32		380
162-31500	SBPPHDF35		407	166-21027	HG28-S-M32		372	166-31007	PCS40-FM-M40		380
162-31600	SBPPHDF40		407	166-21028	HG34-S-M40		373	166-31008	PCS50-FM-M50		380
162-31700	SBPPHDF50		407	166-21029	HG42-S-M50		373	166-31009	PCS63-FM-M63		380
164-11008	HelaDuct Flex10		434	166-21030	HG54-S-M63		373	166-31019	PCS75-FM-M75		380
164-11108	HelaDuct Flex10SK		434	166-22200	HG10-90-M12		374	166-31400	PCS10-FMC-M12		381
164-21008	HelaDuct Flex20		434	166-22201	HG13-90-M16		374	166-31401	PCS12-FMC-M16		381
164-21108	HelaDuct Flex20SK		434	166-22202	HG16-90-M16		374	166-31402	PCS16-FMC-M16		381
164-31008	HelaDuct Flex30		434	166-22203	HG16-90-M20		374	166-31403	PCS16-FMC-M20		381
164-31108	HelaDuct Flex30SK		434	166-22204	HG21-90-M20		374	166-31404	PCS20-FMC-M20		381
164-41008	HelaDuct Flex40		434	166-22205	HG28-90-M25		374	166-31405	PCS25-FMC-M25		381
164-41108	HelaDuct Flex40SK		434	166-22206	HG34-90-M32		374	166-31406	PCS32-FMC-M32		381

Article-No.	Type	Ⓔ*	Page	Article-No.	Type	Ⓔ*	Page	Article-No.	Type	Ⓔ*	Page
166-31407	PCS40-FMC-M40		381	167-00515	FG36-PG29		388	170-01301	HEGWS25		422
166-31408	PCS50-FMC-M50		381	167-00516	FG45-PG36		388	170-01302	HEGWS30		422
166-31900	LTS10		382	167-00517	FG56-PG48		388	170-01303	HEGWS35		422
166-31901	LTS12		382	167-00520	FG14-UH		389	170-01304	HEGWS40		422
166-31902	LTS16		382	167-00521	FG17-UH		389	170-01305	HEGWS45		422
166-31903	LTS20		382	167-00522	FG19-UH		389	170-01306	HEGWS50		422
166-31904	LTS25		382	167-00523	FG21-UH		389	170-01307	HEGWS60		422
166-31905	LTS32		382	167-00524	FG27-UH		389	170-01308	HEGWS70		422
166-31906	LTS40		382	167-00525	FG36-UH		389	170-01309	HEGWS80		422
166-31907	LTS50		382	167-00526	FG45-UH		389	170-01310	HEGWS90		422
166-31908	LTS63		382	167-00527	FG56-UH		389	170-01311	HEGWS100		422
166-32200	LTS10-FMC-M12		383	167-00530	FG14-M16		388	170-01312	HEGWS115		422
166-32201	LTS10-FMC-M16		383	167-00531	FG17-M20		388	170-01313	HEGWS145		422
166-32203	LTS12-FMC-M16		383	167-00533	FG21-M25		388	170-01314	HEGWS176		422
166-32204	LTS16-FMC-M16		383	167-00534	FG27-M32		388	170-01315	HEGWS200		422
166-32205	LTS16-FMC-M20		383	167-00535	FG36-M40		388	170-02000	HEGMANWO-02		416
166-32206	LTS20-FMC-M20		383	167-00536	FG45-M50		388	170-02001	HEGMANWO-04		416
166-32207	LTS25-FMC-M25		383	167-00537	FG56-M63		388	170-02002	HEGMANWO-06		416
166-32208	LTS32-FMC-M32		383	170-00060	HEGPX06		409	170-02003	HEGMANWO-08		416
166-32209	LTS40-FMC-M40		383	170-00090	HEGPX09		409	170-02004	HEGMANWO-10		416
166-32210	LTS50-FMC-M50		383	170-00120	HEGPX12		409	170-02005	HEGMANWO-15		416
166-32211	LTS63-FMC-M63		383	170-00200	HEGPX20		409	170-02006	HEGMANWO-20		416
166-40001	PSR12		384	170-00300	HEGPX30		409	170-02007	HEGMANWO-25		416
166-40002	PSR16		384	170-00400	HEGPX40		409	170-02008	HEGMANWO-30		416
166-40003	PSR20		384	170-01000	Twist-In 05	YES	417	170-02100	HEGMAN-02		415
166-40004	PSR25		384	170-01001	Twist-In 08	YES	417	170-02101	HEGMAN-04		415
166-40005	PSR32		384	170-01002	Twist-In 13	YES	417	170-02102	HEGMAN-06		415
166-40006	PSR40		384	170-01004	Twist-In 19	YES	417	170-02103	HEGMAN-08		415
166-40007	PSR50		384	170-01005	Twist-In 25	YES	417	170-02104	HEGMAN-10		415
166-40008	PSR63		384	170-01006	Twist-In 29	YES	417	170-02105	HEGMAN-15		415
166-40701	PSR12-S-M16		385	170-01007	Twist-In 32	YES	417	170-02106	HEGMAN-20		415
166-40702	PSR16-S-M16		385	170-01008	Twist-In 38	YES	417	170-02107	HEGMAN-25		415
166-40703	PSR16-S-M20		385	170-01010	Twist-In 50	YES	417	170-02108	HEGMAN-30		415
166-40704	PSR20-S-M20		385	170-01011	Twist-In 05-5 m	YES	417	170-05100	HELAHOOK10	YES	421
166-40705	PSR25-S-M25		385	170-01012	Twist-In 08-5 m	YES	417	170-05150	HELAHOOK15	YES	421
166-40706	PSR32-S-M32		385	170-01013	Twist-In 13-5 m	YES	417	170-05200	HELAHOOK20	YES	421
166-40707	PSR40-S-M40		385	170-01014	Twist-In 19-2 m	YES	417	170-05250	HELAHOOK25	YES	421
166-40708	PSR50-S-M50		385	170-01015	Twist-In 25-2 m	YES	417	170-05300	HELAHOOK30	YES	421
166-40709	PSR63-S-M63		385	170-01016	Twist-In 29-2 m	YES	417	170-10300	HEGP03		408
166-40801	PSR16-90-M16		386	170-01017	Twist-In 32-2 m	YES	417	170-10400	HEGP04		408
166-40802	PSR16-90-M20		386	170-01018	Twist-In 38-2 m	YES	417	170-10500	HEGP05		408
166-40803	PSR20-90-M20		386	170-01100	Twist-In-FR 05	YES	418	170-10600	HEGP06		408
166-40804	PSR25-90-M25		386	170-01101	Twist-In-FR 08	YES	418	170-10800	HEGP08		408
166-40805	PSR32-90-M32		386	170-01102	Twist-In-FR 13	YES	418	170-11000	HEGP10		408
166-40806	PSR40-90-M40		386	170-01104	Twist-In-FR 19	YES	418	170-11200	HEGP12		408
166-50600	AFC510		391	170-01105	Twist-In-FR 25	YES	418	170-11500	HEGP15		408
166-50601	AFC512		391	170-01106	Twist-In-FR 29	YES	418	170-12000	HEGP20		408
166-50602	AFC516		391	170-01107	Twist-In-FR 32	YES	418	170-12500	HEGP25		408
166-50603	AFC520		391	170-01108	Twist-In-FR 38	YES	418	170-13000	HEGP30		408
166-50604	AFC525		391	170-01109	Twist-In-FR 50	YES	418	170-14000	HEGP40		408
166-50605	AFC532		391	170-01161	Twist-In-RR-13	YES	420	170-15000	HEGP50		408
166-50606	AFC540		391	170-01162	Twist-In-RR-19	YES	420	170-40400	HEGPA6604		412
166-50607	AFC550		391	170-01163	Twist-In-RR-29	YES	420	170-40600	HEGPA6606		412
166-50608	AFC563		391	170-01164	Twist-In-RR-32	YES	420	170-40800	HEGPA6608		412
166-50609	AFC575		391	170-01175	Twist-In-RR-13	YES	420	170-41000	HEGPA6610		412
167-00209	FG14		387	170-01176	Twist-In-RR-19	YES	420	170-41200	HEGPA6612		412
167-00211	FG17		387	170-01177	Twist-In-RR-29	YES	420	170-41600	HEGPA6616		412
167-00213	FG19		387	170-01178	Twist-In-RR-32	YES	420	170-42000	HEGPA6620		412
167-00216	FG21		387	170-01250	Twist-In-EMIZ_05		419	170-42500	HEGPA6625		412
167-00221	FG27		387	170-01251	Twist-In-EMIZ_08		419	170-43000	HEGPA6630		412
167-00229	FG36		387	170-01252	Twist-In-EMIZ_13		419	170-44000	HEGPA6640		412
167-00236	FG45		387	170-01253	Twist-In-EMIZ_19		419	170-45000	HEGPA6650		412
167-00248	FG56		387	170-01254	Twist-In-EMIZ_25		419	170-46000	HEGPA6660		412
167-00510	FG14-PG9		388	170-01255	Twist-In-EMIZ_32		419	170-80150	HLB15		414
167-00511	FG17-PG11		388	170-01256	Twist-In-EMIZ_38		419	170-80250	HLB25		414
167-00512	FG19-PG13		388	170-01257	Twist-In-EMIZ_50		419	170-80350	HLB35		414
167-00513	FG21-PG16		388	170-01258	Twist-In-EMIZ_80		419	170-80503	HEGPL03		413
167-00514	FG27-PG21		388	170-01300	HEGWS20		422	170-80506	HEGPL06		413

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
170-80512	HEGPL12		413	181-10208	HTWD-PW-40X80		429	184-10218	HTWD-PN-60X80		427
170-80520	HEGPL20		413	181-10218	HTWD-PW-60X80		429	184-10228	HTWD-PN-80X80		427
170-80530	HEGPL30		413	181-10228	HTWD-PW-80X80		429	184-10238	HTWD-PN-100X80		427
170-80540	HEGPL40		413	181-10238	HTWD-PW-100X80		429	184-10248	HTWD-PN-120X80		427
170-80550	HEGPL50		413	181-10248	HTWD-PW-120X80		429	184-10258	HTWD-PN-40X100		427
170-81001	HEGPETFR04		410	181-10258	HTWD-PW-40X100		429	184-10268	HTWD-PN-60X100		427
170-81002	HEGPETFR05		410	181-10268	HTWD-PW-60X100		429	184-10278	HTWD-PN-100X100		427
170-81003	HEGPETFR06		410	181-10278	HTWD-PW-100X100		429	184-10329	HTWD-PN-80X100		427
170-81004	HEGPETFR08		410	181-10288	HTWD-PW-150X100		429	185-41010	HTWD-PD-100X100		431
170-81005	HEGPETFR10		410	181-10328	HTWD-PW-25X100		429	185-41050	HTWD-PD-100X50		431
170-81006	HEGPETFR12		410	181-10329	HTWD-PW-80X100		429	185-41075	HTWD-PD-100X75		431
170-81007	HEGPETFR15		410	181-41542	HTWD-RT4		439	185-41250	HTWD-PD-125X50		431
170-81008	HEGPETFR20		410	181-41564	HTWD-RT6		439	185-41275	HTWD-PD-125X75		431
170-81009	HEGPETFR25		410	181-42400	HTWD-R4		438	185-42020	HTWD-PD-20X20		431
170-81010	HEGPETFR30		410	181-42500	HTWD-R6		438	185-42037	HTWD-PD-20X37.5		431
170-81011	HEGPETFR40		410	181-42600	HTWD-R6		438	185-42050	HTWD-PD-20X50		431
170-81012	HEGPETFR50		410	181-45029	HTWD-CTH		437	185-42525	HTWD-PD-25X25		431
170-81100	HEGPETFRX03		411	181-50440	HTWD-BWR-40X40		435	185-42550	HTWD-PD-25X50		431
170-81101	HEGPETFRX06		411	181-50460	HTWD-BWR-40X60		435	185-42575	HTWD-PD-25X75		431
170-81102	HEGPETFRX09		411	181-50480	HTWD-BWR-40X80		435	185-43725	HTWD-PD-37.5X25		431
170-81103	HEGPETFRX12		411	181-50640	HTWD-BWR-60X40		435	185-43737	HTWD-PD-37.5X37.5		431
170-81104	HEGPETFRX20		411	181-50660	HTWD-BWR-60X60		435	185-43750	HTWD-PD-37.5X50		431
170-81105	HEGPETFRX30		411	181-50680	HTWD-BWR-60X80		435	185-43775	HTWD-PD-37.5X75		431
170-81106	HEGPETFRX40		411	181-50690	HTWD-BWR-60X100		435	185-45010	HTWD-PD-50X100		431
170-81107	HEGPETFRX50		411	181-50860	HTWD-BWR-80X60		435	185-45050	HTWD-PD-50X50		431
170-99001	HSG0		616	181-50880	HTWD-BWR-80X80		435	185-45075	HTWD-PD-50X75		431
170-99002	HSGOBLADE		616	181-50890	HTWD-BWR-80X100		435	185-47510	HTWD-PD-75X100		431
173-00200	HEGEMIP-VG03		425	181-51060	HTWD-BWR-100X60		435	185-47550	HTWD-PD-75X50		431
173-00201	HEGEMIP-VG04		425	181-51080	HTWD-BWR-100X80		435	185-47575	HTWD-PD-75X75		431
173-00202	HEGEMIP-VG06		425	181-51090	HTWD-BWR-100X100		435	191-01700	MSNP1-70		612
173-00203	HEGEMIP-VG07.5		425	181-51260	HTWD-BWR-120X60		435	191-02220	ASNP2-22		612
173-00204	HEGEMIP-VG10		425	181-51280	HTWD-BWR-120X80		435	191-10029	SNP2(E)		249
173-00205	HEGEMIP-VG12.5		425	181-51590	HTWD-BWR-150X100		435	191-10039	SNP3(E)		249
173-00206	HEGEMIP-VG20		425	183-21010	HTWD-HF-100X100		433	191-10049	SNP4(E)		249
173-00400	HEGEMIP04		423	183-21060	HTWD-HF-100X60		433	191-10069	SNP6(E)		249
173-00600	HEGEMIP06		423	183-21080	HTWD-HF-100X80		433	191-10089	SNP8(E)		249
173-00800	HEGEMIP08		423	183-21260	HTWD-HF-120X60		433	191-10109	SNP10(E)		249
173-01000	HEGEMIP10		423	183-21280	HTWD-HF-120X80		433	191-10129	SNP12(E)		249
173-01200	HEGEMIP12		423	183-22040	HTWD-HF-100X40		433	191-10149	SNP14(E)		249
173-01400	HEGEMIP14		423	183-22525	HTWD-HF-25X25		433	191-10169	SNP16		249
173-01600	HEGEMIP16		423	183-22540	HTWD-HF-25X40		433	191-10209	SNP20(E)		249
173-01800	HEGEMIP18		423	183-22580	HTWD-HF-25X80		433	191-24700	ASNP24-70		612
173-02000	HEGEMIP20		423	183-24025	HTWD-HF-40X25		433	201-10010	C1		207
173-02001	HEGEMIP-HY20		424	183-24040	HTWD-HF-40X40		433	201-10020	C2		207
173-03000	HEGEMIP-HY30		424	183-24060	HTWD-HF-40X60		433	201-10030	C3		207
173-03501	HEGEMIP-HY35		424	183-24080	HTWD-HF-40X80		433	201-20010	R1	207, 397	
173-04000	HEGEMIP-HY40		424	183-25060	HTWD-HF-25X60		433	201-20020	R2		207
173-05000	HEGEMIP-HY50		424	183-26010	HTWD-HF-60X100		433	201-20030	R3		207
173-06000	HEGEMIP-HY60		424	183-26040	HTWD-HF-60X40		433	211-10040	ALU4	YES	220
181-10010	HTWD-WFWR		436	183-26060	HTWD-HF-60X60		433	211-10060	ALU6	YES	220
181-10018	HTWD-PW-15X18		429	183-26080	HTWD-HF-60X80		433	211-15040	ALU4C	YES	220
181-10020	HTWD-NFWR		436	183-28010	HTWD-HF-80X100		433	211-15060	ALU6C	YES	220
181-10028	HTWD-PW-25X30		429	183-28040	HTWD-HF-80X40		433	211-15080	ALU8C	YES	220
181-10038	HTWD-PW-15X30		429	183-28060	HTWD-HF-80X60		433	211-15120	ALU12C	YES	220
181-10058	HTWD-PW-15X40		429	183-28080	HTWD-HF-80X80		433	211-15160	ALU16C	YES	220
181-10068	HTWD-PW-25X40		429	184-10068	HTWD-PN-25X40		427	211-15190	ALU19C	YES	220
181-10078	HTWD-PW-40X40		429	184-10078	HTWD-PN-40X40		427	211-15230	ALU23C	YES	220
181-10088	HTWD-PW-60X40		429	184-10088	HTWD-PN-60X40		427	211-60000	H1P	YES	221
181-10098	HTWD-PW-80X40		429	184-10098	HTWD-PN-80X40		427	211-60001	H2P	YES	221
181-10108	HTWD-PW-100X40		429	184-10108	HTWD-PN-100X40		427	211-60002	H3P	YES	221
181-10118	HTWD-PW-15X60		429	184-10138	HTWD-PN-25X60		427	211-60003	H4P	YES	221
181-10138	HTWD-PW-25X60		429	184-10148	HTWD-PN-40X60		427	211-60004	H5P	YES	221
181-10148	HTWD-PW-40X60		429	184-10158	HTWD-PN-60X60		427	211-60005	H6P	YES	221
181-10158	HTWD-PW-60X60		429	184-10168	HTWD-PN-80X60		427	211-60006	H7P	YES	221
181-10168	HTWD-PW-80X60		429	184-10178	HTWD-PN-100X60		427	211-60007	H8P	YES	221
181-10178	HTWD-PW-100X60		429	184-10188	HTWD-PN-120X60		427	211-60008	H9P	YES	221
181-10188	HTWD-PW-120X60		429	184-10198	HTWD-PN-25X80		427	211-60009	H10P	YES	221
181-10198	HTWD-PW-25X80		429	184-10208	HTWD-PN-40X80		427	211-60049	H4P	YES	221

Article-No.	Type	☒*	Page	Article-No.	Type	☒*	Page	Article-No.	Type	☒*	Page
211-60059	H5P	YES	221	300-30642	HIS-PACK-6.4/3.2		266	305-01206	HFT-A-1.2/0.6		285
211-60069	H6P	YES	221	300-30643	HIS-PACK-6.4/3.2		267	305-01209	HFT-A-1.2/0.6		285
211-60119	H11P	YES	221	300-30646	HIS-PACK-6.4/3.2		266	305-01600	HFT-A-1.6/0.8		285
211-60129	H12P	YES	221	300-30647	HIS-PACK-6.4/3.2		266	305-01602	HFT-A-1.6/0.8		285
211-60139	H13P	YES	221	300-30950	HIS-PACK-9.5/4.7		266	305-01604	HFT-A-1.6/0.8		285
211-60149	H14P	YES	221	300-30952	HIS-PACK-9.5/4.7		266	305-01606	HFT-A-1.6/0.8		285
211-60159	H15P	YES	221	300-30953	HIS-PACK-9.5/4.7		267	305-01609	HFT-A-1.6/0.8		285
211-60169	H16P	YES	221	300-30956	HIS-PACK-9.5/4.7		266	305-02400	HFT-A-2.4/1.2		286
211-60189	H18P	YES	221	300-30957	HIS-PACK-9.5/4.7		266	305-02402	HFT-A-2.4/1.2		286
234-10100	KK1	YES	208	300-31270	HIS-PACK-12.7/6.4		266	305-02404	HFT-A-2.4/1.2		286
234-10200	KK2	YES	208	300-31272	HIS-PACK-12.7/6.4		266	305-02406	HFT-A-2.4/1.2		286
234-10300	KK3	YES	208	300-31273	HIS-PACK-12.7/6.4		267	305-02409	HFT-A-2.4/1.2		286
234-10400	KK4	YES	208	300-31276	HIS-PACK-12.7/6.4		266	305-03200	HFT-A-3.2/1.6		286
241-00001	PLUGFT6XL		141	300-31277	HIS-PACK-12.7/6.4		266	305-03202	HFT-A-3.2/1.6		286
241-00002	PLUGFT6XL		141	300-31900	HIS-PACK-19.1/9.5		266	305-03204	HFT-A-3.2/1.6		286
241-11319	TY3P1		140	300-31902	HIS-PACK-19.1/9.5		266	305-03206	HFT-A-3.2/1.6		286
241-11810	TY8P1		140	300-31903	HIS-PACK-19.1/9.5		267	305-03209	HFT-A-3.2/1.6		286
241-11819	TY8P1		140	300-31906	HIS-PACK-19.1/9.5		266	305-03245	HFT-A-3.2/1.6		286
251-10009	G51PAA		440	300-31907	HIS-PACK-19.1/9.5		266	305-04800	HFT-A-4.8/2.4		286
251-10109	G51PA		440	300-32540	HIS-PACK-25.4/12.7		266	305-04802	HFT-A-4.8/2.4		286
251-10209	G51PB		440	300-32542	HIS-PACK-25.4/12.7		266	305-04804	HFT-A-4.8/2.4		286
251-10309	G51PC		440	300-32543	HIS-PACK-25.4/12.7		267	305-04806	HFT-A-4.8/2.4		286
251-10409	G51PD		440	300-32546	HIS-PACK-25.4/12.7		266	305-04809	HFT-A-4.8/2.4		286
251-10509	G51PE		440	300-32547	HIS-PACK-25.4/12.7		266	305-04845	HFT-A-4.8/2.4		286
251-10609	G51PF		440	300-73010	TCN20-1.2/0.6		283	305-06400	HFT-A-6.4/3.2		286
251-10709	G51PG		440	300-73020	TCN20-1.6/0.8		283	305-06402	HFT-A-6.4/3.2		286
251-10809	G51PH		440	300-73030	TCN20-2.4/1.2		283	305-06404	HFT-A-6.4/3.2		286
251-21109	G51NA		441	300-73040	TCN20-3.2/1.6		283	305-06406	HFT-A-6.4/3.2		286
251-21209	G51NB		441	300-73050	TCN20-4.8/2.4		283	305-06409	HFT-A-6.4/3.2		286
251-21309	G51NC		441	300-73060	TCN20-6.4/3.2		283	305-06445	HFT-A-6.4/3.2		286
251-21409	G51ND		441	300-73070	TCN20-9.5/4.8		283	305-09500	HFT-A-9.5/4.8		286
251-21509	G51NE		441	300-73080	TCN20-12.7/6.4		283	305-09502	HFT-A-9.5/4.8		286
251-21609	G51NF		441	300-73090	TCN20-19.1/9.5		283	305-09504	HFT-A-9.5/4.8		286
251-21709	G51NG		441	300-73100	TCN20-25.4/12.7		283	305-09506	HFT-A-9.5/4.8		286
251-21809	G51NH		441	300-73110	TCN20-38.1/19.1		283	305-09509	HFT-A-9.5/4.8		286
251-30109	G51TA		441	300-73120	TCN20-50.8/25.4		283	305-09545	HFT-A-9.5/4.8		286
251-30209	G51TB		441	300-73130	TCN20-2.4/0.8		284	305-12700	HFT-A-12.7/6.4		286
251-30309	G51TC		441	300-73140	TCN20-3.2/1.2		284	305-12702	HFT-A-12.7/6.4		286
251-30409	G51TD		441	300-73150	TCN20-4.8/1.6		284	305-12704	HFT-A-12.7/6.4		286
251-30509	G51TE		441	300-73160	TCN20-6.6/2.4		284	305-12706	HFT-A-12.7/6.4		286
251-30609	G51TF		441	300-73170	TCN20-9.5/3.2		284	305-12709	HFT-A-12.7/6.4		286
251-30709	G51TG		441	300-73180	TCN20-12.7/4.8		284	305-12745	HFT-A-12.7/6.4		286
251-30809	G51TH		441	300-73190	TCN20-19.0/6.4		284	305-19000	HFT-A-19.0/9.5		286
300-30002	HIS-Service-Station		268	300-73200	TCN20-25.4/9.5		284	305-19002	HFT-A-19.0/9.5		286
300-30120	HIS-PACK-1.2/0.6		265	300-73210	TCN20-38.0/12.7		284	305-19004	HFT-A-19.0/9.5		286
300-30122	HIS-PACK-1.2/0.6		265	301-10020	SA47-LA-5.75/1.25		314	305-19006	HFT-A-19.0/9.5		286
300-30123	HIS-PACK-1.2/0.6		267	301-10021	SA47-LA-7.5/1.65		314	305-19009	HFT-A-19.0/9.5		286
300-30126	HIS-PACK-1.2/0.6		265	301-10022	SA47-LA-11.0/2.4		314	305-19045	HFT-A-19.0/9.5		286
300-30160	HIS-PACK-1.6/0.8		265	301-10023	SA47-LA-18.3/4.35		314	305-25400	HFT-A-25.4/12.7		286
300-30162	HIS-PACK-1.6/0.8		265	301-10024	SA47-LA-24.0/6.0		314	305-25402	HFT-A-25.4/12.7		286
300-30163	HIS-PACK-1.6/0.8		267	301-10025	SA47-LA-32.0/8.0		314	305-25404	HFT-A-25.4/12.7		286
300-30166	HIS-PACK-1.6/0.8		265	301-10026	SA47-LA-52.0/13.0		314	305-25406	HFT-A-25.4/12.7		286
300-30240	HIS-PACK-2.4/1.2		265	302-20120	TL27-1.2/0.6		282	305-25409	HFT-A-25.4/12.7		286
300-30242	HIS-PACK-2.4/1.2		265	302-20160	TL27-1.6/0.8		282	305-25445	HFT-A-25.4/12.7		286
300-30243	HIS-PACK-2.4/1.2		267	302-21270	TL27-12.7/6.4		282	305-38100	HFT-A-38.0/19.0		287
300-30246	HIS-PACK-2.4/1.2		265	302-23810	TL27-38.1/19.1		282	305-38102	HFT-A-38.0/19.0		287
300-30320	HIS-PACK-3.2/1.6		265	302-25080	TL27-50.8/25.4		282	305-38104	HFT-A-38.0/19.0		287
300-30322	HIS-PACK-3.2/1.6		265	302-30240	TL27-2.4/1.2		282	305-38106	HFT-A-38.0/19.0		287
300-30323	HIS-PACK-3.2/1.6		267	302-30320	TL27-3.2/1.6		282	305-38109	HFT-A-38.0/19.0		287
300-30326	HIS-PACK-3.2/1.6		265	302-30480	TL27-4.8/2.4		282	305-38145	HFT-A-38.0/19.0		287
300-30327	HIS-PACK-3.2/1.6		265	302-30640	TL27-6.4/3.2		282	305-50800	HFT-A-50.8/25.4		287
300-30480	HIS-PACK-4.8/2.4		265	302-30950	TL27-9.5/4.8		282	305-50802	HFT-A-50.8/25.4		287
300-30482	HIS-PACK-4.8/2.4		265	302-31900	TL27-19.1/9.5		282	305-50804	HFT-A-50.8/25.4		287
300-30483	HIS-PACK-4.8/2.4		267	302-32540	TL27-25.4/12.7		282	305-50806	HFT-A-50.8/25.4		287
300-30486	HIS-PACK-4.8/2.4		265	305-01200	HFT-A-1.2/0.6		285	305-50809	HFT-A-50.8/25.4		287
300-30487	HIS-PACK-4.8/2.4		265	305-01202	HFT-A-1.2/0.6		285	305-76200	HFT-A-76.0/38.0		287
300-30640	HIS-PACK-6.4/3.2		266	305-01204	HFT-A-1.2/0.6		285	305-76202	HFT-A-76.0/38.0		287

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
305-76204	HFT-A-76.0/38.0		287	308-31213	HIS-3-BAG-12/4		275	309-20249	TF21-2.4/1.2		289
305-76206	HFT-A-76.0/38.0		287	308-31214	HIS-3-BAG-12/4		275	309-20322	TF21-3.2/1.6		289
305-91600	HFT-A-101.6/50.8		287	308-31215	HIS-3-BAG-12/4		275	309-20324	TF21-3.2/1.6		289
305-91602	HFT-A-101.6/50.8		287	308-31217	HIS-3-BAG-12/4		275	309-20326	TF21-3.2/1.6		289
305-91604	HFT-A-101.6/50.8		287	308-31800	HIS-3-18/6		270	309-20329	TF21-3.2/1.6		289
305-91606	HFT-A-101.6/50.8		287	308-31802	HIS-3-18/6		270	309-20952	TF21-9.5/4.8		289
305-91609	HFT-A-101.6/50.8		287	308-31803	HIS-3-18/6		271	309-20954	TF21-9.5/4.8		289
308-10300	HIS-A-3/1		272	308-31806	HIS-3-18/6		270	309-20956	TF21-9.5/4.8		289
308-10303	HIS-A-3/1		273	308-31807	HIS-3-18/6		270	309-20959	TF21-9.5/4.8		289
308-10600	HIS-A-6/2		272	308-32400	HIS-3-24/8		270	309-21272	TF21-12.7/6.4		289
308-10603	HIS-A-6/2		273	308-32402	HIS-3-24/8		270	309-21274	TF21-12.7/6.4		289
308-10900	HIS-A-9/3		272	308-32403	HIS-3-24/8		271	309-21276	TF21-12.7/6.4		289
308-10903	HIS-A-9/3		273	308-32406	HIS-3-24/8		270	309-21279	TF21-12.7/6.4		289
308-11200	HIS-A-12/4		272	308-32407	HIS-3-24/8		270	309-31023	TF24-101.6/50.8		291
308-11203	HIS-A-12/4		273	309-10120	TF21-1.2/0.6		288	309-31903	TF24-19.1/9.5		291
308-11800	HIS-A-18/6		272	309-10160	TF21-1.6/0.8		288	309-32543	TF24-25.4/12.7		291
308-11803	HIS-A-18/6		273	309-10240	TF21-2.4/1.2		289	309-33813	TF24-38.1/19.1		291
308-12400	HIS-A-24/8		272	309-10320	TF21-3.2/1.6		289	309-35083	TF24-50.8/25.4		291
308-12403	HIS-A-24/8		273	309-10480	TF21-4.8/2.4		289	309-37603	TF24-76.2/38.1		291
308-30150	HIS-3-1.5/0.5		269	309-10640	TF21-6.4/3.2		289	309-40123	TF24-1.2/0.6		291
308-30151	HIS-3-BAG-1.5/0.5		274	309-10950	TF21-9.5/4.8		289	309-40163	TF24-1.6/0.8		291
308-30152	HIS-3-1.5/0.5		269	309-11020	TF21-101.6/50.8		290	309-40243	TF24-2.4/1.2		291
308-30153	HIS-3-1.5/0.5		271	309-11022	TF21-101.6/50.8		290	309-40247	TF21-2.4/1.2		289
308-30156	HIS-3-1.5/0.5		269	309-11024	TF21-101.6/50.8		290	309-40323	TF24-3.2/1.6		291
308-30160	HIS-3-BAG-1.5/0.5		274	309-11026	TF21-101.6/50.8		290	309-40327	TF21-3.2/1.6		289
308-30161	HIS-3-BAG-1.5/0.5		274	309-11029	TF21-101.6/50.8		290	309-40953	TF24-9.5/4.8		291
308-30162	HIS-3-BAG-1.5/0.5		274	309-11270	TF21-12.7/6.4		289	309-41273	TF24-12.7/6.4		291
308-30163	HIS-3-BAG-1.5/0.5		274	309-11900	TF21-19.1/9.5		290	309-41277	TF21-12.7/6.4		289
308-30164	HIS-3-BAG-1.5/0.5		275	309-11902	TF21-19.1/9.5		290	309-50482	TF21-4.8/2.4		289
308-30165	HIS-3-BAG-1.5/0.5		274	309-11904	TF21-19.1/9.5		290	309-50483	TF24-4.8/2.4		291
308-30300	HIS-3-3/1		269	309-11906	TF21-19.1/9.5		290	309-50484	TF21-4.8/2.4		289
308-30302	HIS-3-3/1		269	309-11907	TF21-19.1/9.5		290	309-50486	TF21-4.8/2.4		289
308-30303	HIS-3-3/1		271	309-11909	TF21-19.1/9.5		290	309-50487	TF21-4.8/2.4		289
308-30306	HIS-3-3/1		269	309-12540	TF21-25.4/12.7		290	309-50489	TF21-4.8/2.4		289
308-30307	HIS-3-3/1		269	309-12542	TF21-25.4/12.7		290	309-50642	TF21-6.4/3.2		289
308-30310	HIS-3-BAG-3/1		275	309-12544	TF21-25.4/12.7		290	309-50643	TF24-6.4/3.2		291
308-30311	HIS-3-BAG-3/1		275	309-12546	TF21-25.4/12.7		290	309-50644	TF21-6.4/3.2		289
308-30312	HIS-3-BAG-3/1		275	309-12547	TF21-25.4/12.7		290	309-50646	TF21-6.4/3.2		289
308-30313	HIS-3-BAG-3/1		275	309-12549	TF21-25.4/12.7		290	309-50647	TF21-6.4/3.2		289
308-30314	HIS-3-BAG-3/1		275	309-13810	TF21-38.0/19.0		290	309-50649	TF21-6.4/3.2		289
308-30315	HIS-3-BAG-3/1		275	309-13812	TF21-38.0/19.0		290	309-50957	TF21-9.5/4.8		289
308-30316	HIS-3-BAG-3/1		275	309-13814	TF21-38.0/19.0		290	311-00169	TK20-1.6/0.8		317
308-30600	HIS-3-6/2		269	309-13816	TF21-38.0/19.0		290	311-00249	TK20-2.4/1.2		317
308-30602	HIS-3-6/2		269	309-13817	TF21-38.0/19.0		290	311-00329	TK20-3.2/1.6		317
308-30603	HIS-3-6/2		271	309-13819	TF21-38.0/19.0		290	311-00489	TK20-4.8/2.4		317
308-30606	HIS-3-6/2		269	309-15080	TF21-50.8/25.4		290	311-00649	TK20-6.4/3.2		317
308-30607	HIS-3-6/2		269	309-15082	TF21-50.8/25.4		290	311-00959	TK20-9.5/4.8		317
308-30610	HIS-3-BAG-6/2		275	309-15084	TF21-50.8/25.4		290	311-01279	TK20-12.7/6.4		317
308-30611	HIS-3-BAG-6/2		275	309-15086	TF21-50.8/25.4		290	311-01909	TK20-19.1/9.5		317
308-30612	HIS-3-BAG-6/2		275	309-15087	TF21-50.8/25.4		290	311-02549	TK20-25.4/12.7		317
308-30613	HIS-3-BAG-6/2		275	309-15089	TF21-50.8/25.4		290	311-03819	TK20-38.1/19.1		317
308-30614	HIS-3-BAG-6/2		275	309-17600	TF21-76.0/38.0		290	311-05089	TK20-50.8/25.4		317
308-30615	HIS-3-BAG-6/2		275	309-17602	TF21-76.0/38.0		290	315-13000	TA37 3-1		313
308-30617	HIS-3-BAG-6/2		275	309-17604	TF21-76.0/38.0		290	315-13001	TA37 4.5-1.5		313
308-30900	HIS-3-9/3		270	309-17606	TF21-76.0/38.0		290	315-13002	TA37 6-2		313
308-30902	HIS-3-9/3		270	309-17609	TF21-76.0/38.0		290	315-13003	TA37 9-3		313
308-30903	HIS-3-9/3		271	309-20122	TF21-1.2/0.6		288	315-13004	TA37 12-4		313
308-30906	HIS-3-9/3		270	309-20124	TF21-1.2/0.6		288	315-13005	TA37 19-6		313
308-30907	HIS-3-9/3		270	309-20126	TF21-1.2/0.6		288	315-13006	TA37 24-8		313
308-31200	HIS-3-12/4		270	309-20129	TF21-1.2/0.6		288	315-13007	TA37 40-13		313
308-31202	HIS-3-12/4		270	309-20162	TF21-1.6/0.8		288	315-13008	TA37 50-19		313
308-31203	HIS-3-12/4		271	309-20164	TF21-1.6/0.8		288	315-13009	TA37 75-25		313
308-31206	HIS-3-12/4		270	309-20166	TF21-1.6/0.8		288	315-13011	TA37 120-45		313
308-31207	HIS-3-12/4		270	309-20169	TF21-1.6/0.8		288	315-50320	TR27-3.2/1.6		312
308-31210	HIS-3-BAG-12/4		275	309-20242	TF21-2.4/1.2		289	315-50480	TR27-4.8/2.4		312
308-31211	HIS-3-BAG-12/4		275	309-20244	TF21-2.4/1.2		289	315-50640	TR27-6.4/3.2		312
308-31212	HIS-3-BAG-12/4		275	309-20246	TF21-2.4/1.2		289	315-50950	TR27-9.5/4.8		312

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
315-51270	TR27-12.7/6.4		312	321-30500	HA67-88.9/17.1		311	333-30603	TF34-6/2		295
315-51900	TR27-19.1/9.5		312	321-30600	HA67-119.4/22.9		311	333-30604	TF31-6/2		293
315-52540	TR27-25.4/12.7		312	321-50190	TREDUX-HA47-19/6		276, 280	333-30605	TF31-6/2		293
315-53810	TR27-38.1/19.1		312	321-50330	TREDUX-HA47-33/8		276, 280	333-30606	TF31-6/2		293
315-55100	TR27-50.8/25.4		312	321-50450	TREDUX-HA47-45/12		276, 280	333-30607	TF31-6/2		293
317-00070	TX46-7.6/1.7		315	321-50510	TREDUX-HA47-51/16		280	333-30609	TF31-6/2		293
317-00071	TX46-9.0/2.3		315	321-50680	TREDUX-HA47-68/22		280	333-30900	TF31-9/3		293
317-00072	TX46-11.6/2.5		315	321-50850	TREDUX-HA47-85/25		280	333-30902	TF31-9/3		293
317-00073	TX46-17.8/4.4		315	323-00100	MA40-8/2		300	333-30903	TF34-9/3		295
317-00074	TX46-24.0/6.0		315	323-00101	MA40-12/3		300	333-30904	TF31-9/3		293
317-00075	TX46-32.0/8.0		315	323-00103	MA40-16/5		300	333-30905	TF31-9/3		293
318-30300	TA32-3/1		296	323-00104	MA40-22/6		300	333-30906	TF31-9/3		293
318-30450	TA32-4.5/1.5		296	323-00105	MA40-33/8		300	333-30907	TF31-9/3		293
318-30600	TA32-6/2		296	323-00106	MA40-40/12		300	333-30909	TF31-9/3		293
318-30900	TA32-9/3		296	323-00107	MA40-55/16		300	333-31200	TF31-12/4		293
318-31200	TA32-12/4		296	323-10120	MU47-12/3		303	333-31202	TF31-12/4		293
318-31900	TA32-19/6		296	323-10190	MU47-19/6		303	333-31203	TF34-12/4		295
318-32400	TA32-24/8		296	323-10300	MU47-30/8		303	333-31204	TF31-12/4		293
318-34000	TA32-40/13		296	323-10400	MU47-40/12		303	333-31205	TF31-12/4		293
318-40400	TA42-4/1		297	323-10500	MU47-50/16		303	333-31206	TF31-12/4		293
318-40800	TA42-8/2		297	323-10630	MU47-63/19		303	333-31207	TF31-12/4		293
318-41200	TA42-12/3		297	323-10750	MU47-75/22		303	333-31209	TF31-12/4		293
318-41600	TA42-16/4		297	323-10950	MU47-95/30		303	333-31800	TF31-18/6		294
318-42400	TA42-24/6		297	323-11150	MU47-115/34		303	333-31802	TF31-18/6		294
318-43200	TA42-32/8		297	323-11400	MU47-140/42		303	333-31803	TF34-18/6		295
318-45200	TA42-52/13		297	323-20080	MA47-8/2		301	333-31804	TF31-18/6		294
319-00150	TREDUX-1.5/0.5		276-277	323-20120	MA47-12/3		301-302	333-31805	TF31-18/6		294
319-00157	TREDUX-1.5/0.5		277	323-20190	MA47-19/6		301-302	333-31806	TF31-18/6		294
319-00300	TREDUX-3/1		276-277	323-20300	MA47-30/8		301-302	333-31807	TF31-18/6		294
319-00307	TREDUX-3/1		276-277	323-20400	MA47-40/12		301-302	333-31809	TF31-18/6		294
319-00600	TREDUX-6/2		276-277	323-20500	MA47-50/16		301	333-32400	TF31-24/8		294
319-00607	TREDUX-6/2		276-277	323-20630	MA47-63/19		301	333-32402	TF31-24/8		294
319-01200	TREDUX-12/4		276-277	323-20750	MA47-75/22		301	333-32403	TF34-24/8		295
319-01207	TREDUX-12/4		276-277	323-20950	MA47-95/30		301	333-32404	TF31-24/8		294
319-02400	TREDUX-24/8		276-277	323-21150	MA47-115/34		301	333-32405	TF31-24/8		294
319-02407	TREDUX-24/8		277	323-21400	MA47-140/42		301	333-32406	TF31-24/8		294
319-03800	TREDUX-38.1/19.1		278	323-50120	TREDUX-MA47-12/3		279	333-32407	TF31-24/8		294
319-03807	TREDUX-38.1/19.1		278	323-50190	TREDUX-MA47-19/6		276, 279	333-32409	TF31-24/8		294
319-05100	TREDUX-50.8/25.4		278	323-50300	TREDUX-MA47-30/8		276, 279	333-34000	TF31-40/13		294
319-07600	TREDUX-76.2/38.1		278	323-50400	TREDUX-MA47-40/12		276, 279	333-34002	TF31-40/13		294
319-10200	TREDUX-101.6/50.8		278	323-50500	TREDUX-MA47-50/16		279	333-34003	TF34-40/13		295
319-30000	TREDUX-Display		276	323-50630	TREDUX-MA47-63/19		279	333-34004	TF31-40/13		294
321-00100	HA40-9/3		309	323-50750	TREDUX-MA47-75/22		279	333-34005	TF31-40/13		294
321-00101	HA40-13/4		309	323-50950	TREDUX-MA47-95/30		279	333-34006	TF31-40/13		294
321-00102	HA40-22/6		309	331-00129	TK20-1.2/0.6		317	333-34007	TF31-40/13		294
321-00103	HA40-33/8		309	333-20150	TF31-1.5/0.5		292	333-34009	TF31-40/13		294
321-00104	HA40-40/12		309	333-20900	TF31-9/3		293	333-40300	TF31-3/1		293
321-00105	HA40-55/16		309	333-21200	TF31-12/4		293	333-40600	TF31-6/2		293
321-00106	HA40-75/22		309	333-24000	TF31-40/13		294	333-41800	TF31-18/6		294
321-00107	HA40-92/25		309	333-30150	TF31-1.5/0.5		292	333-42400	TF31-24/8		294
321-20090	HA47-9/3		310	333-30152	TF31-1.5/0.5		292	336-00079	TFE2-30		318
321-20130	HA47-13/4		310	333-30153	TF34-1.5/0.5		295	336-00099	TFE2-28		318
321-20180	HA47-19/6		310	333-30154	TF31-1.5/0.5		292	336-00109	TFE2-26		318
321-20280	HA47-33/8		310	333-30155	TF31-1.5/0.5		292	336-00139	TFE2-24		318
321-20450	HA47-45/12		310	333-30156	TF31-1.5/0.5		292	336-00149	TFE2-22		318
321-20510	HA47-51/16		310	333-30157	TF31-1.5/0.5		292	336-00159	TFE2-20		318
321-20680	HA47-68/22		310	333-30159	TF31-1.5/0.5		292	336-00199	TFE2-18		318
321-20850	HA47-85/25		310	333-30300	TF31-3/1		293	336-00249	TFE2-16		318
321-20900	HA47-105/30		310	333-30302	TF31-3/1		293	336-00319	TFE2-14		318
321-21300	HA47-130/36		310	333-30303	TF34-3/1		295	336-00399	TFE2-12		318
321-21600	HA47-160/50		310	333-30304	TF31-3/1		293	336-00489	TFE2-10		318
321-21850	HA47-180/50		310	333-30305	TF31-3/1		293	336-00619	TFE2-8		318
321-30000	HA67-19.0/3.2		311	333-30306	TF31-3/1		293	336-00779	TFE2-6		318
321-30100	HA67-33.0/5.5		311	333-30307	TF31-3/1		293	336-00949	TFE2-4		318
321-30200	HA67-44.4/7.4		311	333-30309	TF31-3/1		293	336-01109	TFE2-2		318
321-30300	HA67-50.8/8.3		311	333-30600	TF31-6/2		293	336-01209	TFE2-0		318
321-30400	HA67-69.8/11.7		311	333-30602	TF31-6/2		293	339-00209	TFE4-5/64		319

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
339-00329	TFE4-1/8		319	401-13180	113-1-G		334	411-28180	1128-1-G		345
339-00340	TFE4-3/16		319	401-13480	113-4-G		333	411-29180	1129-1-G		345
339-00649	TFE4-1/4		319	401-29180	129-1-G		335	411-33180	1133-1-G		346
339-00959	TFE4-3/8		319	401-30180	130-1-G		335	411-34180	1134-1-G		346
339-01279	TFE4-1/2		319	401-31180	131-1-G		335	411-35180	1135-1-G		346
339-01599	TFE4-5/8		319	401-32180	132-1-G		335	411-36180	1136-1-G		346
339-01909	TFE4-3/4		319	401-33180	133-1-G		335	411-52480	1152-4-G		342
339-02549	TFE4-1		319	401-34180	134-1-G		335	411-54480	1154-4-G		342
339-03189	TFE4-1 1/4		319	401-35180	135-1-G		335	411-55480	1155-4-G		342
340-03010	EPS-300-3/1		298	401-36180	136-1-G		335	411-56480	1156-4-G		342
340-06020	EPS-300-6/2		298	401-38180	138-1-G		335	411-57480	1157-4-G		342
340-09030	EPS-300-9/3		298	401-52780	152-41-G		331	411-58480	1158-4-G		342
340-12040	EPS-300-12/4		298	401-52880	152-42-G		331	411-59480	1159-4-G		342
340-19060	EPS-300-19/6		298	401-53780	153-41-G		331	411-60480	1160-4-G		342
340-24080	EPS-300-24/8		298	401-53880	153-42-G		331	412-01180	1201-1-G		347
340-40130	EPS-300-40/13		298	401-54780	154-41-G		331	412-02180	1202-1-G		347
341-04010	EPS-400-4/1		299	401-54880	154-42-G		331	412-03180	1203-1-G		347
341-08020	EPS-400-8/2		299	401-55880	155-42-G		331	412-04180	1204-1-G		348
341-12030	EPS-400-12/3		299	401-56780	156-41-G		331	412-05180	1205-1-G		347
341-16040	EPS-400-16/4		299	401-56880	156-42-G		331	412-06180	1206-1-G		347
341-24060	EPS-400-24/6		299	401-57780	157-41-G		331	412-07180	1207-1-G		347
341-32080	EPS-400-32/8		299	401-57880	157-42-G		331	412-09180	1209-1-G		347
342-20000	SE28 3.2/1.6		316	401-57980	157-43-G		331	412-16180	1216-1-G		348
342-20010	SE28 4.8/2.4		316	401-58780	158-41-G		331	413-01180	1301-1-G		349
342-20020	SE28 6.4/3.2		316	401-58880	158-42-G		332	413-02180	1302-1-G		349
342-20030	SE28 9.5/4.8		316	401-58980	158-43-G		332	413-03180	1303-1-G		349
342-20040	SE28 12.7/6.4		316	401-59780	159-41-G		332	413-06180	1306-1-G		349
342-20050	SE28 19.0/9.5		316	401-59880	159-42-G		332	413-11180	1311-1-G		349
342-20060	SE28 25.4/12.7		316	401-59980	159-43-G		332	416-00000	PEC-3/1		357
342-20070	SE28 38.0/19.0		316	401-60780	160-41-G		332	416-00001	PEC-6/2		357
342-20080	SE28 51.0/25.4		316	401-60880	160-42-G		332	416-00002	PEC-9/3		357
342-20090	SE28 76.0/38.0		316	401-60980	160-43-G		332	416-00003	PEC-4.8/1.5		357
342-20100	SE28 101.2/51.0		316	401-76180	176-1-G		336	416-02008	1602-1-B5W2		358
344-00240	LVR-2.4/1.2		281	401-77180	177-1-G		336	416-09000	1609-1-B5W2		358
344-00320	LVR-3.2/1.6		281	401-78180	178-1-G		336	416-10000	1610-1-B5W2		358
344-00480	LVR-4.8/2.4		281	401-79180	179-1-G		336	416-12046	1612-1-B5W2		358
344-00640	LVR-6.4/3.2		281	401-99480	199-4-G		337	416-13060	1613-1-B5W2		358
344-00950	LVR-9.5/4.8		281	402-01180	201-1-G		338	416-14047	1614-1-B5W2		358
344-01270	LVR-12.7/6.4		281	402-01220	201-2-G		338	416-15035	1615-1-B5W2		358
344-01900	LVR-19.1/9.5		281	402-03180	203-1-G		339	416-16053	1616-1-B5W2		358
344-02540	LVR-25.4/12.7		281	402-04180	204-1-G		339	416-17033	1617-1-B5W2		358
354-02259	HMT200A		359	402-06180	206-1-G		339	417-93001	1793-1-G		356
354-02260	HMT200A		359	402-12180	212-1-G		339	417-94002	1794-1-L		356
365-30105	HIS-Service-Station		268	402-13180	213-1-G		339	417-95001	1795-1-G		356
380-03001	ShrinkKit 321 Basic	259, 261-264		402-16039	216-3-B8W		353	417-96001	1796-1-G		356
380-03002	ShrinkKit 321 Universal	262		402-18051	218-2-B8W		353	418-03005	1803-4-G		350
380-03003	ShrinkKit 321-A	264		402-23058	223-2-B8W		353	418-05003	1805-4-G		350
380-03004	ShrinkKit 321-A Basic	263		403-04180	304-1-G		340	418-06002	1806-4-G		350
380-03005	ShrinkKit 321 Universal Basic	260		403-06180	306-1-G		340	418-07003	1807-4-G		350
380-04005	LVK-5x1.5-6		307	403-10180	310-1-G		340	418-17001	1817-4-G		350
380-04006	LVK-5x1.5-16		307	403-11180	311-1-G		340	418-19001	1819-4-G		350
380-04007	LVK-5x6-25		307	404-03180	403-1-G		341	418-20001	1820-4-G		350
380-04008	LVK-4x16-50		307	404-08022	408-2-B8W2		354	418-21013	1821-42-G		350
380-04009	LVK-4x25-95		307	404-11180	411-1-G		341	418-22001	1822-1-G		356
380-04010	LVK-4x25-150		307	404-13180	413-1-G		341	418-23001	1823-1-G		356
380-04011	LVK-4x95-300		307	404-18020	418-4-B8W2		354	418-30003	1830-4-G		350
380-04013	LVK-C-5x1.5-6		308	404-42009	442-1-B8WM250		354	418-31001	1831-4-G		350
380-04014	LVK-C-5x1.5-16		308	405-08049	508-5-B8W		355	418-32000	1832-4-G		350
380-04015	LVK-C-5x6-25		308	411-08180	1108-1-G		344	418-34001	1834-4-G		351
380-04016	LVK-C-4x16-50		308	411-08480	1108-4-G		343	418-34002	1834-5-L		352
380-04018	LVK-C-4x25-150		308	411-21180	1121-1-G		345	418-35001	1835-4-G		351
380-04019	LVRK-L-24/6-200		304	411-22180	1122-1-G		345	418-35002	1835-5-L		352
391-90010	CHG900		613	411-23180	1123-1-G		345	418-36001	1836-4-G		351
391-90011	Piezo CHG900		613	411-24180	1124-1-G		345	418-36002	1836-5-L		352
391-90012	Gas Nozzle		613	411-25180	1125-1-G		345	418-37001	1837-4-G		351
391-90101	P445		613	411-26180	1126-1-G		345	418-37002	1837-5-L		352
				411-27180	1127-1-G		345	422-00001	313C722-9		324

Article-No.	Type	Ⓔ*	Page	Article-No.	Type	Ⓔ*	Page	Article-No.	Type	Ⓔ*	Page
422-00101	313C732-9		324	440-00031	VP-L_23-24_Ins-sgl		494	515-01622	HGDC1-3 2		542
422-00201	313C743-9		324	440-00032	VP-L_24-25_Ins-sgl		494	515-01624	HGDC1-3 2		542
422-00302	313C753-9		324	440-00033	VP-L_25-26_Ins-sgl		494	515-01633	HGDC1-3 3		542
422-00400	313C764-9		324	440-00034	VP-L_26-27_Ins-sgl		494	515-01634	HGDC1-3 3		542
422-00501	313C774-9		324	440-00035	VP-L_27-28_Ins-sgl		494	515-01644	HGDC1-3 4		542
422-10000	313E445-9		325	440-00036	VP-L_28-29_Ins-sgl		494	515-01654	HGDC1-3 5		542
422-10100	313E447-9		325	440-00037	VP-L_29-30_Ins-sgl		494	515-01655	HGDC1-3 5		542
422-10200	313E455-9		325	440-00038	VP-L_30-31_Ins-sgl		494	515-01664	HGDC1-3 6		542
422-10300	313E457-9		325	440-00039	VP-L_31-32_Ins-sgl		494	515-01666	HGDC1-3 6		542
422-20000	313F322-9		326	440-00040	VP-L_32-33_Ins-sgl		494	515-01674	HGDC1-3 7		542
422-20100	313F332-9		326	440-00041	VP_3-5_Blindplug		496	515-01677	HGDC1-3 7		542
422-20200	313F343-9		326	440-00042	VP_5-7_Blindplug		496	515-01684	HGDC1-3 8		542
422-20300	313F353-9		326	440-00043	VP_7-9_Blindplug		496	515-01688	HGDC1-3 8		542
422-20400	313F364-9		326	440-00044	VP_9-11_Blindplug		496	515-01694	HGDC1-3 9		542
422-20500	313F374-9		326	440-00045	VP_11-13_Blindplug		496	515-01699	HGDC1-3 9		542
422-20600	313F385-9		326	440-00046	VP_13-15_Blindplug		496	515-01704	HGDC1-3 +		542
422-20700	313F396-9		326	440-00047	VP_15-16_Blindplug		496	515-01714	HGDC1-3 -		542
422-30000	333F322-9		327	440-00048	VP_Mounting_Tool		497	515-01724	HGDC1-3 /		542
422-30004	333F332-9		327	440-00049	VP_S_5_Blindplug		496	515-01734	HGDC1-3 ↓		542
422-30100	333F343-9		327	440-00050	VP_S_7_Blindplug		496	515-01804	HGDC1-3 .		542
422-30200	333F353-9		327	450-20000	RMS 43-10		306	515-01946	HGDC4-9 .		541
422-30301	333F364-9		327	450-20001	RMS 43-10		306	515-01947	HGDC4-9 ↓		541
422-30400	333F374-9		327	450-20002	RMS 43-10		306	515-02014	HGDC2-5 A		542
422-30500	333F385-9		327	450-20004	RMS 43-10		306	515-02024	HGDC2-5 B		542
422-40000	412H622-9		328	450-20010	RMS 52-15		306	515-02034	HGDC2-5 C		542
422-40100	412H623-9		328	450-20011	RMS 52-15		306	515-02044	HGDC2-5 D		542
422-40200	412H624-9		328	450-20012	RMS 52-15		306	515-02054	HGDC2-5 E		542
422-40300	412H625-9		328	450-20014	RMS 52-15		306	515-02064	HGDC2-5 F		542
422-50000	492H412-9		329	450-20021	RMS 76-22		306	515-02074	HGDC2-5 G		542
422-50101	492H413-9		329	450-20022	RMS 76-22		306	515-02084	HGDC2-5 H		542
422-50202	492H414-9		329	450-20024	RMS 76-22		306	515-02094	HGDC2-5 I		542
422-50302	492H415-9		329	450-20030	RMS 100-30		306	515-02104	HGDC2-5 J		542
422-60000	573H532-9		330	450-20031	RMS 100-30		306	515-02114	HGDC2-5 K		542
422-60100	573H533-9		330	450-20041	RMS 139-38		306	515-02124	HGDC2-5 L		542
422-60202	573H534-9		330	450-20050	RMS 185-55		306	515-02134	HGDC2-5 M		542
422-60302	573H535-9		330	500-50820	T825-BK		540	515-02144	HGDC2-5 N		542
440-00000	VarioPlate-4_Frame		493	500-50822	T82R-RD		540	515-02154	HGDC2-5 O		542
440-00001	VarioPlate-10_Frame		493	515-01014	HGDC1-3 A	YES	542	515-02164	HGDC2-5 P		542
440-00002	VarioPlate-16_Frame		493	515-01024	HGDC1-3 B		542	515-02174	HGDC2-5 Q		542
440-00003	VarioPlate-24_Frame		493	515-01034	HGDC1-3 C		542	515-02184	HGDC2-5 R		542
440-00004	VP-S_0_Blindinsert		495	515-01044	HGDC1-3 D		542	515-02194	HGDC2-5 S		542
440-00005	VP-S_3-4_Ins-sgl		495	515-01054	HGDC1-3 E		542	515-02204	HGDC2-5 T		542
440-00006	VP-S_4-5_Ins-sgl		495	515-01064	HGDC1-3 F		542	515-02214	HGDC2-5 U		542
440-00007	VP-S_5-6_Ins-sgl		495	515-01074	HGDC1-3 G		542	515-02224	HGDC2-5 V		542
440-00008	VP-S_6-7_Ins-sgl		495	515-01084	HGDC1-3 H		542	515-02234	HGDC2-5 W		542
440-00009	VP-S_7-8_Ins-sgl		495	515-01094	HGDC1-3 I		542	515-02244	HGDC2-5 X		542
440-00010	VP-S_8-9_Ins-sgl		495	515-01104	HGDC1-3 J		542	515-02254	HGDC2-5 Y		542
440-00011	VP-S_9-10_Ins-sgl		495	515-01114	HGDC1-3 K		542	515-02264	HGDC2-5 Z		542
440-00012	VP-S_10-11_Ins-sgl		495	515-01124	HGDC1-3 L		542	515-02600	HGDC2-5 0		542
440-00013	VP-S_11-12_Ins-sgl		495	515-01134	HGDC1-3 M		542	515-02604	HGDC2-5 0		542
440-00014	VP-S_12-13_Ins-sgl		495	515-01144	HGDC1-3 N		542	515-02611	HGDC2-5 1		542
440-00015	VP-S_13-14_Ins-sgl		495	515-01154	HGDC1-3 O		542	515-02614	HGDC2-5 1		542
440-00016	VP-S_14-15_Ins-sgl		495	515-01164	HGDC1-3 P		542	515-02622	HGDC2-5 2		542
440-00017	VP-S_15-16_Ins-sgl		495	515-01174	HGDC1-3 Q		542	515-02624	HGDC2-5 2		542
440-00018	VP-S_2/4-5_Ins-dbl		495	515-01184	HGDC1-3 R		542	515-02633	HGDC2-5 3		542
440-00019	VP-S_2/5-6_Ins-dbl		495	515-01194	HGDC1-3 S		542	515-02634	HGDC2-5 3		542
440-00020	VP-S_2/6-7_Ins-dbl		495	515-01204	HGDC1-3 T		542	515-02644	HGDC2-5 4		542
440-00021	VP-S_2/7-8_Ins-dbl		495	515-01214	HGDC1-3 U		542	515-02654	HGDC2-5 5		542
440-00022	VP-S_4/4-5_Ins-quad		495	515-01224	HGDC1-3 V		542	515-02655	HGDC2-5 5		542
440-00023	VP-S_4/5-6_Ins-quad		495	515-01234	HGDC1-3 W		542	515-02664	HGDC2-5 6		542
440-00024	VP-L_16-17_Ins-sgl		494	515-01244	HGDC1-3 X		542	515-02666	HGDC2-5 6		542
440-00025	VP-L_17-18_Ins-sgl		494	515-01254	HGDC1-3 Y		542	515-02674	HGDC2-5 7		542
440-00026	VP-L_18-19_Ins-sgl		494	515-01264	HGDC1-3 Z		542	515-02677	HGDC2-5 7		542
440-00027	VP-L_19-20_Ins-sgl		494	515-01600	HGDC1-3 0		542	515-02684	HGDC2-5 8		542
440-00028	VP-L_20-21_Ins-sgl		494	515-01604	HGDC1-3 0		542	515-02688	HGDC2-5 8		542
440-00029	VP-L_21-22_Ins-sgl		494	515-01611	HGDC1-3 1		542	515-02694	HGDC2-5 9		542
440-00030	VP-L_22-23_Ins-sgl		494	515-01614	HGDC1-3 1		542	515-02699	HGDC2-5 9		542

Article-No.	Type	☺*	Page	Article-No.	Type	☺*	Page	Article-No.	Type	☺*	Page
515-02704	HGDC2-5 +		542	525-19003	HCR18	YES	554	531-07958	HODS85 X		545
515-02714	HGDC2-5 -		542	525-19353	HC18-35	YES	554	531-07959	HODS85 Y		545
515-02715	HGDC2-5 .		542	525-19523	HC18-52	YES	554	531-07960	HODS85 Z		545
515-02724	HGDC2-5 /		542	525-19703	HC18-70	YES	555	531-07961	HODS85 /		545
515-02734	HGDC2-5 ⊥		542	525-25003	HCR24	YES	554	531-15014	HODS50 A		545
515-03014	HGDC4-9 A		541	525-25523	HC24-52	YES	555	531-15024	HODS50 B		545
515-03024	HGDC4-9 B		541	525-25703	HC24-70	YES	555	531-15034	HODS50 C		545
515-03034	HGDC4-9 C		541	526-01014	HFX9-17P		556	531-15044	HODS50 D		545
515-03044	HGDC4-9 D		541	526-01514	HFX9-35P		556	531-15054	HODS50 E		545
515-03054	HGDC4-9 E		541	526-01714	HFX12-35P		556	531-15064	HODS50 F		545
515-03064	HGDC4-9 F		541	526-02014	HFX9-52P		556	531-15074	HODS50 G		545
515-03074	HGDC4-9 G		541	526-02214	HFX12-52P		556	531-15084	HODS50 H		545
515-03084	HGDC4-9 H		541	526-02514	HFX12-105P		556	531-15094	HODS50 I		545
515-03094	HGDC4-9 I		541	526-03014	HFX24-105P		556	531-15104	HODS50 J		545
515-03104	HGDC4-9 J		541	526-05014	HFX12-210P		556	531-15114	HODS50 K		545
515-03114	HGDC4-9 K		541	526-05514	HFX24-210P		556	531-15124	HODS50 L		545
515-03124	HGDC4-9 L		541	531-00174	HODS50 .		544	531-15134	HODS50 M		545
515-03134	HGDC4-9 M		541	531-00175	HODS50 /		545	531-15144	HODS50 N		545
515-03144	HGDC4-9 N		541	531-00176	HODS50 ⊥		545	531-15154	HODS50 O		545
515-03154	HGDC4-9 O		541	531-00384	HODS85 .		545	531-15164	HODS50 P		545
515-03164	HGDC4-9 P		541	531-00386	HODS85 ⊥		545	531-15174	HODS50 Q		545
515-03174	HGDC4-9 Q		541	531-00451	HODS50 +		545	531-15184	HODS50 R		545
515-03184	HGDC4-9 R		541	531-00452	HODS50 -		545	531-15194	HODS50 S		545
515-03194	HGDC4-9 S		541	531-07728	HODS85 0		545	531-15204	HODS50 T		545
515-03204	HGDC4-9 T		541	531-07729	HODS85 1		545	531-15214	HODS50 U		545
515-03214	HGDC4-9 U		541	531-07730	HODS85 2		545	531-15224	HODS50 V		545
515-03224	HGDC4-9 V		541	531-07731	HODS85 3		545	531-15234	HODS50 W		545
515-03234	HGDC4-9 W		541	531-07732	HODS85 4		545	531-15244	HODS50 X		545
515-03244	HGDC4-9 X		541	531-07733	HODS85 5		545	531-15254	HODS50 Y		545
515-03254	HGDC4-9 Y		541	531-07734	HODS85 6		545	531-15264	HODS50 Z		545
515-03264	HGDC4-9 Z		541	531-07735	HODS85 7		545	531-15274	HODS50 0		545
515-03600	HGDC4-9 0		541	531-07736	HODS85 8		545	531-15284	HODS50 1		545
515-03604	HGDC4-9 0		541	531-07737	HODS85 9		545	531-15294	HODS50 2		545
515-03611	HGDC4-9 1		541	531-07923	HODS85 -		545	531-15304	HODS50 3		545
515-03614	HGDC4-9 1		541	531-07924	HODS85 +		545	531-15314	HODS50 4		545
515-03622	HGDC4-9 2		541	531-07925	HODS85 0		545	531-15324	HODS50 5		545
515-03624	HGDC4-9 2		541	531-07926	HODS85 1		545	531-15334	HODS50 6		545
515-03633	HGDC4-9 3		541	531-07927	HODS85 2		545	531-15344	HODS50 7		545
515-03634	HGDC4-9 3		541	531-07928	HODS85 3		545	531-15354	HODS50 8		545
515-03644	HGDC4-9 4		541	531-07930	HODS85 5		545	531-15364	HODS50 9		545
515-03654	HGDC4-9 5		541	531-07931	HODS85 6		545	531-15365	HODS50 0		545
515-03655	HGDC4-9 5		541	531-07932	HODS85 7		545	531-15366	HODS50 1		545
515-03664	HGDC4-9 6		541	531-07933	HODS85 8		545	531-15367	HODS50 2		545
515-03666	HGDC4-9 6		541	531-07934	HODS85 9		545	531-15368	HODS50 3		545
515-03674	HGDC4-9 7		541	531-07935	HODS85 A		545	531-15370	HODS50 5		545
515-03677	HGDC4-9 7		541	531-07936	HODS85 B		545	531-15371	HODS50 6		545
515-03684	HGDC4-9 8		541	531-07937	HODS85 C		545	531-15372	HODS50 7		545
515-03688	HGDC4-9 8		541	531-07938	HODS85 D		545	531-15373	HODS50 8		545
515-03694	HGDC4-9 9		541	531-07939	HODS85 E		545	531-15374	HODS50 9		545
515-03699	HGDC4-9 9		541	531-07940	HODS85 F		545	533-65000	TLFD24DS-1X50WH		519
515-03704	HGDC4-9 +		541	531-07941	HODS85 G		545	533-65001	TLFD24DS-2X25WH		519
515-03714	HGDC4-9 -		541	531-07942	HODS85 H		545	533-65002	TLFD32DS-1X50WH		519
515-03724	HGDC4-9 /		541	531-07943	HODS85 I		545	533-65003	TLFD32DS-2X25WH		519
525-00010	HCT1		617	531-07944	HODS85 J		545	533-65004	TLFD48DS-1X50WH		519
525-00013	HCT2		617	531-07945	HODS85 K		545	533-65005	TLFD48DS-2X25WH		519
525-07003	HCR06	YES	554	531-07946	HODS85 L		545	533-65006	TLFD64DS-1X50WH		520
525-07173	HC06-17	YES	554	531-07947	HODS85 M		545	533-65007	TLFD64DS-2X25WH		519
525-07353	HC06-35	YES	554	531-07948	HODS85 N		545	533-65008	TLFD95DS-1X50WH		520
525-10003	HCR09	YES	554	531-07949	HODS85 O		545	533-65009	TLFD95DS-2X25WH		520
525-10173	HC09-17	YES	554	531-07950	HODS85 P		545	533-65010	TLFD127DS-1X50WH		520
525-10353	HC09-35	YES	554	531-07951	HODS85 Q		545	533-65011	TLFD127DS-2X25WH		520
525-10523	HC09-52	YES	554	531-07952	HODS85 R		545	533-65012	TLFD190DS-1X50WH		520
525-13003	HCR12	YES	554	531-07953	HODS85 S		545	533-65013	TLFD190DS-2X25WH		520
525-13173	HC12-17	YES	554	531-07954	HODS85 T		545	533-65014	TLFD254DS-1X50WH		520
525-13353	HC12-35	YES	554	531-07955	HODS85 U		545	533-65015	TLFD254DS-2X25WH		520
525-13523	HC12-52	YES	554	531-07956	HODS85 V		545	533-65016	TLFD381DS-1X50WH		520
525-13703	HC12-70	YES	555	531-07957	HODS85 W		545	533-65017	TLFD381DS-2X25WH		520

Article-No.	Type	☞*	Page	Article-No.	Type	☞*	Page	Article-No.	Type	☞*	Page
533-65018	TLFD24DS-1X50YE		519	553-33951	TCGT39-13WH		509	553-60025	TLFX127DS-2x25WH		518
533-65019	TLFD24DS-2X25YE		519	553-33952	TCGT39-13BK		509	553-60026	TLFX190DS-2x25WH		518
533-65020	TLFD32DS-1X50YE		519	553-33953	TCGT39-13BU		509	553-60027	TLFX254DS-2x25WH		518
533-65021	TLFD32DS-2X25YE		519	553-33954	TCGT39-13RD		509	553-60028	TLFX381DS-2x25WH		518
533-65022	TLFD48DS-1X50YE		519	553-40350	TULT3-1YE		510	553-60029	TLFX24DS-2x25YE		517
533-65023	TLFD48DS-2X25YE		519	553-40351	TULT3-1WH		510	553-60030	TLFX32DS-2x25YE		517
533-65024	TLFD64DS-1X50YE		520	553-40352	TULT3-1BK		510	553-60031	TLFX48DS-2x25YE		518
533-65025	TLFD64DS-2X25YE		520	553-40353	TULT3-1BU		510	553-60032	TLFX64DS-2x25YE		518
533-65026	TLFD95DS-1X50YE		520	553-40354	TULT3-1RD		510	553-60033	TLFX95DS-2x25YE		518
533-65027	TLFD95DS-2X25YE		520	553-40450	TULT4.8-1.6YE		511	553-60034	TLFX127DS-2x25YE		518
533-65028	TLFD127DS-1X50YE		520	553-40451	TULT4.8-1.6WH		511	553-60035	TLFX190DS-2x25YE		518
533-65029	TLFD127DS-2X25YE		520	553-40452	TULT4.8-1.6BK		511	553-60036	TLFX254DS-2x25YE		518
533-65030	TLFD190DS-1X50YE		520	553-40453	TULT4.8-1.6BU		511	553-60037	TLFX381DS-2x25YE		518
533-65031	TLFD190DS-2X25YE		520	553-40454	TULT4.8-1.6RD		511	553-71000	TULT2.4-0.8DS-1x50WH		512
533-65032	TLFD254DS-1X50YE		520	553-40650	TULT6-2YE		511	553-71001	TULT2.4-0.8DS-1x50YE		512
533-65033	TLFD254DS-2X25YE		520	553-40651	TULT6-2WH		511	553-71002	TULT2.4-0.8DS-2x25WH		512
533-65034	TLFD381DS-1X50YE		520	553-40652	TULT6-2BK		511	553-71003	TULT2.4-0.8DS-2x25YE		512
533-65035	TLFD381DS-2X25YE		520	553-40653	TULT6-2BU		511	553-71006	TULT3-1DS-1x50WH		513
544-20000	M-BOSS Compact		579	553-40654	TULT6-2RD		511	553-71007	TULT3-1DS-1x50YE		513
544-21000	M-BOSS Compact Organiser		580	553-40950	TULT9-3YE		511	553-71008	TULT3-1DS-2x25WH		512
544-80101	MBML10X45		581	553-40951	TULT9-3WH		511	553-71009	TULT3-1DS-2x25YE		512
544-80102	MBML10X90		581	553-40952	TULT9-3BK		511	553-71012	TULT4.8-1.6DS-1x50WH		513
544-80201	MBML20X45		581	553-40953	TULT9-3BU		511	553-71013	TULT4.8-1.6DS-1x50YE		513
544-80202	MBML20X90		581	553-40954	TULT9-3RD		511	553-71014	TULT4.8-1.6DS-2x25WH		513
550-11401	RO202REF		537	553-41250	TULT12-4YE		511	553-71015	TULT4.8-1.6DS-2x25YE		513
550-14010	SPRO200		537	553-41251	TULT12-4WH		511	553-71018	TULT6-2DS-1x50WH		513
550-14011	RO201		537	553-41252	TULT12-4BK		511	553-71019	TULT6-2DS-1x50YE		513
550-14012	RO202		537	553-41253	TULT12-4BU		511	553-71020	TULT6-2DS-2x25WH		513
550-14013	RO203		537	553-41254	TULT12-4RD		511	553-71021	TULT6-2DS-2x25YE		513
550-14014	RO201REF		537	553-41850	TULT18-6YE		511	553-71024	TULT9-3DS-1x50WH		513
550-71401	RO203REF		537	553-41851	TULT18-6WH		511	553-71025	TULT9-3DS-1x50YE		513
553-30350	TCGT3-1YE		508	553-41852	TULT18-6BK		511	553-71026	TULT9-3DS-2x25WH		513
553-30351	TCGT3-1WH		508	553-41853	TULT18-6BU		511	553-71027	TULT9-3DS-2x25YE		513
553-30352	TCGT3-1BK		508	553-41854	TULT18-6RD		511	553-71030	TULT12-4DS-1x50WH		513
553-30353	TCGT3-1BU		508	553-42450	TULT24-8YE		511	553-71031	TULT12-4DS-1x50YE		513
553-30354	TCGT3-1RD		508	553-42451	TULT24-8WH		511	553-71032	TULT12-4DS-2x25WH		513
553-30450	TCGT4.8-1.6YE		509	553-42452	TULT24-8BK		511	553-71033	TULT12-4DS-2x25YE		513
553-30451	TCGT4.8-1.6WH		509	553-42453	TULT24-8BU		511	553-71036	TULT18-6DS-1x50WH		513
553-30452	TCGT4.8-1.6BK		508	553-42454	TULT24-8RD		511	553-71037	TULT18-6DS-1x50YE		513
553-30453	TCGT4.8-1.6BU		509	553-43950	TULT39-13YE		511	553-71038	TULT18-6DS-2x25WH		513
553-30454	TCGT4.8-1.6RD		509	553-43951	TULT39-13WH		511	553-71039	TULT18-6DS-2x25YE		513
553-30650	TCGT6-2YE		509	553-43952	TULT39-13BK		511	553-71042	TULT24-8DS-1x50WH		513
553-30651	TCGT6-2WH		509	553-43953	TULT39-13BU		511	553-71043	TULT24-8DS-1x50YE		513
553-30652	TCGT6-2BK		509	553-43954	TULT39-13RD		511	553-71044	TULT24-8DS-2x25WH		513
553-30653	TCGT6-2BU		509	553-60000	TLFX24DS-1x50WH		517	553-71045	TULT24-8DS-2x25YE		513
553-30654	TCGT6-2RD		509	553-60001	TLFX32DS-1x50WH		517	553-71048	TULT39-13DS-1x50WH		513
553-30950	TCGT9-3YE		509	553-60002	TLFX48DS-1x50WH		518	553-71049	TULT39-13DS-1x50YE		513
553-30951	TCGT9-3WH		509	553-60003	TLFX64DS-1x50WH		518	553-71050	TULT39-13DS-2x25WH		513
553-30952	TCGT9-3BK		509	553-60004	TLFX95DS-1x50WH		518	553-71051	TULT39-13DS-2x25YE		513
553-30953	TCGT9-3BU		509	553-60005	TLFX127DS-1x50WH		518	554-50900	TLFX508WH		515
553-30954	TCGT9-3RD		509	553-60006	TLFX190DS-1x50WH		518	554-50901	TLFX508YE		515
553-31250	TCGT12-4YE		509	553-60007	TLFX254DS-1x50WH		518	554-51000	TLFX24WH		514
553-31251	TCGT12-4WH		509	553-60008	TLFX381DS-1x50WH		518	554-51001	TLFX24YE		514
553-31252	TCGT12-4BK		509	553-60010	TLFX24DS-1x50YE		517	554-51100	TLFX32WH		514
553-31253	TCGT12-4BU		509	553-60011	TLFX32DS-1x50YE		517	554-51101	TLFX32YE		514
553-31254	TCGT12-4RD		509	553-60012	TLFX48DS-1x50YE		518	554-51200	TLFX48WH		514
553-31850	TCGT18-6YE		509	553-60013	TLFX64DS-1x50YE		518	554-51201	TLFX48YE		514
553-31851	TCGT18-6WH		509	553-60014	TLFX95DS-1x50YE		518	554-51300	TLFX64WH		515
553-31852	TCGT18-6BK		509	553-60015	TLFX127DS-1x50YE		518	554-51301	TLFX64YE		515
553-31853	TCGT18-6BU		509	553-60016	TLFX190DS-1x50YE		518	554-51400	TLFX95WH		515
553-31854	TCGT18-6RD		509	553-60017	TLFX254DS-1x50YE		518	554-51401	TLFX95YE		515
553-32450	TCGT24-8YE		509	553-60018	TLFX381DS-1x50YE		518	554-51500	TLFX127WH		515
553-32451	TCGT24-8WH		509	553-60020	TLFX24DS-2x25WH		517	554-51501	TLFX127YE		515
553-32452	TCGT24-8BK		509	553-60021	TLFX32DS-2x25WH		517	554-51600	TLFX190WH		515
553-32453	TCGT24-8BU		509	553-60022	TLFX48DS-2x25WH		517	554-51601	TLFX190YE		515
553-32454	TCGT24-8RD		509	553-60023	TLFX64DS-2x25WH		518	554-51700	TLFX254WH		515
553-33950	TCGT39-13YE		509	553-60024	TLFX95DS-2x25WH		518	554-51701	TLFX254YE		515

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
554-51800	TLFX381WH		515	556-80517	TAGPU15X75-4		525	561-06000	WICA-ACT-BK		548
554-51801	TLFX381YE		515	556-80518	TAGPU15X75-4		525	561-06001	WICA-AC10-25		548
556-00012	TT Printer Adapter	583, 584		556-80519	TAGPU15X75-4		525	590-00006	SPOF204		538
556-00013	TTER120	583, 585		556-80520	TAGPU15X75-4		525	590-00007	ROF204REF		538
556-00014	HLP0612		586	556-80521	TAGPU15X75-4		525	590-00008	ROF204		538
556-00060	TT122OUT 60MM		588	556-80522	TAGPU15X75-4		525	594-01101	TAG11LA4	560, 569	
556-00061	TT122OUT 110MM		588	556-80523	TAGPU15X75-4		525	594-01102	TAG120LA4	559, 568	
556-00065	TagPrintPro5-Upgrade-EMEA		582	556-80524	TAGPU15X75-4		525	594-01104	TAG02LA4		535
556-00066	TagPrintPro5-EMEA		582	556-80525	TAGPU15X75-4		525	594-11010	TAG162LA4	560, 570	
556-00101	TT822OUT 110MM		588	556-80526	TAGPU15X75-4		525	594-11011	TAG163LA4		570
556-00103	TTRC+ 100MM		589	556-80527	TAGPU20X30-2		525	594-11012	TAG165LA4		570
556-00111	TT822OUT 60MM		588	556-80528	TAGPU20X30-2		525	594-11013	TAG169LA4		570
556-00114	TTRC+ 30MM		589	556-80529	TAGPU10X51-4		524	594-11014	TAG170LA4		570
556-00115	TTRC+ 60MM		589	556-80530	TAGPU20X51-4		524	594-11015	TAG171LA4		570
556-00117	TT932DOUT 85MM		588	556-80531	TAGPU20X51-4		524	594-11016	TAG62LA4		570
556-00118	TT932DOUT 110MM		588	556-80532	TAGPU15X75-4		525	594-11017	TAG124LA4	560, 569	
556-00125	TTRW 30MM		589	556-80533	TAGPU25X75-4		525	594-11040	TAG145LA4		535
556-00137	TTRW 60MM		589	556-80534	TAGPU25X75-4		525	594-11041	TAG26LA4		535
556-00139	TTDTHOUT 40MM		589	556-80535	TAGPU25X75-4		525	594-11042	TAG49LA4		535
556-00140	TTDTHOUT 60MM		589	556-80536	TAGPU25X75-4		525	594-11101	TAG120LA4	560, 569	
556-00141	TTDTHOUT 100MM		589	556-80537	TAGPU25X75-4		525	594-11102	TAG121LA4	559, 568	
556-00161	TT822OUT8 110MM		589	556-80538	TAGPU25X75-4		525	594-11104	TAG09LA4		535
556-00208	TTRR 110 mm		588	556-80539	TAGPU25X75-4		525	594-13876	TAG138LA4		536
556-00245	TT287-100MM		589	556-80542	TAGPU10X51-4		524	594-13976	TAG139LA4		536
556-00246	TT287-110MM	588, 589		556-80555	TAGPU20X30-2		525	594-21101	TAG121LA4	560, 569	
556-00400	TT431		583	556-80556	TAGPU20X30-2		525	594-21102	TAG122LA4	559, 568	
556-00451	TT External Reel Holder	583-585		556-80557	TAGPU20X30-2		525	594-21104	TAG130LA4		535
556-00452	S430 Cutter		583	556-80558	TAGPU20X30-2		525	594-31101	TAG122LA4	560, 569	
556-00453	TT430/TT431 300dpi Printhead		583	556-80560	TAGPU20X30-2		525	594-31102	TAG13LA4	559, 568	
556-00454	TT430/TT431 Print Roller		583	556-80561	TAGPU20X30-2		525	594-31104	TAG131LA4		535
556-00456	P430 Perforator		583	556-80564	TAGPU12X60-4		525	594-41101	TAG13LA4	560, 569	
556-04005	Printer Roller TT4030/TT4000+	584, 585		556-80565	TAGPU12X60-4		525	594-41102	TAG124LA4	559, 568	
556-04037	TT4030		584	556-80566	TAGPU12X60-4		525	594-41104	TAG132LA4		535
556-04041	TT4030 Printhead	584, 585		556-80567	TAGPU12X60-4		525	594-51101	TAG150LA4		570
556-04050	S4030 Cutter	584, 585		556-80568	TAGPU12X60-4		525	594-51102	TAG154LA4	559, 568	
556-04051	P4030 Perforator	584, 585		556-80569	TAGPU12X60-4		525	594-51104	TAG133LA4		535
556-04061	TT4030DS		585	556-80570	TAGPU25X75-4		525	594-61101	TAG154LA4	560, 569	
556-20062	TIPTAG11X65RD		521	556-80571	TAGPU25X75-4		525	594-61102	TAG156LA4		568
556-20064	TIPTAG11X65YE		521	556-80572	TAGPU25X75-4		525	594-61104	TAG134LA4		535
556-20066	TIPTAG11X65BU		521	556-80573	TAGPU25X75-4		525	594-71101	TAG155LA4	560, 569	
556-20069	TIPTAG11X65WH		521	556-80584	TAGPU12X74-LOOP		526	594-71102	TAG171LA4		568
556-20074	TIPTAG11X100YE		521	556-80585	TAGPU12X74-LOOP		526	594-71104	TAG135LA4		535
556-20079	TIPTAG11X100WH		521	556-80586	TAGPU12X74-LOOP		526	594-81101	TAG156LA4	560, 569	
556-20080	TIPTAG11X100BU		521	556-80587	TAGPU12X74-LOOP		526	594-81102	TAG62LA4	559, 568	
556-20091	TIPTAG11X100RD		521	556-80588	TAGPU18X124-LOOP		526	594-81104	TAG136LA4		535
556-21064	TIPTAG15X65YE		521	556-80589	TAGPU18X124-LOOP		526	594-91101	TAG15LA4	560, 569	
556-21069	TIPTAG15X65WH		521	556-80590	TAGPU18X124-LOOP		526	594-91104	TAG137LA4		535
556-21074	TIPTAG15X100YE		521	556-80591	TAGPU18X124-LOOP		526	596-00159	TAG20-50T1FL	YES	533
556-21079	TIPTAG15X100WH		521	556-81500	TIPTAG5X50WH-2		521	596-00160	TAG20-65T1FL	YES	533
556-21096	TIPTAG15X100RD		521	556-83012	TAGLF20x30-2		527	596-00161	TAG30-40T1FL	YES	533
556-25006	TTAGPU15X100WH		522	556-83013	TAGLF10X51-4		527	596-00162	TAG30-55T1FL	YES	533
556-25007	TTAGPU15X65WH		522	556-83014	TAGLF10X51-4		527	596-00171	TAG60-110TD1		567
556-25010	TTAGPU15X100YE		522	556-83028	TAGLF12X60-4		527	596-00367	TAGR70TD1		565
556-25011	TTAGPU15X65YE		522	556-83029	TAGLF12X60-4		527	596-00558	TAG27-12.5TDK1		562
556-25012	TTAGPU11X65WH		522	556-83033	TAGLF15X75-4		527	596-00560	TAG13-07TDK1		562
556-25019	TTAGPU11X65YE		522	556-83034	TAGLF15X75-4		527	596-00561	TAG22-22TDK1		562
556-25020	TTAGPU11X100YE		522	556-83038	TAGLF20x30-2		527	596-00562	TAG27-08TDK1		562
556-25021	TTAGPU11X100WH		522	556-99221	HHS221		516	596-00563	TAG27-15TDK1		562
556-26500	TTAGMCI1BEX65S		523	556-99231	HHS231		516	596-00564	TAG27-18TDK1		562
556-26501	TTAGMCI1BEX100S		523	556-99241	HHS241		516	596-00565	TAG27-27TDK1		562
556-26502	TTAGMCI1BEX65S		523	556-99251	HHS251		516	596-00566	TAG35-18TDK1		562
556-26503	TTAGMCI1BEX100S		523	556-99621	HHS621		516	596-00567	TAG45-15TDK1		562
556-80512	TAGPU12X60-4		525	556-99631	HHS631		516	596-00568	TAG45-25TDK1		562
556-80513	TAGPU12X60-4		525	556-99641	HHS641		516	596-00569	TAG60-30TDK1		562
556-80514	TAGPU12X60-4		525	556-99651	HHS651		516	596-00570	TAG90-45TDK1		562
556-80515	TAGPU12X60-4		525	561-00001	WIC Tool		548	596-00571	TAG100-30TDK1		562
556-80516	TAGPU12X60-4		525	561-00003	WICO-G,H,Y,Z,O,Q,J,K,X,L		546	596-00572	TAG100-70TDK1		562

Article-No.	Type	§*	Page
596-00573	TAG13-07TDK1		563
596-00574	TAG22-22TDK1		563
596-00575	TAG27-08TDK1		563
596-00576	TAG27-12.5TDK1		563
596-00577	TAG27-15TDK1		563
596-00578	TAG27-18TDK1		563
596-00579	TAG27-27TDK1		563
596-00580	TAG35-18TDK1		563
596-00581	TAG45-15TDK1		563
596-00582	TAG45-25TDK1		563
596-00583	TAG60-30TDK1		563
596-00584	TAG90-45TDK1		563
596-00585	TAG100-30TDK1		563
596-00586	TAG100-70TDK1		563
596-00971	TAG108TD1		572
596-01120	TAG01TD3		566
596-01211	TAG16-06TE		557
596-01320	TAG1TD2		532
596-01896	TAG1TD2		529
596-01903	TAG32-230TD1		530
596-01904	TAG32-135TD1		530
596-02320	TAG2TD6		531
596-02896	TAG2TD6		529
596-03103	TAGR4TD1		571
596-03104	TAGR4TD1		571
596-03105	TAGR4TD1		571
596-03106	TAGR4TD1		571
596-03107	TAGR4TD1		571
596-03108	TAGR4TD1		571
596-03111	TAGR50TD1		572
596-03112	TAGR50TD1		572
596-03113	TAGR50TD1		572
596-03115	TAGR50TD1		572
596-03116	TAGR50TD1		572
596-03118	TAGR1TD1		572
596-03119	TAGR1TD1		572
596-03320	TAG3TD3		532
596-03896	TAG3TD3		529
596-03897	TAG03TD2		529
596-06320	TAG6TD1		532
596-06896	TAG6TD1		529
596-07320	TAG07TD1		532
596-09320	TAG9TD3		532
596-09896	TAG9TD3		529
596-10320	TAG10TD2		532
596-10732	TAG107TD3		532
596-10789	TAG107TD3		529
596-10896	TAG10TD2		529
596-11211	TAG20-08TE		557
596-12035	TAG35TD3		564
596-12043	TAG13TD4		564
596-12045	TAG15TD3		564
596-12047	TAG17TD2		564
596-12061	TAG13TD4		566
596-12062	TAG62TD1		565
596-12063	TAG63TD1		565
596-12064	TAG64TD1		565
596-12065	TAG65TD1		565
596-12066	TAG66TD1		565
596-12067	TAG67TD2		565
596-12069	TAG69TD2		565
596-12071	TAG71TD6		564
596-12072	TAG72TD1		565
596-12076	TAG76TD1		565
596-12077	TAG77TD1		565
596-12166	TAG108TD1		572
596-12167	TAG108TD1		572

Article-No.	Type	§*	Page
596-12168	TAGR1TD1		572
596-12169	TAGR1TD1		572
596-12170	TAGR1TD1		572
596-12171	TAGR1TD1		572
596-12172	TAG16-06TE		558
596-12173	TAG20-08TE		558
596-12174	TAG15-09TE		558
596-12175	TAG19-11TE		558
596-12176	TAG38-11TE		558
596-12177	TAG56-22TE		558
596-12180	TAGR50TD1		572
596-12181	TAG108TD1		572
596-12188	TAG108TD1		572
596-12189	TAG108TD1		572
596-12190	TAG108TD1		572
596-12191	TAG108TD1		572
596-12253	TAG18-07TD1		553
596-12254	TAG18-16TD1		553
596-12255	TAG23-06TD1		553
596-12256	TAG23-10TD1		553
596-12257	TAG26-21TD2		553
596-12258	TAG28-16TD1		553
596-12259	TAG43-16TD1		553
596-12260	TAG43-21TD1		553
596-12261	TAG43-41TD1		553
596-12262	TAG52-10TD1		553
596-12263	TAG63TD1		553
596-12264	TAG68-16TD1		553
596-12265	TAG102-64TD1		553
596-12285	TAG25.4-57.1TD1L		532
596-12615	TAG15TD3		566
596-12616	TAG16TD3		566
596-12617	TAG17TD2		567
596-12627	TAG27TD2		567
596-12631	TAG31TD3		567
596-12634	TAG34TD3		566
596-12635	TAG35TD3		567
596-12661	TAG61TD3		566
596-12662	TAG62TD1		567
596-12663	TAG63TD1		567
596-12664	TAG64TD1		567
596-12665	TAG65TD1		567
596-12667	TAG67TD2		567
596-12668	TAG68TD1		567
596-12669	TAG69TD2		567
596-12671	TAG71TD6		566
596-12672	TAG72TD1		567
596-12673	TAG73TD1		567
596-21203	TAG62TD1		577
596-21204	TAG02TD1		565
596-21211	TAG15-09TE		557
596-22189	TAG22TD2		529
596-22320	TAG22TD3		531
596-22896	TAG22TD3		529
596-23320	TAG23TD5		532
596-23896	TAG23TD5		529
596-24320	TAG24TD1		532
596-24896	TAG24TD1		529
596-25320	TAG25TD3		532
596-25896	TAG25TD3		529
596-26320	TAG26TD6		531
596-26896	TAG26TD6		528
596-27120	TAG27TD2		565
596-31204	TAGR3TD1		565
596-34120	TAG34TD3		564
596-36320	TAG36TD7		531
596-36896	TAG36TD7		528

Article-No.	Type	§*	Page
596-38320	TAG38TD3		532
596-38896	TAG38TD3		529
596-41206	TAG4TD1		567
596-41211	TAG38-11TE		557
596-51203	TAG15TD3		576
596-51211	TAG56-22TE		557
596-51320	TAG51TD3		531
596-51896	TAG51TD3		528
596-61206	TAG76TD1		567
596-63120	TAG63TD1		577
596-64120	TAG64TD1		577
596-66120	TAG66TD1		577
596-67120	TAG67TD2		576
596-68120	TAG68TD1		577
596-70896	TAG07TD1		529
596-71120	TAG71TD6		576
596-71203	TAG27TD2		576
596-71204	TAG97TD1		565
596-71206	TAG77TD1		567
596-73120	TAG73TD1		576
596-73124	TAG73TD1		565
596-76120	TAG76TD1		577
596-90000	TAG101-160T1-SET		578
596-90001	TAG50.8-25.4T1-SET		578
596-90002	TAG63.5-50.8T1-SET		578
596-90003	TAG101-74T1-SET		578
596-97120	TAG97TD1		577
596-98120	TAG98TD1		577
596-99121	HTZ121		573
596-99131	HTZ131		573
596-99211	HTZ211		573
596-99221	HTZ221		573
596-99231	HTZ231		573
596-99232	HTZ232		573
596-99233	HTZ233		573
596-99241	HTZ241		573
596-99251	HTZ251		573
596-99421	HTZ421		573
596-99621	HTZ621		573
596-99631	HTZ631		573
596-99641	HTZ641		573
596-99651	HTZ651		573
598-01402	HSMB-C2		539
598-11402	HSMB-C2		539
598-12027	TAG120B	YES	561
598-12127	TAG121B	YES	561
598-12227	TAG122B	YES	561
598-12427	TAG124B	YES	561
598-14026	HSMB-C2		539
598-14027	HSMB-C2		539
598-14028	HSMB-C2		539
598-14029	HSMB-C2		539
598-21402	HSMB-C3		539
598-31402	HSMB-C3		539
598-40402	HSMB-C4		539
598-41402	HSMB-C3		539
598-50402	HSMB-C5		539
598-51402	HSMB-C3		539
598-61402	HSMB-C3		539
598-71402	HSMB-C3		539
598-92127	TAG121FB	YES	561
598-92227	TAG122FB	YES	561
598-92427	TAG124FB	YES	561
598-92527	TAG125FB	YES	561
600-02198	H75X30BK		362
600-02493	TH100X35BK		363
600-02495	TH120X50BK		363

Article-No.	Type	§*	Page	Article-No.	Type	§*	Page	Article-No.	Type	§*	Page
600-02496	TH140X50BK		363	633-02100	HV1210		449	710-10605	HTAPE-FLEX1000+ C 19x20		458
600-02497	TH170X50BK		363	633-02120	HV1212		449	710-10606	HTAPE-FLEX1000+ C 19x20		458
600-02498	H12X20BK		362	633-02150	HV1215		449	710-10607	HTAPE-FLEX1000+ C 19x20		458
600-02929	H15X20BK		362	633-02160	HV1216		449	710-10608	HTAPE-FLEX1000+ C 19x20		458
600-02934	H25X25BK		362	633-02180	HV1218		449	710-10609	HTAPE-FLEX1000+ C 19x20		458
600-02938	H30X25BK		362	633-03010	HV1301		449	710-10610	HTAPE-FLEX1000+ 19x33		458
600-02947	H40X30BK		362	633-03020	HV1302		449	710-10611	HTAPE-FLEX1000+ 50x33		458
600-02949	H50X25BK		362	633-03030	HV1303		449	710-10612	HTAPE-FLEX1000+ C 19x20		458
608-01200	H12BKX100M		361	633-03040	HV1304		449	710-10701	HTAPE-FLEX2000+19x20		459
608-01201	H15BKX100M		361	633-03050	HV1305		449	710-10705	HTAPE-FLEX2000+38x20		459
608-01202	TH170BKX20M		363	633-03059	HV1305		449	710-10800	HTAPE-WRAP25-25x30		460
608-01203	H25BKX100M		361	633-04010	HV1401		449	710-10802	HTAPE-WRAP25-50x30		460
608-01204	H30BKX100M		361	633-04020	HV1402		449	710-10803	HTAPE-WRAP25-100x30		460
608-01205	H40BKX100M		361	633-05020	HV1502		449	711-00304	HTAPE-POWER 670-VM		465
608-01206	H50BKX100M		361	633-06068	HV1606		449	711-00307	HTAPE-POWER 660-RM		464
608-01207	H75BKX25M		361	633-06078	HV1607		449	711-10000	HTAPE-SHIELD310		461
608-01208	TH100BKX25M		363	633-06088	HV1608		449	711-10001	HTAPE-SHIELD310		461
608-01209	TH120BKX25M		363	634-01200	H120		447	711-10200	HTAPE-POWER600-19x6.7		462
608-01210	TH140BKX20M		363	634-01210	H121		447	711-10201	HTAPE-POWER600-38x6.7		462
621-00200	VA2.5/5		615	634-03210	H321		447	711-10300	HTAPE-POWER650		463
621-01200	VA-2.5/5 PRONG		615	634-31250	H125		447	711-10400	HTAPE-POWER800		466
621-02200	VA2.5/5 PRONG 8		615	634-31260	H126		447	711-10401	HTAPE-POWER810		467
621-03200	VA2.5/5 PRONG 18		615	634-31268	H126		447	711-10402	HTAPE-POWER820		468
621-30000	TPPexpand_3.3	YES	614	639-60000	HOT Kit		450	712-00200	HTAPE-TEX-19x10		470
621-30002	TPPexpand_3.7	YES	614	710-00100	HTAPE-FLEX15-15x10		454	712-00201	HTAPE-TEX-19x10		470
621-30003	TPPexpand3.3_Prong		614	710-00101	HTAPE-FLEX15-15x10		454	712-00202	HTAPE-TEX-19x10		470
621-30005	TPPexpand3.7_Prong		614	710-00102	HTAPE-FLEX15-15x10		454	712-00203	HTAPE-TEX-19x10		470
625-00250	HELLERINE 0.25 LITER		364	710-00103	HTAPE-FLEX15-15x10		454	712-00204	HTAPE-TEX-19x10		470
625-05000	HELLERINE 5 LITER		364	710-00104	HTAPE-FLEX15-15x10		454	712-00205	HTAPE-TEX-19x10		470
625-06000	HELLERINE 20 LITER		364	710-00105	HTAPE-FLEX15-15x10		454	712-00206	HTAPE-TEX-19x10		470
627-95000	V9500 Epoxy Kit		360	710-00106	HTAPE-FLEX15-15x10		454	712-00500	HTAPE-TEX-19x50		470
627-95001	V9500 Epoxy Kit		360	710-00107	HTAPE-FLEX15-15x10		454	712-00501	HTAPE-TEX-19x50		470
627-95002	V9500 Epoxy Cartridge		360	710-00108	HTAPE-FLEX15-15x10		454	712-00502	HTAPE-TEX-19x50		470
627-95003	V9500 Applicator Gun		360	710-00109	HTAPE-FLEX15-15x10		454	712-00503	HTAPE-TEX-19x50		470
627-95011	V9500NOZZLE-N10		360	710-00110	HTAPE-FLEX15-15x10		454	712-00504	HTAPE-TEX-19x50		470
631-08190	HV4819		443	710-00115	HTAPE-FLEX15-15x25		454	712-00505	HTAPE-TEX-19x50		470
631-08199	HV4819		443	710-00126	HTAPE-FLEX15-19x25		455	712-00506	HTAPE-TEX-19x50		470
631-08200	HV4820		443	710-00133	HTAPE-FLEX15-25x25		455	712-00900	HTAPE-TEX-50x50		470
631-08209	HV4820		443	710-00134	HTAPE-FLEX15-25x25		455	712-00901	HTAPE-TEX-50x50		470
631-08210	HV4821		444	710-00135	HTAPE-FLEX15-25x25		455	712-00902	HTAPE-TEX-50x50		470
631-08219	HV4821		444	710-00136	HTAPE-FLEX15-25x25		455	712-00903	HTAPE-TEX-50x50		470
631-08239	HV4823		443	710-00137	HTAPE-FLEX15-25x25		455	712-00904	HTAPE-TEX-50x50		470
631-08259	HV4825		443	710-00138	HTAPE-FLEX15-25x25		455	712-00905	HTAPE-TEX-50x50		470
631-58279	OP4827		443	710-00139	HTAPE-FLEX15-25x25		455	712-00906	HTAPE-TEX-50x50		470
631-58289	OP4828		443	710-00140	HTAPE-FLEX15-25x25		455	712-10001	HTAPE-PROTECT300		473
632-01010	HV2101	445, 450		710-00141	HTAPE-FLEX15-25x25		455	712-10002	HTAPE-PROTECT180		471
632-01017	HV2101		445	710-00146	HTAPE-FLEX15-15x10		454	712-10003	HTAPE-PROTECT250		472
632-01019	HV2101		445	710-00147	HTAPE-FLEX15-15x10		454	800-00001	RA1		442
632-01020	HV2101A		445	710-00151	HTAPE-FLEX15-19x20		455	800-00004	SM1		442
632-01030	HV2103		445	710-00152	HTAPE-FLEX15-19x20		455	800-00200	PS1		442
632-01040	HV2104		445	710-00153	HTAPE-FLEX15-19x20		455	897-90000	CS-SB		478
632-01070	HV2107		445	710-00154	HTAPE-FLEX15-19x20		455	897-90001	CS-SD		478
632-02060	HV2206		445	710-00155	HTAPE-FLEX15-19x20		455	897-90003	CS-SH		478
632-02090	HV2209		445	710-00156	HTAPE-FLEX15-19x20		455	897-90004	CS-SA		480
632-02100	HV2210	445, 450		710-00157	HTAPE-FLEX15-19x20		455	897-90005	CS-P4		479
632-02130	HV2213	446, 450		710-00158	HTAPE-FLEX15-19x20		455	897-90006	CS-P5		479
632-02280	HV2228		446	710-00159	HTAPE-FLEX15-19x20		455	897-90007	CS-P6		479
633-01010	HV1101		448	710-00160	HTAPE-FLEX15-19x20		455	897-90008	CS-PN		479
633-02010	HV1201	449-450		710-00450	HTAPE-FLEX25-19x33		457	897-90018	CS-AW		480
633-02020	HV1201B		449	710-00451	HTAPE-FLEX25-38x33		457	897-90019	CS-AWL		480
633-02030	HV1203	449-450		710-01000	HTAPE-ALLROUND1500		469	897-90026	CS-ACG0415		480
633-02040	HV1204		449	710-10300	HTAPE-FLEX20-19x20		456	897-90027	CS-ACG1630		480
633-02050	HV1205		449	710-10600	HTAPE-FLEX1000+ 19x6		458	897-90031	CABLESCOUT-GEL		480
633-02060	HV1206		449	710-10601	HTAPE-FLEX1000+ 19x20 PACK		458	901-02000	NGM12BK		498
633-02070	HV1207		449	710-10602	HTAPE-FLEX1000+ C 19x20		458	901-02001	NGM12DGY		498
633-02080	HV1208	449-450		710-10603	HTAPE-FLEX1000+ C 19x20		458	901-02002	NGM12GY		498
633-02090	HV1209		449	710-10604	HTAPE-FLEX1000+ C 19x20		458	901-02003	NGM12RD		498

Article-No.	Type	§*	Page
901-02004	NGM12WE		498
901-02005	NGM16BK		498
901-02006	NGM16DGY		498
901-02007	NGM16GY		498
901-02008	NGM16RD		498
901-02009	NGM16WE		498
901-02010	NGM20BK		498
901-02011	NGM20DGY		498
901-02012	NGM20GY		498
901-02013	NGM20RD		498
901-02014	NGM20SBK		498
901-02015	NGM20SDGY		498
901-02016	NGM20SGY		498
901-02017	NGM20SRD		498
901-02018	NGM20SWE		498
901-02019	NGM20WE		498
901-02020	NGM25BK		498
901-02021	NGM25DGY		498
901-02022	NGM25GY		498
901-02023	NGM25RD		498
901-02024	NGM25WE		498
901-02025	NGM32BK		498
901-02026	NGM32DGY		498
901-02027	NGM32GY		498
901-02028	NGM32RD		498
901-02029	NGM32WE		498
901-02030	NGM40BK		499
901-02031	NGM40DGY		499
901-02032	NGM40GY		499
901-02033	NGM40RD		499
901-02034	NGM40WE		499
901-02035	NGM50BK		499
901-02036	NGM50DGY		499
901-02037	NGM50GY		499
901-02038	NGM50RD		499
901-02039	NGM50WE		499
901-02040	NGM63BK		499
901-02041	NGM63DGY		499
901-02042	NGM63GY		499
901-02043	NGM63RD		499
901-02044	NGM63WE		499
905-50026	MA47-Kit		302

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
1108-1-G	411-08180	344	160-41-G	401-60780	332	313F343-9	422-20200	326
1108-4-G	411-08480	343	160-42-G	401-60880	332	313F353-9	422-20300	326
1121-1-G	411-21180	345	160-43-G	401-60980	332	313F364-9	422-20400	326
1122-1-G	411-22180	345	1609-1-B5W2	416-09000	358	313F374-9	422-20500	326
1123-1-G	411-23180	345	1610-1-B5W2	416-10000	358	313F385-9	422-20600	326
1124-1-G	411-24180	345	1612-1-B5W2	416-12046	358	313F396-9	422-20700	326
1125-1-G	411-25180	345	1613-1-B5W2	416-13060	358	333F322-9	422-30000	327
1126-1-G	411-26180	345	1614-1-B5W2	416-14047	358	333F332-9	422-30004	327
1127-1-G	411-27180	345	1615-1-B5W2	416-15035	358	333F343-9	422-30100	327
1128-1-G	411-28180	345	1616-1-B5W2	416-16053	358	333F353-9	422-30200	327
1129-1-G	411-29180	345	1617-1-B5W2	416-17033	358	333F364-9	422-30301	327
113-1-G	401-13180	334	176-1-G	401-76180	336	333F374-9	422-30400	327
1133-1-G	411-33180	346	177-1-G	401-77180	336	333F385-9	422-30500	327
1134-1-G	411-34180	346	178-1-G	401-78180	336	403-1-G	404-03180	341
113-4-G	401-13480	333	179-1-G	401-79180	336	408-2-B8W2	404-08022	354
1135-1-G	411-35180	346	1793-1-G	417-93001	356	411-1-G	404-11180	341
1136-1-G	411-36180	346	1794-1-L	417-94002	356	412H622-9	422-40000	328
1152-4-G	411-52480	342	1795-1-G	417-95001	356	412H623-9	422-40100	328
1154-4-G	411-54480	342	1796-1-G	417-96001	356	412H624-9	422-40200	328
1155-4-G	411-55480	342	1803-4-G	418-03005	350	412H625-9	422-40300	328
1156-4-G	411-56480	342	1805-4-G	418-05003	350	413-1-G	404-13180	341
1157-4-G	411-57480	342	1806-4-G	418-06002	350	418-4-B8W2	404-18020	354
1158-4-G	411-58480	342	1807-4-G	418-07003	350	442-1-B8WM250	404-42009	354
1159-4-G	411-59480	342	1817-4-G	418-17001	350	492H412-9	422-50000	329
1160-4-G	411-60480	342	1819-4-G	418-19001	350	492H413-9	422-50101	329
1201-1-G	412-01180	347	1820-4-G	418-20001	350	492H414-9	422-50202	329
1202-1-G	412-02180	347	1821-42-G	418-21013	350	492H415-9	422-50302	329
1203-1-G	412-03180	347	1822-1-G	418-22001	356	508-5-B8W	405-08049	355
1204-1-G	412-04180	348	1823-1-G	418-23001	356	573H532-9	422-60000	330
1205-1-G	412-05180	347	1830-4-G	418-30003	350	573H533-9	422-60100	330
1206-1-G	412-06180	347	1831-4-G	418-31001	350	573H534-9	422-60202	330
1207-1-G	412-07180	347	1832-4-G	418-32000	350	573H535-9	422-60302	330
1209-1-G	412-09180	347	1834-4-G	418-34001	351	ACFM1W13PT3.5	151-02942 YES	125
1216-1-G	412-16180	348	1834-5-L	418-34002	352	ACFM2W10PT6	151-02858 YES	125
129-1-G	401-29180	335	1835-4-G	418-35001	351	ACFM4W8PT2.2	151-03176 YES	125
1301-1-G	413-01180	349	1835-5-L	418-35002	352	ACFM5W8PT4,5	151-03192 YES	125
130-1-G	401-30180	335	1836-4-G	418-36001	351	ACFM7W10PT5.3	151-03193 YES	125
1302-1-G	413-02180	349	1836-5-L	418-36002	352	ACFM8W6.2PT2.75	151-03248 YES	125
1303-1-G	413-03180	349	1837-4-G	418-37001	351	AFC510	166-50600	391
1306-1-G	413-06180	349	1837-5-L	418-37002	352	AFC512	166-50601	391
1311-1-G	413-11180	349	199-4-G	401-99480	337	AFC516	166-50602	391
131-1-G	401-31180	335	201-1-G	402-01180	338	AFC520	166-50603	391
132-1-G	401-32180	335	201-2-G	402-01220	338	AFC525	166-50604	391
133-1-G	401-33180	335	203-1-G	402-03180	339	AFC532	166-50605	391
134-1-G	401-34180	335	204-1-G	402-04180	339	AFC540	166-50606	391
135-1-G	401-35180	335	206-1-G	402-06180	339	AFC550	166-50607	391
136-1-G	401-36180	335	212-1-G	402-12180	339	AFC563	166-50608	391
138-1-G	401-38180	335	213-1-G	402-13180	339	AFC575	166-50609	391
152-41-G	401-52780	331	216-3-B8W	402-16039	353	AHC1AH	151-02874	130
152-42-G	401-52880	331	218-2-B8W	402-18051	353	AHC223FT6LG	151-01078	131
153-41-G	401-53780	331	223-2-B8W	402-23058	353	AHC25FT6LG	151-01198	131
153-42-G	401-53880	331	304-1-G	403-04180	340	AHC2AH	151-02881	130
154-41-G	401-54780	331	306-1-G	403-06180	340	AHC2BH	151-02882	131
154-42-G	401-54880	331	310-1-G	403-10180	340	AHC3BHR	151-00370	131
155-42-G	401-55880	331	311-1-G	403-11180	340	AHC35B	151-00372	188
156-41-G	401-56780	331	313C722-9	422-00001	324	AHC45BHG2	151-01377	131
156-42-G	401-56880	331	313C732-9	422-00101	324	ALU12C	211-15120 YES	220
157-41-G	401-57780	331	313C743-9	422-00201	324	ALU16C	211-15160 YES	220
157-42-G	401-57880	331	313C753-9	422-00302	324	ALU19C	211-15190 YES	220
157-43-G	401-57980	331	313C764-9	422-00400	324	ALU23C	211-15230 YES	220
158-41-G	401-58780	331	313C774-9	422-00501	324	ALU4	211-10040 YES	220
158-42-G	401-58880	332	313E445-9	422-10000	325	ALU4C	211-15040 YES	220
158-43-G	401-58980	332	313E447-9	422-10100	325	ALU6	211-10060 YES	220
159-41-G	401-59780	332	313E455-9	422-10200	325	ALU6C	211-15060 YES	220
159-42-G	401-59880	332	313E457-9	422-10300	325	ALU8C	211-15080 YES	220
159-43-G	401-59980	332	313F322-9	422-20000	326	ASNP2-22	191-02220	612
1602-1-B5W2	416-02008	358	313F332-9	422-20100	326	ASNP24-70	191-24700	612

Type	Article-No. ⓘ*	Page
AT1	151-41110 YES	549
AT1	151-41119 YES	549
AT2	151-41210 YES	549
AT2	151-41219 YES	549
AT3	151-41310 YES	549
AT3	151-41319 YES	549
ATS_flex	102-60000 YES	598
ATS62x122-2DOP	102-67042	124
ATS62x122-2DOP90	102-67040	124
ATSBCK2K5FT6.5	102-69068	142
ATSBCK60SOC20SB55	102-68368	147
ATSBCEC35	102-68355	148
ATSBCEC36	102-68365	148
ATSBCEC36	102-68366	148
ATSBCEC37	102-68375	148
ATSBCEC38	102-68385	148
ATSBCT6LG	102-67066	144
ATSBCKSFT6.5	102-69067	142
ATSBCKOWSFT6.5	102-69080	142
ATSBCKSFT6.5	102-69066	142
ATSBCKSFT6.5-MD	102-69065	142
ATSBCKSFT6.5PT2.3-3.3	102-69089	142
ATSBCKSOC6.2x12.2	151-01882	146
ATSBCKFT62X122	151-04379	145
ATSEC19	102-68390	239
ATSEC35	102-68350	239
ATSEC36	102-68360	239
ATSEC37	102-68370	239
ATSEC38	102-68380	239
ATSFT5LG	102-67050	124
ATSFT6	102-67067	124
ATSFT6LG	102-67062	124
ATSFT8GSD	102-67081	124
Autotool_CPK_hybrid	106-60000	596
Autotool_CPK_hybrid_Battery_Set	106-66000	596
BC30	151-00016	147
BCSFT6.5 16-3MD	155-11601	142
BCUWS5-D5-25	151-00851	147
Beam Clamp B	151-00822	236
Beam Clamp B with foam	151-01186	236
Beam Clamp C	151-00823	236
Beam Clamp C with foam	151-01187	236
Beam Clamp D	151-00886	236
Beam Clamp D with foam	151-01188	236
Bench mount kit CPK	106-00040	596
Bench_mount_kit_ATS	102-00040	598
Bench_mount_kit_automatic_ATS	102-00042	598
Bench_mount_kit_horizontal_ATS	102-00041	598
C1	201-10010	207
C2	201-10020	207
C3	201-10030	207
CABLESCOUT-GEL	897-90031	480
CBT30MR	156-00049	232
CBTOSOR	156-01601	232
CBTOSORSTUD5	156-00380	232
CC11FT6.5E3	151-04254	174
CC11FT6.5FT5	151-03963	174
CC11FT6.5FT5-2	151-03961	174
CC7FT6.5E3	151-04285	174
CC7FT6.5LGE3	151-04283	174
CHG900	391-90010	613
CL8	151-02258 YES	206
CL8	151-02259 YES	206
Closures_Black_ATS	102-66210 YES	599
Closures_Natural_ATS	102-66209 YES	599
CMRCCBLM6	151-03540 YES	219
CMRCCBM6	151-03547 YES	219

Type	Article-No. ⓘ*	Page
CMRCCCLM6	151-03550 YES	219
CMRCCSMM6	151-03555 YES	219
CMRCCSMM8	151-03556 YES	219
CMRCDHM10	151-03560 YES	219
CNCTC8FT6.5LG	151-01038	137
CS-ACG0415	897-90026	480
CS-ACG1630	897-90027	480
CS-AW	897-90018	480
CS-AWL	897-90019	480
CS-P4	897-90005	479
CS-P5	897-90006	479
CS-P6	897-90007	479
CS-PN	897-90008	479
CS-SA	897-90004	480
CS-SB	897-90000	478
CS-SD	897-90001	478
CS-SH	897-90003	478
CTAM1	151-00757 YES	201
CTAM1	151-31103 YES	201
CTAM2	151-00758 YES	201
CTAM2	151-31203 YES	201
CTC10FT6	151-14311	136
CTC10FT6LG	151-00018	136
CTC10FT9	155-17801	136
CTC13FT6	151-14312	136
CTC13FT6LG	151-00019	136
CTC22FT9	155-25201	136
CTC4.5FT6LG	151-14314	136
CTC7.5FT6LG	151-14313	136
CTC7.5FT9	155-31602	136
CTCF6	151-00783	134
CTM0	151-30300 YES	200
CTM0	151-30303 YES	200
CTM1	151-30400 YES	200
CTM1	151-30404 YES	200
CTM2	151-30500 YES	200
CTM2	151-30504 YES	200
CTM3	151-30600 YES	200
CTM3	151-30605 YES	200
CTM4	151-30700 YES	200
CTM4	151-30703 YES	200
CTMM6B	151-03309	209
CTMM8	151-03953	209
CTMM8B	151-03333	209
CTMS5	151-03301	187
CTMSBM8	151-03417	209
CTQM5	151-10920 YES	199
CTQM5	151-10930 YES	199
CTT150L	112-00024	42
CTT20R	112-51919	42
CTT20R	112-51960	42
CTT60R	112-52112	42
CTT60R	112-56019	42
DCT11	115-31100	180
DCT9	115-00034	180
DCTMM6B	151-04125	211
DCTMM8	151-03955	211
DCTMM8B	151-04446	211
DCTMSBM8	151-03954	211
DHC12.2-18.2FTOVAL	151-02965	246
DHC12.2-18.2FTOVAL	151-02966	246
DLOC12EC3-6TP	151-04199 YES	238
DSWS4	151-00644	151
DSWS4	151-06500	151
DSWS5	151-06502	151
EC1-3SPDHC6-7	151-03846 YES	238
EC1-3SPDHC6-7	151-04010 YES	238

Type	Article-No. ⓘ*	Page
EC1-3SPDHC6-7	151-04387 YES	238
EC1-3SPDHC6-7	151-04209 YES	238
EC1-3SPDHC6-7	151-04455 YES	238
EC1-3SPDHC6-7	151-04529 YES	238
EC1-3TL7OTP	151-02588	238
EC14	151-03404	148
EC27	151-00161	238
EL-TY (TELSH)	111-31000 YES	61
EL-TY (TELS-SPK2)	111-32000 YES	61
EPS-300-12/4	340-12040	298
EPS-300-19/6	340-19060	298
EPS-300-24/8	340-24080	298
EPS-300-3/1	340-03010	298
EPS-300-40/13	340-40130	298
EPS-300-6/2	340-06020	298
EPS-300-9/3	340-09030	298
EPS-400-12/3	341-12030	299
EPS-400-16/4	341-16040	299
EPS-400-24/6	341-24060	299
EPS-400-32/8	341-32080	299
EPS-400-4/1	341-04010	299
EPS-400-8/2	341-08020	299
EVO Calibration Tool	110-70089	602
EVO_cut	110-05105	611
EVO7i	110-77001	601
EVO7ISP	110-77002	601
EVO9i	110-88001	602
EVO9iHT	110-88003	602
EVO9ISP	110-88002	602
EVO9SG	110-80130	602
EVO-KR	121-68000	606
FG14	167-00209	387
FG14-M16	167-00530	388
FG14-PG9	167-00510	388
FG14-UH	167-00520	389
FG17	167-00211	387
FG17-M20	167-00531	388
FG17-PG11	167-00511	388
FG17-UH	167-00521	389
FG19	167-00213	387
FG19-PG13	167-00512	388
FG19-UH	167-00522	389
FG21	167-00216	387
FG21-M25	167-00533	388
FG21-PG16	167-00513	388
FG21-UH	167-00523	389
FG27	167-00221	387
FG27-M32	167-00534	388
FG27-PG21	167-00514	388
FG27-UH	167-00524	389
FG36	167-00229	387
FG36-M40	167-00535	388
FG36-PG29	167-00515	388
FG36-UH	167-00525	389
FG45	167-00236	387
FG45-M50	167-00536	388
FG45-PG36	167-00516	388
FG45-UH	167-00526	389
FG56	167-00248	387
FG56-M63	167-00537	388
FG56-PG48	167-00517	388
FG56-UH	167-00527	389
FH18	151-61119 YES	206
FH30	151-61319 YES	206
FKH25	151-16250	198
FKH25A	151-15250	165
FKH30	151-16300	198

Type	Article-No. 	Page
FKH30A	151-15300	165
FKH50	151-16500	198
FKH50A	151-15500	165
FKH80	151-16800	198
FKH80A	151-15800	165
FMB3APT-A	151-04426	155
FMB3RBSAPT-A	151-03878	156
FMB4APT-A	151-02219	155
FrameClampBS-SET	151-04249	235
FT220DP7	150-01700	108
G51NA	251-21109	441
G51NB	251-21209	441
G51NC	251-21309	441
G51ND	251-21409	441
G51NE	251-21509	441
G51NF	251-21609	441
G51NG	251-21709	441
G51NH	251-21809	441
G51PA	251-10109	440
G51PAA	251-10009	440
G51PB	251-10209	440
G51PC	251-10309	440
G51PD	251-10409	440
G51PE	251-10509	440
G51PF	251-10609	440
G51PG	251-10709	440
G51PH	251-10809	440
G51TA	251-30109	441
G51TB	251-30209	441
G51TC	251-30309	441
G51TD	251-30409	441
G51TE	251-30509	441
G51TF	251-30609	441
G51TG	251-30709	441
G51TH	251-30809	441
Gas Nozzle	391-90012	613
H10P	211-60009 YES	221
H11P	211-60119 YES	221
H120	634-01200	447
H121	634-01210	447
H125	634-31250	447
H126	634-31260	447
H126	634-31268	447
H12BKX100M	608-01200	361
H12P	211-60129 YES	221
H12X20BK	600-02498	362
H13P	211-60139 YES	221
H14P	211-60149 YES	221
H15BKX100M	608-01201	361
H15P	211-60159 YES	221
H15X20BK	600-02929	362
H16P	211-60169 YES	221
H18P	211-60189 YES	221
H1P	211-60000 YES	221
H25BKX100M	608-01203	361
H25X25BK	600-02934	362
H2P	211-60001 YES	221
H30BKX100M	608-01204	361
H30X25BK	600-02938	362
H321	634-03210	447
H3P	211-60002 YES	221
H40BKX100M	608-01205	361
H40X30BK	600-02947	362
H4P	211-60003 YES	221
H4P	211-60049 YES	221
H50BKX100M	608-01206	361
H50X25BK	600-02949	362

Type	Article-No. 	Page
H5P	211-60004 YES	221
H5P	211-60059 YES	221
H6P	211-60005 YES	221
H6P	211-60069 YES	221
H75BKX25M	608-01207	361
H75X30BK	600-02198	362
H7P	211-60006 YES	221
H8P	211-60007 YES	221
H9P	211-60008 YES	221
HA40-13/4	321-00101	309
HA40-22/6	321-00102	309
HA40-33/8	321-00103	309
HA40-40/12	321-00104	309
HA40-55/16	321-00105	309
HA40-75/22	321-00106	309
HA40-9/3	321-00100	309
HA40-92/25	321-00107	309
HA47-105/30	321-20900	310
HA47-13/4	321-20130	310
HA47-130/36	321-21300	310
HA47-160/50	321-21600	310
HA47-180/50	321-21850	310
HA47-19/6	321-20180	310
HA47-33/8	321-20280	310
HA47-45/12	321-20450	310
HA47-51/16	321-20510	310
HA47-68/22	321-20680	310
HA47-85/25	321-20850	310
HA47-9/3	321-20090	310
HA67-119.4/22.9	321-30600	311
HA67-19.0/3.2	321-30000	311
HA67-33.0/5.5	321-30100	311
HA67-44.4/7.4	321-30200	311
HA67-50.8/8.3	321-30300	311
HA67-69.8/11.7	321-30400	311
HA67-88.9/17.1	321-30500	311
HAT16	161-60002	399
HAT20	161-60003	399
HAT25	161-60004	399
HAT30	161-60005	399
HAT40	161-60006	399
HAT8	161-60001	399
HC06-17	525-07173 YES	554
HC06-35	525-07353 YES	554
HC09-17	525-10173 YES	554
HC09-35	525-10353 YES	554
HC09-52	525-10523 YES	554
HC10.5WPM6.3	151-03957 YES	127
HC12-17	525-13173 YES	554
HC12-35	525-13353 YES	554
HC12-52	525-13523 YES	554
HC12-70	525-13703 YES	555
HC18-35	525-19353 YES	554
HC18-52	525-19523 YES	554
HC18-70	525-19703 YES	555
HC24-52	525-25523 YES	555
HC24-70	525-25703 YES	555
HC48FT5	151-01405	134
HC48FT6	151-00680	134
HCEC3.0SP-C	151-01863	238
HCPM Variobox 350	148-90046	475-476
HCPM-2	148-90036	475
HCPM-2-Blister	148-90054	475
HCPM-3	148-90037	475
HCPM-3-Blister	148-90055	475
HCPM-4	148-90038	475
HCPM-4-Blister	148-90056	475

Type	Article-No. 	Page
HCPM-5	148-90039	476
HCPM-5-Blister	148-90057	476
HCPM-6	148-90040	476
HCPM-8	148-90041	476
HCR06	525-07003 YES	554
HCR09	525-10003 YES	554
HCR12	525-13003 YES	554
HCR18	525-19003 YES	554
HCR24	525-25003 YES	554
HCRN-2	148-90059	474
HCRN-2-Blister	148-90062	474
HCRN-3	148-90060	474
HCRN-3-Blister	148-90063	474
HCRN-5	148-90061	474
HCRN-5-Blister	148-90064	474
HCT1	525-00010	617
HCT2	525-00013	617
HDEC10-12	156-03626	237
HDEC10-12-PRE	156-03633	237
HDEC12-14	156-03629	237
HDEC12-14-PRE	156-03634	237
HDEC14-16	156-03630	237
HDEC14-16-PRE	156-03635	237
HDEC6-8	156-03628	237
HDEC6-8-PRE	156-03631	237
HDEC8-10	156-03627	237
HDEC8-10-PRE	156-03632	237
HDM19	151-00134 YES	209
HDM25	151-00437 YES	209
HDM312	151-00439 YES	209
HDM320	151-02094 YES	210
HDM321	151-07100 YES	209
HDM375BDM4W-R	151-02104 YES	210
HDM400	151-01224 YES	210
HDM401	151-07300 YES	209
HDM500	151-02096 YES	210
HDM501	151-07500 YES	209
HDT16	110-41000	609
HECL-1/1	148-90022	477
HECL-2/1	148-90023	477
HECL-2/1-Blister	148-90058	477
HEGEMIP04	173-00400	423
HEGEMIP06	173-00600	423
HEGEMIP08	173-00800	423
HEGEMIP10	173-01000	423
HEGEMIP12	173-01200	423
HEGEMIP14	173-01400	423
HEGEMIP16	173-01600	423
HEGEMIP18	173-01800	423
HEGEMIP20	173-02000	423
HEGEMIP-HY20	173-02001	424
HEGEMIP-HY30	173-03000	424
HEGEMIP-HY35	173-03501	424
HEGEMIP-HY40	173-04000	424
HEGEMIP-HY50	173-05000	424
HEGEMIP-HY60	173-06000	424
HEGEMIP-VG03	173-00200	425
HEGEMIP-VG04	173-00201	425
HEGEMIP-VG06	173-00202	425
HEGEMIP-VG07.5	173-00203	425
HEGEMIP-VG10	173-00204	425
HEGEMIP-VG12.5	173-00205	425
HEGEMIP-VG20	173-00206	425
HEGMAN-02	170-02100	415
HEGMAN-04	170-02101	415
HEGMAN-06	170-02102	415
HEGMAN-08	170-02103	415

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
HEGMAN-10	170-02104	415	HEGPX09	170-00090	409	HFT-A-2.4/1.2	305-02406	286
HEGMAN-15	170-02105	415	HEGPX12	170-00120	409	HFT-A-2.4/1.2	305-02409	286
HEGMAN-20	170-02106	415	HEGPX20	170-00200	409	HFT-A-25.4/12.7	305-25400	286
HEGMAN-25	170-02107	415	HEGPX30	170-00300	409	HFT-A-25.4/12.7	305-25402	286
HEGMAN-30	170-02108	415	HEGPX40	170-00400	409	HFT-A-25.4/12.7	305-25404	286
HEGMANWO-02	170-02000	416	HEGWS100	170-01311	422	HFT-A-25.4/12.7	305-25406	286
HEGMANWO-04	170-02001	416	HEGWS115	170-01312	422	HFT-A-25.4/12.7	305-25409	286
HEGMANWO-06	170-02002	416	HEGWS145	170-01313	422	HFT-A-25.4/12.7	305-25445	286
HEGMANWO-08	170-02003	416	HEGWS176	170-01314	422	HFT-A-3.2/1.6	305-03200	286
HEGMANWO-10	170-02004	416	HEGWS20	170-01300	422	HFT-A-3.2/1.6	305-03202	286
HEGMANWO-15	170-02005	416	HEGWS200	170-01315	422	HFT-A-3.2/1.6	305-03204	286
HEGMANWO-20	170-02006	416	HEGWS25	170-01301	422	HFT-A-3.2/1.6	305-03206	286
HEGMANWO-25	170-02007	416	HEGWS30	170-01302	422	HFT-A-3.2/1.6	305-03209	286
HEGMANWO-30	170-02008	416	HEGWS35	170-01303	422	HFT-A-3.2/1.6	305-03245	286
HEGP03	170-10300	408	HEGWS40	170-01304	422	HFT-A-38.0/19.0	305-38100	287
HEGP04	170-10400	408	HEGWS45	170-01305	422	HFT-A-38.0/19.0	305-38102	287
HEGP05	170-10500	408	HEGWS50	170-01306	422	HFT-A-38.0/19.0	305-38104	287
HEGP06	170-10600	408	HEGWS60	170-01307	422	HFT-A-38.0/19.0	305-38106	287
HEGP08	170-10800	408	HEGWS70	170-01308	422	HFT-A-38.0/19.0	305-38109	287
HEGP10	170-11000	408	HEGWS80	170-01309	422	HFT-A-38.0/19.0	305-38145	287
HEGP12	170-11200	408	HEGWS90	170-01310	422	HFT-A-4.8/2.4	305-04800	286
HEGP15	170-11500	408	HelaDuct Flex10	164-11008	434	HFT-A-4.8/2.4	305-04802	286
HEGP20	170-12000	408	HelaDuct Flex10SK	164-11108	434	HFT-A-4.8/2.4	305-04804	286
HEGP25	170-12500	408	HelaDuct Flex20	164-21008	434	HFT-A-4.8/2.4	305-04806	286
HEGP30	170-13000	408	HelaDuct Flex20SK	164-21108	434	HFT-A-4.8/2.4	305-04809	286
HEGP40	170-14000	408	HelaDuct Flex30	164-31008	434	HFT-A-4.8/2.4	305-04845	286
HEGP50	170-15000	408	HelaDuct Flex30SK	164-31108	434	HFT-A-50.8/25.4	305-50800	287
HEGPA6604	170-40400	412	HelaDuct Flex40	164-41008	434	HFT-A-50.8/25.4	305-50802	287
HEGPA6606	170-40600	412	HelaDuct Flex40SK	164-41108	434	HFT-A-50.8/25.4	305-50804	287
HEGPA6608	170-40800	412	HELAHOOK10	170-05100	YES 421	HFT-A-50.8/25.4	305-50806	287
HEGPA6610	170-41000	412	HELAHOOK15	170-05150	YES 421	HFT-A-50.8/25.4	305-50809	287
HEGPA6612	170-41200	412	HELAHOOK20	170-05200	YES 421	HFT-A-6.4/3.2	305-06400	286
HEGPA6616	170-41600	412	HELAHOOK25	170-05250	YES 421	HFT-A-6.4/3.2	305-06402	286
HEGPA6620	170-42000	412	HELAHOOK30	170-05300	YES 421	HFT-A-6.4/3.2	305-06404	286
HEGPA6625	170-42500	412	HELLERINE 0.25 LITER	625-00250	364	HFT-A-6.4/3.2	305-06406	286
HEGPA6630	170-43000	412	HELLERINE 20 LITER	625-06000	364	HFT-A-6.4/3.2	305-06409	286
HEGPA6640	170-44000	412	HELLERINE 5 LITER	625-05000	364	HFT-A-6.4/3.2	305-06445	286
HEGPA6650	170-45000	412	HFT-A-1.2/0.6	305-01200	285	HFT-A-76.0/38.0	305-76200	287
HEGPA6660	170-46000	412	HFT-A-1.2/0.6	305-01202	285	HFT-A-76.0/38.0	305-76202	287
HEGPETFR04	170-81001	410	HFT-A-1.2/0.6	305-01204	285	HFT-A-76.0/38.0	305-76204	287
HEGPETFR05	170-81002	410	HFT-A-1.2/0.6	305-01206	285	HFT-A-76.0/38.0	305-76206	287
HEGPETFR06	170-81003	410	HFT-A-1.2/0.6	305-01209	285	HFT-A-9.5/4.8	305-09500	286
HEGPETFR08	170-81004	410	HFT-A-1.6/0.8	305-01600	285	HFT-A-9.5/4.8	305-09502	286
HEGPETFR10	170-81005	410	HFT-A-1.6/0.8	305-01602	285	HFT-A-9.5/4.8	305-09504	286
HEGPETFR12	170-81006	410	HFT-A-1.6/0.8	305-01604	285	HFT-A-9.5/4.8	305-09506	286
HEGPETFR15	170-81007	410	HFT-A-1.6/0.8	305-01606	285	HFT-A-9.5/4.8	305-09509	286
HEGPETFR20	170-81008	410	HFT-A-1.6/0.8	305-01609	285	HFT-A-9.5/4.8	305-09545	286
HEGPETFR25	170-81009	410	HFT-A-101.6/50.8	305-91600	287	HFX12-105P	526-02514	556
HEGPETFR30	170-81010	410	HFT-A-101.6/50.8	305-91602	287	HFX12-210P	526-05014	556
HEGPETFR40	170-81011	410	HFT-A-101.6/50.8	305-91604	287	HFX12-35P	526-01714	556
HEGPETFR50	170-81012	410	HFT-A-101.6/50.8	305-91606	287	HFX12-52P	526-02214	556
HEGPETFRX03	170-81100	411	HFT-A-101.6/50.8	305-91609	287	HFX24-105P	526-03014	556
HEGPETFRX06	170-81101	411	HFT-A-12.7/6.4	305-12700	286	HFX24-210P	526-05514	556
HEGPETFRX09	170-81102	411	HFT-A-12.7/6.4	305-12702	286	HFX9-17P	526-01014	556
HEGPETFRX12	170-81103	411	HFT-A-12.7/6.4	305-12704	286	HFX9-35P	526-01514	556
HEGPETFRX20	170-81104	411	HFT-A-12.7/6.4	305-12706	286	HFX9-52P	526-02014	556
HEGPETFRX30	170-81105	411	HFT-A-12.7/6.4	305-12709	286	HG10-90-M12	166-22200	374
HEGPETFRX40	170-81106	411	HFT-A-12.7/6.4	305-12745	286	HG10-S-M12	166-21000	372
HEGPETFRX50	170-81107	411	HFT-A-19.0/9.5	305-19000	286	HG10-S-M16	166-21020	372
HEGPL03	170-80503	413	HFT-A-19.0/9.5	305-19002	286	HG11-90-M12	166-22220	374
HEGPL06	170-80506	413	HFT-A-19.0/9.5	305-19004	286	HG11-S-M12	166-21021	372
HEGPL12	170-80512	413	HFT-A-19.0/9.5	305-19006	286	HG13-90-M16	166-22201	374
HEGPL20	170-80520	413	HFT-A-19.0/9.5	305-19009	286	HG13-S-M12	166-21022	372
HEGPL30	170-80530	413	HFT-A-19.0/9.5	305-19045	286	HG13-S-M16	166-21001	372
HEGPL40	170-80540	413	HFT-A-2.4/1.2	305-02400	286	HG13-S-M20	166-21023	372
HEGPL50	170-80550	413	HFT-A-2.4/1.2	305-02402	286	HG16-90-M16	166-22202	374
HEGPX06	170-00060	409	HFT-A-2.4/1.2	305-02404	286	HG16-90-M20	166-22203	374

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
HG16-S-M16	166-21002	372	HGDC1-3 S	515-01194	542	HGDC4-9 0	515-03600	541
HG16-S-M20	166-21003	372	HGDC1-3 T	515-01204	542	HGDC4-9 0	515-03604	541
HG20-S-M20	166-21025	372	HGDC1-3 U	515-01214	542	HGDC4-9 1	515-03611	541
HG21-90-M20	166-22204	374	HGDC1-3 V	515-01224	542	HGDC4-9 1	515-03614	541
HG21-S-M20	166-21004	372	HGDC1-3 W	515-01234	542	HGDC4-9 2	515-03622	541
HG25-90-M25	166-22222	374	HGDC1-3 X	515-01244	542	HGDC4-9 2	515-03624	541
HG25-S-M25	166-21026	372	HGDC1-3 Y	515-01254	542	HGDC4-9 3	515-03633	541
HG28-90-M25	166-22205	374	HGDC1-3 Z	515-01264	542	HGDC4-9 3	515-03634	541
HG28-S-M25	166-21005	372	HG-DC16	166-11802	371	HGDC4-9 4	515-03644	541
HG28-S-M32	166-21027	372	HG-DC21	166-11803	371	HGDC4-9 5	515-03654	541
HG34-90-M32	166-22206	374	HGDC2-5 -	515-02714	542	HGDC4-9 5	515-03655	541
HG34-S-M32	166-21006	372	HGDC2-5 .	515-02715	542	HGDC4-9 6	515-03664	541
HG34-S-M40	166-21028	373	HGDC2-5 /	515-02724	542	HGDC4-9 6	515-03666	541
HG42-90-M40	166-22207	374	HGDC2-5 +	515-02704	542	HGDC4-9 7	515-03674	541
HG42-90-M50	166-22223	374	HGDC2-5 0	515-02600	542	HGDC4-9 7	515-03677	541
HG42-S-M40	166-21007	373	HGDC2-5 0	515-02604	542	HGDC4-9 8	515-03684	541
HG42-S-M50	166-21029	373	HGDC2-5 1	515-02611	542	HGDC4-9 8	515-03688	541
HG54-90-M50	166-22208	375	HGDC2-5 1	515-02614	542	HGDC4-9 9	515-03694	541
HG54-90-M63	166-22224	375	HGDC2-5 2	515-02622	542	HGDC4-9 9	515-03699	541
HG54-S-M50	166-21008	373	HGDC2-5 2	515-02624	542	HGDC4-9 A	515-03014	541
HG54-S-M63	166-21030	373	HGDC2-5 3	515-02633	542	HGDC4-9 B	515-03024	541
HG67-90-M63	166-22209	375	HGDC2-5 3	515-02634	542	HGDC4-9 C	515-03034	541
HG67-S-M63	166-21009	373	HGDC2-5 4	515-02644	542	HGDC4-9 D	515-03044	541
HG-DC11	166-11800	371	HGDC2-5 5	515-02654	542	HGDC4-9 E	515-03054	541
HG-DC13	166-11801	371	HGDC2-5 5	515-02655	542	HGDC4-9 ↓	515-01947	541
HGDC1-3 -	515-01714	542	HGDC2-5 6	515-02664	542	HGDC4-9 F	515-03064	541
HGDC1-3 .	515-01804	542	HGDC2-5 6	515-02666	542	HGDC4-9 G	515-03074	541
HGDC1-3 /	515-01724	542	HGDC2-5 7	515-02674	542	HGDC4-9 H	515-03084	541
HGDC1-3 +	515-01704	542	HGDC2-5 7	515-02677	542	HGDC4-9 I	515-03094	541
HGDC1-3 0	515-01600	542	HGDC2-5 8	515-02684	542	HGDC4-9 J	515-03104	541
HGDC1-3 0	515-01604	542	HGDC2-5 8	515-02688	542	HGDC4-9 K	515-03114	541
HGDC1-3 1	515-01611	542	HGDC2-5 9	515-02694	542	HGDC4-9 L	515-03124	541
HGDC1-3 1	515-01614	542	HGDC2-5 9	515-02699	542	HGDC4-9 M	515-03134	541
HGDC1-3 2	515-01622	542	HGDC2-5 A	515-02014	542	HGDC4-9 N	515-03144	541
HGDC1-3 2	515-01624	542	HGDC2-5 B	515-02024	542	HGDC4-9 O	515-03154	541
HGDC1-3 3	515-01633	542	HGDC2-5 C	515-02034	542	HGDC4-9 P	515-03164	541
HGDC1-3 3	515-01634	542	HGDC2-5 D	515-02044	542	HGDC4-9 Q	515-03174	541
HGDC1-3 4	515-01644	542	HGDC2-5 E	515-02054	542	HGDC4-9 R	515-03184	541
HGDC1-3 5	515-01654	542	HGDC2-5 ↓	515-02734	542	HGDC4-9 S	515-03194	541
HGDC1-3 5	515-01655	542	HGDC2-5 F	515-02064	542	HGDC4-9 T	515-03204	541
HGDC1-3 6	515-01664	542	HGDC2-5 G	515-02074	542	HGDC4-9 U	515-03214	541
HGDC1-3 6	515-01666	542	HGDC2-5 H	515-02084	542	HGDC4-9 V	515-03224	541
HGDC1-3 7	515-01674	542	HGDC2-5 I	515-02094	542	HGDC4-9 W	515-03234	541
HGDC1-3 7	515-01677	542	HGDC2-5 J	515-02104	542	HGDC4-9 X	515-03244	541
HGDC1-3 8	515-01684	542	HGDC2-5 K	515-02114	542	HGDC4-9 Y	515-03254	541
HGDC1-3 8	515-01688	542	HGDC2-5 L	515-02124	542	HGDC4-9 Z	515-03264	541
HGDC1-3 9	515-01694	542	HGDC2-5 M	515-02134	542	HG-DC54	166-11807	371
HGDC1-3 9	515-01699	542	HGDC2-5 N	515-02144	542	HG-FR10	166-11400	370
HGDC1-3 A	515-01014 YES	542	HGDC2-5 O	515-02154	542	HG-FR13	166-11401	370
HGDC1-3 B	515-01024	542	HGDC2-5 P	515-02164	542	HG-FR16	166-11402	370
HGDC1-3 C	515-01034	542	HGDC2-5 Q	515-02174	542	HG-FR21	166-11403	370
HGDC1-3 D	515-01044	542	HGDC2-5 R	515-02184	542	HG-FR28	166-11404	370
HGDC1-3 E	515-01054	542	HGDC2-5 S	515-02194	542	HG-FR34	166-11405	370
HGDC1-3 ↓	515-01734	542	HGDC2-5 T	515-02204	542	HG-FR42	166-11406	370
HGDC1-3 F	515-01064	542	HGDC2-5 U	515-02214	542	HG-FR54	166-11407	370
HGDC1-3 G	515-01074	542	HGDC2-5 V	515-02224	542	HG-FR67	166-11410	370
HGDC1-3 H	515-01084	542	HGDC2-5 W	515-02234	542	HG-LW10	166-11200	369
HGDC1-3 I	515-01094	542	HGDC2-5 X	515-02244	542	HG-LW11	166-11201	369
HGDC1-3 J	515-01104	542	HGDC2-5 Y	515-02254	542	HG-LW13	166-11202	369
HGDC1-3 K	515-01114	542	HGDC2-5 Z	515-02264	542	HG-LW16	166-11203	369
HGDC1-3 L	515-01124	542	HG-DC28	166-11804	371	HG-LW21	166-11204	369
HGDC1-3 M	515-01134	542	HG-DC34	166-11805	371	HG-LW28	166-11205	369
HGDC1-3 N	515-01144	542	HG-DC42	166-11806	371	HG-LW34	166-11206	369
HGDC1-3 O	515-01154	542	HGDC4-9 -	515-03714	541	HG-LW42	166-11207	369
HGDC1-3 P	515-01164	542	HGDC4-9 .	515-01946	541	HG-LW54	166-11208	369
HGDC1-3 Q	515-01174	542	HGDC4-9 /	515-03724	541	HG-LW67	166-11209	369
HGDC1-3 R	515-01184	542	HGDC4-9 +	515-03704	541	HG-SW10	166-11100	368

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
HG-SW11	166-11101	368	HIS-3-BAG-12/4	308-31215	275	HIS-PACK-6.4/3.2	300-30643	267
HG-SW13	166-11102	368	HIS-3-BAG-12/4	308-31217	275	HIS-PACK-6.4/3.2	300-30646	266
HG-SW16	166-11103	368	HIS-3-BAG-3/1	308-30310	275	HIS-PACK-6.4/3.2	300-30647	266
HG-SW16	166-11110	368	HIS-3-BAG-3/1	308-30311	275	HIS-PACK-9.5/4.7	300-30950	266
HG-SW21	166-11104	368	HIS-3-BAG-3/1	308-30312	275	HIS-PACK-9.5/4.7	300-30952	266
HG-SW21	166-11111	368	HIS-3-BAG-3/1	308-30313	275	HIS-PACK-9.5/4.7	300-30953	267
HG-SW28	166-11105	368	HIS-3-BAG-3/1	308-30314	275	HIS-PACK-9.5/4.7	300-30956	266
HG-SW28	166-11112	368	HIS-3-BAG-3/1	308-30315	275	HIS-PACK-9.5/4.7	300-30957	266
HG-SW34	166-11106	368	HIS-3-BAG-3/1	308-30316	275	HIS-Service-Station	300-30002	268
HG-SW34	166-11118	368	HIS-3-BAG-6/2	308-30610	275	HIS-Service-Station	365-30105	268
HG-SW42	166-11113	368	HIS-3-BAG-6/2	308-30611	275	HLB15	170-80150	414
HG-SW54	166-11114	368	HIS-3-BAG-6/2	308-30612	275	HLB25	170-80250	414
HG-SW67	166-11109	368	HIS-3-BAG-6/2	308-30613	275	HLB35	170-80350	414
HHS221	556-99221	516	HIS-3-BAG-6/2	308-30614	275	HLP0612	556-00014	586
HHS231	556-99231	516	HIS-3-BAG-6/2	308-30615	275	HMT200A	354-02259	359
HHS241	556-99241	516	HIS-3-BAG-6/2	308-30617	275	HMT200A	354-02260	359
HHS251	556-99251	516	HIS-A-12/4	308-11200	272	HODS50 -	531-00452	545
HHS621	556-99621	516	HIS-A-12/4	308-11203	273	HODS50 .	531-00174	544
HHS631	556-99631	516	HIS-A-18/6	308-11800	272	HODS50 /	531-00175	545
HHS641	556-99641	516	HIS-A-18/6	308-11803	273	HODS50 +	531-00451	545
HHS651	556-99651	516	HIS-A-24/8	308-12400	272	HODS50 0	531-15274	545
HIS-3-1.5/0.5	308-30150	269	HIS-A-24/8	308-12403	273	HODS50 0	531-15365	545
HIS-3-1.5/0.5	308-30152	269	HIS-A-3/1	308-10300	272	HODS50 1	531-15284	545
HIS-3-1.5/0.5	308-30153	271	HIS-A-3/1	308-10303	273	HODS50 1	531-15366	545
HIS-3-1.5/0.5	308-30156	269	HIS-A-6/2	308-10600	272	HODS50 2	531-15294	545
HIS-3-12/4	308-31200	270	HIS-A-6/2	308-10603	273	HODS50 2	531-15367	545
HIS-3-12/4	308-31202	270	HIS-A-9/3	308-10900	272	HODS50 3	531-15304	545
HIS-3-12/4	308-31203	271	HIS-A-9/3	308-10903	273	HODS50 3	531-15368	545
HIS-3-12/4	308-31206	270	HIS-PACK-1.2/0.6	300-30120	265	HODS50 4	531-15314	545
HIS-3-12/4	308-31207	270	HIS-PACK-1.2/0.6	300-30122	265	HODS50 5	531-15324	545
HIS-3-18/6	308-31800	270	HIS-PACK-1.2/0.6	300-30123	267	HODS50 5	531-15370	545
HIS-3-18/6	308-31802	270	HIS-PACK-1.2/0.6	300-30126	265	HODS50 6	531-15334	545
HIS-3-18/6	308-31803	271	HIS-PACK-1.6/0.8	300-30160	265	HODS50 6	531-15371	545
HIS-3-18/6	308-31806	270	HIS-PACK-1.6/0.8	300-30162	265	HODS50 7	531-15344	545
HIS-3-18/6	308-31807	270	HIS-PACK-1.6/0.8	300-30163	267	HODS50 7	531-15372	545
HIS-3-24/8	308-32400	270	HIS-PACK-1.6/0.8	300-30166	265	HODS50 8	531-15354	545
HIS-3-24/8	308-32402	270	HIS-PACK-12.7/6.4	300-31270	266	HODS50 8	531-15373	545
HIS-3-24/8	308-32403	271	HIS-PACK-12.7/6.4	300-31272	266	HODS50 9	531-15364	545
HIS-3-24/8	308-32406	270	HIS-PACK-12.7/6.4	300-31273	267	HODS50 9	531-15374	545
HIS-3-24/8	308-32407	270	HIS-PACK-12.7/6.4	300-31276	266	HODS50 A	531-15014	545
HIS-3-3/1	308-30300	269	HIS-PACK-12.7/6.4	300-31277	266	HODS50 B	531-15024	545
HIS-3-3/1	308-30302	269	HIS-PACK-19.1/9.5	300-31900	266	HODS50 C	531-15034	545
HIS-3-3/1	308-30303	271	HIS-PACK-19.1/9.5	300-31902	266	HODS50 D	531-15044	545
HIS-3-3/1	308-30306	269	HIS-PACK-19.1/9.5	300-31903	267	HODS50 E	531-15054	545
HIS-3-3/1	308-30307	269	HIS-PACK-19.1/9.5	300-31906	266	HODS50 $\perp$	531-00176	545
HIS-3-6/2	308-30600	269	HIS-PACK-19.1/9.5	300-31907	266	HODS50 F	531-15064	545
HIS-3-6/2	308-30602	269	HIS-PACK-2.4/1.2	300-30240	265	HODS50 G	531-15074	545
HIS-3-6/2	308-30603	271	HIS-PACK-2.4/1.2	300-30242	265	HODS50 H	531-15084	545
HIS-3-6/2	308-30606	269	HIS-PACK-2.4/1.2	300-30243	267	HODS50 I	531-15094	545
HIS-3-6/2	308-30607	269	HIS-PACK-2.4/1.2	300-30246	265	HODS50 J	531-15104	545
HIS-3-9/3	308-30900	270	HIS-PACK-25.4/12.7	300-32540	266	HODS50 K	531-15114	545
HIS-3-9/3	308-30902	270	HIS-PACK-25.4/12.7	300-32542	266	HODS50 L	531-15124	545
HIS-3-9/3	308-30903	271	HIS-PACK-25.4/12.7	300-32543	267	HODS50 M	531-15134	545
HIS-3-9/3	308-30906	270	HIS-PACK-25.4/12.7	300-32546	266	HODS50 N	531-15144	545
HIS-3-9/3	308-30907	270	HIS-PACK-25.4/12.7	300-32547	266	HODS50 O	531-15154	545
HIS-3-BAG-1.5/0.5	308-30151	274	HIS-PACK-3.2/1.6	300-30320	265	HODS50 P	531-15164	545
HIS-3-BAG-1.5/0.5	308-30160	274	HIS-PACK-3.2/1.6	300-30322	265	HODS50 Q	531-15174	545
HIS-3-BAG-1.5/0.5	308-30161	274	HIS-PACK-3.2/1.6	300-30323	267	HODS50 R	531-15184	545
HIS-3-BAG-1.5/0.5	308-30162	274	HIS-PACK-3.2/1.6	300-30326	265	HODS50 S	531-15194	545
HIS-3-BAG-1.5/0.5	308-30163	274	HIS-PACK-3.2/1.6	300-30327	265	HODS50 T	531-15204	545
HIS-3-BAG-1.5/0.5	308-30164	275	HIS-PACK-4.8/2.4	300-30480	265	HODS50 U	531-15214	545
HIS-3-BAG-1.5/0.5	308-30165	274	HIS-PACK-4.8/2.4	300-30482	265	HODS50 V	531-15224	545
HIS-3-BAG-12/4	308-31210	275	HIS-PACK-4.8/2.4	300-30483	267	HODS50 W	531-15234	545
HIS-3-BAG-12/4	308-31211	275	HIS-PACK-4.8/2.4	300-30486	265	HODS50 X	531-15244	545
HIS-3-BAG-12/4	308-31212	275	HIS-PACK-4.8/2.4	300-30487	265	HODS50 Y	531-15254	545
HIS-3-BAG-12/4	308-31213	275	HIS-PACK-6.4/3.2	300-30640	266	HODS50 Z	531-15264	545
HIS-3-BAG-12/4	308-31214	275	HIS-PACK-6.4/3.2	300-30642	266	HODS85 -	531-07923	545

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
HODS85 .	531-00384	545	HTAPE-FLEX1000+ 19x20 PACK	710-10601	458	HTAPE-TEX-19x10	712-00202	470
HODS85 /	531-07961	545	HTAPE-FLEX1000+ 19x33	710-10610	458	HTAPE-TEX-19x10	712-00203	470
HODS85 +	531-07924	545	HTAPE-FLEX1000+ 19x6	710-10600	458	HTAPE-TEX-19x10	712-00204	470
HODS85 0	531-07728	545	HTAPE-FLEX1000+ 50x33	710-10611	458	HTAPE-TEX-19x10	712-00205	470
HODS85 0	531-07925	545	HTAPE-FLEX1000+ C 19x20	710-10602	458	HTAPE-TEX-19x10	712-00206	470
HODS85 1	531-07729	545	HTAPE-FLEX1000+ C 19x20	710-10603	458	HTAPE-TEX-19x50	712-00500	470
HODS85 1	531-07926	545	HTAPE-FLEX1000+ C 19x20	710-10604	458	HTAPE-TEX-19x50	712-00501	470
HODS85 2	531-07730	545	HTAPE-FLEX1000+ C 19x20	710-10605	458	HTAPE-TEX-19x50	712-00502	470
HODS85 2	531-07927	545	HTAPE-FLEX1000+ C 19x20	710-10606	458	HTAPE-TEX-19x50	712-00503	470
HODS85 3	531-07731	545	HTAPE-FLEX1000+ C 19x20	710-10607	458	HTAPE-TEX-19x50	712-00504	470
HODS85 3	531-07928	545	HTAPE-FLEX1000+ C 19x20	710-10608	458	HTAPE-TEX-19x50	712-00505	470
HODS85 4	531-07732	545	HTAPE-FLEX1000+ C 19x20	710-10609	458	HTAPE-TEX-19x50	712-00506	470
HODS85 5	531-07733	545	HTAPE-FLEX1000+ C 19x20	710-10612	458	HTAPE-TEX-50x50	712-00900	470
HODS85 5	531-07930	545	HTAPE-FLEX15-15x10	710-00100	454	HTAPE-TEX-50x50	712-00901	470
HODS85 6	531-07734	545	HTAPE-FLEX15-15x10	710-00101	454	HTAPE-TEX-50x50	712-00902	470
HODS85 6	531-07931	545	HTAPE-FLEX15-15x10	710-00102	454	HTAPE-TEX-50x50	712-00903	470
HODS85 7	531-07735	545	HTAPE-FLEX15-15x10	710-00103	454	HTAPE-TEX-50x50	712-00904	470
HODS85 7	531-07932	545	HTAPE-FLEX15-15x10	710-00104	454	HTAPE-TEX-50x50	712-00905	470
HODS85 8	531-07736	545	HTAPE-FLEX15-15x10	710-00105	454	HTAPE-TEX-50x50	712-00906	470
HODS85 8	531-07933	545	HTAPE-FLEX15-15x10	710-00106	454	HTAPE-WRAP25-100x30	710-10803	460
HODS85 9	531-07737	545	HTAPE-FLEX15-15x10	710-00107	454	HTAPE-WRAP25-25x30	710-10800	460
HODS85 9	531-07934	545	HTAPE-FLEX15-15x10	710-00108	454	HTAPE-WRAP25-50x30	710-10802	460
HODS85 A	531-07935	545	HTAPE-FLEX15-15x10	710-00109	454	HTWD-BWR-100X100	181-51090	435
HODS85 B	531-07936	545	HTAPE-FLEX15-15x10	710-00110	454	HTWD-BWR-100X60	181-51060	435
HODS85 C	531-07937	545	HTAPE-FLEX15-15x10	710-00146	454	HTWD-BWR-100X80	181-51080	435
HODS85 D	531-07938	545	HTAPE-FLEX15-15x10	710-00147	454	HTWD-BWR-120X60	181-51260	435
HODS85 E	531-07939	545	HTAPE-FLEX15-15x25	710-00115	454	HTWD-BWR-120X80	181-51280	435
HODS85 ½	531-00386	545	HTAPE-FLEX15-19x20	710-00151	455	HTWD-BWR-150X100	181-51590	435
HODS85 F	531-07940	545	HTAPE-FLEX15-19x20	710-00152	455	HTWD-BWR-40X40	181-50440	435
HODS85 G	531-07941	545	HTAPE-FLEX15-19x20	710-00153	455	HTWD-BWR-40X60	181-50460	435
HODS85 H	531-07942	545	HTAPE-FLEX15-19x20	710-00154	455	HTWD-BWR-40X80	181-50480	435
HODS85 I	531-07943	545	HTAPE-FLEX15-19x20	710-00155	455	HTWD-BWR-60X100	181-50690	435
HODS85 J	531-07944	545	HTAPE-FLEX15-19x20	710-00156	455	HTWD-BWR-60X40	181-50640	435
HODS85 K	531-07945	545	HTAPE-FLEX15-19x20	710-00157	455	HTWD-BWR-60X60	181-50660	435
HODS85 L	531-07946	545	HTAPE-FLEX15-19x20	710-00158	455	HTWD-BWR-60X80	181-50680	435
HODS85 M	531-07947	545	HTAPE-FLEX15-19x20	710-00159	455	HTWD-BWR-80X100	181-50890	435
HODS85 N	531-07948	545	HTAPE-FLEX15-19x20	710-00160	455	HTWD-BWR-80X60	181-50860	435
HODS85 O	531-07949	545	HTAPE-FLEX15-19x25	710-00126	455	HTWD-BWR-80X80	181-50880	435
HODS85 P	531-07950	545	HTAPE-FLEX15-25x25	710-00133	455	HTWD-CTH	181-45029	437
HODS85 Q	531-07951	545	HTAPE-FLEX15-25x25	710-00134	455	HTWD-HF-100X100	183-21010	433
HODS85 R	531-07952	545	HTAPE-FLEX15-25x25	710-00135	455	HTWD-HF-100X40	183-22040	433
HODS85 S	531-07953	545	HTAPE-FLEX15-25x25	710-00136	455	HTWD-HF-100X60	183-21060	433
HODS85 T	531-07954	545	HTAPE-FLEX15-25x25	710-00137	455	HTWD-HF-100X80	183-21080	433
HODS85 U	531-07955	545	HTAPE-FLEX15-25x25	710-00138	455	HTWD-HF-120X60	183-21260	433
HODS85 V	531-07956	545	HTAPE-FLEX15-25x25	710-00139	455	HTWD-HF-120X80	183-21280	433
HODS85 W	531-07957	545	HTAPE-FLEX15-25x25	710-00140	455	HTWD-HF-25X25	183-22525	433
HODS85 X	531-07958	545	HTAPE-FLEX15-25x25	710-00141	455	HTWD-HF-25X40	183-22540	433
HODS85 Y	531-07959	545	HTAPE-FLEX2000+19x20	710-10701	459	HTWD-HF-25X60	183-25060	433
HODS85 Z	531-07960	545	HTAPE-FLEX2000+38x20	710-10705	459	HTWD-HF-25X80	183-22580	433
HOT Kit	639-60000	450	HTAPE-FLEX20-19x20	710-10300	456	HTWD-HF-40X25	183-24025	433
HSG0	170-99001	616	HTAPE-FLEX25-19x33	710-00450	457	HTWD-HF-40X40	183-24040	433
HSG0BLADE	170-99002	616	HTAPE-FLEX25-38x33	710-00451	457	HTWD-HF-40X60	183-24060	433
HSMB-C2	598-01402	539	HTAPE-POWER 660-RM	711-00307	464	HTWD-HF-40X80	183-24080	433
HSMB-C2	598-11402	539	HTAPE-POWER 670-VM	711-00304	465	HTWD-HF-60X100	183-26010	433
HSMB-C2	598-14026	539	HTAPE-POWER600-19x6.7	711-10200	462	HTWD-HF-60X40	183-26040	433
HSMB-C2	598-14027	539	HTAPE-POWER600-38x6.7	711-10201	462	HTWD-HF-60X60	183-26060	433
HSMB-C2	598-14028	539	HTAPE-POWER650	711-10300	463	HTWD-HF-60X80	183-26080	433
HSMB-C2	598-14029	539	HTAPE-POWER800	711-10400	466	HTWD-HF-80X100	183-28010	433
HSMB-C3	598-21402	539	HTAPE-POWER810	711-10401	467	HTWD-HF-80X40	183-28040	433
HSMB-C3	598-31402	539	HTAPE-POWER820	711-10402	468	HTWD-HF-80X60	183-28060	433
HSMB-C3	598-41402	539	HTAPE-PROTECT180	712-10002	471	HTWD-HF-80X80	183-28080	433
HSMB-C3	598-51402	539	HTAPE-PROTECT250	712-10003	472	HTWD-NFVR	181-10020	436
HSMB-C3	598-61402	539	HTAPE-PROTECT300	712-10001	473	HTWD-PD-100X100	185-41010	431
HSMB-C3	598-71402	539	HTAPE-SHIELD310	711-10000	461	HTWD-PD-100X50	185-41050	431
HSMB-C4	598-40402	539	HTAPE-SHIELD310	711-10001	461	HTWD-PD-100X75	185-41075	431
HSMB-C5	598-50402	539	HTAPE-TEX-19x10	712-00200	470	HTWD-PD-125X50	185-41250	431
HTAPE-ALLROUND1500	710-01000	469	HTAPE-TEX-19x10	712-00201	470	HTWD-PD-125X75	185-41275	431

Type	Article-No. ⓘ*	Page
HTWD-PD-20X20	185-42020	431
HTWD-PD-20X37.5	185-42037	431
HTWD-PD-20X50	185-42050	431
HTWD-PD-25X25	185-42525	431
HTWD-PD-25X50	185-42550	431
HTWD-PD-25X75	185-42575	431
HTWD-PD-37.5X25	185-43725	431
HTWD-PD-37.5X37.5	185-43737	431
HTWD-PD-37.5X50	185-43750	431
HTWD-PD-37.5X75	185-43775	431
HTWD-PD-50X100	185-45010	431
HTWD-PD-50X50	185-45050	431
HTWD-PD-50X75	185-45075	431
HTWD-PD-75X100	185-47510	431
HTWD-PD-75X50	185-47550	431
HTWD-PD-75X75	185-47575	431
HTWD-PN-100X100	184-10278	427
HTWD-PN-100X40	184-10108	427
HTWD-PN-100X60	184-10178	427
HTWD-PN-100X80	184-10238	427
HTWD-PN-120X60	184-10188	427
HTWD-PN-120X80	184-10248	427
HTWD-PN-25X40	184-10068	427
HTWD-PN-25X60	184-10138	427
HTWD-PN-25X80	184-10198	427
HTWD-PN-40X100	184-10258	427
HTWD-PN-40X40	184-10078	427
HTWD-PN-40X60	184-10148	427
HTWD-PN-40X80	184-10208	427
HTWD-PN-60X100	184-10268	427
HTWD-PN-60X40	184-10088	427
HTWD-PN-60X60	184-10158	427
HTWD-PN-60X80	184-10218	427
HTWD-PN-80X100	184-10329	427
HTWD-PN-80X40	184-10098	427
HTWD-PN-80X60	184-10168	427
HTWD-PN-80X80	184-10228	427
HTWD-PW-100X100	181-10278	429
HTWD-PW-100X40	181-10108	429
HTWD-PW-100X60	181-10178	429
HTWD-PW-100X80	181-10238	429
HTWD-PW-120X60	181-10188	429
HTWD-PW-120X80	181-10248	429
HTWD-PW-150X100	181-10288	429
HTWD-PW-15X18	181-10018	429
HTWD-PW-15X30	181-10038	429
HTWD-PW-15X40	181-10058	429
HTWD-PW-15X60	181-10118	429
HTWD-PW-25X100	181-10328	429
HTWD-PW-25X30	181-10028	429
HTWD-PW-25X40	181-10068	429
HTWD-PW-25X60	181-10138	429
HTWD-PW-25X80	181-10198	429
HTWD-PW-40X100	181-10258	429
HTWD-PW-40X40	181-10078	429
HTWD-PW-40X60	181-10148	429
HTWD-PW-40X80	181-10208	429
HTWD-PW-60X100	181-10268	429
HTWD-PW-60X40	181-10088	429
HTWD-PW-60X60	181-10158	429
HTWD-PW-60X80	181-10218	429
HTWD-PW-80X100	181-10329	429
HTWD-PW-80X40	181-10098	429
HTWD-PW-80X60	181-10168	429
HTWD-PW-80X80	181-10228	429
HTWD-R4	181-42400	438
HTWD-R6	181-42500	438

Type	Article-No. ⓘ*	Page
HTWD-R6	181-42600	438
HTWD-RT4	181-41542	439
HTWD-RT6	181-41564	439
HTWD-WFWR	181-10010	436
HTZ121	596-99121	573
HTZ131	596-99131	573
HTZ211	596-99211	573
HTZ221	596-99221	573
HTZ231	596-99231	573
HTZ232	596-99232	573
HTZ233	596-99233	573
HTZ241	596-99241	573
HTZ251	596-99251	573
HTZ421	596-99421	573
HTZ621	596-99621	573
HTZ631	596-99631	573
HTZ641	596-99641	573
HTZ651	596-99651	573
HV1101	633-01010	448
HV1201	633-02010	449-450
HV1201B	633-02020	449
HV1203	633-02030	449-450
HV1204	633-02040	449
HV1205	633-02050	449
HV1206	633-02060	449
HV1207	633-02070	449
HV1208	633-02080	449-450
HV1209	633-02090	449
HV1210	633-02100	449
HV1212	633-02120	449
HV1215	633-02150	449
HV1216	633-02160	449
HV1218	633-02180	449
HV1301	633-03010	449
HV1302	633-03020	449
HV1303	633-03030	449
HV1304	633-03040	449
HV1305	633-03050	449
HV1305	633-03059	449
HV1401	633-04010	449
HV1402	633-04020	449
HV1502	633-05020	449
HV1606	633-06068	449
HV1607	633-06078	449
HV1608	633-06088	449
HV2101	632-01010	445, 450
HV2101	632-01017	445
HV2101	632-01019	445
HV2101A	632-01020	445
HV2103	632-01030	445
HV2104	632-01040	445
HV2107	632-01070	445
HV2206	632-02060	445
HV2209	632-02090	445
HV2210	632-02100	445, 450
HV2213	632-02130	446, 450
HV2228	632-02280	446
HV4819	631-08190	443
HV4819	631-08199	443
HV4820	631-08200	443
HV4820	631-08209	443
HV4821	631-08210	444
HV4821	631-08219	444
HV4823	631-08239	443
HV4825	631-08259	443
HWBASE	161-64015	398
HWBASEA	161-64013	398

Type	Article-No. ⓘ*	Page
HWCLIP08	161-64002	397
HWCLIP16	161-64004	397
HWCLIP20	161-64006	397
HWCLIP25	161-64008	397
HWCLIP30	161-64010	397
HWPVAV016	161-63201	395
HWPVAV020	161-63301	395
HWPVAV025	161-63401	395
HWPVAV030	161-63501	395
HWPVAV08	161-63101	395
HWPP16	161-64201 YES	392
HWPP16	161-64202 YES	392
HWPP16	161-64203 YES	392
HWPP16	161-64207 YES	392
HWPP16L2	161-64204 YES	394
HWPP16L2	161-64205 YES	394
HWPP16L2	161-64206 YES	394
HWPP16L2	161-64215 YES	394
HWPP20	161-64301 YES	393
HWPP20	161-64302 YES	393
HWPP20	161-64303 YES	393
HWPP20	161-64304 YES	393
HWPP25	161-64401 YES	393
HWPP25	161-64402 YES	393
HWPP25	161-64403 YES	393
HWPP25	161-64407 YES	393
HWPP25L2	161-64404 YES	394
HWPP25L2	161-64405 YES	394
HWPP25L2	161-64406 YES	394
HWPP25L2	161-64415 YES	394
HWPP30	161-64501 YES	393
HWPP30	161-64502 YES	393
HWPP30	161-64503 YES	393
HWPP30	161-64504 YES	393
HWPP40	161-64601 YES	393
HWPP8	161-64101 YES	392
HWPP8	161-64102 YES	392
HWPP8	161-64103 YES	392
HWPP8	161-64104 YES	392
HWPPMC16	161-66100 YES	396
HWPPMC20	161-66200 YES	396
HWPPMC25	161-66300 YES	396
HWPPMC30	161-66400 YES	396
HWPPMC8	161-66000 YES	396
IAHC1T	151-02883	132
IAHC3T	151-02884	132
IAHC4AH	151-00382	130
IAHC4T	151-00207	132
IAHC5T	151-00195	132
IMP1.5	151-42159	550
IMP2	151-42229	550
IMP2.5	151-42259	550
IMP2.5W1.75	151-42269	550
IMP3.5	151-42359	550
IRCAPMB6CC	151-04326 YES	153
IRCBPMB6CC	151-04328 YES	153
IRCCPMB6CC	151-04330 YES	153
IRCDPMB6CC	151-04332 YES	153
IT1	151-42119	550
IT18FL	111-81910	552
IT18FL	111-81919	551
IT18R	111-81821	551
IT18R	111-81860	552
IT50L	111-85319	552
IT50R	111-85019	552
IT50RD	111-85219	552
IT50RT	111-85100	552

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
ITSORT	111-85119	552	LKM	151-26304	YES 206	MA40-8/2	323-00100	300
KK1	234-10100	YES 208	LOC10-14FT6LG	151-01166	133	MA47-115/34	323-21150	301
KK2	234-10200	YES 208	LOC15-19FT6LG	151-01022	133	MA47-12/3	323-20120	301-302
KK3	234-10300	YES 208	LOC15-19FTOVAL	151-01049	133	MA47-140/42	323-21400	301
KK4	234-10400	YES 208	LOC5-9FTOVAL	151-01306	133	MA47-19/6	323-20190	301-302
KR6/35	121-63519	58	LOK01	151-80110	YES 138	MA47-30/8	323-20300	301-302
KR6/35	121-63555	58	LOK01B	151-80500	138	MA47-40/12	323-20400	301-302
KR6/35	121-63560	58	LOK02	151-80210	YES 203	MA47-50/16	323-20500	301
KR6/8	121-00680	606	LOK05	151-80700	138	MA47-63/19	323-20630	301
KR6G5	151-00653	YES 200	LPH175	112-00203	55	MA47-75/22	323-20750	301
KR6G5	151-03286	YES 200	LPH275	112-00303	55	MA47-8/2	323-20080	301
KR6G5	151-24619	YES 200	LPH350	112-00403	55	MA47-95/30	323-20950	301
KR6G5	151-24660	YES 200	LPH500	112-00033	55	MA47-Kit	905-50026	302
KR8/21	121-82119	58	LPH750	112-00034	55	MAGMB2	151-04461	YES 164
KR8/21	121-82155	58	LR55R	115-00002	YES 66	MAGMB3	151-04462	YES 164
KR8/21	121-82160	58	LR55R	115-00003	YES 66	MAGRA13	151-04465	YES 168
KR8/33	121-83319	58	LR55R	115-00004	YES 66	MAGRA3	151-04466	YES 168
KR8/33	121-83355	58	LR55R	115-00005	YES 66	MAGRA6	151-04468	YES 168
KR8/33	121-83360	58	LR55R	115-00006	YES 66	MAGRA9	151-04467	YES 168
KR8/33	121-83378	58	LR55R	115-00008	YES 66	MAGR85	151-04463	YES 170
KR8/33	121-83380	58	LTS10	166-31900	382	MAGR88	151-04464	YES 170
KR8/43	121-74359	58	LTS10-FMC-M12	166-32200	383	MB1	151-28119	YES 204
KR8/43	121-74360	58	LTS10-FMC-M16	166-32201	383	MB2	151-28210	YES 204
KR8/50	121-05019	59	LTS12	166-31901	382	MB2	151-28219	YES 204
KR8/60	121-06019	59	LTS12-FMC-M16	166-32203	383	MB2A	151-01800	161
KR8/60	121-06060	59	LTS16	166-31902	382	MB2A	151-01802	161
KR8/C5	121-58551	YES 60	LTS16-FMC-M16	166-32204	383	MB2APT-A	151-02243	160
KR8/C5	121-58560	YES 60	LTS16-FMC-M20	166-32205	383	MB3	151-28359	YES 195
KR8/S1	121-98151	YES 60	LTS20	166-31903	382	MB3A	151-28320	161
KR8/S1	121-98160	YES 60	LTS20-FMC-M20	166-32206	383	MB3A	151-28349	161
KR8G5	151-00654	YES 200	LTS25	166-31904	382	MB3APT-A	151-02244	160
KR8G5	151-24819	YES 200	LTS25-FMC-M25	166-32207	383	MB3APT-A	151-02978	160
KR8G5	151-24850	YES 200	LTS32	166-31905	382	MB4	151-28479	YES 195
KR8PNSE	121-00889	607	LTS32-FMC-M32	166-32208	383	MB4A	151-28412	161
KSFT6.5OC1-3	151-01843	128	LTS40	166-31906	382	MB4A	151-28469	161
KSFT6.5OC7-9	151-01844	128	LTS40-FMC-M40	166-32209	383	MB4APT-A	151-02245	160
KST-STG200	110-09950	609	LTS50	166-31907	382	MB4APT-A	151-02246	160
LC5-8-10SFT8.5	151-04121	YES 129	LTS50-FMC-M50	166-32210	383	MB5	151-00324	YES 195
LC9FTOVAL	151-01880	137	LTS63	166-31908	382	MB5A	151-28529	161
LFPC103	111-94000	87	LTS63-FMC-M63	166-32211	383	MB5A	151-28602	161
LFPC129	111-00253	87	LVK-4x16-50	380-04008	307	MB5APT-A	151-02247	160
LFPC132	111-00254	87	LVK-4x25-150	380-04010	307	MBML10X45	544-80101	581
LFPC150	111-95000	87	LVK-4x25-95	380-04009	307	MBML10X90	544-80102	581
LFPC163	111-00255	87	LVK-4x95-300	380-04011	307	MBML20X45	544-80201	581
LFPC70	111-93000	87	LVK-5x1.5-16	380-04006	307	MBML20X90	544-80202	581
LFPC83	111-00257	87	LVK-5x1.5-6	380-04005	307	M-BOSS Compact	544-20000	579
LK2	111-60219	39	LVK-5x6-25	380-04007	307	M-BOSS Compact Organiser	544-21000	580
LK2A	111-00118	39	LVK-C-4x16-50	380-04016	308	MBT14H	111-94149	79
LK2A	111-00127	39	LVK-C-4x25-150	380-04018	308	MBT14HFC	111-00295	81
LK2A	111-60104	39	LVK-C-5x1.5-16	380-04014	308	MBT14HS	111-94148	76
LK2A	111-60106	39	LVK-C-5x1.5-6	380-04013	308	MBT14S	111-93149	78
LK2A	111-60108	39	LVK-C-5x6-25	380-04015	308	MBT14SFC	111-00290	81
LK2A	111-60110	39	LVR-12.7/6.4	344-01270	281	MBT14SS	111-93148	76
LK2A	111-60119	39	LVR-19.1/9.5	344-01900	281	MBT14UH	111-01301	79
LK2A	111-60136	39	LVR-2.4/1.2	344-00240	281	MBT14UHFC	111-01512	82
LK2A	111-60150	39	LVR-25.4/12.7	344-02540	281	MBT14XH	111-95149	79
LK2A	111-60160	39	LVR-3.2/1.6	344-00320	281	MBT14XHFC	111-00299	82
LK5	111-60501	39	LVR-4.8/2.4	344-00480	281	MBT14XHS	111-95148	77
LK5	111-60510	39	LVR-6.4/3.2	344-00640	281	MBT17UHFC	111-01513	82
LK5	111-60519	39	LVR-9.5/4.8	344-00950	281	MBT17XHFC	111-01500	82
LK5	111-60559	39	LVRK-L-24/6-200	380-04019	304	MBT20H	111-94209	79
LK5	111-60560	39	MA40-12/3	323-00101	300	MBT20HFC	111-00296	81
LKC	151-27010	YES 203	MA40-16/5	323-00103	300	MBT20HS	111-94208	76
LKC	151-27019	YES 203	MA40-22/6	323-00104	300	MBT20S	111-93209	78
LKCSF1	151-27202	YES 203	MA40-33/8	323-00105	300	MBT20SFC	111-00291	81
LKCSF1	151-27219	YES 203	MA40-40/12	323-00106	300	MBT20SS	111-93208	76
LKM	151-26301	YES 206	MA40-55/16	323-00107	300	MBT20UH	111-01302	79

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
MBT20UHFC	111-01514	82	MCTS300	111-01401	45	NGM25GY	901-02022	498
MBT20XH	111-95209	79	MCTS300	111-01402	45	NGM25RD	901-02023	498
MBT20XHFC	111-00300	82	MK10-SB	110-10001	605	NGM25WE	901-02024	498
MBT20XHS	111-95208	77	MK20	110-20006	605	NGM32BK	901-02025	498
MBT23UHFC	111-01515	82	MK21	110-21016	605	NGM32DGY	901-02026	498
MBT27H	111-94279	79	MK3PNSP2	110-03400	603	NGM32GY	901-02027	498
MBT27HFC	111-00297	82	MK9P	110-09100	604	NGM32RD	901-02028	498
MBT27HS	111-94278	76	MK9P w/ Upper air	110-09110	604	NGM32WE	901-02029	498
MBT27S	111-93279	78	MK9PSST	110-95350	608	NGM40BK	901-02030	499
MBT27SFC	111-00292	81	MK9SST	110-95000	608	NGM40DGY	901-02031	499
MBT27SS	111-93278	76	MLT12SS10	111-95120	85	NGM40GY	901-02032	499
MBT27UHD	111-01312	80	MLT12SS5	111-94120	85	NGM40RD	901-02033	499
MBT27UHDFC	111-01521	83	MLT12SSC10	111-91123	86	NGM40WE	901-02034	499
MBT27UHFC	111-01516	82	MLT12SSC5	111-91121	85	NGM50BK	901-02035	499
MBT27XH	111-95279	79	MLT16SSC10	111-91163	86	NGM50DGY	901-02036	499
MBT27XHD	111-01307	80	MLT16SSC5	111-91161	86	NGM50GY	901-02037	499
MBT27XHFC	111-00301	82	MLT24SS5	111-91400	85	NGM50RD	901-02038	499
MBT27XHS	111-95278	77	MLT24SSC10	111-91181	86	NGM50WE	901-02039	499
MBT33H	111-94339	79	MLT8SSC5	111-91000	85	NGM63BK	901-02040	499
MBT33HFC	111-00298	82	MP2M3	151-24219 YES	222	NGM63DGY	901-02041	499
MBT33HS	111-94338	76	MP3M3	151-24319 YES	222	NGM63GY	901-02042	499
MBT33S	111-93339	78	MP4M3	151-24419 YES	222	NGM63RD	901-02043	499
MBT33SFC	111-00293	81	MSMP4	150-83499 YES	222	NGM63WE	901-02044	499
MBT33SS	111-93338	76	MSMP5/10	151-25519 YES	222	NP CPK smart cable	123-90142	596
MBT33UH	111-01304	79	MSMP6/6	151-25619 YES	222	NY3256	151-25219 YES	203
MBT33UHD	111-01313	80	MSNP1-70	191-01700	612	One Click FERRO-T50ROSSFT725	156-01577	103
MBT33UHFC	111-01518	82	MST2005	111-01549	84	OP4827	631-58279	443
MBT33XH	111-95339	79	MST360M	111-01631	84	OP4828	631-58289	443
MBT33XHFC	111-00302	82	MST360S	111-01550	84	ORF150-S	115-00161 YES	67
MBT33XHS	111-95338	77	MST500M	111-01632	84	Overhead suspension CPK	106-00050	596
MBT43UH	111-01305	79	MST500S	111-01551	84	Overhead_suspension_ATS	102-00050	598
MBT43XHFC	111-01503	82	MST6	110-61000	610	P4030 Perforator	556-04051	584, 585
MBT49UH	111-01306	79	MST700M	111-01633	84	P430 Perforator	556-00456	583
MBT5S	111-93059	78	MST700S	111-01552	84	P445	391-90101	613
MBT5SFC	111-00288	81	MST9	110-13000	610	PACC10	166-25707	390
MBT5SS	111-93058	76	MU47-115/34	323-11150	303	PACC13	166-25700	390
MBT60XHD	111-01311	80	MU47-12/3	323-10120	303	PACC16	166-25701	390
MBT8H	111-94089	78	MU47-140/42	323-11400	303	PACC21	166-25702	390
MBT8HFC	111-00294	81	MU47-19/6	323-10190	303	PACC28	166-25703	390
MBT8HS	111-94088	76	MU47-30/8	323-10300	303	PACC34	166-25704	390
MBT8S	111-93089	78	MU47-40/12	323-10400	303	PACC42	166-25705	390
MBT8SFC	111-00289	81	MU47-50/16	323-10500	303	PACC54	166-25706	390
MBT8SS	111-93088	76	MU47-63/19	323-10630	303	PCS10	166-30700	379
MCCTAM1	151-00997 YES	201	MU47-75/22	323-10750	303	PCS10-FMC-M12	166-31400	381
MCKR6G5	151-00950 YES	200	MU47-95/30	323-10950	303	PCS10-FM-M12	166-31000	380
MCKR8G5-5	151-01020 YES	200	NGM12BK	901-02000	498	PCS12	166-30701	379
MCMB4	151-01170 YES	196	NGM12DGY	901-02001	498	PCS12-FMC-M16	166-31401	381
MCT120R	111-01136	44	NGM12GY	901-02002	498	PCS12-FM-M16	166-31001	380
MCT18R	111-01225	44	NGM12RD	901-02003	498	PCS16	166-30702	379
MCT30R	111-00829	44	NGM12WE	901-02004	498	PCS16-FMC-M16	166-31402	381
MCT50L	111-00831	44	NGM16BK	901-02005	498	PCS16-FMC-M20	166-31403	381
MCT50L	111-01168	44	NGM16DGY	901-02006	498	PCS16-FM-M16	166-31002	380
MCT50R	111-00830	44	NGM16GY	901-02007	498	PCS16-FM-M20	166-31003	380
MCTPP120R	111-01668	46	NGM16RD	901-02008	498	PCS20	166-30703	379
MCTPP18R	111-01664	46	NGM16WE	901-02009	498	PCS20-FMC-M20	166-31404	381
MCTPP30R	111-01665	46	NGM20BK	901-02010	498	PCS20-FM-M20	166-31004	380
MCTPP50L	111-01667	46	NGM20DGY	901-02011	498	PCS25	166-30704	379
MCTPP50R	111-01666	46	NGM20GY	901-02012	498	PCS25-FMC-M25	166-31405	381
MCTRELK2M	111-00937 YES	71	NGM20RD	901-02013	498	PCS25-FM-M25	166-31005	380
MCTS100	111-01341	45	NGM20SBK	901-02014	498	PCS32	166-30705	379
MCTS150	111-01342	45	NGM20SDGY	901-02015	498	PCS32-FMC-M32	166-31406	381
MCTS150	111-01381	45	NGM20SGY	901-02016	498	PCS32-FM-M32	166-31006	380
MCTS200	111-01343	45	NGM20SRD	901-02017	498	PCS40	166-30706	379
MCTS200	111-01382	45	NGM20SWE	901-02018	498	PCS40-FMC-M40	166-31407	381
MCTS200	111-01385	45	NGM20WE	901-02019	498	PCS40-FM-M40	166-31007	380
MCTS300	111-01399	45	NGM25BK	901-02020	498	PCS50	166-30707	379
MCTS300	111-01400	45	NGM25DGY	901-02021	498	PCS50-FMC-M50	166-31408	381

Type	Article-No. 	Page	Type	Article-No. 	Page	Type	Article-No. 	Page
PCS50-FM-M50	166-31008	380	QM30A	151-10915	159	RELK2I	115-06760	62
PCS63	166-30708	379	QM30APT-A	151-02973	158	RELK2L	115-02300	62
PCS63-FM-M63	166-31009	380	QM30APT-A	151-02974	158	RELK2L	115-06919	62
PCS75	166-30709	379	QM40A	151-10906	159	RELK2M	115-02000	62
PCS75-FM-M75	166-31019	380	QM40A	151-10916	159	RELK2M	115-06729	62
PE180	112-18060	53	R1	201-20010	207, 397	RELK2R	115-02202	62
PE180	112-18061	53	R2	201-20020	207	REZ200	115-00106	70
PE400SH	112-18200	53	R3	201-20030	207	REZ200	115-00132	70
PE400SH	112-18201	53	RA1	800-00001	442	REZ200	115-00147	70
PE400SH	112-18202	53	RA13	151-13021	YES 167	REZ200	115-40200	70
PE400SH	112-18203	53	RA13APT-A	151-13201	167	REZ300	115-00043	70
PE530	112-53060	53	RA18	151-13119	YES 167	REZ300	115-00138	70
PEC-3/1	416-00000	357	RA18APT-A	151-03607	167	REZ300	115-40300	YES 70
PEC-4.8/1.5	416-00003	357	RA3	151-13018	YES 167	RLT120	111-70319	YES 63
PEC-6/2	416-00001	357	RA6	151-13019	YES 167	RLT120	111-70361	YES 63
PEC-9/3	416-00002	357	RA6APT-A	151-03393	167	RLT150	111-70110	YES 63
Piezo CHG900	391-90011	613	RA6APT-A	151-13405	167	RLT150	111-70119	YES 63
PLUG5.5	151-00401	141	RA9	151-13020	YES 167	RLT150	111-70159	YES 63
PLUGFT6XL	241-00001	141	RA9APT-A	151-03396	167	RLT150	111-70160	YES 63
PLUGFT6XL	241-00002	141	RB14	151-00502	169	RMS 100-30	450-20030	306
PMB3	151-02575	154	RB14	151-00505	169	RMS 100-30	450-20031	306
PMB6	151-04322	154	RB14APT-A	151-03606	169	RMS 139-38	450-20041	306
PMB8	151-03196	154	RB20	151-00831	169	RMS 185-55	450-20050	306
Power pack CPK	106-00100	596	RB5	151-14059	169	RMS 43-10	450-20000	306
Power pack CPK with control box	106-00110	596	RB5APT-A	151-14006	169	RMS 43-10	450-20001	306
Power_pack_ATS_flex_24V	102-00150	YES 598	RB8	151-13601	169	RMS 43-10	450-20002	306
Printer Roller TT4030/TT4000+	556-04005	584, 585	RB8	151-13606	169	RMS 43-10	450-20004	306
ProCut 9 no battery	104-10010	600	RCA180LM6	151-01639	YES 215	RMS 52-15	450-20010	306
ProCut_Battery_Set	104-11000	600	RCA180MM6	151-01638	YES 215	RMS 52-15	450-20011	306
PS1	800-00200	442	RCA180SM6	151-01637	YES 215	RMS 52-15	450-20012	306
PSR12	166-40001	384	RCA180SM8	151-01416	YES 215	RMS 52-15	450-20014	306
PSR12-S-M16	166-40701	385	RCA90LM8	151-01437	YES 215	RMS 76-22	450-20021	306
PSR16	166-40002	384	RCA90SM6	151-01643	YES 215	RMS 76-22	450-20022	306
PSR16-90-M16	166-40801	386	RCB180SM10	151-01390	YES 216	RMS 76-22	450-20024	306
PSR16-90-M20	166-40802	386	RCB180SM12	151-01441	YES 216	RO201	550-14011	537
PSR16-S-M16	166-40702	385	RCB180SM6	151-01645	YES 216	RO201REF	550-14014	537
PSR16-S-M20	166-40703	385	RCB180SM8	151-01440	YES 216	RO202	550-14012	537
PSR20	166-40003	384	RCB90LM8	151-01460	YES 216	RO202REF	550-11401	537
PSR20-90-M20	166-40803	386	RCB90SM6	151-01651	YES 216	RO203	550-14013	537
PSR20-S-M20	166-40704	385	RCB90SM8	151-01457	YES 216	RO203REF	550-71401	537
PSR25	166-40004	384	RCC D21	150-92300	135	ROF204	590-00008	538
PSR25-90-M25	166-40804	386	RCC D24	151-02266	135	ROF204REF	590-00007	538
PSR25-S-M25	166-40705	385	RCC180LM6	151-01655	YES 217	RPE275	112-27560	YES 54
PSR32	166-40005	384	RCC180SM6	151-01653	YES 217	RPE350	112-00006	YES 54
PSR32-90-M32	166-40805	386	RCC180SM8	151-01474	YES 217	RPE350	112-35060	YES 54
PSR32-S-M32	166-40706	385	RCC90LM6	151-01660	YES 217	RT250M	131-75610	YES 64
PSR40	166-40006	384	RCC90LM8	151-01495	YES 217	RT250M	131-75619	YES 64
PSR40-90-M40	166-40806	386	RCC90SM6	151-01659	YES 217	RT250M	131-75620	YES 64
PSR40-S-M40	166-40707	385	RCC90SM8	151-01492	YES 217	RT250XL	131-75510	YES 64
PSR50	166-40007	384	RCD180SM8	151-01499	YES 217	RT250XL	131-75519	YES 64
PSR50-S-M50	166-40708	385	RCD90LM8	151-01521	YES 217	RT50RSF	115-07010	YES 104
PSR63	166-40008	384	RCD-CT-INSERT	151-02964	218	RT50SD6	111-85480	YES 96
PSR63-S-M63	166-40709	385	RCINSERTA	151-01530	YES 218	RT50SFK	115-06960	YES 104
PT220	111-01235	40	RCINSERTB	151-01531	YES 218	S2CM25	151-29400	211
PT2A	118-00032	51	RCINSERTC	151-01532	YES 218	S2HM25	151-29403	211
PT2AFT6LG	156-01336	113	RCINSERTD	151-01533	YES 218	S3CBM8	151-01040	213
PT2AP1SFT6.5	156-01090	95	RCTT	151-01529	YES 218	S3SB15CBM8	151-01010	213
PT2AP2SFT6.5	156-01091	95	REL100	131-21010	YES 65	S3SBM8	151-02092	213
PT2AP3SFT6.5	156-01146	95	REL100	131-21019	YES 65	S3STM50	151-29500	123
PT2ASFT6.5PT0.7-1.5-E	126-00183	91, 94	REL140	131-21410	YES 65	S4030 Cutter	556-04050	584, 585
PT3B	118-00116	51	REL140	131-21419	YES 65	S430 Cutter	556-00452	583
QGDHCS.2-8.0M	151-04088	248	REL180	115-00027	YES 65	S50ROS	118-00270	YES 50
QGDHCS.2-8.0M	151-04089	YES 248	REL250	131-22510	YES 65	S50ROS	118-00272	YES 50
QM20A	151-10904	159	REL250	131-22519	YES 65	S50ROS1DOP62x122	156-03586	YES 119
QM20A	151-10914	159	REL250	131-22560	YES 65	S50ROSCC11A	156-03259	173
QM20APT-HT	151-03847	158	REL30SDP6	150-55500	YES 110	S50ROSCC11B	156-03261	173
QM30A	151-10905	159	RELK2I	115-02101	YES 62	S50ROSCoupler	156-03594	YES 149

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
S50ROSCPCM6	156-03593	YES 192	SBPE6D	161-41155	400	SE28 9.5/4.8	342-20030	316
S50ROSDSB5-6H	156-03077	YES 181	SBPE9	161-41200	400	SFC	151-01600	122
S50ROSDSB55	156-03588	YES 181	SBPE9	161-41201	400	SFC2	151-02000	122
S50ROSEC10	156-03574	YES 228	SBPE9	161-41202	400	SFC3	151-01907	122
S50ROSEC19	156-03578	YES 230	SBPE9D	161-41203	400	SFC3	151-01909	122
S50ROSEC20	156-03577	YES 230	SBPE9D	161-41204	400	SGT100S	111-50000	57
S50ROSEC21	156-03572	YES 229	SBPE9D	161-41205	400	SGT100S	111-50001	57
S50ROSEC22	156-03582	YES 229	SBPEFR1.5	161-43000	401	SGT100SAHD6.5S2.0	156-04097	93
S50ROSEC23	156-03576	YES 231	SBPEFR1.5	161-43001	401	SGT100SDSB5-6	156-04098	182
S50ROSEC24	156-03584	YES 231	SBPEFR16	161-43300	401	SGT100SFT6.7	156-03268	114, 118
S50ROSEC4A	156-03575	YES 227	SBPEFR16	161-43301	401	SGT100SM60	156-04096	194
S50ROSEC4B	156-03580	YES 227	SBPEFR4	161-43100	401	ShrinKit 321 Basic	380-03001	259, 261-264
S50ROSEC4B	156-03589	YES 227	SBPEFR4	161-43101	401	ShrinKit 321 Universal	380-03002	262
S50ROSEC5A	156-03573	YES 229	SBPEFR6	161-43150	401	ShrinKit 321 Universal Basic	380-03005	260
S50ROSEC5B	156-03583	YES 229	SBPEFR6	161-43151	401	ShrinKit 321-A	380-03003	264
S50ROSEC9	156-03579	YES 228	SBPEFR9	161-43200	401	ShrinKit 321-A Basic	380-03004	263
S50ROSF10	156-03585	YES 116	SBPEFR9	161-43201	401	SM1	800-00004	442
S50ROSF8	156-03581	YES 115	SBPEMC1.5	161-46000	405	SMB4APT-A	151-03334	162
S50ROSF8GSD	156-03587	YES 115	SBPEMC16	161-46300	405	SNP10(E)	191-10109	249
S50ROSMB4APT-A-SET	156-03592	YES 163	SBPEMC4	161-46100	405	SNP12(E)	191-10129	249
S50ROSSFT6.5	156-03590	YES 102	SBPEMC9	161-46200	405	SNP14(E)	191-10149	249
S50SOSEC1.5-4.0SVE	126-00471	YES 223	SBPPHDF10	162-31000	407	SNP16	191-10169	249
S50SOSEC1.5-4TVE	126-00465	YES 223	SBPPHDF15	162-31100	407	SNP2(E)	191-10029	249
SA47-LA-11.0/2.4	301-10022	314	SBPPHDF20	162-31200	407	SNP20(E)	191-10209	249
SA47-LA-18.3/4.35	301-10023	314	SBPPHDF25	162-31300	407	SNP3(E)	191-10039	249
SA47-LA-24.0/6.0	301-10024	314	SBPPHDF30	162-31400	407	SNP4(E)	191-10049	249
SA47-LA-32.0/8.0	301-10025	314	SBPPHDF35	162-31500	407	SNP6(E)	191-10069	249
SA47-LA-5.75/1.25	301-10020	314	SBPPHDF40	162-31600	407	SNP8(E)	191-10089	249
SA47-LA-52.0/13.0	301-10026	314	SBPPHDF50	162-31700	407	SOFTFIX L	115-11350	YES 69
SA47-LA-7.5/1.65	301-10021	314	SBPPHDR10	162-30000	406	SOFTFIX M	115-11270	YES 69
SAC1	151-00100	172	SBPPHDR15	162-30100	406	SOFTFIX S	115-07270	YES 69
SAC2	151-00200	172	SBPPHDR20	162-30200	406	SOFTFIX XL	115-28590	YES 69
SAC3	151-00300	172	SBPPHDR25	162-30300	406	SOFTFIX XS	115-07190	YES 69
SAM320B-R	151-02099	212	SBPPHDR30	162-30400	406	SOFTFIX XXL	115-28898	YES 69
SAM400B-R	151-02102	212	SBPPHDR35	162-30500	406	SP_CAS_Battery_18V_2Ah	106-06020	596, 600
SAM83	151-29600	212	SBPPHDR40	162-30600	406	SP_CAS_Battery_Charger	106-06021	596, 600
SAOM82	151-29701	212	SBPPHDR50	162-30700	406	SpeedyTie (RTT750HR)	115-00000	YES 72
SBH1	151-02260	186	SBPTFE1.5	161-45000	404	SpeedyTie (RTT750HR)	115-00001	YES 72
SBH2	151-26250	186	SBPTFE4	161-45100	404	SpeedyTie (RTT750HR)	115-00030	YES 72
SBH3	151-02279	186	SBPTFE9	161-45200	404	SPH175	112-00082	YES 56
SBPA1.5	161-42000	402	SC10	166-30100	376	SPH275	112-00083	YES 56
SBPA16	161-42300	402	SC10-FM-M12	166-30300	378	SPH350	112-00084	YES 56
SBPA4	161-42100	402	SC12	166-30101	376	SpotClip-Box FR	148-00123	488
SBPA6	161-42150	402	SC12-FM-M16	166-30301	378	SpotClip-Caps 16/25	148-00102	492
SBPA9	161-42200	402	SC16	166-30102	376	SpotClip-I	148-00076	481
SBPAV01.5	161-44000	403	SC16-FM-M16	166-30302	378	SpotClip-II	148-00098	483
SBPAV016	161-44300	403	SC16-FM-M20	166-30303	378	SpotClip-III	148-00121	485
SBPAV04	161-44100	403	SC20	166-30103	376	SpotClip-IV-Slim	148-00146	486
SBPAV06	161-44150	403	SC20-FM-M20	166-30304	378	SpotClip-Kit 150	148-00119	490
SBPAV09	161-44200	403	SC25	166-30104	376	SpotClip-Kit 240	148-00120	490
SBPE1.5	161-41000	400	SC25-FM-M25	166-30305	378	SpotClip-Plate 600	148-00117	491
SBPE1.5	161-41001	400	SC32	166-30105	376	SPRO200	550-14010	537
SBPE1.5	161-41002	400	SC32-FM-M32	166-30306	378	SPROF204	590-00006	538
SBPE16	161-41300	400	SC40	166-30106	376	SRC150M8	156-02742	YES 193
SBPE16	161-41301	400	SC40-FM-M40	166-30307	378	SRT1807	115-07189	YES 68
SBPE16	161-41302	400	SC50	166-30107	376	SRT26011	115-11269	YES 68
SBPE4	161-41100	400	SC50-FM-M50	166-30308	378	SRT2607	115-07269	YES 68
SBPE4	161-41101	400	SE28 101.2/51.0	342-20100	316	SRT34011	115-11349	YES 68
SBPE4	161-41102	400	SE28 12.7/6.4	342-20040	316	SRT58028	115-28589	YES 68
SBPE4D	161-41103	400	SE28 19.0/9.5	342-20050	316	SRT88028	115-28889	YES 68
SBPE4D	161-41104	400	SE28 25.4/12.7	342-20060	316	SSC10	166-30200	377
SBPE4D	161-41105	400	SE28 3.2/1.6	342-20000	316	SSC12	166-30201	377
SBPE6	161-41150	400	SE28 38.0/19.0	342-20070	316	SSC16	166-30202	377
SBPE6	161-41151	400	SE28 4.8/2.4	342-20010	316	SSC20	166-30203	377
SBPE6	161-41154	400	SE28 51.0/25.4	342-20080	316	SSC25	166-30204	377
SBPE6D	161-41152	400	SE28 6.4/3.2	342-20020	316	SSC32	166-30205	377
SBPE6D	161-41153	400	SE28 76.0/38.0	342-20090	316			

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
SSC40	166-30206	377	T150M	111-15619	24	T250R	111-24803	25
SSC50	166-30207	377	T150M	111-15660	29	T250R	111-24805	29
SSPC4	151-00837	202	T150R	111-14810	24	T250X	111-25102	25
SSPC5	151-00838	202	T150R	111-14819	24	T250XL	111-25200	25
SSPC6	151-00839	202	T150R(H)	111-14860	29	T25L	111-02500	23
STAND-OFF-CLIP-2	155-01600	143	T150R(H)	111-15050	31	T25L	111-02519	23
Strap_Black_ATS	102-66110 YES	599	T150R(H)	111-15069	31	T25LL	111-02619	23
Strap_Natural_ATS	102-66109 YES	599	T150R(H)	116-15012	27	T25LL	111-02660	28
T120I	111-12203	32	T150R(H)	116-15014	27	T30L	111-03410	23
T120I	111-12210	24	T150R(H)	116-15016	27	T30L	111-03419	23
T120I	111-12219	24	T150XL	111-15500	24	T30L	111-03450	30
T120I	111-12230	29	T150XL	111-15502	29	T30L	111-03459	30
T120IFT9	156-00200	116	T150XL	111-15510	31	T30L	111-03460	28
T120L	111-12402	32	T150XL	111-15519	24	T30LL	111-03500	23
T120L	111-12403	24	T150XLL	111-15300	25	T30LL	111-03529	23
T120L	111-12429	24	T150XLL	111-15305	29	T30LL	111-03569	30
T120L	111-12430	29	T18I	111-02319	23	T30LL	111-03570	28
T120L	111-12440	31	T18I	111-02358	30	T30LL	111-03660	30
T120L	111-12449	31	T18I	111-02359	30	T30LOS	118-00044	47
T120M	111-00153	31	T18I	111-02360	28	T30LOS	118-00080	47
T120M	111-12610	24	T18I	111-02370	23	T30LOS	118-04900	47
T120M	111-12619	24	T18L	111-02043	34	T30MR	113-03010	189
T120M	111-12660	29	T18L	111-02049	30	T30MR	113-03019	189
T120MR	113-12020	189	T18L	111-02110	23	T30R	111-00264	35
T120MR	113-12029	189	T18L	111-02119	23	T30R	111-00698	36
T120MR	113-12060	189	T18L	111-02159	30	T30R	111-01719 YES	38
T120R	111-00447 YES	33	T18L	111-02160	28	T30R	111-03004	26
T120R	111-01125	36	T18MR	113-01810	189	T30R	111-03006	26
T120R	111-08313 YES	37	T18MR	113-01819	189	T30R	111-03008	26
T120R(E)	111-00819	35	T18R	111-00000 YES	33	T30R	111-03009	23
T120R(E)	111-12001	27	T18R	111-00659	36	T30R	111-03014	26
T120R(E)	111-12002	27	T18R	111-01718 YES	38	T30R	111-03017 YES	37
T120R(E)	111-12010	24	T18R	111-01910	23	T30R	111-03050	30
T120R(E)	111-12019	24	T18R	111-01917 YES	37	T30R	111-03083 YES	33
T120R(E)	111-12032	32	T18R	111-01919	23	T30R	111-03210	23
T120R(E)	111-12050	31	T18R	111-01922 YES	37	T30R	111-03259	30
T120R(E)	111-12059	31	T18R	111-01950	30	T30R	111-03260	28
T120R(E)	111-12060	29	T18R	111-01959	30	T30R	111-93019	34
T120R(E)	111-91210	34	T18R	111-01960	28	T30R	114-03079	35
T120R(E)	114-12179	35	T18R	111-91819	34	T30REC4A	150-76090	227
T120RCOUPLER	156-00275	149	T18R	114-01879	35	T30REC4B	150-76080	227
T120RCOUPLER	156-02416	149	T18R	116-01812	26	T30REC5A	156-00003	229
T120RFT9A	156-00067	116	T18R	116-01814	26	T30RFT5	150-55850	113
T120RFT9B	156-00071	116	T18R	116-01815	26	T30RFT5	156-01316	113
T120RHDM6	156-00406	190	T18R	116-01816	26	T30RFT6	150-77950	114
T120RHDM6	156-00407	190	T18RA3500	120-46009	597	T30RFT6LG	150-31090	113
T120RHDM8	156-00408	190	T18RA3500	120-50009	597	T30RFT6SD	150-52690	113
T120RHDM8	156-00409	190	T18RA3500	120-50010	597	T30RFT7	156-00057	115
T120ROS	118-00066	48	T18RA50	120-40019	597	T30ROS	118-04800	47
T120ROS	118-00067	48	T18RA50	120-40020	597	T30ROSECO.5-2.5SP-SVA	156-01797	226
T120ROS	118-00082	48	T18RDP5	150-55610	107	T30ROSECO.5-2.5SP-SVB	156-01546	226
T120ROS	118-00130	48	T18REC10SD	155-38304	228	T30ROSECO.5-2.5TP-SD	156-01543	226
T120ROS	118-00174 YES	48-49	T18REC21	156-01231	229	T30ROSECO.5-2.5TPVA	156-01542	226
T120ROSDHDM6	156-01485	191	T18REC9SD	155-37104	228	T30RSF	126-00329	105
T120S	111-12829	24	T18RFT3	156-00338	112	T30RSF	126-00330	105
T120S	111-12830	29	T18RFT5	156-01225	113	T30SOSASDHA6x11E	126-00429	120
T120SHDM8	156-00429	190	T18ROS	118-00035	47	T30SOSASFMB4APT-A-E	126-00450	157
T120XM	111-12700	31	T18ROS	118-00079	47	T30SOS-AS-FT5-E	157-00448	107
T120XM	111-12701	24	T18ROS	118-04701	47	T30SOS-AS-FT6-E	157-00243	108
T120XM	111-12704	24	T18ROSEC19	156-04600	230	T30SOS-AS-SFT6.5-E	126-00255	91
T120XM	111-12719	31	T18RSF	126-00416	100	T30SOSASSFT6.5x4.0E	126-00341	91, 99
T150L	111-15405	24	T18RSF	126-00419	100	T40R	111-01625	28
T150L	111-15410	31	T18S	111-02809	23	T40R	111-01626	23
T150L	111-15419	24	T250I	111-25219	25	T40R	111-01627	30
T150L	111-15460	29	T250L	111-24601	25	T40R	111-03970	30
T150M	111-00124	24	T250M	111-25001	25	T40XEC5SP-E	133-00059	224
T150M	111-15609	31	T250M	111-25002	25	T50I	111-00222	32

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
T50I	111-00317	34	T50RFT5	156-00025	113	T50S	111-01720 YES	38
T50I	111-02217 YES	38	T50RFT6	150-77941	114	T50S	111-05810	23
T50I	111-05210	24	T50RFT6	156-01693	114	T50S	111-05819	23
T50I	111-05219	24	T50RFT62x122HR	156-00446	102	T50S	111-05850	30
T50I	111-05220	35	T50RFT6LG	150-31091	113	T50S	111-05859	30
T50I	111-05250	31	T50RFT6LGSD-HEX	156-01705	114	T50S	111-05860	28
T50I	111-05259	31	T50RFT6OVAL	150-37591	102	T50SAH	126-00163	100
T50I	111-05260	28	T50RFT7	111-85871	115	T50SAH	155-41102	100
T50IDH	117-05350	43	T50RFT7HD	156-00457	115	T50SDS85-6	156-03293	181
T50IDH	117-05360	43	T50RFT8	111-85880	115	T50SDS85-6H	156-03295	181
T50IFT7	150-00700	115	T50RFT8GSD	133-00034	115	T50SDS855	150-56193	181
T50L	111-00526	35	T50RFT8GSD	156-00235	115	T50SFT6LG1SD	156-00154	114
T50L	111-00718	36	T50RHDM6	156-00410	190	T50SHC11-15FT6.5	156-03281	245
T50L	111-05400	24	T50RHDM8	156-00412	190	T50SL8	126-01900	100
T50L	111-05402	26	T50RIAHC1TICR	156-03377	244	T50SOS	118-05850	47
T50L	111-05404	26	T50ROC1B	156-00306	243	T50SOS-AS-DFTOVAL-E	157-00414	109
T50L	111-05406	26	T50ROS	118-00127	47	T50SOSASSO12.5AP5E	157-04018	178
T50L	111-05409	24	T50ROS	118-00149 YES	47, 49	T50SOSASSO20AP5E	157-04016	178
T50L	111-05428	26	T50ROS	118-05040	47	T50SOSASSO25AP5E	157-04020	178
T50L	111-05436	31	T50ROS	118-05059	47	T50SOSASVCD-SO17	156-03119	150
T50L	111-05438	34	T50ROS	118-05078	47	T50SOSDSFT6.5	156-00133	106
T50L	111-05440	28	T50ROSCTM16D26S85-6	156-03242	184	T50SOSEC10	156-00015	228
T50L	111-05441	32	T50ROSCTM26S85-6	156-03240	183	T50SOSEC12E	126-00253	224
T50L	111-05450	31	T50ROSDEC1.5-4SP	156-03291	233	T50SOSEC12E	148-00200	224
T50LDH	117-00008	43	T50ROSDEC1-3SP	156-03960	234	T50SOSEC13E	126-00000	224
T50LOS	118-05900	47	T50ROSDBS55	150-56199	181	T50SOSEC19	156-04601	230
T50M	111-06200	24	T50ROSEC10	156-05904	228	T50SOSEC20	156-00016	230
T50M	111-06201	24	T50ROSEC19	156-04602	230	T50SOSEC20-E	126-00235	225
T50M	111-06206	28	T50ROSEC20	156-00020	230	T50SOSEC21	156-00017	229
T50ML	113-05419	189	T50ROSEC21	156-00010	229	T50SOSEC34E	126-00426	225
T50MOS	118-00018	47	T50ROSEC22	156-00011	229	T50SOSEC4A	150-76093	227
T50MOS	118-00081	47	T50ROSEC23	156-00006	231	T50SOSEC4B	156-00109	227
T50MOS	118-00128	47	T50ROSEC24	156-00007	231	T50SOSEC5A	150-40593	229
T50MOS	118-00173 YES	47, 49	T50ROSEC4A	150-76099	227	T50SOSEC5B	150-40583	229
T50MR	113-05010	189	T50ROSEC4A	156-00570	227	T50SOSEC9SD	156-00019	228
T50MR	113-05019	189	T50ROSEC4B	150-76079	227	T50SOSFT5	156-06200	113
T50MR	113-05060	189	T50ROSEC5A	150-40591	229	T50SOSFT5SD	156-00432	113
T50R	111-00525	35	T50ROSEC5B	150-40581	229	T50SOSFT6D10E	157-00028	107
T50R	111-00732	36	T50ROSEC6-8	156-02700	231	T50SOSFT6D10E	157-00045	107
T50R	111-00824	35	T50ROSEC9	156-05903	228	T50SOSFT6E1	157-00033	108
T50R	111-01721 YES	38	T50ROSFT10	156-00120	116	T50SOSFT6E1	157-00059	108
T50R	111-04800	26	T50ROSFT6	156-00076	114	T50SOSFT6E2	157-00085	107
T50R	111-04801	26	T50ROSFT6LG	150-31099	113	T50SOSFT6E3	157-00241	108
T50R	111-04804	26	T50ROSFT6SD	156-00085	113	T50SOSFT6LGE	157-00228	107
T50R	111-04805	26	T50ROSFT6SD	156-05902	113	T50SOSFT6LG-E2	157-00242	108
T50R	111-04889	28	T50ROSFT6SO12.5A	157-00130	111	T50SOSFT6LG-E4	157-00237	108
T50R	111-04890	32	T50ROSFT6SO12.5A	157-00145	111	T50SOSFT8E	157-00072	108
T50R	111-04928 YES	37	T50ROSFT6SO25A	157-00119	111	T50SOSFT8E	157-00115	108
T50R	111-04931 YES	37	T50ROSFT6SO25B	157-00169	111	T50SOSKFT5.4E	126-00075	91
T50R	111-04950	30	T50ROSFT6SO25R	157-00164	111	T50SOSKFT55-E	126-00099	91
T50R	111-05000	24	T50ROSFT825SO	157-00196	111	T50SOSKFT6.5E	126-00081	91
T50R	111-05013	24	T50ROSFT8SO25A	157-00120	111	T50SOSKFT6.552-E	126-00086	91
T50R	111-05018 YES	33	T50ROSFTM6SO12.5B	157-00131	111	T50SOSSBD-M10	157-00040	176
T50R	111-95019	34	T50ROSFTM6SO25B	157-00172	111	T50SOSSBD-M8	157-00039	176
T50RCOUPLER	156-00276	149	T50ROSFT6.5	156-00456	95	T50SOSSBU-M10	157-00067	176
T50RCOUPLER	156-00382	149	T50ROSSFT6.5 16-3MD	150-37799	98	T50SOSSBU-M6	157-00065	176
T50RDH	117-05000	43	T50ROSSFT6.5-16-3	150-37791	92	T50SOSSBU-M8	157-00066	176
T50RDH	117-05002	43	T50ROSSFT6.5-D16-2 MD	150-93100	98	T50SOSSFT6.5-D16-2	150-93130	92
T50RDH	117-05050	43	T50ROSSFT6.55-16-2MD	155-42002	98	T50SOSSFT6.5E	126-03102	91
T50RDH	117-05060	43	T50RSBD5-6SD	156-03416	185	T50SOSSFT6.5E-MDL	126-03100	97
T50RDH	117-05168	43	T50RSFM	111-85720	100	T50SOSSFT6.5E-MDL	156-00264	97
T50RDHA5.5x15	156-01203	121	T50RSFM	111-85729	100	T50SOSSFT6.5E-MS-MD	126-00065	97
T50RDHA8.4x20	156-01155	121	T50RSFT6.5	156-01697	92	T50SOSWSP5E-2	133-01553	177
T50REC4A	150-76091	227	T50RSFT6.5 16-3	150-37792	92	T50SSBSOT-E	155-30602	175
T50REC5B	150-40582	229	T50RSFT6.5D18	150-37691	92	T50SSBSOT-E	157-00083	175
T50REC9	156-01280	228	T50RSINGLECOUPLER	156-01134	149	T50SSFM	111-85739	100
T50RFT10	111-85810	116	T50RSOC13.9FT6.5	156-03276	117	T50SSFM	126-00327	100

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
T50SSFM	126-01104	100	TAG02TD1	596-21204	565	TAG15TD3	596-12045	564
T50SSL5	111-85339	100	TAG03TD2	596-03897	529	TAG15TD3	596-12615	566
T50SSL5	111-85395	100	TAG07TD1	596-07320	532	TAG15TD3	596-51203	576
T50SSL5	126-02204	100	TAG07TD1	596-70896	529	TAG16-06TE	596-01211	557
T50SST5	126-00017	91	TAG09LA4	594-11104	535	TAG16-06TE	596-12172	558
T50SST5	126-02300	91	TAG100-30TDK1	596-00571	562	TAG162LA4	594-11010	560, 570
T50SVC4S	156-00318	YES 240	TAG100-30TDK1	596-00585	563	TAG163LA4	594-11011	570
T50SVC6.5	156-00155	241	TAG100-70TDK1	596-00572	562	TAG165LA4	594-11012	570
T50SVCOC10-14	156-01045	242	TAG100-70TDK1	596-00586	563	TAG169LA4	594-11013	570
T50SVCOC19-24.5	156-00136	242	TAG101-160T1-SET	596-90000	578	TAG16TD3	596-12616	566
T50XROSSFT6.5-E-MDL	156-00379	97	TAG101-74T1-SET	596-90003	578	TAG170LA4	594-11014	570
T80I	111-08210	24	TAG102-64TD1	596-12265	553	TAG171LA4	594-11015	570
T80I	111-08229	24	TAG107TD3	596-10732	532	TAG171LA4	594-71102	568
T80I	111-08259	31	TAG107TD3	596-10789	529	TAG17TD2	596-12047	564
T80I	111-08290	29	TAG108TD1	596-00971	572	TAG17TD2	596-12617	567
T80IFT6LG	150-31096	113	TAG108TD1	596-12166	572	TAG18-07TD1	596-12253	553
T80L	111-00388	31	TAG108TD1	596-12167	572	TAG18-16TD1	596-12254	553
T80L	111-05410	24	TAG108TD1	596-12181	572	TAG19-11TE	596-12175	558
T80L	111-05419	24	TAG108TD1	596-12188	572	TAG1TD2	596-01320	532
T80L	111-05459	31	TAG108TD1	596-12189	572	TAG1TD2	596-01896	529
T80L	111-05460	29	TAG108TD1	596-12190	572	TAG20-08TE	596-11211	557
T80L	116-05412	27	TAG108TD1	596-12191	572	TAG20-08TE	596-12173	558
T80L	116-05414	27	TAG10TD2	596-10320	532	TAG20-50T1FL	596-00159	YES 533
T80L	116-05415	27	TAG10TD2	596-10896	529	TAG20-65T1FL	596-00160	YES 533
T80L	116-05416	27	TAG11LA4	594-01101	560, 569	TAG22-22TDK1	596-00561	562
T80R	111-05019	24	TAG120B	598-12027	YES 561	TAG22-22TDK1	596-00574	563
T80R	111-05059	31	TAG120LA4	594-01102	559, 568	TAG22TD2	596-22189	529
T80R	111-05060	29	TAG120LA4	594-11101	560, 569	TAG22TD3	596-22320	531
T80R	111-08010	24	TAG121B	598-12127	YES 561	TAG22TD3	596-22896	529
T80R	116-08012	26	TAG121FB	598-92127	YES 561	TAG23-06TD1	596-12255	553
T80R	116-08014	26	TAG121LA4	594-11102	559, 568	TAG23-10TD1	596-12256	553
T80R	116-08015	26	TAG121LA4	594-21101	560, 569	TAG23TD5	596-23320	532
T80R	116-08016	26	TAG122B	598-12227	YES 561	TAG23TD5	596-23896	529
T80REC21	156-01728	229	TAG122FB	598-92227	YES 561	TAG24TD1	596-24320	532
T80RFT6X12	150-48396	101	TAG122LA4	594-21102	559, 568	TAG24TD1	596-24896	529
T80RFT6X12	150-48397	101	TAG122LA4	594-31101	560, 569	TAG25-4.57.1TD1L	596-12285	532
T80RSFT	150-15493	90	TAG124B	598-12427	YES 561	TAG25TD3	596-25320	532
T82R-RD	500-50822	540	TAG124FB	598-92427	YES 561	TAG25TD3	596-25896	529
T82S-BK	500-50820	540	TAG124LA4	594-11017	560, 569	TAG26-21TD2	596-12257	553
TA32-12/4	318-31200	296	TAG124LA4	594-41102	559, 568	TAG26LA4	594-11041	535
TA32-19/6	318-31900	296	TAG125FB	598-92527	YES 561	TAG26TD6	596-26320	531
TA32-24/8	318-32400	296	TAG13-07TDK1	596-00560	562	TAG26TD6	596-26896	528
TA32-3/1	318-30300	296	TAG13-07TDK1	596-00573	563	TAG27-08TDK1	596-00562	562
TA32-4.5/1.5	318-30450	296	TAG130LA4	594-21104	535	TAG27-08TDK1	596-00575	563
TA32-40/13	318-34000	296	TAG131LA4	594-31104	535	TAG27-12.5TDK1	596-00558	562
TA32-6/2	318-30600	296	TAG132LA4	594-41104	535	TAG27-12.5TDK1	596-00576	563
TA32-9/3	318-30900	296	TAG133LA4	594-51104	535	TAG27-15TDK1	596-00563	562
TA37 120-45	315-13011	313	TAG134LA4	594-61104	535	TAG27-15TDK1	596-00577	563
TA37 12-4	315-13004	313	TAG135LA4	594-71104	535	TAG27-18TDK1	596-00564	562
TA37 19-6	315-13005	313	TAG136LA4	594-81104	535	TAG27-18TDK1	596-00578	563
TA37 24-8	315-13006	313	TAG137LA4	594-91104	535	TAG27-27TDK1	596-00565	562
TA37 3-1	315-13000	313	TAG138LA4	594-13876	536	TAG27-27TDK1	596-00579	563
TA37 4.5-1.5	315-13001	313	TAG139LA4	594-13976	536	TAG27TD2	596-12627	567
TA37 40-13	315-13007	313	TAG13LA4	594-31102	559, 568	TAG27TD2	596-27120	565
TA37 50-19	315-13008	313	TAG13LA4	594-41101	560, 569	TAG27TD2	596-71203	576
TA37 6-2	315-13002	313	TAG13TD4	596-12043	564	TAG28-16TD1	596-12258	553
TA37 75-25	315-13009	313	TAG13TD4	596-12061	566	TAG2TD6	596-02320	531
TA37 9-3	315-13003	313	TAG145LA4	594-11040	535	TAG2TD6	596-02896	529
TA42-12/3	318-41200	297	TAG15-09TE	596-12174	558	TAG30-40T1FL	596-00161	YES 533
TA42-16/4	318-41600	297	TAG15-09TE	596-21211	557	TAG30-55T1FL	596-00162	YES 533
TA42-24/6	318-42400	297	TAG150LA4	594-51101	570	TAG31TD3	596-12631	567
TA42-32/8	318-43200	297	TAG154LA4	594-51102	559, 568	TAG32-135TD1	596-01904	530
TA42-4/1	318-40400	297	TAG154LA4	594-61101	560, 569	TAG32-230TD1	596-01903	530
TA42-52/13	318-45200	297	TAG155LA4	594-71101	560, 569	TAG34TD3	596-12634	566
TA42-8/2	318-40800	297	TAG156LA4	594-61102	568	TAG34TD3	596-34120	564
TAG01TD3	596-01120	566	TAG156LA4	594-81101	560, 569	TAG35-18TDK1	596-00566	562
TAG02LA4	594-01104	535	TAG15LA4	594-91101	560, 569	TAG35-18TDK1	596-00580	563

Type	Article-No. ⓘ*	Page
TAG35TD3	596-12035	564
TAG35TD3	596-12635	567
TAG36TD7	596-36320	531
TAG36TD7	596-36896	528
TAG38-11TE	596-12176	558
TAG38-11TE	596-41211	557
TAG38TD3	596-38320	532
TAG38TD3	596-38896	529
TAG3TD3	596-03320	532
TAG3TD3	596-03896	529
TAG43-16TD1	596-12259	553
TAG43-21TD1	596-12260	553
TAG43-41TD1	596-12261	553
TAG45-15TDK1	596-00567	562
TAG45-15TDK1	596-00581	563
TAG45-25TDK1	596-00568	562
TAG45-25TDK1	596-00582	563
TAG49LA4	594-11042	535
TAG4TD1	596-41206	567
TAG50.8-25.4T1-SET	596-90001	578
TAG51TD3	596-51320	531
TAG51TD3	596-51896	528
TAG52-10TD1	596-12262	553
TAG56-22TE	596-12177	558
TAG56-22TE	596-51211	557
TAG60-110TD1	596-00171	567
TAG60-30TDK1	596-00569	562
TAG60-30TDK1	596-00583	563
TAG61TD3	596-12661	566
TAG62LA4	594-11016	570
TAG62LA4	594-81102	559, 568
TAG62TD1	596-12062	565
TAG62TD1	596-12662	567
TAG62TD1	596-21203	577
TAG63.5-50.8T1-SET	596-90002	578
TAG63TD1	596-12063	565
TAG63TD1	596-12263	553
TAG63TD1	596-12663	567
TAG63TD1	596-63120	577
TAG64TD1	596-12064	565
TAG64TD1	596-12664	567
TAG64TD1	596-64120	577
TAG65TD1	596-12065	565
TAG65TD1	596-12665	567
TAG66TD1	596-12066	565
TAG66TD1	596-66120	577
TAG67TD2	596-12067	565
TAG67TD2	596-12667	567
TAG67TD2	596-67120	576
TAG68-16TD1	596-12264	553
TAG68TD1	596-12668	567
TAG68TD1	596-68120	577
TAG69TD2	596-12069	565
TAG69TD2	596-12669	567
TAG6TD1	596-06320	532
TAG6TD1	596-06896	529
TAG71TD6	596-12071	564
TAG71TD6	596-12671	566
TAG71TD6	596-71120	576
TAG72TD1	596-12072	565
TAG72TD1	596-12672	567
TAG73TD1	596-12673	567
TAG73TD1	596-73120	576
TAG73TD1	596-73124	565
TAG76TD1	596-12076	565
TAG76TD1	596-61206	567
TAG76TD1	596-76120	577

Type	Article-No. ⓘ*	Page
TAG77TD1	596-12077	565
TAG77TD1	596-71206	567
TAG90-45TDK1	596-00570	562
TAG90-45TDK1	596-00584	563
TAG97TD1	596-71204	565
TAG97TD1	596-97120	577
TAG98TD1	596-98120	577
TAG9TD3	596-09320	532
TAG9TD3	596-09896	529
TAGLF10X51-4	556-83013	527
TAGLF10X51-4	556-83014	527
TAGLF12X60-4	556-83028	527
TAGLF12X60-4	556-83029	527
TAGLF15X75-4	556-83033	527
TAGLF15X75-4	556-83034	527
TAGLF20x30-2	556-83012	527
TAGLF20x30-2	556-83038	527
TagPrintPro5-EMEA	556-00066	582
TagPrintPro5-Upgrade-EMEA	556-00065	582
TAGPU10X51-4	556-80529	524
TAGPU10X51-4	556-80542	524
TAGPU12X60-4	556-80512	525
TAGPU12X60-4	556-80513	525
TAGPU12X60-4	556-80514	525
TAGPU12X60-4	556-80515	525
TAGPU12X60-4	556-80516	525
TAGPU12X60-4	556-80564	525
TAGPU12X60-4	556-80565	525
TAGPU12X60-4	556-80566	525
TAGPU12X60-4	556-80567	525
TAGPU12X60-4	556-80568	525
TAGPU12X60-4	556-80569	525
TAGPU12X74-LOOP	556-80584	526
TAGPU12X74-LOOP	556-80585	526
TAGPU12X74-LOOP	556-80586	526
TAGPU12X74-LOOP	556-80587	526
TAGPU15X75-4	556-80517	525
TAGPU15X75-4	556-80518	525
TAGPU15X75-4	556-80519	525
TAGPU15X75-4	556-80520	525
TAGPU15X75-4	556-80521	525
TAGPU15X75-4	556-80522	525
TAGPU15X75-4	556-80523	525
TAGPU15X75-4	556-80524	525
TAGPU15X75-4	556-80525	525
TAGPU15X75-4	556-80526	525
TAGPU15X75-4	556-80532	525
TAGPU18X124-LOOP	556-80588	526
TAGPU18X124-LOOP	556-80589	526
TAGPU18X124-LOOP	556-80590	526
TAGPU18X124-LOOP	556-80591	526
TAGPU20X30-2	556-80527	525
TAGPU20X30-2	556-80528	525
TAGPU20X30-2	556-80555	525
TAGPU20X30-2	556-80556	525
TAGPU20X30-2	556-80557	525
TAGPU20X30-2	556-80558	525
TAGPU20X30-2	556-80560	525
TAGPU20X30-2	556-80561	525
TAGPU20X51-4	556-80530	524
TAGPU20X51-4	556-80531	524
TAGPU25X75-4	556-80533	525
TAGPU25X75-4	556-80534	525
TAGPU25X75-4	556-80535	525
TAGPU25X75-4	556-80536	525
TAGPU25X75-4	556-80537	525
TAGPU25X75-4	556-80538	525

Type	Article-No. ⓘ*	Page
TAGPU25X75-4	556-80539	525
TAGPU25X75-4	556-80570	525
TAGPU25X75-4	556-80571	525
TAGPU25X75-4	556-80572	525
TAGPU25X75-4	556-80573	525
TAGR1TD1	596-03118	572
TAGR1TD1	596-03119	572
TAGR1TD1	596-12168	572
TAGR1TD1	596-12169	572
TAGR1TD1	596-12170	572
TAGR1TD1	596-12171	572
TAGR3TD1	596-31204	565
TAGR4TD1	596-03103	571
TAGR4TD1	596-03104	571
TAGR4TD1	596-03105	571
TAGR4TD1	596-03106	571
TAGR4TD1	596-03107	571
TAGR4TD1	596-03108	571
TAGR50TD1	596-03111	572
TAGR50TD1	596-03112	572
TAGR50TD1	596-03113	572
TAGR50TD1	596-03115	572
TAGR50TD1	596-03116	572
TAGR50TD1	596-12180	572
TAGR70TD1	596-00367	565
TC4FT6LG	151-00215	144
TCGT12-4BK	553-31252	509
TCGT12-4BU	553-31253	509
TCGT12-4RD	553-31254	509
TCGT12-4WH	553-31251	509
TCGT12-4YE	553-31250	509
TCGT18-6BK	553-31852	509
TCGT18-6BU	553-31853	509
TCGT18-6RD	553-31854	509
TCGT18-6WH	553-31851	509
TCGT18-6YE	553-31850	509
TCGT24-8BK	553-32452	509
TCGT24-8BU	553-32453	509
TCGT24-8RD	553-32454	509
TCGT24-8WH	553-32451	509
TCGT24-8YE	553-32450	509
TCGT3-1BK	553-30352	508
TCGT3-1BU	553-30353	508
TCGT3-1RD	553-30354	508
TCGT3-1WH	553-30351	508
TCGT3-1YE	553-30350	508
TCGT39-13BK	553-33952	509
TCGT39-13BU	553-33953	509
TCGT39-13RD	553-33954	509
TCGT39-13WH	553-33951	509
TCGT39-13YE	553-33950	509
TCGT4.8-1.6BK	553-30452	508
TCGT4.8-1.6BU	553-30453	509
TCGT4.8-1.6RD	553-30454	509
TCGT4.8-1.6WH	553-30451	509
TCGT4.8-1.6YE	553-30450	509
TCGT6-2BK	553-30652	509
TCGT6-2BU	553-30653	509
TCGT6-2RD	553-30654	509
TCGT6-2WH	553-30651	509
TCGT6-2YE	553-30650	509
TCGT9-3BK	553-30952	509
TCGT9-3BU	553-30953	509
TCGT9-3RD	553-30954	509
TCGT9-3WH	553-30951	509
TCGT9-3YE	553-30950	509
TCN20-1.2/0.6	300-73010	283

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
TCN20-1.6/0.8	300-73020	283	TF21-25.4/12.7	309-12546	290	TF31-12/4	333-31200	293
TCN20-12.7/4.8	300-73180	284	TF21-25.4/12.7	309-12547	290	TF31-12/4	333-31202	293
TCN20-12.7/6.4	300-73080	283	TF21-25.4/12.7	309-12549	290	TF31-12/4	333-31204	293
TCN20-19.0/6.4	300-73190	284	TF21-3.2/1.6	309-10320	289	TF31-12/4	333-31205	293
TCN20-19.1/9.5	300-73090	283	TF21-3.2/1.6	309-20322	289	TF31-12/4	333-31206	293
TCN20-2.4/0.8	300-73130	284	TF21-3.2/1.6	309-20324	289	TF31-12/4	333-31207	293
TCN20-2.4/1.2	300-73030	283	TF21-3.2/1.6	309-20326	289	TF31-12/4	333-31209	293
TCN20-25.4/12.7	300-73100	283	TF21-3.2/1.6	309-20329	289	TF31-18/6	333-31800	294
TCN20-25.4/9.5	300-73200	284	TF21-3.2/1.6	309-40327	289	TF31-18/6	333-31802	294
TCN20-3.2/1.2	300-73140	284	TF21-38.0/19.0	309-13810	290	TF31-18/6	333-31804	294
TCN20-3.2/1.6	300-73040	283	TF21-38.0/19.0	309-13812	290	TF31-18/6	333-31805	294
TCN20-38.0/12.7	300-73210	284	TF21-38.0/19.0	309-13814	290	TF31-18/6	333-31806	294
TCN20-38.1/19.1	300-73110	283	TF21-38.0/19.0	309-13816	290	TF31-18/6	333-31807	294
TCN20-4.8/1.6	300-73150	284	TF21-38.0/19.0	309-13817	290	TF31-18/6	333-31809	294
TCN20-4.8/2.4	300-73050	283	TF21-38.0/19.0	309-13819	290	TF31-18/6	333-41800	294
TCN20-50.8/25.4	300-73120	283	TF21-4.8/2.4	309-10480	289	TF31-24/8	333-32400	294
TCN20-6.4/3.2	300-73060	283	TF21-4.8/2.4	309-50482	289	TF31-24/8	333-32402	294
TCN20-6.6/2.4	300-73160	284	TF21-4.8/2.4	309-50484	289	TF31-24/8	333-32404	294
TCN20-9.5/3.2	300-73170	284	TF21-4.8/2.4	309-50486	289	TF31-24/8	333-32405	294
TCN20-9.5/4.8	300-73070	283	TF21-4.8/2.4	309-50487	289	TF31-24/8	333-32406	294
TELS-1	111-30000	YES 61	TF21-4.8/2.4	309-50489	289	TF31-24/8	333-32407	294
TEXTIE 25M	130-00022	YES 73	TF21-50.8/25.4	309-15080	290	TF31-24/8	333-32409	294
TEXTIE 5M	130-00020	YES 73	TF21-50.8/25.4	309-15082	290	TF31-24/8	333-42400	294
TEXTIE L	130-00019	YES 73	TF21-50.8/25.4	309-15084	290	TF31-3/1	333-30300	293
TEXTIE M	130-00013	YES 73	TF21-50.8/25.4	309-15086	290	TF31-3/1	333-30302	293
TEXTIE M	130-00014	YES 73	TF21-50.8/25.4	309-15087	290	TF31-3/1	333-30304	293
TEXTIE M	130-00016	YES 73	TF21-50.8/25.4	309-15089	290	TF31-3/1	333-30305	293
TEXTIE M	130-00017	YES 73	TF21-6.4/3.2	309-10640	289	TF31-3/1	333-30306	293
TEXTIE M	130-00018	YES 73	TF21-6.4/3.2	309-50642	289	TF31-3/1	333-30307	293
TEXTIE M	130-00021	YES 73	TF21-6.4/3.2	309-50644	289	TF31-3/1	333-30309	293
TEXTIE S	130-00012	YES 73	TF21-6.4/3.2	309-50646	289	TF31-3/1	333-40300	293
TF21-1.2/0.6	309-10120	288	TF21-6.4/3.2	309-50647	289	TF31-40/13	333-24000	294
TF21-1.2/0.6	309-20122	288	TF21-6.4/3.2	309-50649	289	TF31-40/13	333-34000	294
TF21-1.2/0.6	309-20124	288	TF21-76.0/38.0	309-17600	290	TF31-40/13	333-34002	294
TF21-1.2/0.6	309-20126	288	TF21-76.0/38.0	309-17602	290	TF31-40/13	333-34004	294
TF21-1.2/0.6	309-20129	288	TF21-76.0/38.0	309-17604	290	TF31-40/13	333-34005	294
TF21-1.6/0.8	309-10160	288	TF21-76.0/38.0	309-17606	290	TF31-40/13	333-34006	294
TF21-1.6/0.8	309-20162	288	TF21-76.0/38.0	309-17609	290	TF31-40/13	333-34007	294
TF21-1.6/0.8	309-20164	288	TF21-9.5/4.8	309-10950	289	TF31-40/13	333-34009	294
TF21-1.6/0.8	309-20166	288	TF21-9.5/4.8	309-20952	289	TF31-6/2	333-30600	293
TF21-1.6/0.8	309-20169	288	TF21-9.5/4.8	309-20954	289	TF31-6/2	333-30602	293
TF21-101.6/50.8	309-11020	290	TF21-9.5/4.8	309-20956	289	TF31-6/2	333-30604	293
TF21-101.6/50.8	309-11022	290	TF21-9.5/4.8	309-20959	289	TF31-6/2	333-30605	293
TF21-101.6/50.8	309-11024	290	TF21-9.5/4.8	309-50957	289	TF31-6/2	333-30606	293
TF21-101.6/50.8	309-11026	290	TF24-1.2/0.6	309-40123	291	TF31-6/2	333-30607	293
TF21-101.6/50.8	309-11029	290	TF24-1.6/0.8	309-40163	291	TF31-6/2	333-30609	293
TF21-12.7/6.4	309-11270	289	TF24-101.6/50.8	309-31023	291	TF31-6/2	333-40600	293
TF21-12.7/6.4	309-21272	289	TF24-12.7/6.4	309-41273	291	TF31-9/3	333-20900	293
TF21-12.7/6.4	309-21274	289	TF24-19.1/9.5	309-31903	291	TF31-9/3	333-30900	293
TF21-12.7/6.4	309-21276	289	TF24-2.4/1.2	309-40243	291	TF31-9/3	333-30902	293
TF21-12.7/6.4	309-21279	289	TF24-25.4/12.7	309-32543	291	TF31-9/3	333-30904	293
TF21-12.7/6.4	309-41277	289	TF24-3.2/1.6	309-40323	291	TF31-9/3	333-30905	293
TF21-19.1/9.5	309-11900	290	TF24-38.1/19.1	309-33813	291	TF31-9/3	333-30906	293
TF21-19.1/9.5	309-11902	290	TF24-4.8/2.4	309-50483	291	TF31-9/3	333-30907	293
TF21-19.1/9.5	309-11904	290	TF24-50.8/25.4	309-35083	291	TF31-9/3	333-30909	293
TF21-19.1/9.5	309-11906	290	TF24-6.4/3.2	309-50643	291	TF34-1.5/0.5	333-30153	295
TF21-19.1/9.5	309-11907	290	TF24-76.2/38.1	309-37603	291	TF34-12/4	333-31203	295
TF21-19.1/9.5	309-11909	290	TF24-9.5/4.8	309-40953	291	TF34-18/6	333-31803	295
TF21-2.4/1.2	309-10240	289	TF31-1.5/0.5	333-20150	292	TF34-24/8	333-32403	295
TF21-2.4/1.2	309-20242	289	TF31-1.5/0.5	333-30150	292	TF34-3/1	333-30303	295
TF21-2.4/1.2	309-20244	289	TF31-1.5/0.5	333-30152	292	TF34-40/13	333-34003	295
TF21-2.4/1.2	309-20246	289	TF31-1.5/0.5	333-30154	292	TF34-6/2	333-30603	295
TF21-2.4/1.2	309-20249	289	TF31-1.5/0.5	333-30155	292	TF34-9/3	333-30903	295
TF21-2.4/1.2	309-40247	289	TF31-1.5/0.5	333-30156	292	TFE2-0	336-01209	318
TF21-25.4/12.7	309-12540	290	TF31-1.5/0.5	333-30157	292	TFE2-10	336-00489	318
TF21-25.4/12.7	309-12542	290	TF31-1.5/0.5	333-30159	292	TFE2-12	336-00399	318
TF21-25.4/12.7	309-12544	290	TF31-12/4	333-21200	293	TFE2-14	336-00319	318

Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page	Type	Article-No. ⓘ*	Page
TFE2-16	336-00249	318	TL27-50.8/25.4	302-25080	282	TLFX32WH	554-51100	514
TFE2-18	336-00199	318	TL27-6.4/3.2	302-30640	282	TLFX32YE	554-51101	514
TFE2-2	336-01109	318	TL27-9.5/4.8	302-30950	282	TLFX381DS-1x50WH	553-60008	518
TFE2-20	336-00159	318	TLFD127DS-1X50WH	533-65010	520	TLFX381DS-1x50YE	553-60018	518
TFE2-22	336-00149	318	TLFD127DS-1X50YE	533-65028	520	TLFX381DS-2x25WH	553-60028	518
TFE2-24	336-00139	318	TLFD127DS-2X25WH	533-65011	520	TLFX381DS-2x25YE	553-60037	518
TFE2-26	336-00109	318	TLFD127DS-2X25YE	533-65029	520	TLFX381WH	554-51800	515
TFE2-28	336-00099	318	TLFD190DS-1X50WH	533-65012	520	TLFX381YE	554-51801	515
TFE2-30	336-00079	318	TLFD190DS-1X50YE	533-65030	520	TLFX48DS-1x50WH	553-60002	518
TFE2-4	336-00949	318	TLFD190DS-2X25WH	533-65013	520	TLFX48DS-1x50YE	553-60012	518
TFE2-6	336-00779	318	TLFD190DS-2X25YE	533-65031	520	TLFX48DS-2x25WH	553-60022	517
TFE2-8	336-00619	318	TLFD24DS-1X50WH	533-65000	519	TLFX48DS-2x25YE	553-60031	518
TFE4-1	339-02549	319	TLFD24DS-1X50YE	533-65018	519	TLFX48WH	554-51200	514
TFE4-1 1/4	339-03189	319	TLFD24DS-2X25WH	533-65001	519	TLFX48YE	554-51201	514
TFE4-1/2	339-01279	319	TLFD24DS-2X25YE	533-65019	519	TLFX508WH	554-50900	515
TFE4-1/4	339-00649	319	TLFD254DS-1X50WH	533-65014	520	TLFX508YE	554-50901	515
TFE4-1/8	339-00329	319	TLFD254DS-1X50YE	533-65032	520	TLFX64DS-1x50WH	553-60003	518
TFE4-3/16	339-00340	319	TLFD254DS-2X25WH	533-65015	520	TLFX64DS-1x50YE	553-60013	518
TFE4-3/4	339-01909	319	TLFD254DS-2X25YE	533-65033	520	TLFX64DS-2x25WH	553-60023	518
TFE4-3/8	339-00959	319	TLFD32DS-1X50WH	533-65002	519	TLFX64DS-2x25YE	553-60032	518
TFE4-5/64	339-00209	319	TLFD32DS-1X50YE	533-65020	519	TLFX64WH	554-51300	515
TFE4-5/8	339-01599	319	TLFD32DS-2X25WH	533-65003	519	TLFX64YE	554-51301	515
TH100BKX25M	608-01208	363	TLFD32DS-2X25YE	533-65021	519	TLFX95DS-1x50WH	553-60004	518
TH100X35BK	600-02493	363	TLFD381DS-1X50WH	533-65016	520	TLFX95DS-1x50YE	553-60014	518
TH120BKX25M	608-01209	363	TLFD381DS-1X50YE	533-65034	520	TLFX95DS-2x25WH	553-60024	518
TH120X50BK	600-02495	363	TLFD381DS-2X25WH	533-65017	520	TLFX95DS-2x25YE	553-60033	518
TH140BKX20M	608-01210	363	TLFD381DS-2X25YE	533-65035	520	TLFX95WH	554-51400	515
TH140X50BK	600-02496	363	TLFD48DS-1X50WH	533-65004	519	TLFX95YE	554-51401	515
TH170BKX20M	608-01202	363	TLFD48DS-1X50YE	533-65022	519	TM1SF	151-40119	122
TH170X50BK	600-02497	363	TLFD48DS-2X25WH	533-65005	519	TPPexpand_3.3	621-30000	YES 614
THC12.2-18.2FTOVAL	151-02967	247	TLFD48DS-2X25YE	533-65023	519	TPPexpand_3.7	621-30002	YES 614
THC12.2-18.2FTOVAL	151-02968	247	TLFD64DS-1X50WH	533-65006	520	TPPexpand3.3_Prong	621-30003	614
TIPTAG11X100BU	556-20080	521	TLFD64DS-1X50YE	533-65024	520	TPPexpand3.7_Prong	621-30005	614
TIPTAG11X100RD	556-20091	521	TLFD64DS-2X25WH	533-65007	519	TR27-12.7/6.4	315-51270	312
TIPTAG11X100WH	556-20079	521	TLFD64DS-2X25YE	533-65025	520	TR27-19.1/9.5	315-51900	312
TIPTAG11X100YE	556-20074	521	TLFD95DS-1X50WH	533-65008	520	TR27-25.4/12.7	315-52540	312
TIPTAG11X65BU	556-20066	521	TLFD95DS-1X50YE	533-65026	520	TR27-3.2/1.6	315-50320	312
TIPTAG11X65RD	556-20062	521	TLFD95DS-2X25WH	533-65009	520	TR27-38.1/19.1	315-53810	312
TIPTAG11X65WH	556-20069	521	TLFD95DS-2X25YE	533-65027	520	TR27-4.8/2.4	315-50480	312
TIPTAG11X65YE	556-20064	521	TLFX127DS-1x50WH	553-60005	518	TR27-50.8/25.4	315-55100	312
TIPTAG15X100RD	556-21096	521	TLFX127DS-1x50YE	553-60015	518	TR27-6.4/3.2	315-50640	312
TIPTAG15X100WH	556-21079	521	TLFX127DS-2x25WH	553-60025	518	TR27-9.5/4.8	315-50950	312
TIPTAG15X100YE	556-21074	521	TLFX127DS-2x25YE	553-60034	518	TREDUX-1.5/0.5	319-00150	276-277
TIPTAG15X65WH	556-21069	521	TLFX127WH	554-51500	515	TREDUX-1.5/0.5	319-00157	277
TIPTAG15X65YE	556-21064	521	TLFX127YE	554-51501	515	TREDUX-101.6/50.8	319-10200	278
TIPTAG5X50WH-2	556-81500	521	TLFX190DS-1x50WH	553-60006	518	TREDUX-12/4	319-01200	276-277
TK20-1.2/0.6	331-00129	317	TLFX190DS-1x50YE	553-60016	518	TREDUX-12/4	319-01207	276-277
TK20-1.6/0.8	311-00169	317	TLFX190DS-2x25WH	553-60026	518	TREDUX-24/8	319-02400	276-277
TK20-12.7/6.4	311-01279	317	TLFX190DS-2x25YE	553-60035	518	TREDUX-24/8	319-02407	277
TK20-19.1/9.5	311-01909	317	TLFX190WH	554-51600	515	TREDUX-3/1	319-00300	276-277
TK20-2.4/1.2	311-00249	317	TLFX190YE	554-51601	515	TREDUX-3/1	319-00307	276-277
TK20-25.4/12.7	311-02549	317	TLFX24DS-1x50WH	553-60000	517	TREDUX-38.1/19.1	319-03800	278
TK20-3.2/1.6	311-00329	317	TLFX24DS-1x50YE	553-60010	517	TREDUX-38.1/19.1	319-03807	278
TK20-38.1/19.1	311-03819	317	TLFX24DS-2x25WH	553-60020	517	TREDUX-50.8/25.4	319-05100	278
TK20-4.8/2.4	311-00489	317	TLFX24DS-2x25YE	553-60029	517	TREDUX-6/2	319-00600	276-277
TK20-50.8/25.4	311-05089	317	TLFX24WH	554-51000	514	TREDUX-6/2	319-00607	276-277
TK20-6.4/3.2	311-00649	317	TLFX24YE	554-51001	514	TREDUX-76.2/38.1	319-07600	278
TK20-9.5/4.8	311-00959	317	TLFX254DS-1x50WH	553-60007	518	TREDUX-Display	319-30000	276
TL27-1.2/0.6	302-20120	282	TLFX254DS-1x50YE	553-60017	518	TREDUX-HA47-19/6	321-50190	276, 280
TL27-1.6/0.8	302-20160	282	TLFX254DS-2x25WH	553-60027	518	TREDUX-HA47-33/8	321-50330	276, 280
TL27-12.7/6.4	302-21270	282	TLFX254DS-2x25YE	553-60036	518	TREDUX-HA47-45/12	321-50450	276, 280
TL27-19.1/9.5	302-31900	282	TLFX254WH	554-51700	515	TREDUX-HA47-51/16	321-50510	280
TL27-2.4/1.2	302-30240	282	TLFX254YE	554-51701	515	TREDUX-HA47-68/22	321-50680	280
TL27-25.4/12.7	302-32540	282	TLFX32DS-1x50WH	553-60001	517	TREDUX-HA47-85/25	321-50850	280
TL27-3.2/1.6	302-30320	282	TLFX32DS-1x50YE	553-60011	517	TREDUX-MA47-12/3	323-50120	279
TL27-38.1/19.1	302-23810	282	TLFX32DS-2x25WH	553-60021	517	TREDUX-MA47-19/6	323-50190	276, 279
TL27-4.8/2.4	302-30480	282	TLFX32DS-2x25YE	553-60030	517	TREDUX-MA47-30/8	323-50300	276, 279

Type	Article-No. 	Page
TREDUX-MA47-40/12	323-50400	276, 279
TREDUX-MA47-50/16	323-50500	279
TREDUX-MA47-63/19	323-50630	279
TREDUX-MA47-75/22	323-50750	279
TREDUX-MA47-95/30	323-50950	279
TRIM PLUG 5	151-00333	141
TT External Reel Holder	556-00451	583-585
TT Printer Adapter	556-00012	583, 584
TT122OUT 110MM	556-00061	588
TT122OUT 60MM	556-00060	588
TT287-100MM	556-00245	589
TT287-110MM	556-00246	588, 589
TT4030	556-04037	584
TT4030 Printhead	556-04041	584, 585
TT4030DS	556-04061	585
TT430/TT431 300dpi Printhead	556-00453	583
TT430/TT431 Print Roller	556-00454	583
TT431	556-00400	583
TT822OUT 110MM	556-00101	588
TT822OUT 60MM	556-00111	588
TT822OUT8 110MM	556-00161	589
TT932DOUT 110MM	556-00118	588
TT932DOUT 85MM	556-00117	588
TTAGMC11BEX100S	556-26501	523
TTAGMC11BEX65S	556-26500	523
TTAGMC15BEX100S	556-26503	523
TTAGMC15BEX65S	556-26502	523
TTAGPU11X100WH	556-25021	522
TTAGPU11X100YE	556-25020	522
TTAGPU11X65WH	556-25012	522
TTAGPU11X65YE	556-25019	522
TTAGPU15X100WH	556-25006	522
TTAGPU15X100YE	556-25010	522
TTAGPU15X65WH	556-25007	522
TTAGPU15X65YE	556-25011	522
TTDTHOUT 100MM	556-00141	589
TTDTHOUT 40MM	556-00139	589
TTDTHOUT 60MM	556-00140	589
TTER120	556-00013	583, 585
TTRC+ 100MM	556-00103	589
TTRC+ 30MM	556-00114	589
TTRC+ 60MM	556-00115	589
TTRR 110 mm	556-00208	588
TTRW 30MM	556-00125	589
TTRW 60MM	556-00137	589
TULT12-4BK	553-41252	511
TULT12-4BU	553-41253	511
TULT12-4DS-1x50WH	553-71030	513
TULT12-4DS-1x50YE	553-71031	513
TULT12-4DS-2x25WH	553-71032	513
TULT12-4DS-2x25YE	553-71033	513
TULT12-4RD	553-41254	511
TULT12-4WH	553-41251	511
TULT12-4YE	553-41250	511
TULT18-6BK	553-41852	511
TULT18-6BU	553-41853	511
TULT18-6DS-1x50WH	553-71036	513
TULT18-6DS-1x50YE	553-71037	513
TULT18-6DS-2x25WH	553-71038	513
TULT18-6DS-2x25YE	553-71039	513
TULT18-6RD	553-41854	511
TULT18-6WH	553-41851	511
TULT18-6YE	553-41850	511
TULT2.4-0.8DS-1x50WH	553-71000	512
TULT2.4-0.8DS-1x50YE	553-71001	512
TULT2.4-0.8DS-2x25WH	553-71002	512
TULT2.4-0.8DS-2x25YE	553-71003	512

Type	Article-No. 	Page
TULT24-8BK	553-42452	511
TULT24-8BU	553-42453	511
TULT24-8DS-1x50WH	553-71042	513
TULT24-8DS-1x50YE	553-71043	513
TULT24-8DS-2x25WH	553-71044	513
TULT24-8DS-2x25YE	553-71045	513
TULT24-8RD	553-42454	511
TULT24-8WH	553-42451	511
TULT24-8YE	553-42450	511
TULT3-1BK	553-40352	510
TULT3-1BU	553-40353	510
TULT3-1DS-1x50WH	553-71006	513
TULT3-1DS-1x50YE	553-71007	513
TULT3-1DS-2x25WH	553-71008	512
TULT3-1DS-2x25YE	553-71009	512
TULT3-1RD	553-40354	510
TULT3-1WH	553-40351	510
TULT3-1YE	553-40350	510
TULT39-13BK	553-43952	511
TULT39-13BU	553-43953	511
TULT39-13DS-1x50WH	553-71048	513
TULT39-13DS-1x50YE	553-71049	513
TULT39-13DS-2x25WH	553-71050	513
TULT39-13DS-2x25YE	553-71051	513
TULT39-13RD	553-43954	511
TULT39-13WH	553-43951	511
TULT39-13YE	553-43950	511
TULT4.8-1.6BK	553-40452	511
TULT4.8-1.6BU	553-40453	511
TULT4.8-1.6DS-1x50WH	553-71012	513
TULT4.8-1.6DS-1x50YE	553-71013	513
TULT4.8-1.6DS-2x25WH	553-71014	513
TULT4.8-1.6DS-2x25YE	553-71015	513
TULT4.8-1.6RD	553-40454	511
TULT4.8-1.6WH	553-40451	511
TULT4.8-1.6YE	553-40450	511
TULT6-2BK	553-40652	511
TULT6-2BU	553-40653	511
TULT6-2DS-1x50WH	553-71018	513
TULT6-2DS-1x50YE	553-71019	513
TULT6-2DS-2x25WH	553-71020	513
TULT6-2DS-2x25YE	553-71021	513
TULT6-2RD	553-40654	511
TULT6-2WH	553-40651	511
TULT6-2YE	553-40650	511
TULT9-3BK	553-40952	511
TULT9-3BU	553-40953	511
TULT9-3DS-1x50WH	553-71024	513
TULT9-3DS-1x50YE	553-71025	513
TULT9-3DS-2x25WH	553-71026	513
TULT9-3DS-2x25YE	553-71027	513
TULT9-3RD	553-40954	511
TULT9-3WH	553-40951	511
TULT9-3YE	553-40950	511
Twist-In 05	170-01000	YES 417
Twist-In 05-5 m	170-01011	YES 417
Twist-In 08	170-01001	YES 417
Twist-In 08-5 m	170-01012	YES 417
Twist-In 13	170-01002	YES 417
Twist-In 13-5 m	170-01013	YES 417
Twist-In 19	170-01004	YES 417
Twist-In 19-2 m	170-01014	YES 417
Twist-In 25	170-01005	YES 417
Twist-In 25-2 m	170-01015	YES 417
Twist-In 29	170-01006	YES 417
Twist-In 29-2 m	170-01016	YES 417
Twist-In 32	170-01007	YES 417

Type	Article-No. 	Page
Twist-In 32-2 m	170-01017	YES 417
Twist-In 38	170-01008	YES 417
Twist-In 38-2 m	170-01018	YES 417
Twist-In 50	170-01010	YES 417
Twist-In-EMIZ_05	170-01250	419
Twist-In-EMIZ_08	170-01251	419
Twist-In-EMIZ_13	170-01252	419
Twist-In-EMIZ_19	170-01253	419
Twist-In-EMIZ_25	170-01254	419
Twist-In-EMIZ_32	170-01255	419
Twist-In-EMIZ_38	170-01256	419
Twist-In-EMIZ_50	170-01257	419
Twist-In-EMIZ_80	170-01258	419
Twist-In-FR 05	170-01100	YES 418
Twist-In-FR 08	170-01101	YES 418
Twist-In-FR 13	170-01102	YES 418
Twist-In-FR 19	170-01104	YES 418
Twist-In-FR 25	170-01105	YES 418
Twist-In-FR 29	170-01106	YES 418
Twist-In-FR 32	170-01107	YES 418
Twist-In-FR 38	170-01108	YES 418
Twist-In-FR 50	170-01109	YES 418
Twist-In-RR-13	170-01161	YES 420
Twist-In-RR-13	170-01175	YES 420
Twist-In-RR-19	170-01162	YES 420
Twist-In-RR-19	170-01176	YES 420
Twist-In-RR-29	170-01163	YES 420
Twist-In-RR-29	170-01177	YES 420
Twist-In-RR-32	170-01164	YES 420
Twist-In-RR-32	170-01178	YES 420
TX46-11.6/2.5	317-00072	315
TX46-17.8/4.4	317-00073	315
TX46-24.0/6.0	317-00074	315
TX46-32.0/8.0	317-00075	315
TX46-7.6/1.7	317-00070	315
TX46-9.0/2.3	317-00071	315
TY3G1	151-21319	YES 197
TY3G1S	151-11310	166
TY3G1S	151-11319	166
TY3P1	241-11319	140
TY5K1	152-51059	139
TY5K2	152-11209	139
TY5K3	152-11309	139
TY5K3/5	152-11359	139
TY5K4	152-11409	139
TY5K5	152-55059	139
TY8F1	151-02157	YES 205
TY8G1S	151-11810	166
TY8G1S	151-11819	166
TY8H1S	151-12819	171
TY8P1	241-11810	140
TY8P1	241-11819	140
V150R	118-00089	52
V9500 Applicator Gun	627-95003	360
V9500 Epoxy Cartridge	627-95002	360
V9500 Epoxy Kit	627-95000	360
V9500 Epoxy Kit	627-95001	360
V9500NOZZLE-N10	627-95011	360
VA2.5/5	621-00200	615
VA-2.5/5 PRONG	621-01200	615
VA2.5/5 PRONG 18	621-03200	615
VA2.5/5 PRONG 8	621-02200	615
VarioPlate-10_Frame	440-00001	493
VarioPlate-16_Frame	440-00002	493
VarioPlate-24_Frame	440-00003	493
VarioPlate-4_Frame	440-00000	493
VP_11-13_Blindplug	440-00045	496

Type	Article-No. ⓘ*	Page
VP_13-15_Blindplug	440-00046	496
VP_15-16_Blindplug	440-00047	496
VP_3-5_Blindplug	440-00041	496
VP_5-7_Blindplug	440-00042	496
VP_7-9_Blindplug	440-00043	496
VP_9-11_Blindplug	440-00044	496
VP_Mounting_Tool	440-00048	497
VP_S_5_Blindplug	440-00049	496
VP_S_7_Blindplug	440-00050	496
VP-L_16-17_Ins-sgl	440-00024	494
VP-L_17-18_Ins-sgl	440-00025	494
VP-L_18-19_Ins-sgl	440-00026	494
VP-L_19-20_Ins-sgl	440-00027	494
VP-L_20-21_Ins-sgl	440-00028	494
VP-L_21-22_Ins-sgl	440-00029	494
VP-L_22-23_Ins-sgl	440-00030	494
VP-L_23-24_Ins-sgl	440-00031	494
VP-L_24-25_Ins-sgl	440-00032	494
VP-L_25-26_Ins-sgl	440-00033	494
VP-L_26-27_Ins-sgl	440-00034	494
VP-L_27-28_Ins-sgl	440-00035	494
VP-L_28-29_Ins-sgl	440-00036	494
VP-L_29-30_Ins-sgl	440-00037	494
VP-L_30-31_Ins-sgl	440-00038	494
VP-L_31-32_Ins-sgl	440-00039	494
VP-L_32-33_Ins-sgl	440-00040	494
VP-S_0_Blindinsert	440-00004	495
VP-S_10-11_Ins-sgl	440-00012	495
VP-S_11-12_Ins-sgl	440-00013	495
VP-S_12-13_Ins-sgl	440-00014	495
VP-S_13-14_Ins-sgl	440-00015	495
VP-S_14-15_Ins-sgl	440-00016	495
VP-S_15-16_Ins-sgl	440-00017	495
VP-S_2/4-5_Ins-dbl	440-00018	495
VP-S_2/5-6_Ins-dbl	440-00019	495
VP-S_2/6-7_Ins-dbl	440-00020	495
VP-S_2/7-8_Ins-dbl	440-00021	495
VP-S_3-4_Ins-sgl	440-00005	495
VP-S_4/4-5_Ins-quad	440-00022	495
VP-S_4/5-6_Ins-quad	440-00023	495
VP-S_4-5_Ins-sgl	440-00006	495
VP-S_5-6_Ins-sgl	440-00007	495
VP-S_6-7_Ins-sgl	440-00008	495
VP-S_7-8_Ins-sgl	440-00009	495
VP-S_8-9_Ins-sgl	440-00010	495
VP-S_9-10_Ins-sgl	440-00011	495
WIC Tool	561-00001	548
WIC0-G,H,Y,Z,O,Q,J,K,X,L	561-00003	546
WICA-AC10-25	561-06001	548
WICA-ACT-BK	561-06000	548
WICKELCLIP-VDS	155-16301	144
WPC10	151-75109	126
WPC15	151-75159	126
WPC20	151-75209	126
WPC5	151-75059	126
WSI8MM	157-00035	179
WSS8MM	157-00034	179
WSSFT9A	156-00068	116
X120R	108-00040	41
X120RDHDM6	156-01096	191
X120RDHDM8	156-01097	191
X120RDHDM65x160	156-01466	190
X250I	108-00045	41
X250R	108-00050	41
X250R	108-00052	41
X80I	108-00018	41
X80L	108-00028	41

Type	Article-No. ⓘ*	Page
X80R	108-00004	41
YQR10016	126-03000	104



Appendix

Notes

Notes

This image shows a full page of dot grid paper. The background is white, and it is covered with a regular pattern of small, dark grey dots. The dots are arranged in straight horizontal and vertical rows, creating a grid-like appearance. There are no margins, text, or other markings on the page.





Appendix

Notes

This image shows a full page of dot grid paper. The background is white, and it is covered with a regular pattern of small, dark grey dots. The dots are arranged in straight horizontal and vertical rows, creating a grid-like appearance. There are no margins, text, or other markings on the page.



Appendix

Notes

This image shows a full page of dot grid paper. The background is white, and it is covered with a regular pattern of small, dark grey dots. The dots are arranged in a precise square grid, with equal spacing between them both horizontally and vertically. There are no margins, text, or other markings on the page.



Appendix

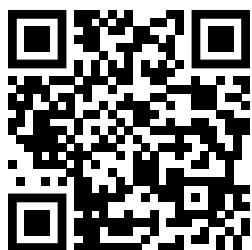
Notes

Notes

This image shows a full page of dot grid paper. The background is white, and it is covered with a regular pattern of small, dark grey dots. The dots are arranged in straight horizontal and vertical lines, creating a grid-like appearance. There are no margins, text, or other markings on the page.



Your local partner, wherever you are



Contact us

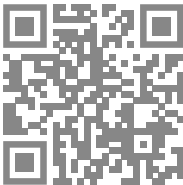
Scan the QR code or click the link to go to our website for country contact details.

HellermannTyton.com/company/worldwide

MADE FOR REAL[🌐]

Made to be more sustainable

We're proud to report that we've successfully minimised the carbon footprint of this catalogue. It's printed on 100% recycled waste paper, the format is 20% smaller, and lacquers have been eliminated from the cover. These changes contribute to conserving materials and the energy used to produce them.



This catalogue was produced from 100% waste paper.