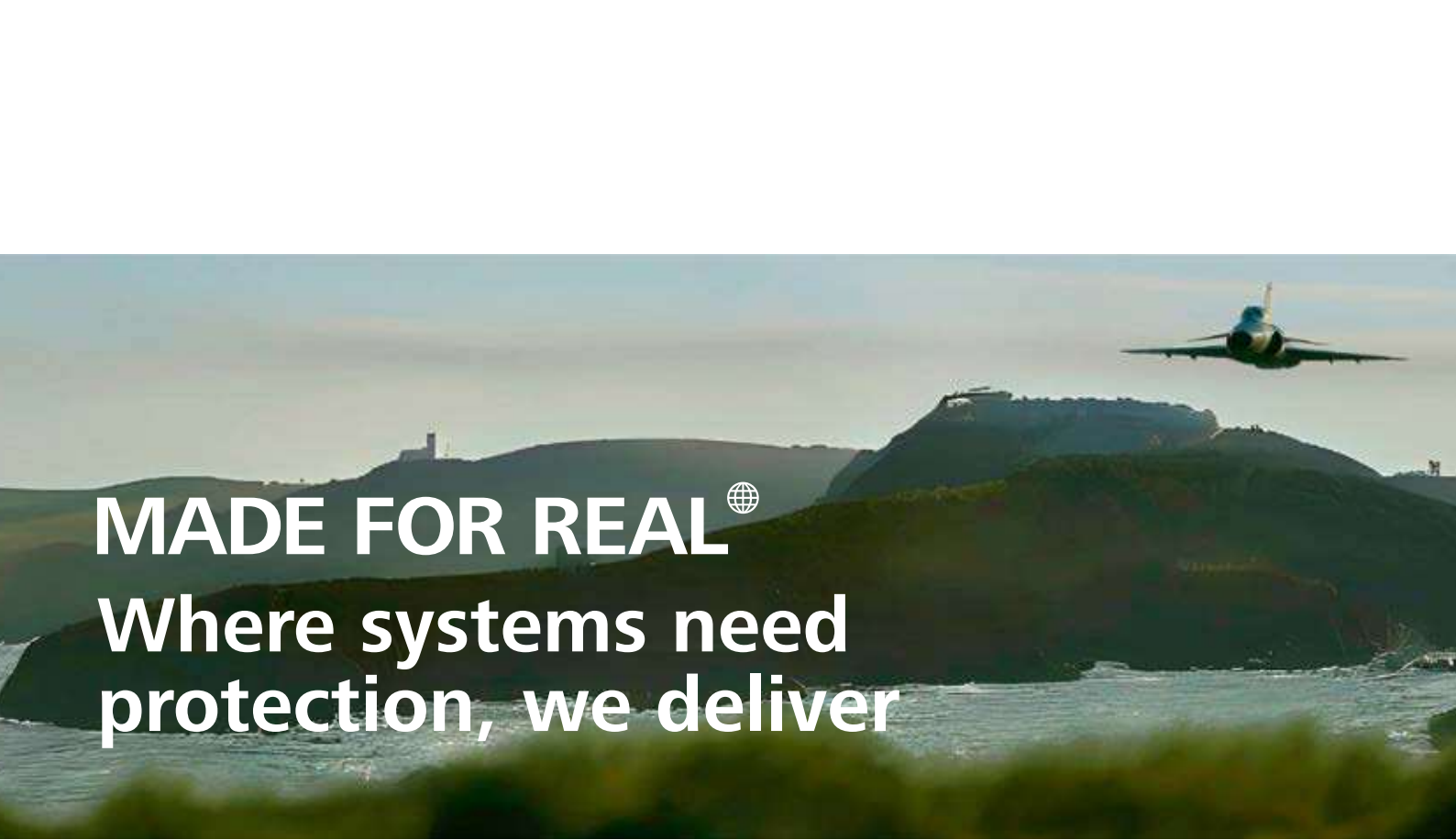




Ready to roll

Robust, reliable and approved cable management solutions for defence industry needs

MADE FOR REAL[®]



MADE FOR REAL[🌐]

Where systems need protection, we deliver

■ Because mission-critical systems need more than components, they depend on proven expertise

Our roots go back to the early days of large-scale aviation, where our system solutions helped clearly mark and protect complex wire harnesses. Today, we're a global specialist in cable management and system protection – trusted across all branches of the armed forces. We're right by your side – with proven expertise, global reach and unwavering reliability.





Globally present, locally committed

Wherever your projects take place, we are your partner on the ground.

With more than **40 national organisations**, **18 production sites** and **13 development centres**, we're close to your operations. Our local experts provide **on-site support** – from helping you select the right parts from our extensive range to co-developing **tailored solutions for complex requirements**.



European proximity, strategic advantage

For our European customers, our close-knit logistics network provides a strategic advantage:

- **Short delivery routes** across the continent
- **Fast availability** of mission-ready products
- **Reduced lead times** and **streamlined procurement**
- **High flexibility in production volumes** and configurations.

Whether you need rapid supply from existing inventory or are planning a long-term development, we adapt to your needs. Our local proximity means you benefit from real-time responsiveness, in-person consulting and maximum agility in time-critical procurement.



MADE FOR REAL[🌐]

Proven in the field

| We engineer beyond compliance for the systems that must not fail

In military operations, trust starts with compliance. That's why our solutions meet and exceed key international specifications, enabling safe integration into complex defence platforms.



For details on the specific aerospace and maritime standards our products meet, please refer to our dedicated brochures, available here:

www.HellermannTyton.com/aerospace

www.HellermannTyton.com/shipbuilding

MADE FOR REAL[🌐]

In the defence sector, reliability, precision, and uncompromising quality are critical. We don't just talk about solutions – we make them real.

With one of the most comprehensive product portfolios in the industry, we support both standard integration and custom co-engineering. Our development teams turn individual requirements into application-ready solutions – agile, technically robust and built to endure.

Whether you need rapid procurement or long-term platform support, we deliver with precision and flexibility, aligned with your mission goals:

- Collaborative engineering and material consulting
- Prototypes, documentation and logistics in line with defence norms
- Scalable volumes and flexible delivery models (make or buy)
- Custom solutions developed in close cooperation with your teams.

Read on to discover selected product highlights – engineered to perform and always mission-ready.



| We safeguard operational performance

As modern defence platforms become more connected, electrified and autonomous, cable infrastructure is evolving from a passive component to a critical performance enabler. The demands now go far beyond physical durability. Today, cables must withstand electromagnetic stress and ensure stable communication in extreme environments.

That's why we develop solutions that not only protect – but actively support system performance. A prime example: our electromagnetic shielding (EMI) capabilities.



Hardening communication with EMI shielding

In battlefield environments, secure and reliable communication is essential. Electromagnetic shielding plays a vital role in safeguarding signal integrity. Our robust EMI cable protection sleeves – with versatile fastening and identification options – are engineered to perform under shock, vibration, heat, humidity and electromagnetic pulses:

- Minimises electromagnetic interference and cross-talk
- Ensures stable, secure communication
- Built for resilience in harsh operational environments
- Proven performance across land, sea, air, and tactical deployments.

MADE FOR REAL[🌐]

Tried, tested and 100% reliable

■ We turn fastening challenges into smart plastic solutions

Many of our most innovative products – like EdgeClips, Ratchet P-Clamps, and PMB mounts – began as custom developments and have since evolved into proven standards. Whether you need a rapid prototype of a fluid routing bracket or high-volume series production of a connector clip, with us, you gain a reliable partner committed to continuity, innovation and full lifecycle support.

And because precision matters, we not only provide the ideal fastening solutions – but also perfectly matched processing tools for efficient, safe, and reliable installation.



From certified components to custom solutions

In defence applications, performance under pressure isn't optional. Components must prove their reliability in the real world – not just on paper.

Our solutions combine durable materials with certified quality, backed by military-grade documentation. Whether off the shelf or custom-engineered, every product is built to support operational resilience.

Here's a selection of some of our product highlights:

Braided sleeves

Engineered for demanding defence environments, our braided sleeving offers lightweight, flexible shielding against electromagnetic interference – even in dynamic conditions.

- Ensures robust EMI shielding across mobile and static platforms
- Adapts to irregular geometries and cable movement
- Combines abrasion resistance with thermal stability.





Heatshrink tubing, moulded parts and backshells

Designed to protect critical interfaces under operational stress. Our heatshrink range includes over 300 backshells – delivering environmental sealing and mechanical resilience across all platforms.

- Protects transitions from moisture, fuel and vibration
- Withstands temperature extremes
- Secures mixed-material connections with confidence



Stainless steel cable ties and cable markers

Engineered for the most challenging environments, our stainless steel solutions secure heavy-duty harnesses and deliver lasting identification where failure is not an option.

- SS304 / SS316L with high tensile, patented, ball-lock design
- Resistant to UV, chemicals and temperatures from -80°C to $+538^{\circ}\text{C}$
- Embossed markers stay legible in demanding field conditions.



Turn the page to explore our full product range.



Contact us to shape the right solution for your operational success.





AI generated

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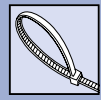
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Cable ties polyamide 6.6 standard

T-Series in PA66

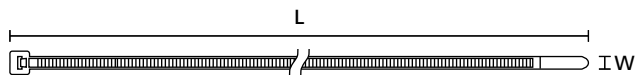
T-Series cable ties for bundling and securing of cables, pipes and hoses. These cable ties can be used for nearly all kind of applications.

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.



T-Series

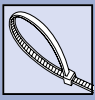
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T30R	3.6	148.0	35.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-5;25	112-03019
T50R	4.6	202.0	50.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	112-05019
T50I	4.6	305.0	80.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	112-05219
T50L	4.8	390.0	110.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	112-05419
T150R	7.6	365.0	100.0	670	PA66	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-14810

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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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 Ties and Fixings

Cable ties, inside serrated

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.

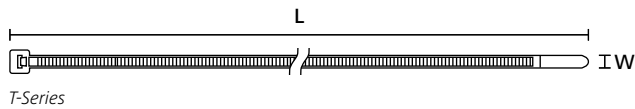
Features and benefits

- 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.**



T-Series

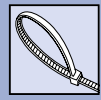
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T30R	3.6	148.0	35.0	135	PA66W	Black (BK)	100 pcs.	1-2;4-5;25	112-03060
T50I	4.6	305.0	80.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	111-05256
T50L	4.8	390.0	110.0	225	PA66W	Black (BK)	100 pcs.	1-2;4-7;25	112-05460

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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)



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

T-Series in PA66HS natural and black

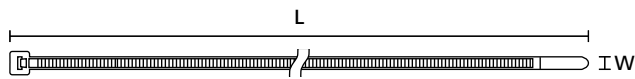
These inside serrated cable ties are made from heat stabilised Polyamide 6.6 (PA66HS). They can be applied in environments with continuous temperatures up to +105 °C. T-Series cable ties can be easily installed by hand or using an application tool to ensure consistency of installation.

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.



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	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-01950
	2.5	100.0	22.0	80	PA66HS	Black (BK)	1000 pcs.	1-2;4-5;25	111-01940
	2.5	100.0	22.0	80	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-01959
	2.5	100.0	22.0	80	PA66HS	Natural (NA)	1000 pcs.	1-2;4-5;25	111-01866
	2.5	101.6	22.0	80	PA66HS	Black (BK)	1000 pcs.	1-2;4-5;25	111-01250
T30R	3.5	150.0	35.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-03250
	3.5	150.0	35.0	135	PA66HS	Black (BK)	100 pcs.	1-2;4-5;25	111-01259
	3.5	150.0	35.0	135	PA66HS	Natural (NA)	100 pcs.	1-2;4-5;25	111-03259
T50R	4.6	200.0	50.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	111-01252
	4.6	200.0	50.0	225	PA66HS	Green (GN)	100 pcs.	1-2;4-7;25	111-02503
	4.6	200.0	50.0	225	PA66HS	Red (RD)	100 pcs.	1-2;4-7;25	111-01262
T50I	4.6	300.0	85.0	225	PA66HS	Black (BK)	100 pcs.	1-2;4-7;25	117-05250
	4.6	300.0	85.0	225	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05259
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	Black (BK)	100 pcs.	1-2;4-7;25	111-01272
	4.6	390.0	110.0	225	PA66HS	Red (RD)	100 pcs.	1-2;4-7;25	111-02395
T80R	4.7	205.0	55.0	355	PA66HS	Natural (NA)	100 pcs.	1-2;4-7;25	111-05059
	4.7	210.0	55.0	355	PA66HS	Black (BK)	1000 pcs.	1-2;4-7;25	117-08070
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
T150R	7.6	365.0	100.0	670	PA66HS	Black (BK)	100 pcs.	1;3;6-7;9-10;25	111-01255
T150R(H)	7.6	365.0	100.0	670	PA66HS	Natural (NA)	100 pcs.	1;3;6-7;9-10;25	111-15069

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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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)



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Cable Ties and Fixings

Cable ties, inside serrated

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

PEEK Ties, inside serrated

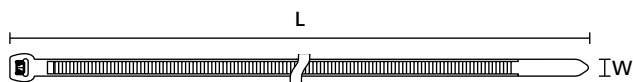
PEEK Ties have been designed for use in hazardous environments. Their suitability for high temperature applications makes them ideal for use in the drilling industry, railway, offshore or automotive industry. The excellent chemical and radiation resistance is predestined for applications in medical engineering, 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.



PEEK-Series

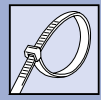
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
PT220	4.7	220.0	8.0	56.0	380	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	111-01235

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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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 radiation 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

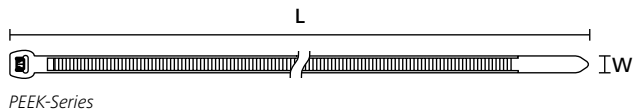
- For high temperature applications from -55 °C up to +240 °C
- Outside serrated cable tie with smooth surface to the bundle
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to curved head design
- Combines 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.



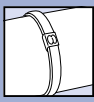
TYPE	Drawing	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
PT2A		3.4	145.0	4.0	35.0	230	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	118-00032
PT3B		4.7	250.0	4.0	65.0	300	PEEK	Beige (BGE)	100 pcs.	1-2;4-5;25	118-00116

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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Cable Ties and Fixings

Cable ties, stainless steel

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

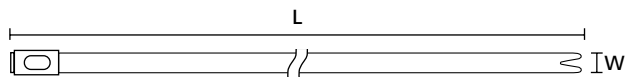


Stainless steel cable ties, uncoated, MBT_SS, MBT_HS.



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

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT8SS	4.6	201.0	17.0	50.0	900	SS304	100 pcs.	15-18	111-93088
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

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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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

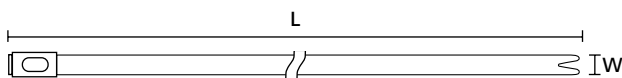


Stainless steel cable ties, coated, MBT_SFC, MBT_HFC.

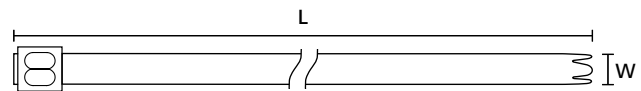


Stainless steel cable ties, coated, MBT_XHFC.

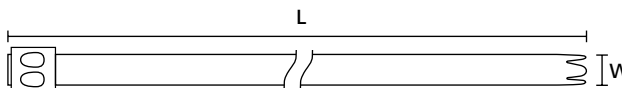
For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

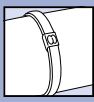
TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT14SFC	4.6	362.0	17.0	102.0	540	SS316L SP	100 pcs.	15-18	111-00290
MBT14HFC	7.9	362.0	17.0	102.0	1020	SS316L SP	50 pcs.	15-18	111-00295
MBT14XHFC	12.3	362.0	17.0	102.0	1620	SS316L SP	50 pcs.	15-18	111-00299
MBT20UHFC	16.0	521.0	25.0	152.0	2500	SS316L SP	50 pcs.	15;17	111-01514

Recommended Tools: 15=MK9SSST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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)



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Cable Ties and Fixings

Cable ties, stainless steel

Cable ties with punch-locking mechanism

MST-Series, stainless steel 304

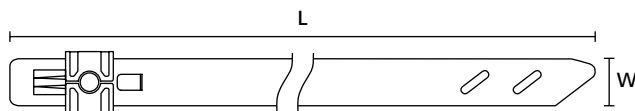
Stainless steel cable ties are designed for fixing loads and cables securely in hazardous industrial environments such as railway carriages, jet engines, inside power plants or on offshore drilling platforms, where exposure to extremes of weather, saltwater and temperature are common. The MST-Series 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.



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

Recommended Tools: 19=MST6. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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 single hole application

Chassis ties

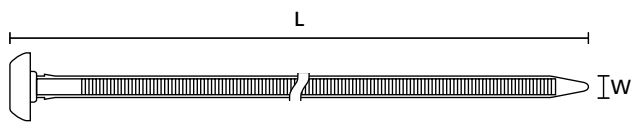
Using a single hole these 'chassis ties' are widely used in the automotive, truck and heavy equipment markets. Ideal for applications which have access to both sides of the hole - example truck frame rails.

Features and benefits

- Both sides serrated cable tie
- BHT-Series with round head for larger bearing area
- BHT375 for centred position
- CT- and LHT-Series with small squared head for restricted space areas
- Tensioning with application tool



BHT375 - used for mounting cables via a single hole.



BHT375

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
BHT375		7.6	375.0	100.0	700	PA66HS	Black (BK)	250 pcs.	150-37595

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for holes

1-piece fixing ties with fir tree, with disc

for round holes

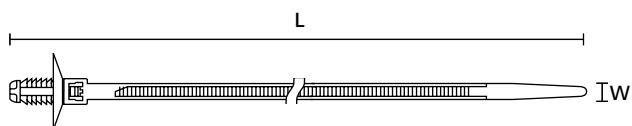
Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

Features and benefits

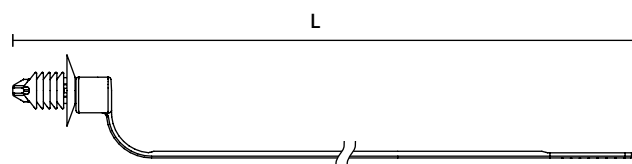
- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes



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



Reference for dimensions only.



Special design without a gap between head and bundle; FT220DP7

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT8E		8.0 - 8.5	0.6 - 6.0	4.6	35.0	225	PA66HS	BK	1-2;4-7;25	157-00072
T50SOSFT9E		8.8 - 9.2	0.8 - 9.0	4.7	45.0	225	PA66HS	BK	1-2;4-5;25	157-00280

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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 FT8

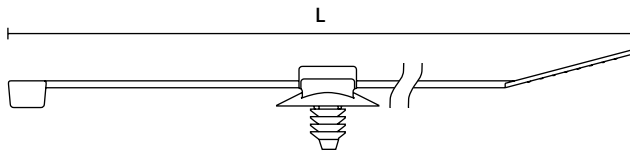
S-Series cable ties made from Polypropylene (PP) are non hydroscopic, offer a higher chemical resistance and reduced CO₂ footprint compared to a standard cable tie material. These cable ties are used to bundle and secure cables, pipes and/or hoses.

Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- 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
- 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



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



TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	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

Recommended Tools: 5=EVO7i. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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 Ties and Fixings

Fixing products for holes

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

Fir tree parts FT9

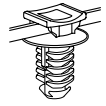
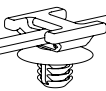
Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

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



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

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

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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

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



2-piece fixing tie for panel thickness 10, 12 or 15 mm.

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Article-No.
X120RPF12T10.12or15	11.8 - 12.2	10.0 - 16.0	7.7	100.0	535	PA66HIRHS	BK	156-03098

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for edges

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



Fixing Tie with EdgeClip for thick edges.

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50ROSEC19		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-04602
T50ROSEC20		4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00020

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=ProCut 9 no battery, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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

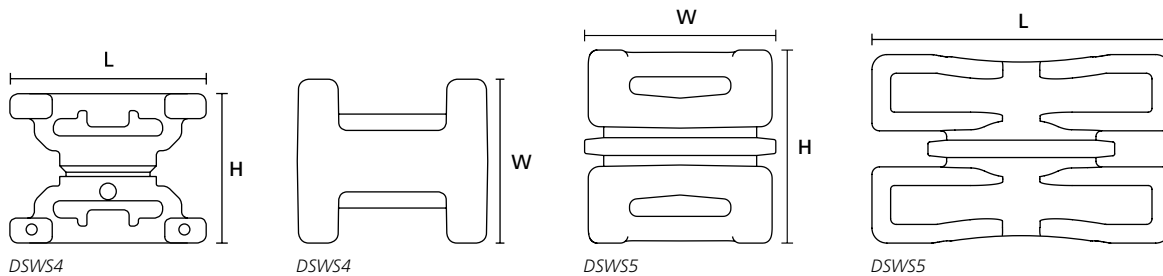
These fixing element for parallel routing can be used where bundles need separation from each other combined with the necessary functionality to support moving harnesses.

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.



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
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.



Cable Ties and Fixings

Fixing products for bundle separation

2-piece fixing ties for parallel separation

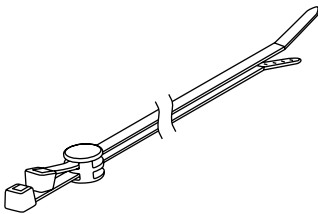
twistable up to 90°

Features and benefits

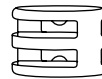
- Pre-assembled 2-piece fixing tie with coupler
- Cable tie head can be moved after bundling
- Easy addition of cables after assembly
- For parallel routing of bundles that can be twisted 90° even after installation



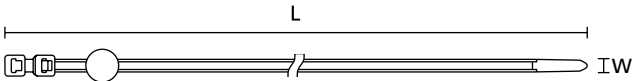
T50RCOUPLER for parallel routing.



Two Cable Ties with Coupler



Coupler



Cable Ties with Coupler

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T120RCOUPLER	7.6	390.0	105.0	535	PA66HIRHS	BK	1;3;6-7;9-10;25	156-00275

Recommended Tools: 1=MK10-SB, 3=MK21, 6=ProCut 9 no battery, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



Cable tie mounts with high performance adhesive

SolidTack-Series MB

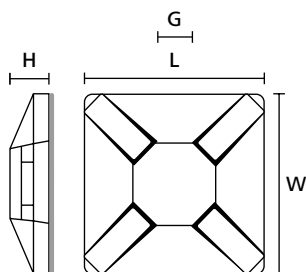
SolidTack MB Series mounts have a square design and are fairly common in areas like electrical cabinet, railway, aerospace, automotive and agriculture machinery. The premium self-adhesive bonds well on high and low-energy surfaces like plastics, metal, varnish or paint and is suitable for a wide range 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.



MB2A (side and plan view)

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
MB4APT-A	28.0	28.0	4.7	5.6	PA66	Black (BK)	100 pcs.	151-02245

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 Ties and Fixings

Fixing products for self-adhesive fixing

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

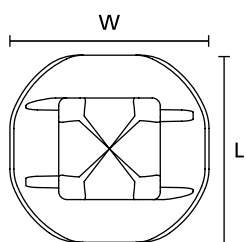
- PMB-Series for fixings with paste / liquid adhesive
- Mount geometry offers a good form closure with cured adhesive
- Can even be installed onto uneven surfaces
- PMB6 can also be applied in combination with hot-melt adhesive, as mount is made of heat resistant PA66
- PMB3 is made of flame-retardant material PA666V0



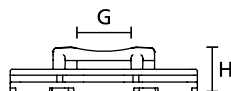
Our PMB mount (paste mount adhesive) as an adhesive fastening for a strong hold, even overhead.



Our PMB-series size comparison – suitable for tighter spaces and areas where a strong, vibration-resistant hold is required.



PMB8, PMB6 Mount (plan view)



PMB8, PMB6 Mount (front view)

TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
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.



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

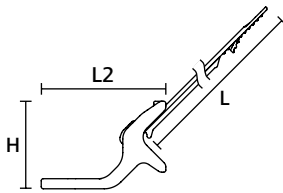
- Suitable for a variety of fastening requirements thanks to different foot parts (for holes, for studs, for screw fixings)
- Soft Grip cable ties assure high protection of sensitive harnesses and fluid system tubes
- Soft TPE inner layer inhibits lateral movements of the bundle, especially on smooth 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.



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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for screws

Stainless steel P-mount to screw

Stainless steel 316L mounts

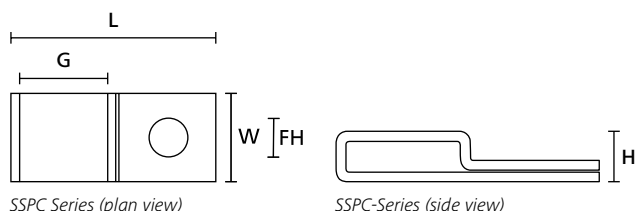
Suitable for the secure fixing of cables, tubing, conduits and pipes within the most arduous of environments. Providing a complete fastening and fixing solution when used in conjunction with stainless steel ties up to 10.0 mm width. SSPC metal cable tie mounts are ideal for use within shipbuilding, oil 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.



SSPC Series (plan view)

SSPC-Series (side view)

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
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.



Harness clip for heavy duty applications, for screws or threaded bolts

Medium torque mounts

The CTM-series is a perfect choice for securing cables, lines and hoses in demanding environments with limited space and strong vibration. Whether in vehicles, machinery, or outdoor systems, these mounts ensure reliable cable retention – especially in applications where a robust hold is critical.

Features and benefits

- Designed for heavy-duty applications in harsh environments
- Compatible with cable ties up to 13.5 mm in width
- High vibration resistance ensures long-term reliability
- Versions with integrated bolt ("B" suffix) offer enhanced mechanical strength



Heavy Duty Mounts HDM-Series, patent number US5820083.

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
CTMM6B		24.0	38.0	15.7	6.1	13.5	PA66HIRHS ST	Black (BK)	250 pcs.	151-03309
CTMM8B		24.0	38.0	15.7	8.1	13.5	PA66HIRHS ST	Black (BK)	250 pcs.	151-03333
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

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 Ties and Fixings

Fixing products for screws

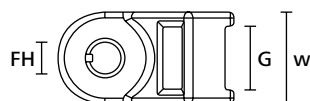
Two way saddle mount for heavy duty applications, for parallel separation

for screws or studs

The DCTM series is the ideal solution for securing cables, wires, and hoses in harsh environments with high vibration. With its two cable tie slots, it offers improved grip for demanding applications and can accommodate multiple cables and wires in large quantities.

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
- Compatible with cable ties up to 13.5 mm wide for heavy duty applications
- High vibration resistance ensures durability and performance
- Easy maintenance of bundle by simply changing the cable tie
- Versions with an integrated bolt (suffix "B") provide additional mechanical strength



HDM19, 25, 312

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
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.



Heavy duty mounts for 3-way routing

for screws or studs

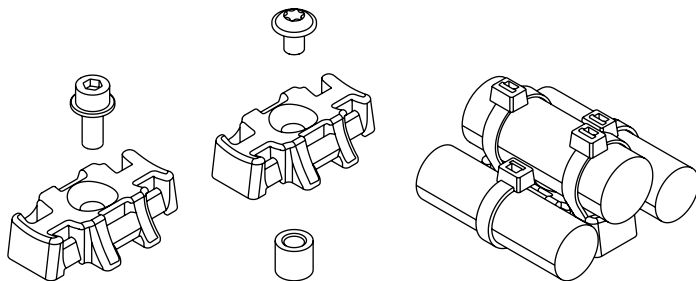
These 3-way routing saddle mounts are designed to secure up to three bundles for multiple routing and reduce chavng or wear to those bundles. Applicable for various applications within the OEM, mass transit, defence or heavy truck and automotive markets.

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.



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
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.



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	Brown (BN)	VG 95343 T05 A 001 B	30	305-01201
	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	Brown (BN)	VG 95343 T05 A 002 B	30	305-01601
	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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



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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
	3.2	1.6	0.50	400 m	Brown (BN)	VG 95343 T05 A 004 B	30	305-03201
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
	4.8	2.4	0.50	-	Green (GN)	VG 95343 T05 A 005 F	30	305-04805
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	Brown (BN)	VG 95343 T05 A 006 B	30	305-06401
	6.4	3.2	0.60	75 m	Green (GN)	-	30	305-06405
	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	Brown (BN)	VG 95343 T05 A 007 B	30	305-09501
	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	Orange (OG)	VG 95343 T05 A 007 D	30	305-09503
	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
	12.7	6.4	0.60	-	Brown (BN)	VG 95343 T05 A 008 B	30	305-12701

Recommended Tools: 30=H6100. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing



Heat Shrink Tubing 2:1



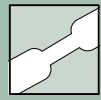
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-19.0/9.5	19.0	9.5	0.80	25 m	Blue (BU)	VG 95343 T05 A 009 G	30	305-19006
	19.0	9.5	0.80	25 m	Brown (BN)	VG 95343 T05 A 009 B	30	305-19001
	19.0	9.5	0.80	25 m	Green-Yellow (GNYE)	VG 95343 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
	25.4	12.7	0.90	50 m	Brown (BN)	VG 95343 T05 A 010 B	30	305-25401
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	Brown (BN)	VG 95343 T05 A 012 B	30	305-50801
	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	White (WH)	VG 95343 T05 A 013 L	30	305-76209
	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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



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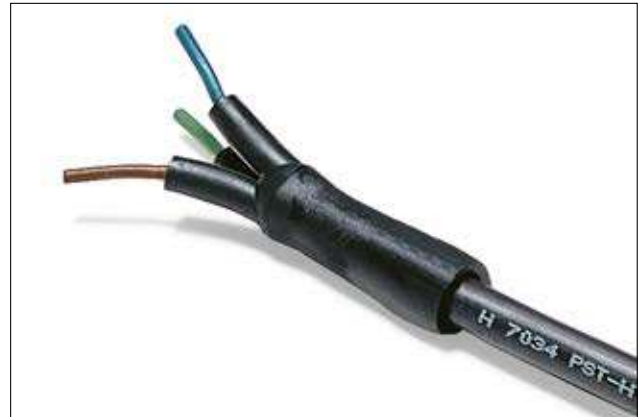
Heat Shrinkable Tubing 2:1 - Elastomer

PST-H

PST-H 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 tubing
- Resistant to diesel, aviation and hydraulic fluids
- Used in aerospace, defence, railway and automotive applications
- VG approved shrink tubing



PST-H tubing with a break out boot.

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+135 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Self extinguishing	Yes

RoHS

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
PST-H-3.2/1.6	3.2	1.6	0.70	400 m	Black (BK)	342-20320
PST-H-4.8/2.4	4.8	2.4	0.80	300 m	Black (BK)	342-20480
PST-H-6.4/3.2	6.4	3.2	0.90	300 m	Black (BK)	342-20640
PST-H-9.5/4.8	9.5	4.8	1.00	100 m	Black (BK)	342-20950
PST-H-12.7/6.4	12.7	6.4	1.20	100 m	Black (BK)	342-21270
PST-H-19.0/9.5	19.0	9.5	1.40	50 m	Black (BK)	342-21900
PST-H-25.4/12.7	25.4	12.7	1.80	50 m	Black (BK)	342-22540
PST-H-38.0-19.0	38.0	19.0	2.40	30 m	Black (BK)	342-23810

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.



Heat Shrinkable Tubing 2:1 - Elastomer

PST-HT - light weight

PST-HT is used for long-term protection of cables and wire harnesses in military equipment, motor sports, and aviation.

Features and benefits

- Light weight, thin-walled, very flexible tubing
- Use when weight is a key factor
- Resistant to diesel, aviation and hydraulic fluids
- Suitable for aerospace applications like helicopters
- VG approved shrink tubing



MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+135 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Self extinguishing	Yes

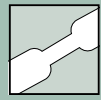
RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
PST-HT-6.4/3.2	6.4	3.2	0.60	300 m	Black (BK)	342-30640
PST-HT-12.7/6.4	12.7	6.4	0.60	100 m	Black (BK)	342-31270
PST-HT-25.4/12.7	25.4	12.7	0.90	50 m	Black (BK)	342-32540

All dimensions in mm. Subject to technical changes.



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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



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.



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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

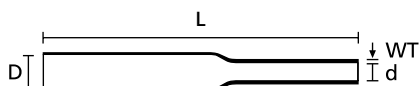
- Semi-rigid heat shrinkable tubing made of PVDF
- Thin wall and tough
- For higher temperature applications
- Very good mechanical strength, abrasion resistance and chemical resistance
- Meets various industrial standards
- Self extinguishing, UL 224 VW1 listed



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

RoHS



Heat Shrink Tubing 2:1

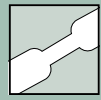


TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Designation as per VG-Norm	Article-No.
TK20-1.2/0.6	1.2	0.6	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 001 M	331-00129
TK20-1.6/0.8	1.6	0.8	0.25	1.2 m	Transparent (CL)	VG 95343 T05 F 002 M	311-00169
TK20-2.4/1.2	2.4	1.2	0.25	1.2 m	Transparent (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.



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Heat Shrinkable Tubing 2:1 - Elastomer

TE28 - light weight

TE28 is used for long-term protection of cables and wire harnesses in military equipment, motor sports and aviation.

Features and benefits

- Thin wall, very flexible, high performance elastomeric heat shrink tubing
- Used in aerospace, defence, railway and automotive harness applications
- Resistant to diesel, aviation and hydraulic fluids
- Provides a reliable protection against abrasion and mechanical damage
- Very suitable for protecting cables and wire harnesses.



Thin wall TE28 tubing.

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+165 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Flammability	VG 95343-5

RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
TE28 2.4/1.2	2.4	1.2	0.50	150 m	Black (BK)	VG 95343 T05 D 012 A	342-30000
TE28 3.2/1.6	3.2	1.6	0.50	150 m	Black (BK)	VG 95343 T05 D 013 A	342-30010
TE28 4.8/2.4	4.8	2.4	0.50	60 m	Black (BK)	VG 95343 T05 D 014 A	342-30020
TE28 6.4/3.2	6.4	3.2	0.65	60 m	Black (BK)	VG 95343 T05 D 015 A	342-30030
TE28 9.5/4.8	9.5	4.8	0.65	60 m	Black (BK)	VG 95343 T05 D 016 A	342-30040
TE28 12.7/6.4	12.7	6.4	0.65	60 m	Black (BK)	VG 95343 T05 D 017 A	342-30050
TE28 19.0/9.5	19.0	9.5	0.75	30 m	Black (BK)	VG 95343 T05 D 018 A	342-30060
TE28 25.4/12.7	25.4	12.7	0.90	30 m	Black (BK)	VG 95343 T05 D 019 A	342-30070
TE28 38.0/19.0	38.0	19.0	1.00	30 m	Black (BK)	VG 95343 T05 D 020 A	342-30080
TE28 51.0/25.4	51.0	25.4	1.15	30 m	Black (BK)	VG 95343 T05 D 022 A	342-30090

All dimensions in mm. Subject to technical changes.



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Heat shrinkable tubing 2:1 - Fluoroelastomer

Viton®-E

Viton®-E is used for reliable protection against aggressive chemicals in high temperature environments like engine compartments and turbines. It is also used when protective tubings are required to remain flexible at low temperatures.

Features and benefits

- High temperature resistant fluoroelastomeric heat shrink tubing
- Very good electrical, chemical and mechanical features
- Resistant to many fuels, oils and lubricants
- Flexible even at very low temperatures



Viton®-E for flexibility and protection against aggressive chemicals.

MATERIAL	Fluoropolymer, cross-linked (FPMX)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +200 °C
Min. Shrink Temperature	+170 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	8 kV/mm
Self extinguishing	Yes
Insulation Class	C (VDE 0530)

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	Article-No.
VITON®-E-3.2/1.6	3.2	1.6	0.70	50 m	Black (BK)	VG 95343 T05 E 001 A	330-00320
VITON®-E-4.8/2.4	4.8	2.4	0.80	50 m	Black (BK)	VG 95343 T05 E 002 A	330-00480
VITON®-E-6.4/3.2	6.4	3.2	0.90	50 m	Black (BK)	VG 95343 T05 E 003 A	330-00640
VITON®-E-9.5/4.8	9.5	4.8	1.00	25 m	Black (BK)	VG 95343 T05 E 004 A	330-00950
VITON®-E-12.7/6.4	12.7	6.4	1.20	25 m	Black (BK)	VG 95343 T05 E 005 A	330-01270
VITON®-E-19.0/9.5	19.0	9.5	1.40	25 m	Black (BK)	VG 95343 T05 E 006 A	330-01900
VITON®-E-25.4/12.7	25.4	12.7	1.80	25 m	Black (BK)	VG 95343 T05 E 007 A	330-02540
VITON®-E-38.0/19.0	38.0	19.0	2.40	15 m	Black (BK)	VG 95343 T05 E 008 A	330-03810
VITON®-E-50.8/25.4	50.8	25.4	2.80	15 m	Black (BK)	VG 95343 T05 E 009 A	330-05080
VITON®-E 76.0/38.0	76	38	-	-	Black (BK)	-	330-07600

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 - 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



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
SE28-1/8-POA-BK-mod	3.2	1.6	0.75	150 m	Black (BK)	VG 95343 T05 D 001 A	32	342-20001
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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



Two-component epoxy adhesive V9500.



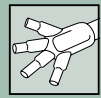
The V9500 applicator gun guarantees the clean and precise coating of special fittings.

TYPE	Description	Designation as per VG-Norm	Article-No.
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 Applicator Gun	Applicator gun	VG 95343 T15 DA	627-95003
V9500 Applicator Nozzle	Mixing nozzle	VG 95343 T15 MA	627-95004

All dimensions in mm. Subject to technical changes.



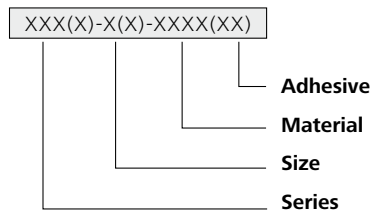
Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



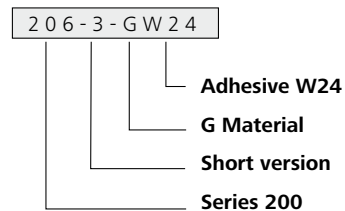
Product Selection for Heat Shrinkable Moulded Shapes

Order Example

Type:



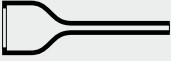
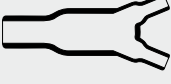
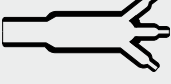
Example:



Other product styles are available. Please refer to Moulded Shapes catalogue.

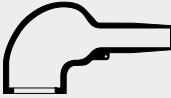
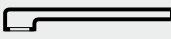
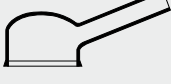
Bulbous Boots Product Overview

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Bulbous Boots Product Overview

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Insulation

Heat Shrink Moulded Shapes

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



Long Outlet Shape, VG style

Helashrink 130 Series, with rib, low profile

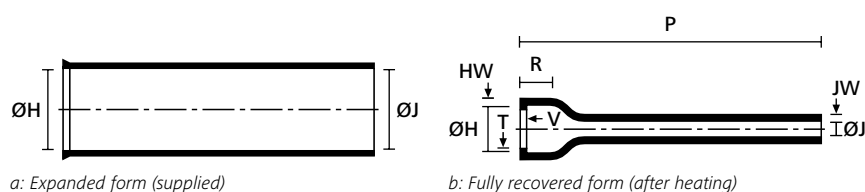
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Low profile and lightweight
- Typically used on airborne harnesses
- Rib locates on circular backshell



135-1 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 ± 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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



Insulation

Heat Shrink Moulded Shapes

Bottle Shapes, VG style

Helashrink 150 Series, with rib

Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

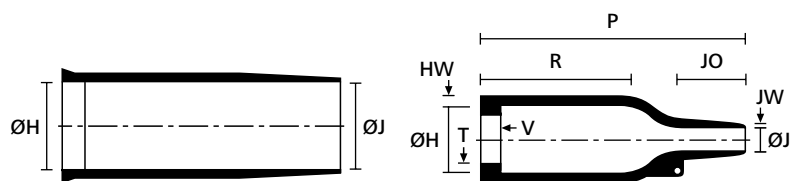
- Use in conjunction with circular grooved adaptors
- Strengthened strain relief by usage of an additional inner lip
- Excellent protection against environment impacts
- Eliminates moisture ingress to harness



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.
152-61-HW21	24.0	10.5	14.0	6.0	26.0	9.0	10.0	1.6	1.0	3.3	1.0	VG 95343 T29 A 001 A	32	401-52373
152-62-HW21	24.0	10.5	14.0	6.0	38.0	21.0	10.0	1.6	1.0	3.3	1.0	VG 95343 T29 B 001 A	32	401-52573
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
152-41-GW24	24.0	10.5	24.0	6.0	26.0	9.0	10.0	1.6	0.5	3.3	1.0	VG 95343 T18 A 001 A	32	401-52784
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
152-42-HW21	24.0	10.5	24.0	6.0	38.0	21.0	10.0	1.6	0.5	3.3	1.0	VG 95343 T29 A 001 A	32	401-52085
152-42-GW24	24.0	10.5	24.0	6.0	38.0	21.0	20.0	1.6	0.5	3.3	1.0	VG 95343 T18 B 001 A	32	401-52884
153-61-HW21	25.0	14.0	8.0	3.5	40.0	13.0	16.0	1.0	1.0	3.3	1.0	VG 95343 T29 A 002 A	32	401-53373
153-62-HW21	25.0	14.0	8.0	3.5	55.0	28.0	16.0	1.8	1.0	3.3	1.0	VG 95343 T29 B 002 A	32	401-53573
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
153-41-GW24	25.0	14.0	9.0	3.5	40.0	13.0	16.0	1.8	0.5	3.3	1.0	VG 95343 T18 A 002 A	32	401-53784
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
153-42-GW24	25.0	14.0	9.0	3.5	55.0	28.0	16.0	1.8	0.5	3.3	1.0	VG 95343 T18 B 002 A	32	401-53884

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.
154-61-HW21	30.0	14.0	15.0	6.0	43.0	20.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T29 A 003 A	32	401-54373
154-62-HW21	30.0	14.0	15.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T29 B 003 A	32	401-54573
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
154-41-GW24	30.0	14.0	30.0	6.0	43.0	20.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T18 A 003 A	32	401-54784
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
154-42-GW24	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	VG 95343 T18 B 003 A	32	401-54884
155-61-HW21	31.0	18.0	18.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T29 A 004 A	32	401-55373
155-62-HW21	31.0	18.0	18.0	7.0	67.0	35.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T29 B 004 A	32	401-55573
155-41-G	31.0	18.0	31.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T06 A 004 A	32	401-55780
155-41-GW24	31.0	18.0	31.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T18 A 004 A	32	401-55784
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
155-42-GW24	31.0	18.0	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.3	1.0	VG 95343 T18 B 004 A	32	401-55884
156-61-HW21	36.0	22.5	21.0	8.5	60.0	22.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T29 A 005 A	32	401-56373
156-62-HW21	36.0	22.5	21.0	8.5	80.0	42.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T29 B 005 A	32	401-56573
156-41-GW24	36.0	22.5	36.0	8.5	60.0	22.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T18 A 005 A	32	401-56584
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
156-42-GW24	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.3	1.0	VG 95343 T18 B 005 A	32	401-56884
157-61-HW21	43.0	28.0	25.0	10.0	60.0	21.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T29 A 006 A	32	401-57373
157-62-HW21	43.0	28.0	25.0	10.0	79.0	61.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T29 B 006 A	32	401-57573
157-63-HW21	43.0	28.0	25.0	10.0	99.0	61.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T29 C 001 A	32	401-57673
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
157-41-GW24	43.0	28.0	43.0	10.0	60.0	21.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T18 A 006 A	32	401-57784
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
157-42-GW24	43.0	28.0	43.0	10.0	79.0	41.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T18 B 006 A	32	401-57884
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
157-43-GW24	43.0	28.0	43.0	10.0	99.0	61.0	20.0	2.2	1.0	3.3	1.7	VG 95343 T18 C 001 A	32	401-57984
158-62-HW21	60.0	35.0	39.0	16.0	130.0	72.0	38.0	3.2	1.5	3.3	3.2	VG 95343 T29 B 007 A	32	401-58028
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
158-41-GW24	60.0	35.0	60.0	16.0	90.0	32.0	38.0	3.2	1.5	3.3	1.7	VG 95343 T18 A 007 A	32	401-58784
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
158-42-GW24	60.0	35.0	60.0	16.0	110.0	52.0	38.0	3.2	1.5	3.3	1.7	VG 95343 T18 B 007 A	32	401-58884
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
159-42-GW24	66.0	45.0	66.0	17.0	150.0	70.0	50.0	3.8	2.0	3.3	2.0	VG 95343 T18 B 008 A	32	401-59884
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



Insulation

Heat Shrink Moulded Shapes

Bottle Shapes, VG style

Helashrink 170 Series, with rib

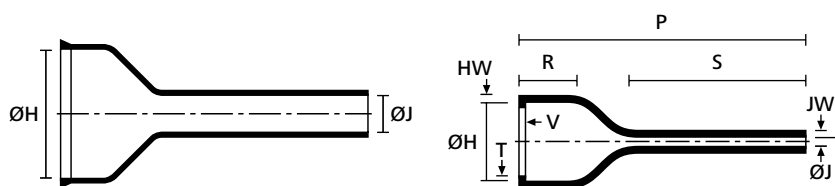
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Cable strain relief for partially loaded connectors
- Small cable diameters
- Use with our W24 adhesive for excellent chemical resistance



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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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

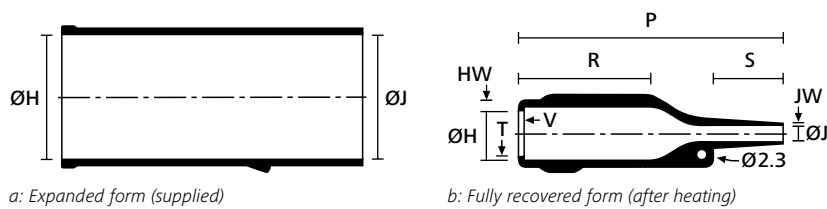
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Specifically for small audio connectors
- Multiple external ribs to improve grip in harsh conditions



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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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Insulation

Heat Shrink Moulded Shapes

2-Way Outlet Shapes, VG style

Helashrink 200 Series

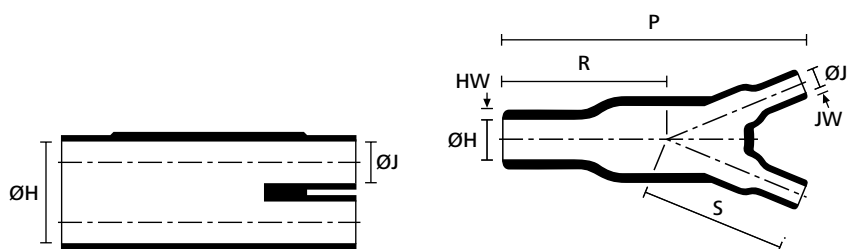
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Mechanical tension relief in cable harnesses



203-1 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

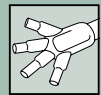
TYPE	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW nom.	S nom.	Tools	Designation as per VG-Norm	Article-No.
206-1-GW24	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	19.0	32	VG 95343 T19 C 001 A	402-06184
206-1-HW21	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	19.0	32	VG 95343 T30 C 001 A	402-06058
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
206-8-GW24	13.0	6.1	12.0	3.0	41.0	22.0	1.5	1.0	19.0	32	VG 95343 T19 C 006 A	402-06186
212-1-HW21	14.5	8.0	8.5	5.5	136.0	63.0	2.3	2.0	63.0	32	VG 95343 T30 C 005 A	402-12016
212-1-GW24	14.5	8.0	8.5	5.5	136.0	83.0	2.3	2.0	63.0	32	VG 95343 T19 C005 A	402-12184
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
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
203-1-GW24	27.0	12.0	13.0	6.0	80.0	43.0	2.5	1.5	43.0	32	VG 95343 T19 C 002 A	402-03184
203-1-HW21	27.0	12.0	13.0	6.0	80.0	43.0	2.5	1.5	43.0	32	VG 95343 T30 C 002 A	402-03055
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
204-1-GW24	39.0	18.0	27.0	12.0	131.0	66.0	3.0	2.0	81.0	32	VG 95343 T19 C 003 A	402-04184
204-1-HW21	39.0	18.0	27.0	12.0	131.0	66.0	3.0	2.0	81.0	32	VG 95343 T30 C 003 A	402-04040

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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3-Way Outlet Shapes, VG style

Helashrink 300 Series

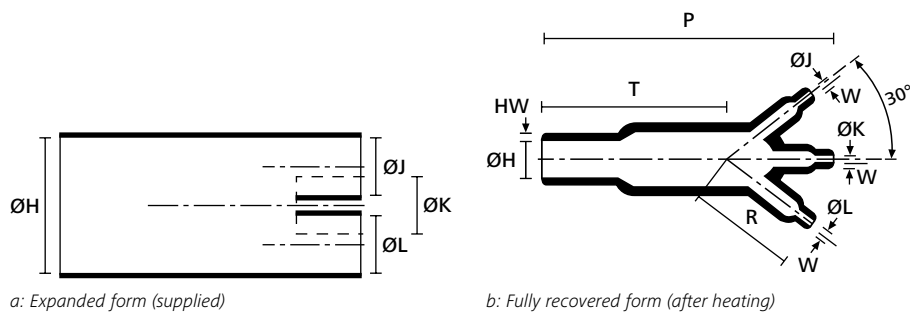
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Cable strain relief and mechanical protection at harness transition points
- All outlets clearly marked to aid orientation during installation



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
306-1-GW24	13.0	6.5	6.5	3.5	46.0	25.0	1.5	1.0	21.0	VG 95343 T19 D 001 A	32	403-06184
306-1-HW21	13.0	6.5	6.5	3.5	46.0	25.0	1.5	1.0	21.0	VG 95343 T30 D 001 A	32	403-06041
304-1-GW24	27.0	13.5	13	7.0	93.0	50.0	2.5	1.5	43.0	VG 95343 T19 D 002 A	32	403-04184
304-1-HW21	27.0	13.5	13	7.0	93.0	50.0	2.5	1.5	43.0	VG 95343 T30 D 002 A	32	403-04048
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-GW24	38.5	19.0	13	7.0	135.0	74.0	2.5	1.5	42.9	VG 95343 T19 D 003 A	32	403-10038
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-GW24	55.5	25.5	27	12.5	192.0	103.0	4.5	3.0	89.0	VG 95343 T19 D 004 A	32	403-11184
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



Insulation

Heat Shrink Moulded Shapes

4-Way Outlet Shapes, VG style

Helashrink 400 Series

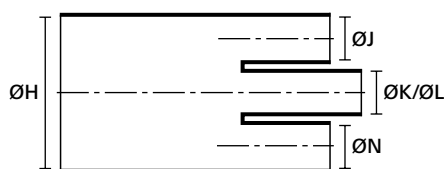
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

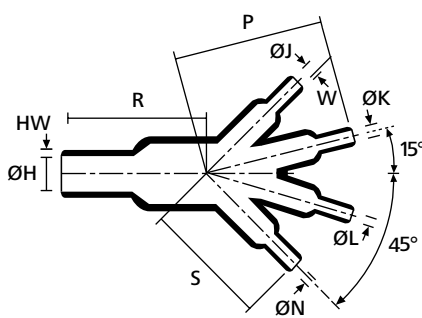
- All outlets clearly marked to aid orientation during installation
- Cable strain relief and mechanical protection at harness transition points



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.
410-1-GW24	12.0	7.0	6.6	3.5	65.0	24.0	1.5	1.0	38.0	24.0	VG 95343 T19 E 001 A	32	404-10002
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
411-1-GW24	19.0	10.0	9.5	5.5	71.0	36.0	2.0	1.0	36.0	32.0	VG 95343 T19 E 002 A	32	404-11184
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
413-1-GW24	38.5	19.0	19.0	10.0	150.0	72.0	3.0	2.0	75.0	65.0	VG 95343 T19 E 005 A	32	404-13184

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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

Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

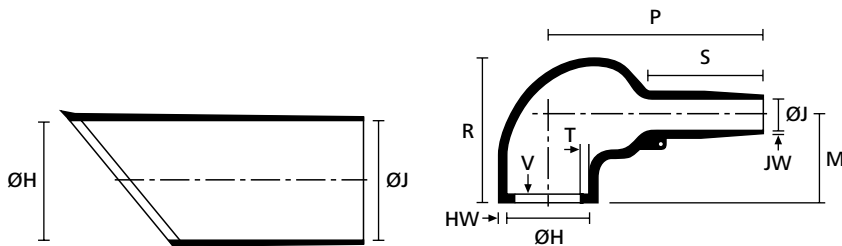
- Used in conjunction with a circular grooved adaptor
- Provides strain relief and an environmental seal



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.
1152-6-HW21	24.0	10.5	14.0	6.0	32.0	25.0	1.3	1.3	1.0	3.3	1.0	19.0	10.0	32	VG 95343 T29 D 001 A	411-52573
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
1152-4-GW24	24.0	10.5	24.0	6.0	32.0	25.0	1.3	1.3	0.5	3.3	1.0	19	10.0	32	VG 95343 T18 D 001 A	411-52484
1154-6-HW21	30.0	14.5	15.0	6.0	41.0	27.0	1.5	1.5	1.0	3.3	1.0	20	12.0	32	VG 95343 T29 D 002 A	411-54573
1154-4-GW24	30.0	14.5	30.0	6.0	32.0	27.0	1.5	1.5	1.0	3.3	1.0	19	12.0	32	VG 95343 T18 D 002 A	411-54484
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
1155-6-HW21	31.0	18.0	18.0	7.0	51.0	31.0	1.8	1.8	1.0	3.3	1.0	21	15.0	32	VG 95343 T29 D 003 A	411-55573
1155-4-GW24	31.0	18.0	31.0	7.0	40.0	31.0	1.8	1.8	1.0	3.3	1.0	21	15.0	32	VG 95343 T18 D 003 A	411-55684
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
1156-6-HW21	36.0	22.5	21.0	8.5	59.0	38.0	1.8	1.8	1.0	3.3	1.0	26.0	15.0	32	VG 95343 T29 D 004 A	411-56573
1156-4-GW24	36.0	22.5	36.0	8.5	46.0	38.0	1.8	1.8	1.0	3.3	1.0	26	15.0	32	VG 95343 T18 D 004 A	411-56684

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.

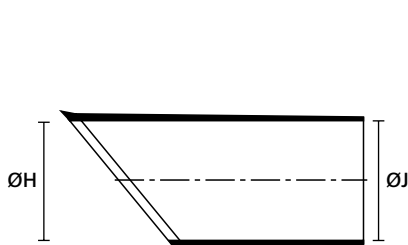


Insulation

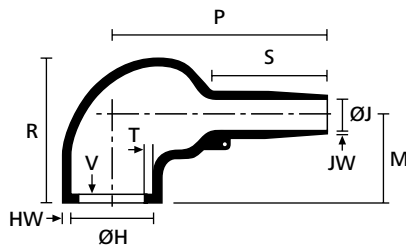
Heat Shrink Moulded Shapes

Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib



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.
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
1157-6-HW21	43.0	28.5	25.0	10.0	71.0	45.0	2.0	2	1.0	3.3	1.7	30	16.0	32	VG 95343 T29 D 005 A	411-57573
1157-4-GW24	43.0	28.5	43.0	10.0	55.0	45.0	2.0	2	1.0	3.3	1.7	30	16.0	32	VG 95343 T18 D 005 A	411-57684
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
1158-6-HW21	60.0	35.0	39.0	16.0	101.0	54.0	3.3	3.3	1.5	3.3	1.7	35	30.0	32	VG 95343 T29 D 006 A	411-58573
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-GW24	66.0	45.0	66.0	17.0	108.0	68.0	3.8	3.8	2.0	3.3	2.0	42	51.0	32	VG 95343 T18 D 007 A	411-59020
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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/MIL style

Helashrink 1100 Series, with rib, low profile

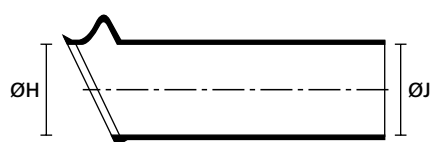
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

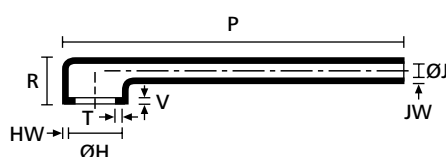
- Lightweight, low profile, compact strain relief and mechanical protection
- Typically used on airborne harnesses



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
1141-1-G	82.0	67.0	82.0	23.0	140.0	45.0	2.5	1.4	2.0	3.0	VG 95343 T06 F 010 A	32	411-41180

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



Insulation

Heat Shrink Moulded Shapes

Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib, low profile, high ratio

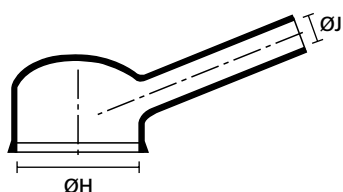
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

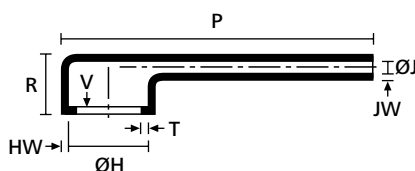
- Use in applications of partially loaded connectors with small cable diameters
- Tail design for easy orientation prior to cooling
- Strain relief for connector cable



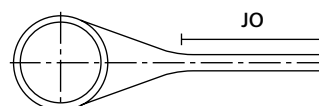
1135-1-G supplied / fully recovered.



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.
1133-2-GW24	19.0	13.0	6.0	2.0	30.0	16.0	1.5	1.1	1.0	3.3	1.0	VG 95343 T18 H 001 A	32	411-33284
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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T-Shapes, VG style/MIL style

Helashrink 1200 Series

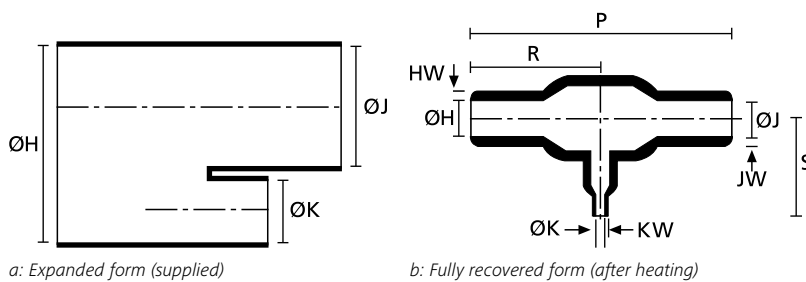
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses



1202-1-G recovered onto a cable harness.



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
1206-1-GW24	6.5	3.5	6.6	3.0	29.7	14.7	1.0	1.0	1.0	32	14.7	VG 95343 T19 A 009 A	412-06184
1203-1-GW24	13	6.0	6.5	3.0	52.0	26.0	1.5	1.5	1.0	32	19.3	VG 95343 T19 A 001 A	412-03008
1203-1-HW21	13	6.0	6.5	3.0	52.0	26.0	1.5	1.5	1.0	32	19.3	VG 95343 T30 A 001 A	412-03028
1202-1-GW24	13	7.0	13.2	6.1	58.7	29.2	1.5	1.5	1.5	32	29.2	VG 95343 T19 A 010 A	412-02184
1202-1-HW21	13	7.0	13.2	6.1	58.7	29.2	1.5	1.5	1.5	32	29.2	VG 95343 T30 A 010 A	412-02031
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
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-GW24	26.9	12.4	26.9	12.4	120.0	55.9	2.5	2.5	2.5	32	59.9	VG 95343 T19 A 011 A	412-07181
1209-1-GW24	27	13.0	13.2	6.0	108.0	54.0	2.5	2.5	1.5	32	38.6	VG 95343 T19 A 002 A	412-09184
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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Insulation

Heat Shrink Moulded Shapes

T-Shapes, VG style

Helashrink 1200 Series, Offset

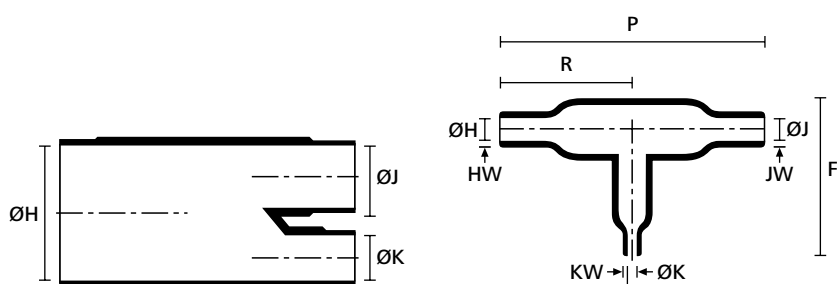
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- For strain relief, sealing and mechanical protection
- Use adhesive for cable transition on harness, if environmental sealing is required



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
1204-1-GW24	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 T19 A 016 A	32	412-04184
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
1216-1-GW24	33.0	13.0	16.5	6.5	16.5	6.5	97.0	54.0	2.5	1.5	1.5	52.5	VG 95343 T19 A 017 A	32	412-16184

Recommended Tools: 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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Angled T-Shapes, VG style

Helashrink 1300 Series, 30° & 45° angle

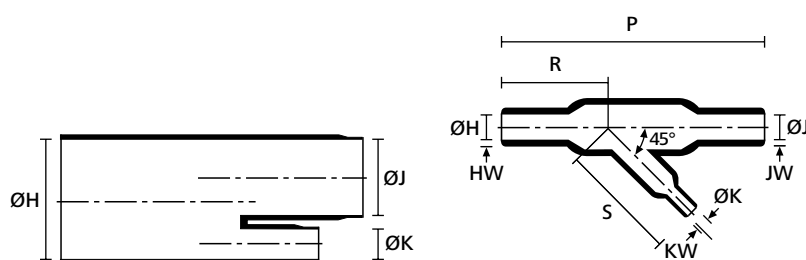
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses
- Branching part 30° & 45° Y-joint
- Mechanical strain relief for cable harnesses



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
1306-1-GW24	13.0	6.0	6.5	3.0	6.5	3.0	45.0	23.0	1.5	1.0	1.5	21.5	45°	VG 95343 T19 B010 A	32	413-06181
1301-1-HW21	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 T30 B 001 A	32	413-01038
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
1301-1-GW24	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 T19 B 001 A	32	413-01184
1307-1-G	27.0	12.5	13.0	6.0	13.0	6.0	90.0	42.0	2.5	1.5	1.5	43.0	45°	VG 95343 T08 B 011 A	32	413-07180
1307-1-GW24	27.0	12.5	13.0	6.0	13.0	6.0	90.0	42.0	2.5	1.5	1.5	43.0	45°	VG 95343 T19 B 011 A	32	413-07184
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
1302-1-GW24	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 T19 B 004 A	32	413-02184
1303-1-GW24	27.0	14.0	27.0	14.0	13.0	7.5	145.0	70.0	1.5	1.5	1.5	54.0	45°	VG 95343 T19 B001 A	32	413-03036
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
1303-1-HW21	27.0	14.0	27.0	14.0	13.0	7.5	145.0	70.0	1.5	1.5	1.5	54.0	45°	VG 95343 T30 B 002 A	32	413-03028
1311-1-GW24	30.4	15.0	30.4	15.0	20.3	10.0	82.6	32.0	2.5	2.5	1.8	51.0	30°	VG 95343 T19 B 003 A	32	413-11184
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 detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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.



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



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-VG06 1285mm	6.0	5.5	8.5	Metal (ML)	37 g/m	-	173-00207
HEGEMIP-VG06 1305mm	6.0	5.5	8.5	Metal (ML)	37 g/m	-	173-00208
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.



Please note: Some or 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.



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.



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

All dimensions in mm. Subject to technical changes.



Application Tooling

Application Tooling for Cable Ties

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

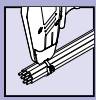
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (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.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO9i	13.5	2.0	0.369 kg	110-88001

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.
EVOcut	7.8	1.8	0.14 kg	110-05005

All dimensions in mm. Subject to technical changes.



Local contacts

Wherever you are, our defence industry cable management experts are never far away from you build, maintenance or refurbishment project.

Czech Republic

Ivan Dvorak
Tel.: +420 724 362 033
Ivan.Dvorak@HellermannTyton.com

France

Philippe Moriancourt
Tel.: +33 632 19 15 34
Philippe.Moriancourt@HellermannTyton.com

Germany

Andreas Holstein
Tel.: +49 172 4184845
Andreas.Holstein@HellermannTyton.com

Italy

Marco Benato
Tel.: +39 335 5757638
Marco.Benato@HellermannTyton.com

Netherlands, Belgium

Paul Baars
Tel.: +31 6 3004 6965
Paul.Baars@HellermannTyton.com

Spain

David Martinez
Tel.: +34 657972249
David.Martinez@HellermannTyton.com

Turkey

Yavuz Ozdemir
Tel.: +90 530 320 56 82
Yavuz.Ozdemir@HellermannTyton.com

United Kingdom

David Marklew
+44 7980 873357
David.Marklew@HellermannTyton.com

Middle East

Shatadru Bhattacharya
Tel.: +97 155 614 5453
Shatadru.Bhattacharya@HellermannTyton.com

North America

Chris Holland
Tel.: +1 214 213 8009
cholland@htamericas.com

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