Detectable Products for Food and Beverage Processing
We brought the first detectable metal content onto the market.

Today we are leading the next generation of solutions.
We understand the challenges you face
Contamination of food or beverages with foreign objects is a concern of all food processors. It can lead to costly production losses. But even graver, it can damage your reputation and brand and, worse still, threaten the lives of your customers. Therefore it is even more important to have an experienced partner at your side who understands your safety, hygiene, quality assurance and verification needs when choosing a cable management solution for your production facilities.

HellermannTyton is the experienced partner at your side
We brought the first detectable metal content cable tie onto the market and today we are leading a new generation of proven metal content cable ties and other detectable cable management products. Our solutions are cost effective and go hand in hand with expert service support. This is good news for a highly automated, highly competitive food and beverage industry.

Innovative cable management solutions from HellermannTyton have been designed together with leading food processors to maximize quality assurance and verification using metal detectors, x-ray and visual means. Our solutions include new generation metal content ties, cable tie mounts, easy-to-clean conduits and fitting, corrosion resistant identification tags and other products and system solutions for your industry.

Each product has been manufactured from high-grade materials that comply with standards established by major regulatory bodies and are rigorously tested. Profit from our knowledge and experience, and from the high-quality of our detectable cable management solutions for food and beverage installations.

Your brand is your asset – with HellermannTyton it is in good hands.
We understand the demands of the food and beverage industry.

Complying with regulatory standards:
We manufacture our products for food and beverage processing from high-grade materials. Most solutions are designed to conform to requirements of the US Food and Drug Administration (FDA), EC No. 1935/2004, as well as to various national standards. Our detectable metal content ties and other solutions are free of DEHP (Bis(2-ethyl(hexyl)phtalat), considered to be dangerous to health.
We understand the demands of the food and beverage industry.

Complying with regulatory standards

Your partner with over 80 years’ experience in cable management solutions
From detectable cable ties and easy-to-clean PVDF heatshrink tubing, to corrosion-resistant identification tags, HellermannTyton provides innovative products and system solutions for the food and beverage industry. The extensive product portfolio reflects our long-standing industry expertise.

Wherever foreign objects might enter the food processing chain, it is crucial to use materials that are easily detectable in the production facility. We offer metal content products that are simple to detect, making an important contribution to quality management and helping you achieve compliance to HACCP.

Professional service: Our network of branch offices and distribution partners around the globe ensures a consistently high level of service, high flexibility and the fast response and delivery times you expect.

Solutions for your industry: Our metal content portfolio is ideal for applications in a wide variety of food and beverage sectors, including beverage production and filling, baking, meat processing as well as in dairy production.
Cable management solutions with a high level of detectability.

Quality assurance and verification

Our contribution to your quality assurance
If a batch has been contaminated by a foreign object, quality has already been compromised. The high quality and reliability of our cable management solutions minimises the risk of contamination to consumers and proactively contributes to assuring the quality of your food and beverage operations.
Metal content detectability – A unique level of verification
We know that accidents can happen. A cable tie may be accidentally cut or be damaged, allowing part or all of it to come in contact with food. Detection is crucial. Our metal content cable management solutions offer a high level of metal detectability. We offer a wide range of cable tie types with a metal detection range from a ferrous sphere setting of 1.0 mm up to 3.4 mm. In fact, our MCTS metal content cable tie sets a new benchmark for detectability of metal content ties in food and beverage installations.

Meeting the challenges of detectability
Food and beverage processors are conscious of the challenges faced in detecting contamination with foreign objects, especially plastic objects. Whether, and to what extent, a foreign object is detected depends on a constellation of factors such as material, the type of detector, equipment sensitivity, calibration, conveyance speed and the type of food being conveyed. It is important that metal in a plastic product is uniformly dispersed to allow detection of fragments. Depending on the application, a metal content tie might also need to be resistant to chemicals, high temperatures and to float in liquids.

Detectable solutions from HellermannTyton have been tested by METTLER TOLEDO UK and are developed specifically to meet these and other challenges.
Safe, sanitary and efficient food and beverage processing.

Unmatched cable management solutions

Stainless Steel Marker Plates
Non-corrosive M-BOSS stainless steel marker plates offer excellent resistance to inorganic acids, hydrochloric acid, and halogens. M-BOSS markers are ideal where high temperatures and/or chemical cleaning agents can have a damaging effect on identification in food production facilities.
Metal Content Ties and Mounts
Metal content products from HellermannTyton are detectable through metal pigments. We offer you a wide range of cable tie types such as MCT and MCTS with a metal detection range from a ferrous sphere setting of 1.0 mm up to 3.4 mm. Furthermore, MCTS ties are highly resistant to corrosion, making these particularly suitable for applications in salty environments or cleanrooms. A uniform dispersion of metal content in all cable ties and mounts makes fragments easily detectable. Metal content mounts are ideal for extra strength in holding MCT series cable ties in position. All metal content cable ties from HellermannTyton for the food and beverage industry are available in blue for high visual detectability. Cable ties can also be ordered in green, russet, mustard, yellow, red and orange.

Metal-Content Spiral Binding, Cable Covering and Fittings
SBPEMC spiral binding and the Helawrap HWPPMC cable covers are ideal for bundling and protecting cables and hoses, including retro-fitting. Both are highly flexible, corrosion resistant, and have a high metal content for reliable detection.

Stainless Steel Cable Ties and P-Mounts
Corrosion-resistant MBT cable ties and P-Mounts made of stainless steel are suitable for the high temperatures and substantial mechanical loads often found in food production processes.

Application Processing Tools
Designed for maximum ergonomics and performance, application processing tools from HellermannTyton combine reduced hand effort and durable components to ensure efficient assembly and longer life cycle.
The ideal components for your application
Overview of products by feature

Requirements for quality food production processes are high. All solutions presented here conform to REACH Directive (EC) no. 1907/2006 and are DEHP-free (Bis(2 ethyl(hexyl) phthalate), a plasticizer deemed to be toxic for reproduction. All of our products contain special features tailored to food and beverage processing.

Detection
- Conforms to the HACCP approach
- Even fragments are detectable
- Contamination from plastic cut-offs is virtually impossible
- The MCTS variant is particularly suitable for use in saline environments with high humidity

Floating
- Products manufactured from PP and PE will float to the surface of liquids so the products can easily be seen and removed

Stainless Steel
- High temperature resistance
- Corrosion resistant & weather resistant

Easy-to-clean
- Flexible conduits which are easy to clean to protect cables against mechanical influences

Chemical resistance
- Marker plates are designed for use with stainless steel cable ties in harsh environments
### Detection

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<th>Steel</th>
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### Metal Content Ties and Mounts

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### Stainless Steel Cable Ties and Mounts

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### E/TFE Cable Ties and Mounts

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<td>Hellermark - Carriers SSCPP</td>
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<tr>
<td>Laser Beam Marked Metal Plates and Ties</td>
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Your advantages at a glance

• Extreme temperature and chemical resistance
• Conform to the HACCP approach
• Fragments also detectable
• Meet material standards laid down by major regulatory bodies such as FDA
• Quality and verification based on development expertise and rigorous testing
• Best-fit solutions: HellermannTyton Products offer you an ideal combination of quality, cost effectiveness and service from one dependable source
Cable Ties for food industry, detectable

- MCT-Series

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

Features and Benefits
- Total metal dispersion throughout the tie available in a wide range of sizes
- Usable as part of HACCP process*
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Magnetic and X-Ray detectable (detection level depending on specific application)

MCT-Series

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

- MCT-Series releasable

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

Application Tool No.

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

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
Cable Ties and Fixings

Cable Ties Inside Serrated

Cable Ties for food industry, detectable

• MCTS-Series

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

Features and Benefits
• Total metal dispersion throughout the tie available in a wide range of sizes
• Usable as part of HACCP process
• Blue colour for easy visual detection
• Greatly reduces risk of contamination
• Magnetic and X-Ray detectable (detection level depending on specific application)
• MCTS ties have very good corrosion resistance

MCTS Series

MATERIAL
Polyamide 6.6 with metal particles (PA66MP+)

Operating Temperature
-40 °C to +85 °C

Flammability
UL94 HB

Specifications
HACCP

MCTS ties are highly resistant to corrosion.

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

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

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
Cable Ties for food industry, detectable

• MCT-Series / MCTS-Series PPMP

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

Features and Benefits
• High chemical and temperature resistance
• Blue color for easy visual detection
• Greatly reduces risk of contamination
• Magnetic and X-Ray detectable (detection level depending on specific application)
• MCTS ties have very good corrosion resistance
• Usable as part of HACCP process
• PP cable ties tend to float in various liquids

Specifications
MATERIAL
Polypropylene with metal particles (PPMP+)
Polypropylene with metal particles (PPMP)

Operating Temperature
-40 °C to +85 °C
-40 °C to +115 °C

Flammability
not flame retarded
UL94 HB

HACCP
FDA, HACCP

MCT-Series / MCTS-Series PPMP

MCTPP ties will float to the surface of liquids so they can easily be seen and removed.

Application Tool No.
MK20  MK21  MK3SP  MK3PNSP2  EVO7  MK7HT  MK7P  MK6  MK9  MK9HT

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

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
**Cable Tie Mounts for food industry, detectable**

- **MCMB-Series**

MCMB mounts are ideally suited for holding MCT-Series cable ties in position, even in areas of high vibration such as food manufacturing equipment and automated packaging machines.

**Features and Benefits**
- Distinctive blue colour for easy visual detection
- Simple to install with a screw or bolt
- Provides a secure fixing solution for routing cables, tubes, and hoses
- 4-way entry of the cable tie for a quicker and more flexible installation
- Magnetic and X-ray detectable – perfect for use with food and pharmaceutical grade detection equipment
- Total metal dispersion provides consistent detectability, even for small ‘cut-off’ pieces
- Greatly reduced risk of contamination within food products
- Usable as part of HACCP process*

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**MATERIAL**
- Polyamide 6.6 with metal particles (PA66MP)

**Operating Temperature**
- -40 °C to +85 °C, (+105 °C, 500 h)

**Flammability**
- UL94 HB

**Specifications**
- FDA, HACCP

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Detectable fixing solution containing of MCMB Mount and MCT cable tie.

---

**Table: MCMB Mounts**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Height (H)</th>
<th>Hole Ø (FH)</th>
<th>Strap Width max. (G)</th>
<th>Material</th>
<th>Colour</th>
<th>Pack Cont.</th>
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All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

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*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
Cable Tie Mounts for food industry, detectable

- **MCCTAM-Series**, for applications where space is limited

MCCTAM mounts are ideally suited for holding MCT-Series cable ties in position, even in areas of high vibration such as food manufacturing equipment and automated packaging machines.

### Features and Benefits
- Distinctive blue colour for easy visual detection
- Suitable for applications with minimal space
- Mounted before cable installation and in line with cable
- CTAM has 4-way entry design for use in line or at 90° angle to cable run
- Magnetic and X-Ray detectable – perfect for use with food and pharmaceutical grade detection equipment
- Total metal dispersion provides consistent detectability, even for small “cut-off” pieces
- Greatly reduced risk of contamination within food products
- Usable as part of HACCP process*

### Specifications
- **Cable Tie Mounts**
  - CTAM Series
  - MCCTAM mounts, detectable, for applications with limited space.

### Material
- Polyamide 6.6 with metal particles (PA66MP+)

### Operating Temperature
- -40 °C to +85 °C

### RoHS
- **RoHS**

### Table of Dimensions and Specifications

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Hole Ø (FH)</th>
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*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.*
HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.

MCKR mounts with curved design are ideally suited for holding MCT-Series cable ties in position, even in areas of high vibration such as food manufacturing equipment and automated packaging machines.

Features and Benefits
- Distinctive blue colour for easy visual detection
- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Magnetic and X-Ray detectable – perfect for use with food and pharmaceutical grade detection equipment
- Total metal dispersion provides consistent detectability, even for small “cut-off” pieces
- Greatly reduced risk of contamination within food products
- Usable as part of HACCP process*

Cable Tie Mounts for food industry, detectable
- MCKR-Series with curved design

Detectable fixing solution containing of MCKR Mount and MCTS cable tie.

MCKR Mount, screwable, detectable.

<table>
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<tr>
<th>MATERIAL</th>
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<tbody>
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<td>-40 °C to +85 °C</td>
</tr>
<tr>
<td>Specifications</td>
<td>HACCP</td>
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<table>
<thead>
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<th>Length (L)</th>
<th>Height (H)</th>
<th>Hole Ø (FH)</th>
<th>Strap Width max. (G)</th>
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<th>Colour</th>
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All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

*CACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
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, apparatus 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
- MBT cable ties made from stainless steel 304
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- Antimagnetic
- High temperature resistance
- Non-burning

MATERIAL
Stainless Steel (SS304)

Operating Temperature
-80 °C to +538 °C

Flammability
Non burning

SS304 100 pcs. 15-16;18 111-93058
SS304 100 pcs. 15-16;18 111-93088
SS304 100 pcs. 15-16;18 111-93148
SS304 100 pcs. 15-16;18 111-93208
SS304 100 pcs. 15-16;18 111-93278
SS304 100 pcs. 15-16;18 111-93338
SS304 50 pcs. 15-16;18 111-94088
SS304 50 pcs. 15-16;18 111-94148
SS304 50 pcs. 15-16;18 111-94208
SS304 50 pcs. 15-16;18 111-94278
SS304 50 pcs. 15-16;18 111-94338
SS304 50 pcs. 15-16;18 111-95148
SS304 50 pcs. 15-16;18 111-95208
SS304 50 pcs. 15-16;18 111-95278
SS304 50 pcs. 15-16;18 111-95338

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

All dimensions in mm. Subject to technical changes. The MBT-Series (up to 7.9 mm) can be used in combination with the stainless steel P-Mount. The mount is simple to install with a screw or bolt and ensures a durable fixing solution.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Stainless Steel Cable Ties, uncoated, MBT_SS, MBT_HS.

Application Tool No.

<table>
<thead>
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<td>HDT16</td>
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### Cable Ties with Ball-Lock
- **MBT-Series, Stainless Steel 316**

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

#### Features and Benefits
- MBT cable ties made from stainless steel 316
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- Antimagnetic
- High temperature resistance
- Non-burning

---

**Material**
- Stainless Steel (SS316)

**Operating Temperature**
- -80 °C to +538 °C

**Flammability**
- Non-burning

**Specifications**
- ABS, BV, Det Norske Veritas, GL

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**Cable Ties and Fixings**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<td>50 pcs.</td>
<td>15-16;18</td>
<td>111-94149</td>
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<td>MBT33H</td>
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</table>

All dimensions in mm. Subject to technical changes. The MBT-Series (up to 7.9 mm) can be used in combination with the stainless steel P-Mount. The mount is simple to install with a screw or bolt and ensures a durable fixing solution. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

---

Please note! Not all products listed on this page may have this approval.
### Double Wrap Cable Ties with Ball-Lock

**MBT_XH, MBT_XHS, MBT_XHD**

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

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

---

### Cable Ties and Fixings

#### Material
- **Stainless Steel (SS316)**

#### Operating Temperature
- -80 °C to +538 °C

#### Flammability
- Non burning

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### Double-Wrap Stainless Steel Cable Ties, uncoated, MBT_UHD.

### Application Tool No.

<table>
<thead>
<tr>
<th>Type</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Bundle Ø max.</th>
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</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

### Application Tool No.

| 15 | 16 | 17 | 18 |
| MK9SST | MK9PSST | HDT16 | KST-STG200 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.
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)
- Antimagnetic
- High temperature resistant
- Non-burning

MATERIAL

- Stainless Steel (SS304)

| Operating Temperature | -80 °C to +538 °C |
| Flammability          | Non burning       |

Specifications

- Det Norske Veritas

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

Application Tooling

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.
Screw Fixing Mounts

- Stainless Steel 316 mounts for MBT Ties

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. They are ideal for use within shipbuilding, oil and gas (offshore), industrial machinery and vehicles, food and beverage, power, renewable energy and process industries.

Features and Benefits

- 2-way fixing for stainless steel cable ties
- High performance stainless steel 316 material
- Single 4mm, 5mm or 6mm fixing hole
- Heavy duty design
- Robust and durable solution
- Resistant to a range of materials and conditions
- Quick and easy to install
- Safe and secure solution for cables, tubing, conduits and pipes
- Ideal for a range of industries and applications

MATERIAL

Stainless Steel (SS316)

Operating Temperature
-80 °C to +538 °C

Flammability
Non burning

HF ✓ LFH ✓ RoHS ✓

One Step to the Web!

SSPC-Series

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Height (H)</th>
<th>Hole Ø (FH)</th>
<th>Strap Width max. (G)</th>
<th>Material</th>
<th>Colour</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
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<td>4.5</td>
<td>4.2</td>
<td>10.0</td>
<td>SS316</td>
<td>Metal (ML)</td>
<td>100 pcs.</td>
<td>151-00837</td>
</tr>
<tr>
<td>SSPC5</td>
<td>10.2</td>
<td>23.0</td>
<td>4.5</td>
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<td>10.0</td>
<td>SS316</td>
<td>Metal (ML)</td>
<td>100 pcs.</td>
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<td>SSPC6</td>
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<td>SS316</td>
<td>Metal (ML)</td>
<td>100 pcs.</td>
<td>151-00839</td>
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</tbody>
</table>

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 for higher chemical resistance and for temperatures up to +170 °C in Ethylene Tetrafluoroethylene

- T-Series in E/TFE (Tefzel®)

T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for nearly all kinds of applications, especially when a high chemical resistance is required.

Features and Benefits
- Blue higher chemical resistance cable tie available in a wide range 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
- High temperature resistance
- No moisture absorption

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>T18R</td>
<td>2.5</td>
<td>100.0</td>
<td>22.0</td>
<td>E/TFE</td>
<td>Blue (BU)</td>
<td>100 pcs.</td>
<td>2;4-6</td>
<td>111-00659</td>
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<tr>
<td>T30R</td>
<td>3.5</td>
<td>150.0</td>
<td>36.0</td>
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<td>Blue (BU)</td>
<td>100 pcs.</td>
<td>2;4-6</td>
<td>111-00698</td>
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<td>201.0</td>
<td>50.0</td>
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<td>Blue (BU)</td>
<td>100 pcs.</td>
<td>2;10</td>
<td>111-00732</td>
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<td>T50L</td>
<td>4.7</td>
<td>382.0</td>
<td>105.0</td>
<td>E/TFE</td>
<td>Blue (BU)</td>
<td>50 pcs.</td>
<td>3;9-12</td>
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<td>105.0</td>
<td>E/TFE</td>
<td>Blue (BU)</td>
<td>100 pcs.</td>
<td>3;9-12</td>
<td>111-01125</td>
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</tbody>
</table>

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

Application Tool No.

<table>
<thead>
<tr>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
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</thead>
<tbody>
<tr>
<td>MK20</td>
<td>MK21</td>
<td>MK3SP</td>
<td>MK3PNSP2</td>
<td>EVO7</td>
<td>MK7HT</td>
<td>MK7P</td>
<td>MK6</td>
<td>MK9</td>
<td>MK9HT</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>Ethylene Tetrafluoroethylene (E/TFE)</th>
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<tbody>
<tr>
<td>Operating Temperature</td>
<td>-80 °C to +170 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>UL94 V0</td>
</tr>
</tbody>
</table>

RoHS
Screw Fixing Mounts

- KR-E/TFE  for a broad temperature range

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from Agriculture to Truck manufacture, they offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 7.6 mm wide.

Features and Benefits

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration

The KR Screw Fixing Mounts made of E/TFE can ideally be used with the T-Series in E/TFE, please see page 25.

### MATERIAL
- Ethylene Tetrafluoroethylene (E/TFE)

### Operating Temperature
- -80 °C to +170 °C

### Flammability
- UL94 V0

The KR Screw Fixing Mounts made of E/TFE can ideally be used with the T-Series in E/TFE, please see page 25.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Height (H)</th>
<th>Hole Ø (FH)</th>
<th>Strap Width max. (G)</th>
<th>Material</th>
<th>Colour</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
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<tbody>
<tr>
<td>KR6G5</td>
<td>11.8</td>
<td>17.8</td>
<td>8.8</td>
<td>4.5</td>
<td>6.4</td>
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<td>Blue (BU)</td>
<td>100 pcs.</td>
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<td>KR8G5</td>
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<td>24.8</td>
<td>12.1</td>
<td>6.5</td>
<td>8.3</td>
<td>E/TFE</td>
<td>Blue (BU)</td>
<td>100 pcs.</td>
<td>151-00654</td>
</tr>
</tbody>
</table>

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 for higher chemical resistance for temperatures up to +115°C in Polypropylene

- T-Series in PP

These cable ties are used for routing, bundling and securing cables, pipes and hoses.

Features and Benefits
- Higher chemical resistant cable tie available in a wide range sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simple to insert due to the ergonomically bent tail
- Floats in water
- High chemical resistance

### MATERIAL
Polypropylene (PP)

### Operating Temperature
-40 °C to +115 °C

### Flammability
UL94 HB

### HF RoHS

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>T18R</td>
<td>2.5</td>
<td>100.0</td>
<td>22.0</td>
<td>PP</td>
<td>Black (BK)</td>
<td>100 pcs.</td>
<td>2;4-6</td>
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<tr>
<td></td>
<td>2.5</td>
<td>100.0</td>
<td>22.0</td>
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<td>Natural (NA)</td>
<td>1,000 pcs.</td>
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<tr>
<td>T30R</td>
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<td>148.0</td>
<td>32.0</td>
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<td>Natural (NA)</td>
<td>100 pcs.</td>
<td>2;4-6</td>
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<tr>
<td>T50R</td>
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<td>202.0</td>
<td>44.5</td>
<td>PP</td>
<td>Black (BK)</td>
<td>100 pcs.</td>
<td>2-10</td>
<td>111-04928</td>
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<td>4.8</td>
<td>202.0</td>
<td>44.5</td>
<td>PP</td>
<td>Natural (NA)</td>
<td>100 pcs.</td>
<td>2-10</td>
<td>111-04931</td>
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<td>T120S</td>
<td>7.6</td>
<td>225.0</td>
<td>55.0</td>
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<td>Black (BK)</td>
<td>500 pcs.</td>
<td>3;9-12</td>
<td>111-12827</td>
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<tr>
<td>T120R</td>
<td>7.6</td>
<td>390.0</td>
<td>105.0</td>
<td>PP</td>
<td>Black (BK)</td>
<td>500 pcs.</td>
<td>3;9-12</td>
<td>111-12066</td>
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All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

<table>
<thead>
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<th>Application Tool No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MK20</td>
<td>MK21</td>
<td>MK3SP</td>
<td>MK3PNP2</td>
<td>EVO7</td>
<td>MK7HT</td>
<td>MK7P</td>
<td>MK6</td>
<td>MK9</td>
<td>MK9HT</td>
</tr>
</tbody>
</table>

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

**Specifications**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Supplied Ø D min.</th>
<th>Recov. Ø d max.</th>
<th>Wall (WT)</th>
<th>Length (L)</th>
<th>Colour</th>
<th>Designation as per VG-Norm</th>
<th>Article-No.</th>
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<tr>
<td>TK20-1.2/0.6</td>
<td>1.2</td>
<td>0.6</td>
<td>0.25</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
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<td>0.8</td>
<td>0.25</td>
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<td>Transparent (CL)</td>
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<td>1.2</td>
<td>0.25</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F003M</td>
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<tr>
<td>TK20-3.2/1.6</td>
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<td>1.6</td>
<td>0.25</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F004M</td>
<td>311-00329</td>
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<tr>
<td>TK20-4.8/2.4</td>
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<td>2.4</td>
<td>0.25</td>
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<td>1.2 m</td>
<td>Transparent (CL)</td>
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<td>311-00649</td>
</tr>
<tr>
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<td>4.8</td>
<td>0.30</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F007M</td>
<td>311-00959</td>
</tr>
<tr>
<td>TK20-12.7/6.4</td>
<td>12.7</td>
<td>6.4</td>
<td>0.30</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F008M</td>
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<td>TK20-19.1/9.5</td>
<td>19.1</td>
<td>9.5</td>
<td>0.43</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F009M</td>
<td>311-01909</td>
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<tr>
<td>TK20-25.4/12.7</td>
<td>25.4</td>
<td>12.7</td>
<td>0.48</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>VG95343T05F010M</td>
<td>311-02549</td>
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<tr>
<td>TK20-38.1/19.1</td>
<td>38.1</td>
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<td>0.51</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>-</td>
<td>311-05089</td>
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</table>

RoHS ✓

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
# Heat Shrinkable Tubing 2:1 - PVDF

**TK29**

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. TK29 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**

- Transparent, semi-flexible heat shrinkable tubing
- Very thin walled and tough
- Self extinguishing
- For higher temperature applications
- Very good mechanical strength and chemical resistance
- Meets lots of industrial standards
- Supplied on reel

## MATERIAL

| Polyvinylidene Fluoride (PVDF) |

<table>
<thead>
<tr>
<th>Shrink Ratio</th>
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<tbody>
<tr>
<td>Operating Temperature</td>
<td>-55 °C to +175 °C</td>
</tr>
<tr>
<td>Minimum Shrink Temperature</td>
<td>+150 °C</td>
</tr>
<tr>
<td>Longitudinal change after shrinkage</td>
<td>+/-10% max</td>
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<tr>
<td>Dielectric Strength</td>
<td>≥ 30 kV/mm min. according to ASTM D2171</td>
</tr>
<tr>
<td>Flammability</td>
<td>UL224 VW-1</td>
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<tr>
<td>Specifications</td>
<td>MIL-DTL-23053, UL224 VW-1</td>
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</tbody>
</table>

**Insulation Heat Shrinkable Tubing**

TK29 thin walled, translucent heat shrink tubing on reel.

## Specifications

<p>|</p>
<table>
<thead>
<tr>
<th>TYPE</th>
<th>Supplied Ø D min.</th>
<th>Recov. Ø d max.</th>
<th>Wall (WT)</th>
<th>Reel Length</th>
<th>Colour</th>
<th>Article-No.</th>
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<td>0.6</td>
<td>0.25</td>
<td>300 m</td>
<td>Transparent (CL)</td>
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<td>0.8</td>
<td>0.25</td>
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<td>Transparent (CL)</td>
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<td>TK29-2.4/1.2</td>
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<td>1.2</td>
<td>0.25</td>
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<td>Transparent (CL)</td>
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<tr>
<td>TK29-3.2/1.6</td>
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<td>1.6</td>
<td>0.25</td>
<td>150 m</td>
<td>Transparent (CL)</td>
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<td>0.25</td>
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<td>Transparent (CL)</td>
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<td>9.5</td>
<td>4.8</td>
<td>0.30</td>
<td>60 m</td>
<td>Transparent (CL)</td>
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<td>TK29-12.7/6.4</td>
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<td>60 m</td>
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<td>Transparent (CL)</td>
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<td>19.1</td>
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<td>60 m</td>
<td>Transparent (CL)</td>
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<td>0.51</td>
<td>60 m</td>
<td>Transparent (CL)</td>
<td>311-95089</td>
</tr>
</tbody>
</table>

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

Please note! Not all products listed on this page may have this approval.
Heat Shrinkable Tubing • PTFE

TFE is ideal for high temperature applications, when resistance to aggressive fluids is required or a very thin walled tubing is needed, for example in pH-measuring instruments. TFE tubing is also used to reduce movement due to friction, covering cylinders for example.

Features and Benefits
• PTFE heat shrink tubing
• Very high temperature resistance
• Extra thin wall translucent tubing
• High abrasion resistance and good resistance against aggressive chemicals
• Available in either 2:1 (TFE2) or 4:1 (TFE4) shrink ratios

Heat Shrinkable Tubing 2:1

All dimensions in mm. Subject to technical changes.
AWG: American Wire Gauge Minimum Order Quantity (MOQ) may differ from package content.
### TFE4 4:1

**Heat Shrinkable Tubing 4:1**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Supplied Ø D min.</th>
<th>Recov. Ø D max.</th>
<th>Size (imperial)</th>
<th>Wall (WT)</th>
<th>Length (L)</th>
<th>Colour</th>
<th>Shrink Ratio</th>
<th>Article-No.</th>
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<tbody>
<tr>
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<td>1.98</td>
<td>0.64</td>
<td>5/64 *</td>
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<td>Transparent (CL)</td>
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<td>3.17</td>
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<td>1.2 m</td>
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<td>TFE4-3/16</td>
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<td>1.27</td>
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<td>1.60</td>
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<td>TFE4-3/8</td>
<td>9.52</td>
<td>2.44</td>
<td>3/8 *</td>
<td>0.30</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-00959</td>
</tr>
<tr>
<td>TFE4-1/2</td>
<td>12.70</td>
<td>3.66</td>
<td>1/2 *</td>
<td>0.38</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-01279</td>
</tr>
<tr>
<td>TFE4-5/8</td>
<td>15.87</td>
<td>4.52</td>
<td>5/8 *</td>
<td>0.38</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-01599</td>
</tr>
<tr>
<td>TFE4-3/4</td>
<td>19.05</td>
<td>5.69</td>
<td>3/4 *</td>
<td>0.38</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-01909</td>
</tr>
<tr>
<td>TFE4-1</td>
<td>25.40</td>
<td>7.06</td>
<td>1 *</td>
<td>0.38</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-02549</td>
</tr>
<tr>
<td>TFE4-1 1/4</td>
<td>31.75</td>
<td>8.82</td>
<td>1 *</td>
<td>0.38</td>
<td>1.2 m</td>
<td>Transparent (CL)</td>
<td>4:1</td>
<td>339-03189</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.
**Metal-Content Cable Cover**

- **Helawrap HWPPMC**

HWPPMC is particularly suitable for installation and maintenance for food-processing machines and in food-processing plants.

**Features and Benefits**

- High metal-content for reliable detection with standard detection equipment
- Quick and effortless to apply
- Stainless steel preserves resistance to corrosion
- Blue colour for enhanced visibility
- Ideal solution for bundling and protecting cables and hoses
- Highly flexible
- Very good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reused
- Handy applicator tool included

**MATERIAL**

- Polypropylene (PP), Stainless Steel (SS)

**Operating Temperature**

-60 °C to +100 °C, intermittent +140 °C

**Flammability**

UL94 HB

**Specifications**

- FDA, HACCP

**Cable Protection Systems**

**Protective Tubing and Spiral Binding**

**HWPPMC metal-content cable cover.**

**Insert one or more cables into the insertion slot of the applicator tool.**

**Place the applicator tool in one end of the Helawrap cable cover.**

**Simply slide the applicator tool through the Helawrap cover.**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Bundle Ø max.</th>
<th>Colour</th>
<th>Reel Length</th>
<th>Application Tool</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWPPMC8</td>
<td>9.0</td>
<td>Blue (BU)</td>
<td>25 m</td>
<td>HAT8</td>
<td>161-66000</td>
</tr>
<tr>
<td>HWPPMC16</td>
<td>16.0</td>
<td>Blue (BU)</td>
<td>25 m</td>
<td>HAT16</td>
<td>161-66100</td>
</tr>
<tr>
<td>HWPPMC20</td>
<td>21.0</td>
<td>Blue (BU)</td>
<td>25 m</td>
<td>HAT20</td>
<td>161-66200</td>
</tr>
<tr>
<td>HWPPMC25</td>
<td>27.0</td>
<td>Blue (BU)</td>
<td>25 m</td>
<td>HAT25</td>
<td>161-66300</td>
</tr>
<tr>
<td>HWPPMC30</td>
<td>32.0</td>
<td>Blue (BU)</td>
<td>25 m</td>
<td>HAT30</td>
<td>161-66400</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content.

HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.
Metal-Content Spiral Binding

- SBPEMC

SBPEMC is designed for applications in food-processing plants and machines.

Features and Benefits
- High metal-content for reliable detection with standard detection equipment
- Stainless steel preserves resistance to corrosion
- Blue colour for enhanced visibility
- Ideal solution for bundling and protecting cables and hoses
- Highly flexible
- Suitable for retro-fitting
- Branching off cable at any point

SBPEMC metal-content spiral binding.

Detectable, metal-content spiral binding protects cables on food-processing machines.

MATERIAL
Polyethylene (PE), Stainless Steel (SS)

Operating Temperature
-60 °C to +80 °C, intermittent +120 °C

Flammability
UL94 HB

Specifications
FDA, HACCP

HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Wall (WT)</th>
<th>Pitch (P)</th>
<th>Bundle Ø min.</th>
<th>Bundle Ø max.</th>
<th>Colour</th>
<th>Reel Length</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBPEMC1.5</td>
<td>0.80</td>
<td>6.0</td>
<td>1.6</td>
<td>8.0</td>
<td>Blue (BU)</td>
<td>30 m</td>
<td>161-46000</td>
</tr>
<tr>
<td>SBPEMC16</td>
<td>1.00</td>
<td>7.8</td>
<td>20.0</td>
<td>150.0</td>
<td>Blue (BU)</td>
<td>30 m</td>
<td>161-46300</td>
</tr>
<tr>
<td>SBPEMC4</td>
<td>1.40</td>
<td>12.5</td>
<td>5.0</td>
<td>20.0</td>
<td>Blue (BU)</td>
<td>30 m</td>
<td>161-46100</td>
</tr>
<tr>
<td>SBPEMC9</td>
<td>1.60</td>
<td>16.0</td>
<td>10.0</td>
<td>100.0</td>
<td>Blue (BU)</td>
<td>30 m</td>
<td>161-46200</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.
# Spiral-reinforced PVC Conduits

- **PSRSC Conduit**

Machine building, plant construction, shipbuilding, automation, electrical installations

## Features and Benefits

- Flexible
- Easy to clean outside surface
- Withstands some torsional movement
- Self-extinguishing
- Easy to feed cables
- Can be used with PSR PA66 fittings and PSRSC metal fittings
- Colour: black; light grey, orange (highly flexible), green (oil resistant), blue (high temperature resistant) upon request

### MATERIAL

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>Polyvinylchloride (PVC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-5 °C to +70 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>self-extinguishing according to EN IEC 61386</td>
</tr>
</tbody>
</table>

## RoHS

HelaGuard PSRSC conduit and PSRSC-FMCSSF stainless steel fittings: an easy-to-easy cable protection system for food-processing applications.

### Cable Protection Systems

- **Spiral-Reinforced Conduit Systems**
- **Spiral-reinforced PVC Conduits**

- **PSRSC Conduit**

### HelaGuard spiral-reinforced conduit, smooth outer coating

### Table: Spiral-reinforced Conduits

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Nominal Ø</th>
<th>Outside Ø (OD)</th>
<th>Inside Ø (ID)</th>
<th>Bending Radius (R)</th>
<th>Weight (g/m)</th>
<th>Reel Length</th>
<th>Colour</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSRSC16</td>
<td>16</td>
<td>17.8</td>
<td>12.0</td>
<td>50</td>
<td>139</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40302</td>
</tr>
<tr>
<td>PSRSC20</td>
<td>20</td>
<td>21.1</td>
<td>16.0</td>
<td>70</td>
<td>174</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40303</td>
</tr>
<tr>
<td>PSRSC25</td>
<td>25</td>
<td>26.4</td>
<td>21.0</td>
<td>90</td>
<td>235</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40304</td>
</tr>
<tr>
<td>PSRSC32</td>
<td>32</td>
<td>33.1</td>
<td>26.5</td>
<td>140</td>
<td>327</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40305</td>
</tr>
<tr>
<td>PSRSC40</td>
<td>40</td>
<td>41.8</td>
<td>35.4</td>
<td>190</td>
<td>448</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40306</td>
</tr>
<tr>
<td>PSRSC50</td>
<td>50</td>
<td>47.9</td>
<td>40.0</td>
<td>240</td>
<td>725</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40307</td>
</tr>
<tr>
<td>PSRSC63</td>
<td>63</td>
<td>59.7</td>
<td>51.3</td>
<td>270</td>
<td>948</td>
<td>30 m</td>
<td>Grey (GY)</td>
<td>166-40308</td>
</tr>
</tbody>
</table>

*All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.*
Fittings for spiral-reinforced PVC conduits

- PSRSC-FMCFFSS compression fitting for food-processing applications

Straight fitting, external thread, stainless steel (SS316). Fulfils IP66, IP67, IP68 and IP69k with PSRSC conduits.

Features and Benefits

- Multipart stainless steel (SS316) compression fitting including elastomeric seal
- Rounded edges, smooth surfaces and no crevices where food or other substances can collect or bacteria grow
- Can be used for knockouts or threaded entries as fitting rotates until tightened
- Fits PSRSC conduits

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSRSC16-FMCFFSS-M16</td>
<td>M16</td>
<td>10.7</td>
<td>46.0</td>
<td>27</td>
<td>29</td>
<td>10</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41601</td>
</tr>
<tr>
<td>PSRSC20-FMCFFSS-M20</td>
<td>M20</td>
<td>14.5</td>
<td>49.3</td>
<td>30</td>
<td>32</td>
<td>12</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41602</td>
</tr>
<tr>
<td>PSRSC25-FMCFFSS-M25</td>
<td>M25</td>
<td>18.7</td>
<td>53.7</td>
<td>36</td>
<td>38</td>
<td>14</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41603</td>
</tr>
<tr>
<td>PSRSC32-FMCFFSS-M32</td>
<td>M32</td>
<td>24.6</td>
<td>53.7</td>
<td>42</td>
<td>45</td>
<td>15</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41604</td>
</tr>
<tr>
<td>PSRSC40-FMCFFSS-M40</td>
<td>M40</td>
<td>32.7</td>
<td>58.4</td>
<td>52</td>
<td>55</td>
<td>16</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41605</td>
</tr>
<tr>
<td>PSRSC50-FMCFFSS-M50</td>
<td>M50</td>
<td>37.7</td>
<td>63.0</td>
<td>59</td>
<td>62</td>
<td>16</td>
<td>1 pcs.</td>
<td>Metal</td>
<td>166-41606</td>
</tr>
</tbody>
</table>

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

Please note! Not all products listed on this page may have this approval.
Stainless Steel Pre-embossed Marking System, manual

- Hellermark SSC
- Hellermark SSM

Hellermark is used in the rail, marine, offshore, petrochemical, food and construction industries, for the identification of cables, pipes and other equipment in harsh environments.

Features and Benefits
- Stainless steel pre-embossed marker tiles and carriers
- Made of grade 316 stainless steel for ideal use in aggressive environments
- Insert marker tiles (SSM) into fitting carrier (SSC) and either seal with a plastic cap (SSCPP) or close ends with pliers
- Fasten carriers using stainless steel cable ties with max. strap width of 8mm
- Carrier can be riveted or screw-fixed using two 3mm holes at each end

### Characteristics

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Marker tiles per carrier</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCPP</td>
<td>-</td>
<td>7.0</td>
<td>-</td>
<td>100 pcs.</td>
<td>540-02011</td>
</tr>
<tr>
<td>SSC46</td>
<td>11.0</td>
<td>46.0</td>
<td>5</td>
<td>10 pcs.</td>
<td>540-01046</td>
</tr>
<tr>
<td>SSC56</td>
<td>11.0</td>
<td>56.0</td>
<td>7</td>
<td>10 pcs.</td>
<td>540-01056</td>
</tr>
<tr>
<td>SSC82</td>
<td>11.0</td>
<td>82.0</td>
<td>11</td>
<td>10 pcs.</td>
<td>540-01082</td>
</tr>
<tr>
<td>SSC106</td>
<td>11.0</td>
<td>106.0</td>
<td>15</td>
<td>10 pcs.</td>
<td>540-01106</td>
</tr>
<tr>
<td>SSC134</td>
<td>11.0</td>
<td>134.0</td>
<td>20</td>
<td>10 pcs.</td>
<td>540-01134</td>
</tr>
<tr>
<td>SSC286</td>
<td>11.0</td>
<td>286.0</td>
<td>45</td>
<td>10 pcs.</td>
<td>540-01286</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.
Stainless Steel Printing System

**M-BOSS Compact**

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with Tagprint Pro 3.0. Simply open the easy to use program to create print lists. Improved cooling system now ensures a continuous operation between 8-10 hours.

Marker plates are attached to pipes and cables using 4.6 mm width MBT cable ties and a MK95ST hand tool.

**Features and Benefits**
- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Emboss first marker within a minute of power up
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro 3.0 labelling software with pre-loaded templates to simplify print jobs
- Powered by a standard electrical supply
- Organiser is available to manage printed output (UNS: 544-21000), increases printer weight to 45 kg
- Printer is delivered with the following 45 piece 4mm character set:
  - Numbers: 0 1 2 3 4 5 6 7 8 9
  - Symbols: & - / . , ’ Ä, Ö, Ü

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-BOSS Compact</td>
<td>1 pcs.</td>
<td>544-20000</td>
</tr>
</tbody>
</table>

A quiet, durable, and easy to use metal plate embossing printer.

<table>
<thead>
<tr>
<th>Print Method</th>
<th>Embossed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>110 Volt AC- 240 Volt AC 50/60 Hz</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>1 second per character</td>
</tr>
<tr>
<td>Printer Interfaces</td>
<td>USB 2.0</td>
</tr>
<tr>
<td>System Requirements</td>
<td>MS Windows XP, W7</td>
</tr>
<tr>
<td>Dimensions W x H x D</td>
<td>480 mm x 360 mm x 570 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>41 kg</td>
</tr>
<tr>
<td>Specifications</td>
<td>CE</td>
</tr>
</tbody>
</table>

RoHS

**M-BOSS Compact and Organiser**

M-BOSS Compact and Organiser system gives the added advantage of a self-contained storage system within the print unit.

The organiser is a 10 container carousel storage system that can be programmed to hold either an individual or a pre-defined set of marker plates. This means that users have the flexibility to manage how they work with the printed output. A simple input screen on the top of the machine is used to specify the quantity per container within the carousel. The carousel drawer when opened extends 430 mm from the front of the printer.

**Features and Benefits**
- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 removable marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Carousel system will hold up to 400 markers
- Each container can hold 40 markers

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-BOSS Compact and Organiser</td>
<td>1 pcs.</td>
<td>544-21000</td>
</tr>
</tbody>
</table>

A simple solution to managing your printer output.
Stainless Steel Printing System
• M-BOSS Compact Markers

M-BOSS Markers are used in all areas where severe mechanical or chemical conditions occur e.g. offshore industry, marine engineering, petrochemical industry, mining, underground or on radio and cellular masts where mark permanence is critical.

The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker. The physical characteristics of the metal and the height of the embossed mark allows users to apply a stiff or metallic brush to the surface and remove excess layers of paint or grease without damaging the integrity of the text.

Features and Benefits
• Raised marking ensure text visibility even when covered in dust, debris, grease and oil
• Stainless steel grade SS316 is suited for use in harsh environments
• Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
• Apply ties with a MK95ST

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Strap Width max. (G)</th>
<th>Number of lines</th>
<th>Characters per line</th>
<th>Number of characters</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBL10X45</td>
<td>4.6</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>10.0</td>
<td>45.0</td>
<td>1,000</td>
<td>544-80101</td>
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<tr>
<td>MBL10X90</td>
<td>4.6</td>
<td>1</td>
<td>23</td>
<td>23</td>
<td>10.0</td>
<td>90.0</td>
<td>500</td>
<td>544-80102</td>
</tr>
<tr>
<td>MBL20X45</td>
<td>4.6</td>
<td>3</td>
<td>8</td>
<td>24</td>
<td>20.0</td>
<td>45.0</td>
<td>1,000</td>
<td>544-80201</td>
</tr>
<tr>
<td>MBL20X90</td>
<td>4.6</td>
<td>3</td>
<td>23</td>
<td>69</td>
<td>20.0</td>
<td>90.0</td>
<td>500</td>
<td>544-80202</td>
</tr>
</tbody>
</table>

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

- **M-BOSS Print Service**

Customised embossed stainless steel SS316 markers are now available. Simply send required texts electronically for perfect embossed markers. Characters are embossed so that dirt, dust, paint and debris can be removed leaving a clear visible mark.

MBC marker plates are designed with a high bridge that allows both plastic and metal cable ties; metal ties up to 7.9mm wide and 0.27mm thick, and plastic ties up to 4.6mm wide and 1.5mm thick.

The MBML range of marker plates can only be used with metal ties up to 4.6mm wide.

**MATERIAL**

- Stainless Steel (SS316)

**Operating Temperature**

-80 °C to +538 °C

**M-BOSS markers remain visible in areas of dirt, grease and paint.**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Strap Width max. (G)</th>
<th>Number of lines</th>
<th>Characters per line</th>
<th>Number of characters</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Pack Cont.</th>
<th>Article-No.</th>
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<tbody>
<tr>
<td>MBMLE-DE10X45</td>
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<td>1</td>
<td>8</td>
<td>8</td>
<td>10.0</td>
<td>45.0</td>
<td>10</td>
<td>544-80103</td>
</tr>
<tr>
<td>MBMLE-DE10X90</td>
<td>4.6</td>
<td>1</td>
<td>23</td>
<td>23</td>
<td>10.0</td>
<td>90.0</td>
<td>10</td>
<td>544-80104</td>
</tr>
<tr>
<td>MBMLE-DE20X45</td>
<td>4.6</td>
<td>3</td>
<td>8</td>
<td>24</td>
<td>20.0</td>
<td>45.0</td>
<td>10</td>
<td>544-80203</td>
</tr>
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<td>MBMLE-DE20X90</td>
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<td>10</td>
<td>540-10050</td>
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</table>

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

- **Laser Beam Marked Metal Plates and Ties**

Customised stainless steel SS316 markers are now available. Simply send required texts, barcodes, and logos electronically for perfect laser etched marker plates.

- Excellent character legibility
- Resistant to weathering and extreme levels of UV light
- Printed mark will last the lifetime of the metal plate and cable tie
- MBC or MBML marker plates are possible
Manual Tensioning Tool Plastic Housing

- EVO7 up to 4.8 mm strap width

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

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Description</th>
<th>Strap Width max. (G)</th>
<th>Strap Thickness max.</th>
<th>Weight</th>
<th>Article-No.</th>
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</thead>
<tbody>
<tr>
<td>EVO7</td>
<td>EVO7</td>
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<tr>
<td>EVO7SP</td>
<td>EVO7SP</td>
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<tr>
<td>BLADEKT</td>
<td>Blade-Kit</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>110-70106</td>
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</tbody>
</table>

All dimensions in mm. Subject to technical changes.

TLC-Technology: Tension - Lock - Cut

The new EVO7 protects muscles and joints and increases effectiveness
- Less recoil shock reduces impact to the operator’s hand
- Application of force is significantly reduced

1. Tension: Tie is tensioned as usual.
2. Lock: When the desired tension is met the locking mechanism locks the tie in place.

Application video: EVO7
Manual Tensioning Tool with Plastic Housing

- **MK9 up to 13.5 mm strap width**

MK9 tool is used to apply bigger cable ties as they are used in trucks and busses. MIL and VG certification allows the use of MK9 for military vehicle and aviation construction.

**Features and Benefits**
- Glass-fibre-reinforced housing
- Ergonomic design
- For HellermannTyton plastic cable ties up to 13.5 mm width
- Consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force combined with two-step quick adjustment
- MIL and VG approved

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Description</th>
<th>Strap Width max. (G)</th>
<th>Strap Thickness max.</th>
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<tbody>
<tr>
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<tr>
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<td>-</td>
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<tr>
<td>Lock cap tensioning knob</td>
<td>Lock cap tensioning knob</td>
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<td>-</td>
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<td>110-07200</td>
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</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Manual Tensioning Tool for Metal Ties MBT-Series

- **MK95ST up to 16.0 mm strap width**

Features and Benefits
- Glass-fibre-reinforced housing
- Ergonomic design
- Consistent tensioning and automatically cutting of metal ties MBT-series
- Infinitely adjustable tension force combined with two-step quick adjustment

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Description</th>
<th>Strap Width max. (G)</th>
<th>Strap Thickness max.</th>
<th>Weight</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MK95ST</td>
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<td>0.01 kg</td>
<td>110-95273</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval.
Manual Tensioning Tool for Metal Ties MST-S Series

- MST6 for 5.9 mm strap width

The MST6 tool has been specially developed for reliably applying HellermannTyton MST-Series metal cable ties. The punch-lock mechanism mechanically crimps the tie ensuring a reliable bundling with perfect resistance to vibration. The tension force is freely adjustable by the operator.

Features and Benefits
- Tough metal tool
- Ergonomic design
- Consistent tensioning and automatically cutting of metal ties
- Designed for use with MST-S Series ties (5.9 mm)
- For tensioning, fixing and cutting MST-S metal ties only

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Description</th>
<th>Strap Width max. (G)</th>
<th>Strap Thickness max.</th>
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<td>MST6</td>
<td>MST6</td>
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<tr>
<td>MST6-P30 (Punch)</td>
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<td>-</td>
<td>0.01 kg</td>
<td>110-61002</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Manual Tensioning Tool for Metal Ties MST-M Series

- MST9 for 8.9 mm strap width

The MST9 tool has been specially developed for reliably applying HellermannTyton metal cable ties of the MST-M Series. The punch-lock mechanism mechanically crimps the tie ensuring a reliable bundling with perfect resistance to vibration. The tension force is freely adjustable by the operator.

Features and Benefits
- Tough metal tool
- Ergonomic design
- Consistent tensioning and automatic cutting of metal ties
- Designed for use with MST-M Series ties (8.9 mm)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Description</th>
<th>Strap Width max. (G)</th>
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<th>Article-No.</th>
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<tbody>
<tr>
<td>MST9</td>
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<td>0.4</td>
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<td>MST9-P29 (Blade)</td>
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<td>MST9-P30 (Punch)</td>
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<td>0.01 kg</td>
<td>110-13002</td>
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</table>

All dimensions in mm. Subject to technical changes.
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