

## ENGINEERED FASTENING SOLUTIONS



**HellermannTyton**

BUNDLE SEPARATORS | MOUNTS | CLAMPS | FASTENERS | CABLE TIE TOOLS | IDENTIFICATION | CABLE MANAGEMENT

HellermannTyton is a leader in designing and manufacturing innovative fastening solutions for the automotive, truck, bus, aerospace, OEM, appliance, marine and heavy equipment industries.

With over 34 locations world wide, HellermannTyton is able to design, produce, and deliver solutions to meet customer's production requirements.

ARGENTINA | AUSTRALIA | AUSTRIA | BELGIUM | BRAZIL | CANADA | CHINA  
CZECH REPUBLIC | DENMARK | FINLAND | FRANCE | GERMANY | HONG KONG  
HUNGARY | IRELAND | ITALY | JAPAN | KOREA | MEXICO | NETHERLANDS | NORWAY | PHILIPPINES  
POLAND | PORTUGAL | ROMANIA | RUSSIAN FEDERATION | SINGAPORE | SLOVENIA | SOUTH AFRICA  
SPAIN | SWEDEN | THAILAND | UNITED KINGDOM | UNITED STATES

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# Engineered Fastening Solutions

HellermannTyton is a world leader in providing fastening solutions to the global marketplace. But that doesn't mean we rest on our past successes —our product development teams continue to push the possibilities, shaping the future of fastening solutions through innovative designs and an unprecedented commitment to the success of our customers.

## The Engineered Process

**Innovative Design Technologies –**  
Utilizing the latest customer compatible design software.

**Short Concept to Production Cycle –**  
We are an agile company and can act quickly to changing needs.

**A Valued Partnership –**  
Our development team works with your engineers to develop solutions specific to your application needs.

## Solutions

**Customer  
driven  
solutions**





# The Fastening Products

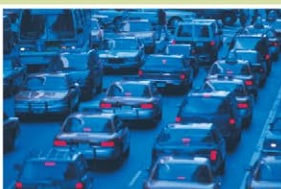
**Reduced costs,  
assembly time  
and warranty  
issues**

**Wide variety of customized  
solutions for the automotive,  
transportation and OEM markets.**

**Superior Materials Knowledge –**  
Offering advanced materials  
that address unique application  
and environmental needs.

**Quality Certified –**  
TS16949, ISO 9001, and  
ISO 14001 certified

**Improved quality  
and durability**



## Optimum storage conditions for cable ties made of polyamide (PA)

**HellermannTyton** cable ties and mounts are manufactured from high-quality polyamide (PA). This material is mainly processed using injection molding, but can also be extruded.

Polyamide is a hygroscopic material. This means that the material absorbs and loses moisture. For optimum handling of cable ties, it is important that the material is in a condition of equilibrium with a water content of approximately 2.5%.

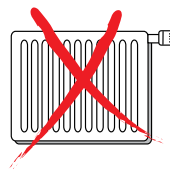
The packaging used by HellermannTyton ensures that the water content in the material remains constant. Therefore, it is important to store the products in their original packaging to preserve the quality of the ties and mounts.



Once opened you should use the ties as quickly as possible.

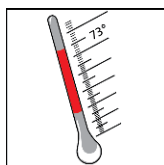


Do not expose the product to direct sunlight

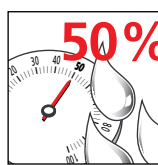


Store the product away from direct sources of heat

### Ideal storage conditions:



73 °F



50%  
relative  
humidity

### QUALITY CERTIFICATIONS

HellermannTyton is certified to TS 16949, ISO 9001:2000 and ISO 14001

### RoHS/WEEE



The scope of the European Union's Restriction of Hazardous Substances (RoHS) and the Waste Electrical and Electronic Equipment (WEEE) directives covers all electrical and electronic equipment (and their components) sold into the European Union. Throughout this catalog, you will see designations where materials are RoHS compliant. If you have specific questions or need compliance information related to the RoHS or WEEE directives, please go to our website link: [www.hellermann.tyton.com/rohs.asp](http://www.hellermann.tyton.com/rohs.asp) or email us at: [rohs@htamericas.com](mailto:rohs@htamericas.com). A HellermannTyton representative will promptly respond to your request.

### WARRANTY POLICY

HellermannTyton products are warranted to be free from defects in material and workmanship at the time sold by us; but our obligation under this warranty and that of the seller is limited to the replacement of the product, and neither we nor the seller are bound by any other warranty, expressed, implied or statutory. Under no circumstances are we or the seller liable for any loss, damage, expenses or consequential damages of any kind arising out of the use or inability to use these products. All are sold with the understanding that the user will test them in actual use and determine their adaptability for the intended uses.

*The above warranties and remedies are exclusive and in lieu of all other warranties and remedies whatsoever, express or implied, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose which HellermannTyton expressly disclaims.*

## Cable Ties and Tool Systems

**HellermannTyton's** cable tie and tool systems are designed to work together to provide optimal consistency, quality, safety, and overall performance. Wrapping and hand tensioning a high quality cable tie is just the first step in assuring a high quality application. It is necessary to use one of HellermannTyton's cable tie tools to ensure that the cable tie is applied with just the right amount of tension and with a flush cut that won't leave a sharp edge. HellermannTyton leads the world in the development and manufacture of ergonomically designed, high performing cable tie tools in mechanical, power assisted, and automatic versions. With HellermannTyton's automatic cable tie systems, cable ties are applied, tensioned and cut-off to the correct tension in approximately one second. HellermannTyton's mechanical and power assisted tools expertly tension and cut-off hand applied cable ties.

## Consistency and Quality

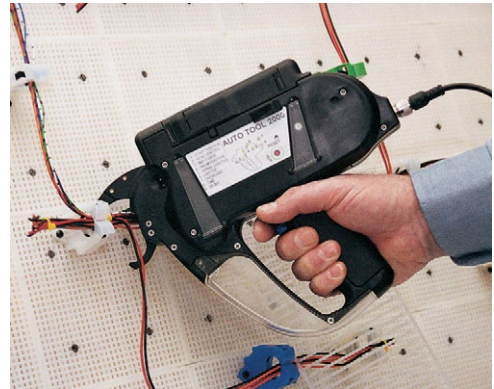
By utilizing HellermannTyton's cable ties and tools together, a consistent tension and cut-off is achieved. When using non-approved methods of cutting off a cable tie, wire and cable can be crushed, the strap of the cable tie may be cut-off too deeply causing the tie to disengage, or the cable tie can be applied too loosely which can affect the bundling and securing properties of the application.

## Safety

A flush cut is another benefit of using HellermannTyton's cable tie tools and ties as a system. Worker safety, and resulting reduction of workers' compensation claims, is an increasing priority of most companies. HellermannTyton's cable tie tools are ergonomically designed to reduce worker effort and causes of repetitive motion injuries. When using HellermannTyton's tools and cable ties, a flush cut is achieved, creating a smooth edge. When non-approved methods of applying a cable tie are used, a sharp edge is almost always left at the end of the tie - causing injury to workers and end-customers. All of HellermannTyton's cable tie tool systems offer adjustable tension and cut-off levels to assure optimal tensions and flush cut-offs.

## Overall Performance

Used together, HellermannTyton's cable ties and ergonomically designed tool systems assure a high quality installation which prevents damage to wire and cable and potential rework due to inappropriately applied cable ties - all lowering installed costs while improving performance.



*AT2000 Automatic Cable Tie Tool — For automatic cable tie tool systems, see page 88.*



*MK7P - Power Assisted Cable Tie Tool — For power assisted cable tie tools, see page 85.*



*MK7 and MK9 Mechanical Cable Tie Tools — For mechanical cable tie tools, see page 82.*

## Materials

**HellermannTyton** has worked very closely with its material suppliers to develop resins that are specifically formulated for fastener and cable tie production. HellermannTyton has spearheaded material advancements in component manufacturing to assure customers the finest quality of products. Environmental factors can have an adverse effect on fasteners. It is very important to use the most suitable material for each application. HellermannTyton fasteners are available in a variety of materials ranging from polyamides (nylon) to fluoropolymers.

### Polyamide 6.6 – General Purpose



General purpose polyamide 6.6 features light weight, high strength and a wide temperature range. Polyamide 6.6 is hygroscopic, and therefore, absorbs or releases moisture depending on its environment. Thus, the moisture level of the material will affect tensile strength, stiffness and elongation of the product.

### Polyamide 6.6 – Heat Stabilized



With similar properties and benefits as polyamide 6.6, products manufactured with heat stabilized polyamide 6.6 material have a chemical stabilizer added for higher continuous temperature applications.

### \*Polyamide 6.6 – UV Resistant



Chemical inhibitors are used to give polyamide 6.6 material added properties to fight against premature aging of products due to the effects of ultraviolet rays.

### Polyamide 6.6 – UV Stabilized (2% Carbon for Military Specification)



The physical properties of this material include carbon, which acts as a UV stabilizer, prolonging the life of the product under ultraviolet conditions. It also allows HellermannTyton's black cable ties to meet the particular military specification for cable ties.

### Polyamide 6.6 – V0 Flame Retardant



This material meets UL 94V-0 flammability requirements. Flame retardant additives generally reduce tensile strength when compared to general purpose polyamide 6.6, but this resin has been formulated to minimize such effects.

### \*Polyamide 6.6 – Impact Modified, Heat Stabilized and UV Resistant



Impact modified polyamide 6.6 offers the increased flexibility, heat resistance and UV resistance of the high impact material with the added feature of greater resistance to vibration, heat and sunlight for mobile applications.

### Polyamide 6.6 – Impact Modified



Impact modifiers are added to increase flexibility. High impact polyamide 6.6 has stable tensile strength due to its reduced influence from moisture. It is excellent for high vibration applications, as within the aircraft and automobile industries and performs better than polyamide 6.6 against ultraviolet rays. Good for outdoor use.

### Polyamide 4.6



Polyamide 4.6, like polyamide 6.6, offers light weight and high strength benefits, but offers an even wider temperature range. This material can be used at a higher continuous operating temperature than polyamide 6.6 - heat stabilized. In addition to having excellent heat resistance, polyamide 4.6 has low creep effects and retention of stiffness at elevated temperatures.

\* UV Resistant = Material contains less than 2% carbon or a UV additive to improve UV resistance.

### Polypropylene



Polypropylene is used in environments where chemical effects on polyamide are a concern. It is not affected by inorganic acids (hydrochloric), polyhydric alcohols (ethyleneglycol), neutral salts (sodium chloride) and basic salts (sodium bicarbonate). Polypropylene also resists a number of other chemicals with good results, although it has lower tensile strength than polyamide 6.6 (about half). Polypropylene has good UV resistance.

### Polyamide 12 - UV Resistant



Although not as strong as polyamide 6.6 (about half), polyamide 12 is extremely flexible, absorbs little moisture, ages better and has better chemical and UV resistance than general purpose polyamide 6.6. Polyamide 12 is good for applications where products are exposed to metal oxides.

### Ethylentetrafluorineethylene - Tefzel



Although about two-thirds the strength of polyamide 6.6, Tefzel is resistant to a wide range of chemicals, such as concentrated hydrofluoric and sulfuric acids. It is also a low water absorbing material, therefore, is not adversely affected by water. Tefzel is radiation resistant up to 200 megarads and meets the fire and smoke requirements of IEEE 383. Tefzel also withstands high temperatures and ultraviolet light exposure. Products made from Tefzel material also have non-outgassing properties for zero gravity applications.

### Polyacetal



Polyacetal has excellent dielectric properties, UV and chemical resistance, and a UL94-HB flame rating. It has been tested for excellent weatherability against moisture, sunlight, and other environmental conditions.

### Polyetheretherketone – PEEK



This material is an excellent choice for high temperature environments. It also has excellent chemical resistance and is resistant to abrasion. PEEK material has a relatively high tensile strength and it has the ability to retain its tensile strength when continuously conditioned in water at elevated temperatures and pressures.

### Thermoplastic Vulcanizate (TPV)



TPV is a durable rubber material that is chemical and abrasion resistant and remains flexible at low temperatures.

**For more information on RoHS/WEEE Compliance, go online to: <http://www.hellermann.tyton.com/rohs.asp>**

## Material Specifications

| MATERIAL                                                                      | CONTINUOUS OPERATING TEMPERATURE |                 | TENSILE STRENGTH AT 73°F DRY AS MOLDED ASTM D-638 (PSI) | UL FLAME RATING | OXYGEN INDEX % | GAMMA RADIATION RESISTANCE | UV RESISTANCE | MILITARY, FEDERAL, ASTM AND FDA SPECIFICATIONS |
|-------------------------------------------------------------------------------|----------------------------------|-----------------|---------------------------------------------------------|-----------------|----------------|----------------------------|---------------|------------------------------------------------|
|                                                                               | MAX.                             | MIN.            |                                                         |                 |                |                            |               |                                                |
| <b>Polyamide 6.6 - General Purpose (PA66)</b>                                 | 185°F<br>85°C                    | -40°F<br>-40°C  | 12,000                                                  | 94V-2           | 28             | 1 x 10 <sup>5</sup> Rads   | Poor          | ASTM D-4066PA0111<br>FDA CFR177.1500           |
| <b>Polyamide 6.6 - Heat Stabilized (PA66HS)</b>                               | 221°F<br>105°C                   | -40°F<br>-40°C  | 12,000                                                  | 94V-2           | 26             | 1 x 10 <sup>5</sup> Rads   | Poor          | ASTM D-4066PA0121                              |
| <b>*Polyamide 6.6 - UV resistant (PA66UV)</b>                                 | 185°F<br>85°C                    | -40°F<br>-40°C  | 12,000                                                  | 94V-2           | 26             | 1 x 10 <sup>5</sup> Rads   | Good          | -                                              |
| <b>Polyamide 6.6 - 2% Carbon UV stabilized (OUV)</b>                          | 185°F<br>85°C                    | -40°F<br>-40°C  | 12,000                                                  | 94V-2           | 26             | 1 x 10 <sup>5</sup> Rads   | Excellent     | ASTM D-4066PA0181<br>MS3367/8                  |
| <b>Polyamide 6.6 - Flame Retardant (PA66VO)</b>                               | 185°F<br>85°C                    | -40°F<br>-40°C  | 10,800                                                  | 94V-0           | 34             | 1 x 10 <sup>5</sup> Rads   | Poor          | ASTM D-4066PA0110                              |
| <b>*Polyamide 6.6 - Impact Mod. Heat Stabilized, UV Resistant (PA66HIRHS)</b> | 230°F<br>110°C                   | -40°F<br>-40°C  | 9,500                                                   | 94-HB           | N/A            | N/A                        | Very Good     | ASTM D-4066PA0161                              |
| <b>Polyamide 6.6 - Impact Modified (PA66HIR)</b>                              | 230°F<br>110°C                   | -40°F<br>-40°C  | 8,800                                                   | 94-HB           | 19             | 1 x 10 <sup>5</sup> Rads   | Good          | ASTM D-4066PA0151                              |
| <b>Polyamide 4.6 - Heat Stabilized (PA46)</b>                                 | 275°F<br>135°C                   | -40°F<br>-40°C  | 14,400                                                  | 94V-2           | 27             | 9 x 10 <sup>6</sup> Rads   | Poor          | ASTM D-4066PA0922                              |
| <b>Polypropylene - Chemical Resistant (PP)</b>                                | 239°F<br>115°C                   | -40°F<br>-40°C  | 3,400                                                   | 94-HB           | N/A            | 1 x 10 <sup>5</sup> Rads   | Good          | ASTM D-4101PP0327                              |
| <b>*Polyamide 12 - UV resistant (UV)</b>                                      | 176°F<br>80°C                    | -40°F<br>-40°C  | 5,800                                                   | 94-HB           | N/A            | 1 x 10 <sup>5</sup> Rads   | Good          | ASTM D-4066PA411                               |
| <b>Ethlenterafluorineethylene Tefzel® (E/TFE)</b>                             | 302°F<br>150°C                   | -112°F<br>-80°C | 5,800                                                   | 94V-0           | 30             | 2 x 10 <sup>8</sup> Rads   | Excellent     | UL2043<br>ASTM D-3159 Type 1<br>Grade 1        |
| <b>Polyacetal (POM)</b>                                                       | 185°F<br>85°C                    | -40°F<br>-40°C  | 6,500                                                   | 94-HB           | N/A            | N/A                        | Excellent     | -                                              |
| <b>Polyetheretherketone (PEEK)</b>                                            | 500°F<br>260°C                   | -67°F<br>-55°C  | 14,600                                                  | 94V-0           | 24             | 1 x 10 <sup>9</sup> Rads   | Poor          | 21CFR 177.2415<br>EEC 93/9/EEC 151G            |
| <b>Thermoplastic Vulcanizate (TPV)</b>                                        | 392°F<br>200°C                   | -50°F<br>-45°C  | n/a                                                     | 94V-0           | N/A            | N/A                        | Excellent     | -                                              |

\* UV Resistant = Material contains less than 2% carbon or a UV additive to improve UV resistance.

## Material Performance Guide

| ATTRIBUTE                        | POLYAMIDE 6.6 GENERAL PURPOSE | POLYAMIDE 6.6 HEAT STABILIZED | POLYAMIDE 6.6 UV RESISTANT | POLYAMIDE 6.6 - 2% CARBON UV RESISTANT | POLYAMIDE 6.6 FLAME RETARDANT VO | POLYAMIDE 6.6 IMPACT MODIFIED, HEAT STABILIZED UV RESISTANT | POLYAMIDE 6.6 HIGH IMPACT | POLYAMIDE 4.6 HEAT STABILIZED | POLYPROPYLENE | POLYAMIDE 12 UV RESISTANT | ETHYLENTERAFLUORINE-ETHYLENE — E/TFE | POLYACETAL | PEEK | TPV  |
|----------------------------------|-------------------------------|-------------------------------|----------------------------|----------------------------------------|----------------------------------|-------------------------------------------------------------|---------------------------|-------------------------------|---------------|---------------------------|--------------------------------------|------------|------|------|
| <b>Tensile Strength</b>          | 8                             | 8                             | 8                          | 9                                      | 7                                | 8                                                           | 7                         | 10                            | 2             | 4                         | 5                                    | 5          | 10   | -    |
| <b>High Temperature</b>          | 2                             | 3                             | 2                          | 2                                      | 2                                | 3                                                           | 2                         | 9                             | 2             | 1                         | 10                                   | 3          | 10   | 10   |
| <b>Flammability</b>              | 5                             | 5                             | 5                          | 5                                      | 10                               | 2                                                           | 2                         | 5                             | 2             | 2                         | 10                                   | 2          | 10   | 2    |
| <b>UV Resistance</b>             | 1                             | 1                             | 5                          | 8                                      | 1                                | 8                                                           | 2                         | 1                             | 5             | 3                         | 10                                   | 10         | 1    | 1    |
| <b>Radiation</b>                 | 3                             | 3                             | 3                          | 3                                      | 3                                | 3                                                           | 3                         | 6                             | 3             | 3                         | 8                                    | 3          | 10   | -    |
| <b>Chemical Resistance</b>       | 6                             | 6                             | 6                          | 6                                      | 6                                | 6                                                           | 6                         | 6                             | 8             | 8                         | 10                                   | -          | 10   | -    |
| <b>-Hydrocarbons</b>             | 8                             | 8                             | 8                          | 8                                      | 8                                | 8                                                           | 8                         | 8                             | 6             | 8                         | 10                                   | 8          | 10   | 4    |
| <b>-Chlorinated Hydrocarbons</b> | 6                             | 6                             | 6                          | 6                                      | 6                                | 6                                                           | 6                         | 6                             | 3             | 8                         | 10                                   | 5          | 10   | 4    |
| <b>-Acids</b>                    | 2                             | 2                             | 2                          | 2                                      | 2                                | 2                                                           | 2                         | 2                             | 8             | 5                         | 10                                   | 8          | 5    | 8    |
| <b>-Bases</b>                    | 8                             | 6                             | 6                          | 6                                      | 6                                | 6                                                           | 6                         | 6                             | 8             | 6                         | 10                                   | 8          | 10   | 8    |
| <b>-Salts</b>                    | 3                             | 3                             | 3                          | 3                                      | 3                                | 3                                                           | 3                         | 3                             | 10            | 8                         | 10                                   | 8          | 10   | 8    |
| <b>Relative Cost</b>             | Low                           | Low                           | Med.                       | Med.                                   | Med.                             | Med.                                                        | Med.                      | Med.                          | Med.          | Med.                      | High                                 | Med.       | High | Med. |

10 = Most Recommended 1 = Least Recommended



## Dual Swivel Saddle Spacer

### DSWS4

These saddle spacers are installed between two bundles (such as wires, cables, hoses, tubing, conduit, etc.) to separate them and prevent chafing and wear. The mounts can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle. Cable ties, which secure the bundles, are used with the mounts. The dual swivel saddle spacers accommodate cable ties up to 1/2" wide.

The "H" profile of the saddles allows for broad surface contact with the bundle, minimizing pinching and crushing of the bundle, and it accepts a wide range of bundle diameters from .25 inches to 3 inches.

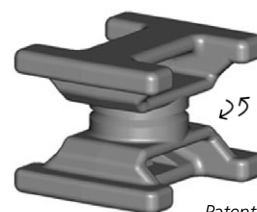
The DSWS4 Dual Swivel Saddle Spacer provides a .7 inch (17.8 millimeter) separation between bundles. Friction tabs in the tie slots help hold the cable ties in place during assembly.

The DSWS4 is two-shot molded with polyacetal and polyamide 6.6 heat stabilized materials.



| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyacetal (POM)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 HB</b>                                         |

RoHS

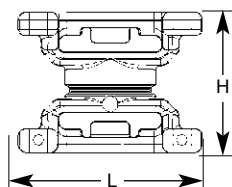


25 swivels

Patents Pending

| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS



| Product Selection |                  |       |                  |                            |                             |             |            |            |       |           |
|-------------------|------------------|-------|------------------|----------------------------|-----------------------------|-------------|------------|------------|-------|-----------|
| Article No.       | Part No.         | Type  | Cable Tie Series | Bundle Ø                   | Minimum Extraction Strength | Length (L)  | Width (W)  | Height (H) | Color | Pkg. Qty. |
|                   |                  |       |                  | in. (mm)                   | lb. (N)                     | in. (mm)    | in. (mm)   | in. (mm)   |       |           |
| 151-06500         | <b>151-06500</b> | DSWS4 | T50 - T250       | .25" - 3"<br>(6.35 - 76.2) | 100 lb.<br>(445)            | .93" (23.6) | .8" (20.3) | .71" (18)  | Black | 2200      |
| 151-00644         | <b>151-00644</b> | DSWS4 | T50 - T250       | .25" - 3"<br>(6.35 - 76.2) | 100 lb.<br>(445)            | .93" (23.6) | .8" (20.3) | .71" (18)  | Black | 50        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Dual Swivel Saddle Spacer

### DSWS5

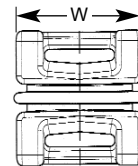
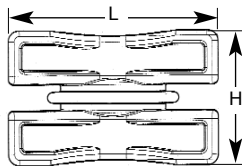
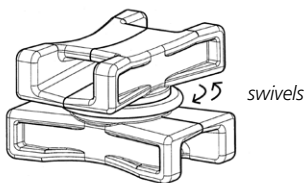
These saddle spacers are installed between two bundles (such as wires, cables, hoses, tubing, conduit, etc.) to separate them and prevent chafing and wear. The spacers can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle. Cable ties, which secure the bundles, are used with the spacers.

The DSWS5 accepts bundle diameters ranging from .625 inches to 6 inches. The DSWS5 provides a .93 inch (23.6 millimeter) separation between bundles. The dual swivel saddle spacers accommodate cable ties up to 1/2" wide.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |

RoHS



| Product Selection |                   |       |                  |                              |             |           |             |       |           |
|-------------------|-------------------|-------|------------------|------------------------------|-------------|-----------|-------------|-------|-----------|
| Article No.       | Part No.          | Type  | Cable Tie Series | Bundle Ø                     | Length (L)  | Width (W) | Height (H)  | Color | Pkg. Qty. |
|                   |                   |       |                  | in. (mm)                     | in. (mm)    | in. (mm)  | in. (mm)    |       |           |
| 151-06502         | <b>DSWS50HSK2</b> | DSWS5 | T50 - T250       | .625" - 6"<br>(15.8 - 152.4) | 1.6" (40.6) | 1" (25.4) | .93" (23.6) | Black | 50        |
| 151-06501         | <b>DSWS50HSH1</b> | DSWS5 | T50 - T250       | .625" - 6"<br>(15.8 - 152.4) | 1.6" (40.6) | 1" (25.4) | .93" (23.6) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Dual Clamp Ties

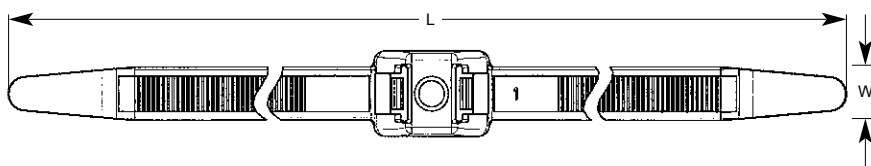
HellermannTyton's dual clamp ties are designed to provide parallel separation between hoses, wires, cables and tubing, protecting them from abrasion. These ties have an optional mounting hole for securing bundles along the chassis of trucks, trailers, and heavy duty equipment. The unique, one-piece design features the dual head centered on the strap.

Available in two lengths, the dual clamp ties accommodate bundles ranging from .25 inches to 2.3 inches. The flexible wide straps minimize pinching of hoses and convoluted tubing. The straps are also releasable.



U.S. Patent Number 5,966,781

| Material Data         |                                                                                 | RoHS |
|-----------------------|---------------------------------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |      |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |      |
| Flammability          | <b>UL94 HB</b>                                                                  |      |



| Product Selection |                    |       | Stud Ø       | Min. Tensile Strength | Length (L)  | Max. Ø Bundle (each side) | Width (W)   | Color | Pkg. Qty. |
|-------------------|--------------------|-------|--------------|-----------------------|-------------|---------------------------|-------------|-------|-----------|
| Article No.       | Part No.           | Type  |              |                       |             |                           |             |       |           |
| 115-30900         | <b>DCT90HIRK2</b>  | DCT9  | .25 " (6.35) | 150 lbs (670)         | 13.0" (331) | 1.3" (33.02)              | .50" (12.7) | Black | 50        |
| 115-00034         | <b>DCT90HIRC2</b>  | DCT9  | .25 " (6.35) | 150 lbs (670)         | 13.0" (331) | 1.3" (33.02)              | .50" (12.7) | Black | 100       |
| 115-31100         | <b>DCT110HIRK2</b> | DCT11 | .25 " (6.35) | 150 lbs (670)         | 19.2" (489) | 2.3" (58.42)              | .50" (12.7) | Black | 50        |
| 115-00033         | <b>DCT110HIRC2</b> | DCT11 | .25 " (6.35) | 150 lbs (670)         | 19.2" (489) | 2.3" (58.42)              | .50" (12.7) | Black | 100       |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Standoff Mounting Dual Clamp Ties

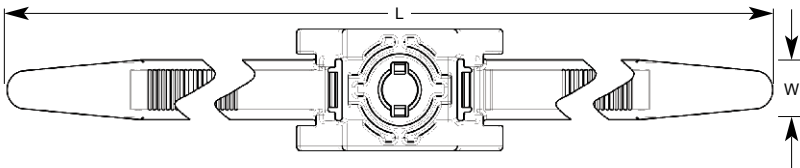
HellermannTyton's standoff dual clamp tie offers the same features as the standard dual clamp tie with a standoff mount that secures the bundle away from the side of the frame rail, protecting the bundles from bolts and other protrusions.

### Features

- Wide strap minimizes pinching of soft hoses & convoluted tubing
- Clamping rails increase circumferential grip on varying bundle diameters
- Locking stud mount pawls allow for easy hand insertion
- Nut or weld nesting counterbore provides flush mounting at the base
- Socket counterbore for fastening a nut provides added retention



| Material Data         |                                                                                 | RoHS |
|-----------------------|---------------------------------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |      |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |      |
| Flammability          | <b>UL94 HB</b>                                                                  |      |



| Product Selection |                  |          | Stud Ø      | Min. Tensile Strength | Length (L)  | Max. Ø Bundle (each side) | Width (W)   | Color | Pkg. Qty. |
|-------------------|------------------|----------|-------------|-----------------------|-------------|---------------------------|-------------|-------|-----------|
| Article No.       | Part No.         | Type     |             |                       |             |                           |             |       |           |
| 117-00012         | <b>117-00012</b> | SDCTR312 | .31" (7.94) | 100 lbs (445)         | 20.1" (511) | 2.3" (58.42)              | .50" (12.7) | Black | 250       |
| 157-00060         | <b>157-00060</b> | SDCTL312 | .31" (7.94) | 100 lbs (445)         | 26.1" (663) | 3.4" (86.36)              | .50" (12.7) | Black | 250       |

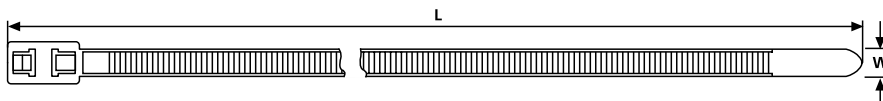
Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Double Head Ties

Double head ties create two loops that separate two bundles. They can also be used to secure a bundle to an existing fixing point.

| Material Data         |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                      |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b><br><b>continuous</b> |
| Flammability          | <b>UL94 V2</b>                                                   |

RoHS



**UL**  
File# E64139

| Product Selection |            |         |                       |       |            |       |           |       |         |           |  |  |
|-------------------|------------|---------|-----------------------|-------|------------|-------|-----------|-------|---------|-----------|--|--|
| Article No.       | Part No.   | Type    | Min. Tensile Strength |       | Length (L) |       | Width (W) |       | Color   | Pkg. Qty. |  |  |
|                   |            |         | lbs.                  | (N)   | in.        | (mm)  | in.       | (mm)  |         |           |  |  |
| T50SDH            |            |         |                       |       |            |       |           |       |         |           |  |  |
| 117-00016         | 117-00016  | T50SDH  | 50 lbs                | (225) | 6.26"      | (159) | .19"      | (4.7) | Natural | 100       |  |  |
| 117-00017         | 117-00017  | T50SDH  | 50 lbs                | (225) | 6.26"      | (159) | .19"      | (4.7) |         | 1000      |  |  |
| 117-00018         | 117-00018  | T50SDH  | 50 lbs                | (225) | 6.26"      | (159) | .19"      | (4.7) | Black   | 100       |  |  |
| 117-00019         | 117-00019  | T50SDH  | 50 lbs                | (225) | 6.26"      | (159) | .19"      | (4.7) |         | 1000      |  |  |
| T50RDH            |            |         |                       |       |            |       |           |       |         |           |  |  |
| 117-05006         | T50RDH9C2  | T50RDH  | 50 lbs                | (225) | 8.25"      | (210) | .19"      | (4.7) | Natural | 100       |  |  |
| 117-05008         | T50RDH9M4  | T50RDH  | 50 lbs                | (225) | 8.25"      | (210) | .19"      | (4.7) |         | 1000      |  |  |
| 117-05004         | T50RDH0C2  | T50RDH  | 50 lbs                | (225) | 8.25"      | (210) | .19"      | (4.7) | Black   | 100       |  |  |
| 117-05005         | T50RDH0M4  | T50RDH  | 50 lbs                | (225) | 8.25"      | (210) | .19"      | (4.7) |         | 1000      |  |  |
| T50IDH            |            |         |                       |       |            |       |           |       |         |           |  |  |
| 117-05302         | T50IDH9C2  | T50IDH  | 50 lbs                | (225) | 12"        | (305) | .19"      | (4.7) | Natural | 100       |  |  |
| 117-05303         | T50IDH9M4  | T50IDH  | 50 lbs                | (225) | 12"        | (305) | .19"      | (4.7) |         | 1000      |  |  |
| 117-05362         | T50IDH0C2  | T50IDH  | 50 lbs                | (225) | 12"        | (305) | .19"      | (4.7) | Black   | 100       |  |  |
| 117-05300         | T50IDH0M4  | T50IDH  | 50 lbs                | (225) | 12"        | (305) | .19"      | (4.7) |         | 1000      |  |  |
| T50LDH            |            |         |                       |       |            |       |           |       |         |           |  |  |
| 117-05402         | T50LDH9C2  | T50LDH  | 50 lbs                | (225) | 15.5"      | (395) | .19"      | (4.7) | Natural | 100       |  |  |
| 117-05461         | T50LDH9M4  | T50LDH  | 50 lbs                | (225) | 15.5"      | (395) | .19"      | (4.7) |         | 1000      |  |  |
| 117-05400         | T50LDH0C2  | T50LDH  | 50 lbs                | (225) | 15.5"      | (395) | .19"      | (4.7) | Black   | 100       |  |  |
| 117-05401         | T50LDH0M4  | T50LDH  | 50 lbs                | (225) | 15.5"      | (395) | .19"      | (4.7) |         | 1000      |  |  |
| T120RDH           |            |         |                       |       |            |       |           |       |         |           |  |  |
| 117-05501         | T120RDH0K2 | T120RDH | 120 lbs               | (535) | 15.7"      | (398) | .29"      | (7.6) | Black   | 50        |  |  |
| 117-05500         | T120RDH0H4 | T120RDH | 120 lbs               | (535) | 15.7"      | (398) | .29"      | (7.6) |         | 500       |  |  |

Maximum bundle diameter is variable due to double loops. Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



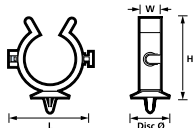
## Pipe and Hose Clips, PC-Series

Pipe and hose clips offer simple and secure installation of pipes or hoses to panels. These clips can be attached to the panel prior to installing the pipe or hose. Simply push the pipe into the clip for a firm and secure fixing. These parts can be connected together offering a greater choice of installation options.



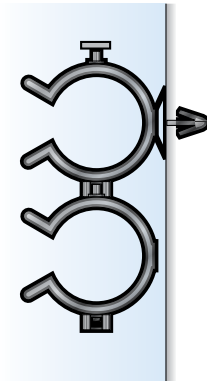
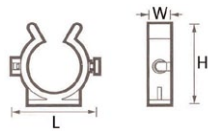
| Material Data         |                                                        | RoHS |
|-----------------------|--------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |      |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |      |
| Flammability          | <b>UL94 V2</b>                                         |      |

| Material Data         |                                                        | RoHS |
|-----------------------|--------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified (PA66HIR)</b>         |      |
| Operating Temperature | <b>-40 °F to +176 °F (-40 °C to +80 °C) continuous</b> |      |
| Flammability          | <b>UL94 HB</b>                                         |      |



| Product Selection |                  |         |             |           |           |               |                 |                      |          |       |           |
|-------------------|------------------|---------|-------------|-----------|-----------|---------------|-----------------|----------------------|----------|-------|-----------|
| Article No.       | Part No.         | Type    | Height (H)  | Width (W) | Disc Ø    | Max. Ø Bundle | Mounting Hole Ø | Max. Panel Thickness | Material | Color | Pkg. Qty. |
|                   |                  |         | in. (mm)    | in. (mm)  | in. (mm)  | in. (mm)      | in. (mm)        | in. (mm)             |          |       |           |
| 151-00096         | <b>151-00096</b> | IPC10AH | .72" (18.4) | .39" (10) | .87" (22) | .49" (12.5)   | .25" (6.3)      | .06" (1.6)           | PA66HIR  | Black | 100       |
| 151-14130         | <b>151-14130</b> | IPC13AH | .83" (21)   | .39" (10) | .87" (22) | .53" (13.5)   | .25" (6.3)      | .06" (1.6)           | PA66     | Black | 100       |
| 151-14500         | <b>151-14500</b> | IPC15AH | .91" (23)   | .39" (10) | .87" (22) | .58" (14.7)   | .25" (6.3)      | .06" (1.6)           | PA66HIR  | Black | 100       |
| 151-14601         | <b>151-14601</b> | IPC23AH | 1.3" (34)   | .39" (10) | .87" (22) | .98" (25)     | .25" (6.3)      | .06" (1.6)           | PA66     | Black | 100       |

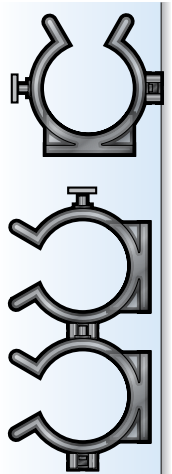
Use **Part No.** for ordering and **Type** for specification purposes.



IPC AH Clip connected

| Product Selection |                  |        |             |           |               |          |       |           |
|-------------------|------------------|--------|-------------|-----------|---------------|----------|-------|-----------|
| Article No.       | Part No.         | Type   | Height (H)  | Width (W) | Max. Ø Bundle | Material | Color | Pkg. Qty. |
|                   |                  |        | in. (mm)    | in. (mm)  | in. (mm)      |          |       |           |
| 151-14400         | <b>151-14400</b> | IPC10P | .59" (15)   | .39" (10) | .49" (12.5)   | PA66HIR  | Black | 100       |
| 151-14132         | <b>151-14132</b> | IPC13P | .69" (17.4) | .39" (10) | .53" (13.5)   | PA66     | Black | 100       |
| 151-14502         | <b>151-14502</b> | IPC15P | .77" (19.5) | .39" (10) | .58" (14.7)   | PA66HIR  | Black | 100       |
| 151-14603         | <b>151-14603</b> | IPC23P | 1.2" (30.5) | .39" (10) | .98" (25)     | PA66     | Black | 100       |

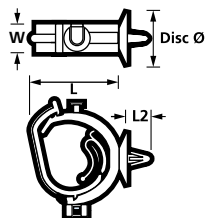
Use **Part No.** for ordering and **Type** for specification purposes.



IPC P Clip connected

## Automatic Harness Clips — Connectable

In addition to offering the same simple and secure method of attaching cables to panels as the non-connectable automatic harness clips, these products can be connected for additional installation flexibility.

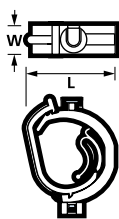


| Material Data         |                                                                          | RoHS |
|-----------------------|--------------------------------------------------------------------------|------|
| Material              | Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS) |      |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |      |
| Flammability          | UL94 HB                                                                  |      |

### Product Selection

| Article No. | Part No.  | Type    | Length (L) | Length (L2) | Width (W) | Disc Ø    | Max. Ø Bundle | Mounting Hole Ø        | Panel Thickness in. (mm) |           | Color | Pkg. Qty. |
|-------------|-----------|---------|------------|-------------|-----------|-----------|---------------|------------------------|--------------------------|-----------|-------|-----------|
|             |           |         | in. (mm)   | in. (mm)    | in. (mm)  |           |               |                        | Min.                     | Max.      |       |           |
| 151-00378   | 151-00378 | IAHC3AH | 1.5" (39)  | .28" (7)    | .39" (10) | .94" (24) | 1.1" (28)     | .24 - .26" (6.2 - 6.7) | .02" (.5)                | .1" (2.7) | Black | 500       |
| 151-00211   | 151-00211 | IAHC4AH | 1.8" (46)  | .28" (7)    | .51" (13) | .94" (24) | 1.4" (36)     | .24 - .26" (6.2 - 6.7) | .02" (.5)                | .1" (2.5) | Black | 450       |

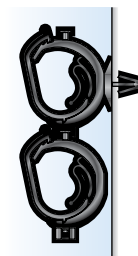
Use **Part No.** for ordering and **Type** for specification purposes.



### Product Selection

| Article No. | Part No.  | Type   | Length (L) | Width (W)   | Max. Ø Bundle | Color | Pkg. Qty. |
|-------------|-----------|--------|------------|-------------|---------------|-------|-----------|
|             |           |        | in. (mm)   | in. (mm)    | in. (mm)      |       |           |
| 151-00223   | 151-00223 | IAHC1T | .91" (23)  | .39" (10)   | .51" (13)     | Black | 1300      |
| 151-00199   | 151-00199 | IAHC2T | 1.18" (30) | .39" (10)   | .79" (20)     | Black | 700       |
| 151-00213   | 151-00213 | IAHC3T | 1.6" (40)  | .39" (10)   | 1.1" (28)     | Black | 400       |
| 151-00207   | 151-00207 | IAHC4T | 1.9" (47)  | .53" (13.5) | 1.4" (36)     | Black | 1000      |
| 151-00195   | 151-00195 | IAHC5T | 2.24" (57) | .53" (13.5) | 1.8" (45)     | Black | 700       |

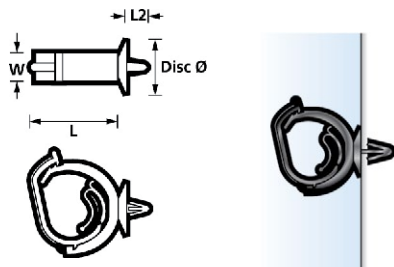
Use **Part No.** for ordering and **Type** for specification purposes.



Elements AH and T connected.

## Automatic Harness Clips — Non-connectable

These clips offer a simple and secure method of attaching cables to panels. They can be attached to the panel prior to installing the cables. Simply pushing the cable into place closes the clip and activates the automatic locking feature.



### Material Data

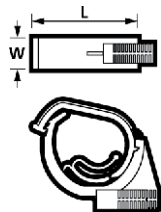
|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C)</b>                                    |
| Flammability          | <b>continuous</b>                                                               |
|                       | <b>UL94 HB</b>                                                                  |



### Product Selection

| Article No. | Part No.         | Type   | Length (L)   | Length (L2) | Width (W) | Disc Ø    | Max. Ø Bundle | Mounting Hole Ø        | Min. Panel Thickness | Max. Panel Thickness | Color | Pkg. Qty. |
|-------------|------------------|--------|--------------|-------------|-----------|-----------|---------------|------------------------|----------------------|----------------------|-------|-----------|
|             |                  |        | in. (mm)     | in. (mm)    | in. (mm)  |           |               |                        | in. (mm)             | in. (mm)             |       |           |
| 151-00366   | <b>151-00366</b> | AHC1AH | .98" (25)    | .28" (7)    | .39" (10) | .79" (20) | .51" (13)     | .24 - .26" (6.2 - 6.7) | .02" (.5)            | .08" (2)             | Black | 1500      |
| 151-00367   | <b>151-00367</b> | AHC2AH | 1.16" (29.5) | .28" (7)    | .39" (10) | .79" (20) | .79" (20)     | .24 - .26" (6.2 - 6.7) | .02" (.5)            | .08" (2)             | Black | 900       |

Use **Part No.** for ordering and **Type** for specification purposes.



### Product Selection

| Article No. | Part No.         | Type   | Stud Ø   | Length (L)   | Width (W) | Max. Ø Bundle | Color | Pkg. Qty. |
|-------------|------------------|--------|----------|--------------|-----------|---------------|-------|-----------|
|             |                  |        | in. (mm) | in. (mm)     | in. (mm)  | in. (mm)      |       |           |
| 151-00206   | <b>151-00206</b> | AHC2SS | .20" (5) | 1.24" (31.5) | .39" (10) | .79" (20)     | Black | 1000      |

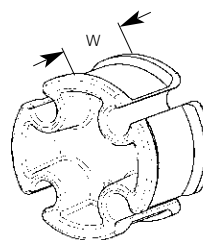
Use **Part No.** for ordering and **Type** for specification purposes.

## Isolator

HellermannTyton's isolator mount is used to align and separate 1/4" tubing or brake lines. Easy to assemble, the isolator dampens vibrations and can be used with up to four brake lines. Mounting the isolator can be accomplished with HellermannTyton's standard cable ties, button head ties and any of HellermannTyton's heavy equipment mounts. Mounting is optional, but recommended for long runs. The isolator is durable, chemical and abrasion resistant, and remains flexible in low temperatures.



| Material Data         |                                                         | RoHS |
|-----------------------|---------------------------------------------------------|------|
| Material              | <b>Thermoplastic Vulcanizate (TPV)</b>                  |      |
| Operating Temperature | <b>-50 °F to +329 °F (-45 °C to +200 °C) continuous</b> |      |
| Flammability          | <b>UL94 HB</b>                                          |      |



| Product Selection |                   |          |                  | Max Bundle Ø | Mounting Ø | Overall Ø    | Spacing Between Clips | Width (W)   | Color | Pkg. Qty. |
|-------------------|-------------------|----------|------------------|--------------|------------|--------------|-----------------------|-------------|-------|-----------|
| Article No.       | Part No.          | Type     | Cable Tie Series | in. (mm)     | in. (mm)   | in. (mm)     | in. (mm)              | in. (mm)    |       |           |
| 151-00455         | <b>ISO4X250H1</b> | ISO4X250 | T50 - T250       | .25" (6.4)   | 1.34" (34) | 1.44" (36.6) | .51" (13)             | .92" (23.4) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Omega Clip Cable Ties

Omega Clip Cable Ties provide the opportunity to attach a wire or hose to an existing bundle. Offering a full range of orientations, the wire/hose can be oriented in any direction in relation to the main harness. The Omega Clip design is ideally suited for easing the application process on the production floor by allowing for an easy one-step snap fit of the harness assembly to the wire or hose.



*Omega Clips secure cables to harnesses, hoses, or tubular frame rails.*

### Material Data - Cable Ties

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |



### Material Data - Omega Clips

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |



### Product Selection

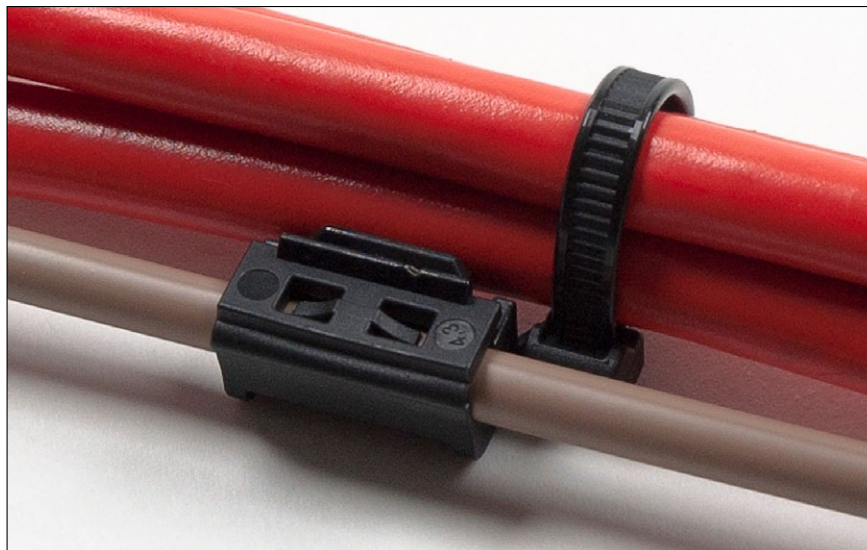
| Article No. | Part No.         | Type             | Tensile Strength | Length (L) | Maximum Bundle Ø | Attaches to Diameter        | Color | Pkg. Qty. | Drawing |
|-------------|------------------|------------------|------------------|------------|------------------|-----------------------------|-------|-----------|---------|
|             |                  |                  | lbs (N)          | in. (mm)   | in. (mm)         | in. (mm)                    |       |           |         |
| 156-00036   | <b>156-00036</b> | T50ROC1A         | 50 (225)         | 7.9 (200)  | 1.8 (45)         | 0.16 - 0.40<br>(4.0 - 10.0) | Black | 500       |         |
| 156-00306   | <b>156-00306</b> | T50ROC1B         | 50 (225)         | 7.9 (200)  | 1.8 (45)         | 0.16 - 0.40<br>(4.0 - 10.0) | Black | 500       |         |
| 156-00134   | <b>156-00134</b> | T50SVC OC10-14   | 50 (225)         | 6.0 (155)  | 1.4 (35)         | .40 - .55<br>(10.0 - 14.0)  | Black | 500       |         |
| 156-00135   | <b>156-00135</b> | T50SVC OC15-18   | 50 (225)         | 6.0 (155)  | 1.4 (35)         | .60 - .71<br>(15.0 - 18.0)  | Black | 500       |         |
| 156-00136   | <b>156-00136</b> | T50SVC OC19-24.5 | 50 (225)         | 6.0 (155)  | 1.4 (35)         | .75-.96<br>(19.0 - 24.5)    | Black | 500       |         |
| 156-00272   | <b>156-00272</b> | T50SVC OC25-31   | 50 (225)         | 6.0 (155)  | 1.4 (35)         | .98-1.22<br>(25.0 - 31.0)   | Black | 250       |         |
| 156-00273   | <b>156-00273</b> | T50SVC OC31-39   | 50 (225)         | 6.0 (155)  | 1.4 (35)         | 1.22 -1.54<br>(31.0 - 39.0) | Black | 250       |         |
| 156-00137   | <b>156-00137</b> | T50SVC OC39-45   | 50 (225)         | 6.0 (155)  | 1.4 (35)         | 1.54 -1.77<br>(39.0 - 45.0) | Black | 250       |         |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Wire Clamping Cable Ties

Wire Clamping Ties were designed as an innovative solution to mounting wire or cable harness assemblies to wire suspension frames found in seating applications. The clamp easily secures to the wire frame for a tight fit and is available in four different wire frame sizes and two separate orientations to provide both perpendicular and parallel routing. The wire clamp design is ideally suited for easing the application process on the production floor by allowing for an easy snap fit of the harness assembly to the wire frame.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |



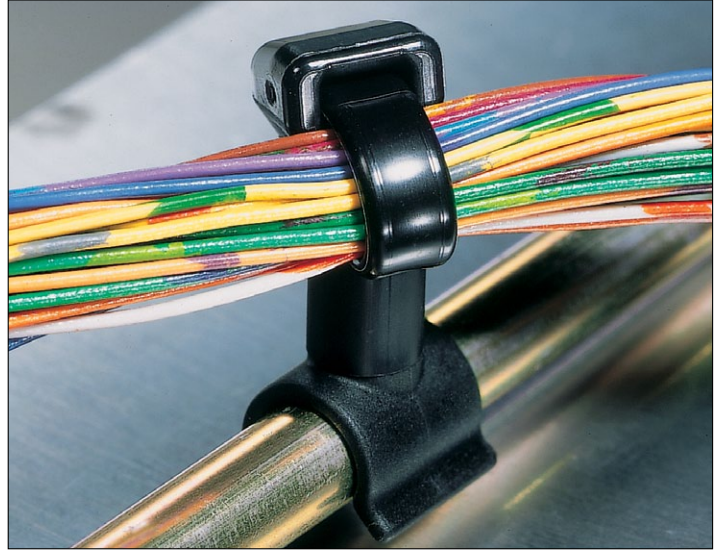
### Product Selection

| Product Selection |           |              |                  |            |                  |                      |       |           |         |  |  |
|-------------------|-----------|--------------|------------------|------------|------------------|----------------------|-------|-----------|---------|--|--|
| Article No.       | Part No.  | Type         | Tensile Strength | Length (L) | Maximum Bundle Ø | Attaches to Diameter | Color | Pkg. Qty. | Drawing |  |  |
|                   |           |              | lbs (N)          | in. (mm)   | in. (mm)         | in. (mm)             |       |           |         |  |  |
| 148-00089         | 148-00089 | T50SOSWA1.8E | 50 (225)         | 6 (150)    | 1.4 (35)         | .07 (1.8)            | Black | 500       |         |  |  |
| 148-00088         | 148-00088 | T50SOSWA2.0E | 50 (225)         | 6 (150)    | 1.4 (35)         | .09 (2.18)           | Black | 500       |         |  |  |
| 148-00095         | 148-00095 | T50SOSWA3.4E | 50 (225)         | 6 (150)    | 1.4 (35)         | .13 (3.4)            | Black | 500       |         |  |  |
| 148-00092         | 148-00092 | T50SOSWA4.3E | 50 (225)         | 6 (150)    | 1.4 (35)         | .17 (4.3)            | Black | 500       |         |  |  |
| 148-00090         | 148-00090 | T50SOSWB1.8E | 50 (225)         | 6 (150)    | 1.4 (35)         | .07 (1.8)            | Black | 500       |         |  |  |
| 148-00093         | 148-00093 | T50SOSWB2.0E | 50 (225)         | 6 (150)    | 1.4 (35)         | .09 (2.18)           | Black | 500       |         |  |  |
| 148-00096         | 148-00096 | T50SOSWB3.4E | 50 (225)         | 6 (150)    | 1.4 (35)         | .13 (3.4)            | Black | 500       |         |  |  |
| 148-00091         | 148-00091 | T50SOSWB4.3E | 50 (225)         | 6 (150)    | 1.4 (35)         | .17 (4.3)            | Black | 500       |         |  |  |

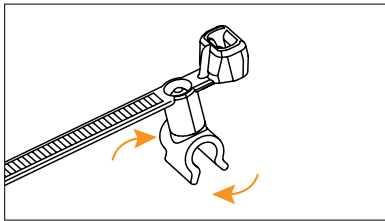
Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Wire and Hose Swivel Clip Ties

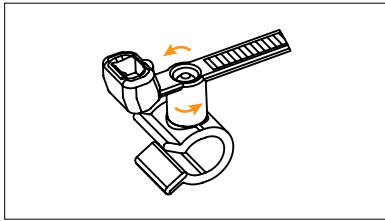
These simple to use inside serrated ties provide the opportunity to attach an additional wire or hose to an existing harness. Offering a full 360 degrees of rotation, the wire/hose can be oriented in any direction in relation to the main harness. It is ideally suited for any application in which the wire or hose can move in relation to the mounting point.



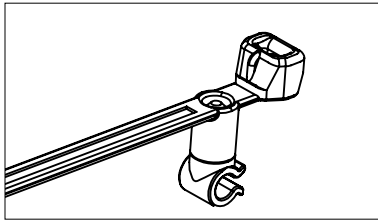
*T50SVC rotates in any direction.*



*T50SVC4/T50SVC5*



*T50SVC6.5*



*T50SVC3.5*

| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |



### Product Selection

| Article No. | Part No.         | Type      | Tensile Strength |       | Hose Clip Ø<br>in. (mm)  | Maximum Bundle Ø<br>in. (mm) | Length (L)<br>in. (mm) | Width (W)<br>in. (mm) | Color            | Pkg. Qty. |
|-------------|------------------|-----------|------------------|-------|--------------------------|------------------------------|------------------------|-----------------------|------------------|-----------|
|             |                  |           | lbs              | (N)   |                          |                              |                        |                       |                  |           |
| 156-00791   | <b>156-00791</b> | T50SVC3.5 | 50 lbs           | (222) | .13 - .17<br>(3.4 - 3.6) | 1.4 (35)                     | 6.35 (163)             | .18 (4.6)             | Black            | 1000      |
| 156-00318   | <b>156-00318</b> | T50SVC4   | 50 lbs           | (225) | .15 - .17<br>(3.8 - 4.2) | 1.38 (35)                    | 6.1 (155)              | .19 (4.7)             | Black<br>Natural | 500       |
| 155-31202   | <b>155-31202</b> | T50SVCS   | 50 lbs           | (222) | .17 - .20<br>(4.5 - 5.2) | 1.4 (35)                     | 6.35 (163)             | .18 (4.6)             | Black            | 500       |
| 156-00155   | <b>156-31202</b> | T50SVC6.5 | 50 lbs           | (222) | .26 - .32<br>(6.5 - 8.0) | 1.38 (35)                    | 6.1 (155)              | .19 (4.7)             | Black            | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## H-Mount Series

HellermannTyton's new H-mount product line offers a secure bundle mounting solution that utilizes existing frame bolts. H-mounts fasten to three bolt sizes: ½", ⅝" and ¾". The H-mounts have three bundle mounting locations, each accommodating ties up to ½" wide.

5

### Application

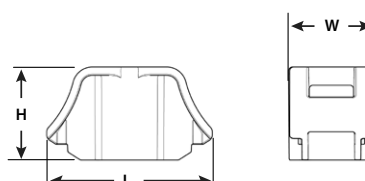
The preferred mount method is to use the specially designed drill bit to spin the H-mount onto the bolt. The bit fits all ¼" drills and has tapered sides to secure the H-mount during installation.

### Benefits

- The H-mounts utilize existing frame bolts which reduces component costs and improves installation time.
- The H-mounts have a top tie slot which allows the bundle to be positioned directly over the bolt, and two curved tie slots on the sides that minimize bundle abrasion and positions the bundles adjacent to the bolt yet away from the frame.

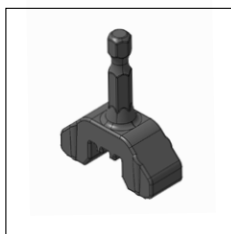


| Material Data         |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 high impact modified, heat and UV stabilized (PA66HIRHSUV) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



| Product Selection |                  |      |                |              |               |             |       |           |
|-------------------|------------------|------|----------------|--------------|---------------|-------------|-------|-----------|
| Article No.       | Part No.         | Type | Stud Bolt Size | Length (L)   | Width (W)     | Height (H)  | Color | Pkg. Qty. |
|                   |                  |      | in. (mm)       | in. (mm)     | in. (mm)      | in. (mm)    |       |           |
| 151-00812         | <b>151-00812</b> | HM5  | .5" (12.7)     | 1.97" (50.0) | 1.02" (25.98) | 1.1" (28.0) | Black | 900       |
| 151-00813         | <b>151-00813</b> | HM6  | .625" (15.9)   | 1.97" (50.0) | 1.02" (25.98) | 1.1" (28.0) | Black | 900       |
| 151-00814         | <b>151-00814</b> | HM7  | .75" (19.0)    | 1.97" (50.0) | 1.02" (25.98) | 1.1" (28.0) | Black | 900       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



904-00284

| Accessory   |                  |      |       |           |
|-------------|------------------|------|-------|-----------|
| Article No. | Part No.         | Type | Color | Pkg. Qty. |
| 904-00284   | <b>904-00284</b> | HBIT | Black | 1         |



H Bit in the H Mount

## Heavy Duty Mounts

The heavy duty mount, when used with a cable tie, eliminates the need to carry multiple sizes of fixed bundle diameter clamps, which reduces inventory and purchasing costs while simplifying the assembly process.

The heavy duty mount and cable tie combination makes it easy to service bundles in the field. Simply remove the cable tie, leave the mount in place, and replace the cable tie.

The heavy duty mounts are designed for use with HellermannTyton's heavy duty T250, T255, and wide strap cable ties to harness wires and hoses; however, they accept all standard cable ties up to .5" wide.



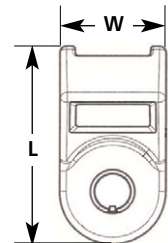
U.S. Patent Number 5,820,083

| Material Data         |                                                                                 | RoHS |
|-----------------------|---------------------------------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |      |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |      |
| Flammability          | <b>UL94 HB</b>                                                                  |      |

## Standard Torque Mounts

These mounts contain a small tab inside the mounting hole to temporarily engage the threads, which allows assemblers to pre-install the mount on a stud before securing with a washer and a nut.

| Product Selection |                     | Type   | Mounting    | Max Torque    | Max Ø for Washer/Socket | Length (L)    | Width (W)   | Color | Pkg. Qty. |
|-------------------|---------------------|--------|-------------|---------------|-------------------------|---------------|-------------|-------|-----------|
| Article No.       | Part No.            |        | in. (mm)    | lb. - in      | in. (mm)                | in. (mm)      | in. (mm)    |       |           |
| 151-00134         | <b>HDM190HIRC2</b>  | HDM19  | .1875 (4.8) | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 100       |
| 151-00436         | <b>HDM190HIRH4</b>  | HDM19  | .1875 (4.8) | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 500       |
| 151-00437         | <b>HDM250HIRC2</b>  | HDM25  | .25" (6.4)  | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 100       |
| 151-00438         | <b>HDM250HIRH4</b>  | HDM25  | .25" (6.4)  | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 500       |
| 151-00439         | <b>HDM3120HIRC2</b> | HDM312 | .3125" (8)  | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 100       |
| 151-00440         | <b>HDM3120HIRH4</b> | HDM312 | .3125" (8)  | 115 lb. - in. | .73" (18.5)             | 1.43" (36.32) | .76" (19.3) | Black | 500       |

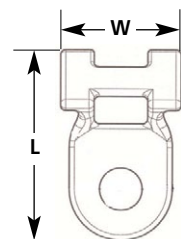


Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Medium Torque Mounts

The arched "H" profile of the saddle surface allows for a broad surface contact with the bundle, minimizing pinching and crushing of the bundles, and adjusts to a wide variety of bundle diameters.

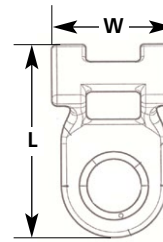
| Product Selection |                       | Type   | Mounting    | Max Torque   | Max Ø for Washer/Socket | Length (L) | Width (W) | Color | Pkg. Qty. |
|-------------------|-----------------------|--------|-------------|--------------|-------------------------|------------|-----------|-------|-----------|
| Article No.       | Part No.              |        | in. (mm)    | lb. - ft.    | in. (mm)                | in. (mm)   | in. (mm)  |       |           |
| 151-00441         | <b>HDM321HIHSUVC2</b> | HDM321 | .3125" (8)  | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 100       |
| 151-07100         | <b>HDM321HIHSUVH4</b> | HDM321 | .3125" (8)  | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 500       |
| 151-00442         | <b>HDM401HIHSUVC2</b> | HDM401 | .375" (9.5) | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 100       |
| 151-07300         | <b>HDM401HIHSUVH4</b> | HDM401 | .375" (9.5) | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 500       |
| 151-00443         | <b>HDM501HIHSUVC2</b> | HDM501 | .5" (12.7)  | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 100       |
| 151-07500         | <b>HDM501HIHSUVH4</b> | HDM501 | .5" (12.7)  | 40 lb. - ft. | .90" (23)               | 1.8" (46)  | .96" (24) | Black | 500       |



Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## High Torque Mounts

The high torque mount is designed for use with power-assisted impact wrenches and is molded with a metal bushing to withstand the forces required to tighten grade 8 bolts. The arched "H" profile of the saddle surface allows for a broad surface contact with the bundle, minimizing pinching and crushing of bundles, and it adjusts to a wide variety of bundle diameters.

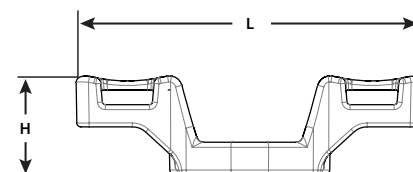
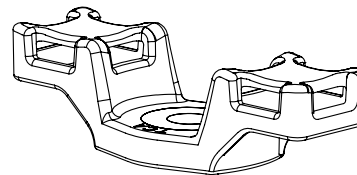


| Product Selection |                        |        |             |               |                         |            |           |       |           |
|-------------------|------------------------|--------|-------------|---------------|-------------------------|------------|-----------|-------|-----------|
| Article No.       | Part No.               | Type   | Mounting    | Max Torque    | Max Ø for Washer/Socket | Length (L) | Width (W) | Color | Pkg. Qty. |
|                   |                        |        | in. (mm)    | lb. - ft.     | in. (mm)                | in. (mm)   | in. (mm)  |       |           |
| 151-00444         | <b>HDM320BHIHSUVC2</b> | HDM320 | .3125" (8)  | 114 lb. - ft. | .9" (23)                | 1.85" (47) | .99" (25) | Black | 100       |
| 151-07000         | <b>HDM320BHIHSUVH4</b> | HDM320 | .3125" (8)  | 114 lb. - ft. | .9" (23)                | 1.85" (47) | .99" (25) | Black | 500       |
| 151-00445         | <b>HDM400BHISHUVC2</b> | HDM400 | .375" (9.5) | 114 lb. - ft. | 1.26" (32)              | 1.85" (47) | .99" (25) | Black | 100       |
| 151-07200         | <b>HDM400BHISHUVH4</b> | HDM400 | .375" (9.5) | 114 lb. - ft. | 1.26" (32)              | 1.85" (47) | .99" (25) | Black | 500       |
| 151-00446         | <b>HDM500BHIHSUVC2</b> | HDM500 | .5" (12.7)  | 114 lb. - ft. | 1.26" (32)              | 1.85" (47) | .99" (25) | Black | 100       |
| 151-07400         | <b>HDM500BHIHSUVH4</b> | HDM500 | .5" (12.7)  | 114 lb. - ft. | 1.26" (32)              | 1.85" (47) | .99" (25) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## High Torque Double Mount

This mount is designed for use with power-assisted impact wrenches and is molded with a metal bushing to withstand the forces required to tighten grade 8 bolts. The high torque double mount secures the bundle directly over the mounting fastener. The arched saddle surface allows for a broad surface contact with the bundle, minimizing pinching and crushing of the bundles, and accommodates a wide variety of bundle diameters.



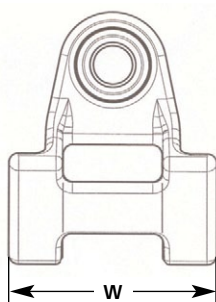
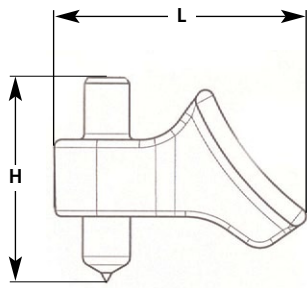
| Product Selection |                  |        |             |               |                         |            |             |       |           |
|-------------------|------------------|--------|-------------|---------------|-------------------------|------------|-------------|-------|-----------|
| Article No.       | Part No.         | Type   | Mounting    | Max Torque    | Max Ø for Washer/Socket | Length (L) | Height (H)  | Color | Pkg. Qty. |
|                   |                  |        | in. (mm)    | lb. - ft.     | in. (mm)                | in. (mm)   | in. (mm)    |       |           |
| 151-00756         | <b>151-00756</b> | HDM375 | .375" (9.5) | 114 lb. - ft. | 1.27" (32.5)            | 3.43" (87) | .99" (25.2) | Black | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



### Weld Stud Mount

Used in conjunction with a cable tie, the weld stud mount eliminates all sizes of p-clamps, nuts, and bolts. Designed to significantly save time and labor, the weld stud mount can be welded onto a painted frame rail without having to grind the surface in preparation. Contact HellermannTyton for information on suitable welding equipment for this product.



| Material Data         |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



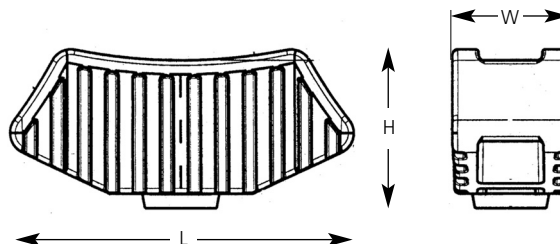
| Product Selection |               |       |                  |              |          |              |              |            |       |           |
|-------------------|---------------|-------|------------------|--------------|----------|--------------|--------------|------------|-------|-----------|
| Article No.       | Part No.      | Type  | Cable Tie Series | Max Bundle Ø | Stud Ø   | Length (L)   | Width (W)    | Height (H) | Color | Pkg. Qty. |
|                   |               |       |                  | in. (mm)     | in. (mm) | in. (mm)     | in. (mm)     | in. (mm)   |       |           |
| 151-00146         | WSM60IMHSUVH1 | WSM60 | T50 - T250       | 6" (152.4)   | .24" (6) | 1.32" (33.5) | 1.07" (27.2) | 1.06" (27) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Saddle Mount for the Button Head Tie

Designed to be used with HellermannTyton's button head ties, the saddle mount stands off bundles from frame rails, providing clearance from bolts and other protrusions for protection against abrasion. This mount also allows the flow-through of salt, dirt and other impurities from the road, preventing unwanted build-up on hoses and harnesses. The tie is snapped into the mount which allows the strap and tie assembly to be pre-installed on the frame rail or panel. The mount can secure three separate bundles, providing parallel spacing between the frame rail and adjacent bundles. The saddle mount is manufactured with a pilot bushing which prevents the cable tie from chafing against the burr edge of the mounting hole.

**This product for use with the button head tie on p. 41**



| Material Data         |                                                                                 | RoHS |
|-----------------------|---------------------------------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |      |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |      |
| Flammability          | <b>UL94 HB</b>                                                                  |      |

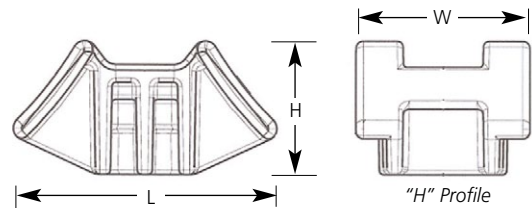
| Product Selection |                        |         | Mounting Hole Ø                  | Panel Thickness                | Standoff Height  | Length (L)      | Width (W)      | Height (H)     | Max Bundle Ø    |                                                          | Color | Pkg. Qty. |
|-------------------|------------------------|---------|----------------------------------|--------------------------------|------------------|-----------------|----------------|----------------|-----------------|----------------------------------------------------------|-------|-----------|
| Article No.       | Part No.               | Type    | in. (mm)                         | in. (mm)                       | in. (mm)         | in. (mm)        | in. (mm)       | in. (mm)       | Center in. (mm) | Sides in. (mm)                                           |       |           |
| 151-29301         | <b>MSBT1200HIRHSH1</b> | MSBT120 | .440" - .820"<br>(11.18 - 20.83) | .160" - .75"<br>(4.06 - 19.05) | .875"<br>(22.23) | 1.90"<br>(48.3) | .65"<br>(16.5) | .81"<br>(20.6) | 6.0"<br>(152.4) | 1.0"<br>(25.4)<br>(dependent upon size of center bundle) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Two Way Saddle Mounts

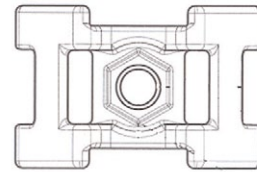
This saddle mount is installed between two bundles (such as wires, cables, hoses, tubing, conduit, etc.) to separate them and prevent chafing and wear. Fastened to a frame rail or mounting bracket, the "H" profile on the saddle mount provides a tight circumferential loop on large and small bundles. Cable ties, which secure the bundles, are used with the mount. The two way saddle mount accommodates cable ties up to 1/2" wide.

| Material Data         |                                                                                 | RoHS |
|-----------------------|---------------------------------------------------------------------------------|------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |      |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |      |
| Flammability          | <b>UL94 HB</b>                                                                  |      |



### S2HM25

The hexagonal retention feature captures a bolt or nut requiring tool access from back side only.

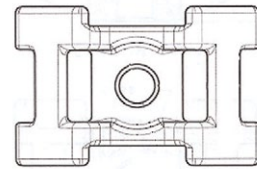


| Product Selection |               |        |                  |                          |             |              |              |             |       |           |
|-------------------|---------------|--------|------------------|--------------------------|-------------|--------------|--------------|-------------|-------|-----------|
| Article No.       | Part No.      | Type   | Cable Tie Series | Max Bundle Ø (each side) | Stud Ø      | Length (L)   | Width (W)    | Height (H)  | Color | Pkg. Qty. |
|                   |               |        |                  | in. (mm)                 | in. (mm)    | in. (mm)     | in. (mm)     | in. (mm)    |       |           |
| 151-29403         | S2HM250HIRSH1 | S2HM25 | T50 - T250       | 3.5" (89)                | .25" (6.35) | 1.76" (44.8) | 1.17" (29.7) | .90" (22.9) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

### S2CM25

A socket counterbore allows securing with a socket wrench from the top side for use with a weld stud or bolt.

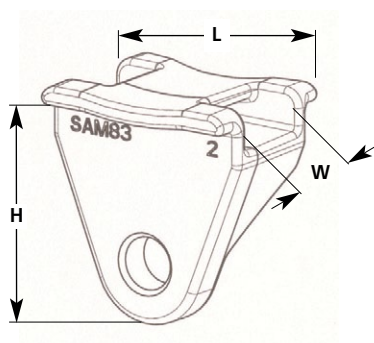
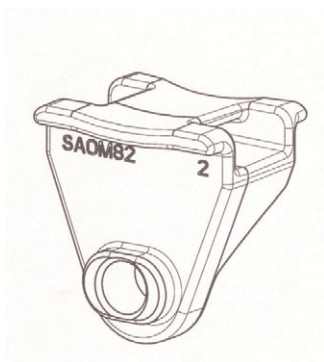


| Product Selection |               |        |                  |                          |             |              |              |             |       |           |
|-------------------|---------------|--------|------------------|--------------------------|-------------|--------------|--------------|-------------|-------|-----------|
| Article No.       | Part No.      | Type   | Cable Tie Series | Max Bundle Ø (each side) | Stud Ø      | Length (L)   | Width (W)    | Height (H)  | Color | Pkg. Qty. |
|                   |               |        |                  | in. (mm)                 | in. (mm)    | in. (mm)     | in. (mm)     | in. (mm)    |       |           |
| 151-29400         | S2CM258HIRSH1 | S2CM25 | T50 - T250       | 3.5" (89)                | .25" (6.35) | 1.76" (44.8) | 1.17" (29.7) | .90" (22.9) | Gray  | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Axial Oval Mounts

HellermannTyton's axial oval mounts stand off bundles from frame rails and cross members to prevent them from rubbing and chafing. The axial oval mount accommodates cable ties up to .5" wide.



### Material Data

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS

### Product Selection

| Article No. | Part No.       | Type   | Cable Tie Series | Bolt Hole Ø | Offset Distance from Mounting Slot | Length (L)   | Width (W)    | Height (H)   | Color | Pkg. Qty. |
|-------------|----------------|--------|------------------|-------------|------------------------------------|--------------|--------------|--------------|-------|-----------|
|             |                |        |                  | in. (mm)    | in. (mm)                           | in. (mm)     | in. (mm)     | in. (mm)     |       |           |
| 151-29600   | SAM83HIRHSH1   | SAM83  | T50 - T250       | 5/16" (8)   | .78" (19.8)                        | 1.35" (34.3) | 1.02" (25.9) | 1.39" (35.3) | Gray  | 500       |
| 151-29701   | SAOM820HIRHSH1 | SAOM82 | T50 - T250       | 5/16" (8)   | .78" (19.8)                        | 1.35" (34.3) | 1.02" (25.9) | 1.39" (35.3) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

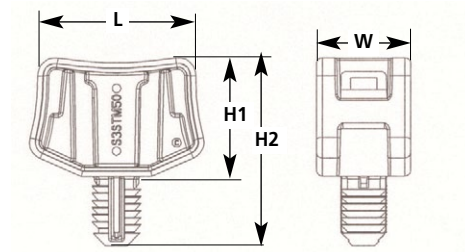
## Fir Tree Saddle Mounts

The fir tree saddle mount is designed for use with HellermannTyton cable ties up to 1/2" wide. The saddle mounts act as a standoff, elevating bundles above bolt protrusions commonly found in frame rails and panels. A tension tab on the mount allows cable ties to be pre-assembled in a ready position prior to bundles being brought to the mount. The mount can secure up to 4 separate bundles, providing parallel spacing between the frame rail and adjacent bundles.

| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |



Patents Pending



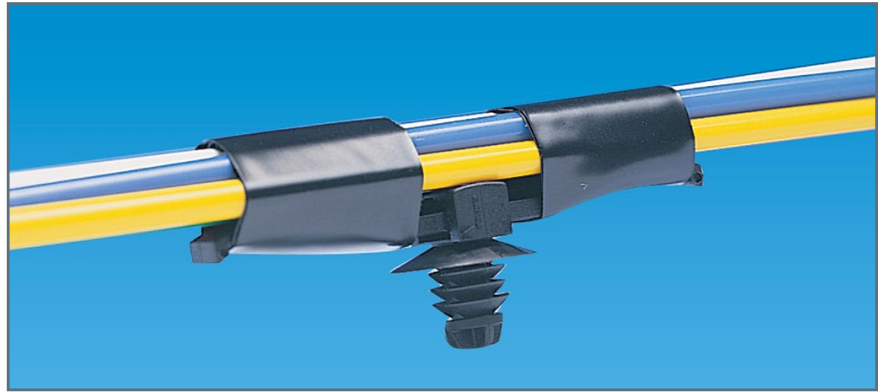
| Product Selection |                        |         | Mounting Hole Ø | Panel Thickness              | Extraction Force | Length (L)    | Width (W)    | Height (H1)   | Height (H2)   | Max Bundle Ø    |                | Color | Pkg. Qty. |
|-------------------|------------------------|---------|-----------------|------------------------------|------------------|---------------|--------------|---------------|---------------|-----------------|----------------|-------|-----------|
| Article No.       | Part No.               | Type    |                 |                              |                  |               |              |               |               | Center in. (mm) | Sides in. (mm) |       |           |
| 151-29500         | <b>S3STM500HIRHSC2</b> | S3STM50 | .50" (12.70)    | .075" - .515" (1.91 - 13.08) | >200             | 1.98" (50.29) | .86" (21.84) | 1.36" (34.54) | 2.16" (54.86) | 5.0" (127.0)    | 5.0" (127.0)   | Black | 100       |
| 151-29501         | <b>S3STM500HIRHSF1</b> | S3STM50 | .50" (12.70)    | .075" - .515" (1.91 - 13.08) | >200             | 1.98" (50.29) | .86" (21.84) | 1.36" (34.54) | 2.16" (54.86) | 5.0" (127.0)    | 5.0" (127.0)   | Black | 250       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Bundling Clips

Bundling clips are designed to provide simple and easy methods of securing cable bundles, hoses, or pipes. They are fastened onto the tape bar using bundle or cable ties. The different fixing orientations allow tape clips to be used with a wide range of panel thicknesses and hole diameters. Standard bundling clips are available as well as standoff and stud mount versions.



| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |



| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |



## Standard Bundling Clips

Standard bundling clips secure the bundle directly above the mounting hole.

| Product Selection |                  |                |                     |                         |                         |                         |           |         |           |         |
|-------------------|------------------|----------------|---------------------|-------------------------|-------------------------|-------------------------|-----------|---------|-----------|---------|
| Article No.       | Part No.         | Type           | Tape Bar Length (L) | Panel Thickness Minimum | Panel Thickness Maximum | Mounting Hole Ø         | Material  | Color   | Pkg. Qty. | Drawing |
|                   |                  |                | in. (mm)            | in. (mm)                | in. (mm)                | in. (mm)                |           |         |           |         |
| 151-00663         | <b>151-00663</b> | TC6FT6         | 1.55" (39.3)        | .03" (.07)              | .22" (5.7)              | .24 - .27" (6.2 - 6.8)  | PA66HIRHS | Black   | 2000      |         |
| 151-00651         | <b>151-00651</b> | TC6FT6LG       | 1.55" (39.3)        | .03" (.07)              | .71" (18)               | .24 - .27" (6.2 - 6.8)  | PA66HIRHS | Natural | 2000      |         |
| 155-30802         | <b>155-30802</b> | TC2FT6LG       | 2.17" (55)          | .02" (0.6)              | .2" (5.1)               | .25 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 500       |         |
| 150-95500         | <b>150-95500</b> | TC5FT6S        | 1.46" (37)          | .03" (0.75)             | .06" (1.5)              | .26 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 1000      |         |
| 151-02901         | <b>151-02901</b> | CHA2           | 2.13" (54)          | .03" (0.8)              | .08" (2)                | .26 - .28" (6.5 - 7.0)  | PA66      | Black   | 500       |         |
| 151-00605         | <b>151-00605</b> | TCOP6 2x122    | 2.17" (55)          | .02" (.6)               | .24" (6)                | .24 x .48" (6.2 x 12.2) | PA66HIRHS | Black   | 5000      |         |
| 151-00029         | <b>151-00029</b> | TCOP7 0x120    | 2.17" (55)          | .02" (.6)               | .24" (6)                | .28 x .47" (7.0 x 12)   | PA66HIRHS | Black   | 5000      |         |
| 155-11601         | <b>155-11601</b> | CLIP           | 2.17" (55)          | .06" (1.5)              | .12" (3.0)              | .25 - .28" (6.3 - 7.0)  | PA66HIRHS | Black   | 500       |         |
| 150-08110         | <b>150-08110</b> | CHA1           | 2.13" (54)          | .02" (.05)              | .05" (1.2)              | .25 - .28" (6.3 - 7.0)  | PA66      | Black   | 500       |         |
| 151-00790         | <b>151-00790</b> | BCOW FT6M      | 1.46" (37)          | .02" (.6)               | .14" (3.5)              | .26 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 2000      |         |
| 102-69068         | <b>102-69068</b> | ATSBC2 KSFT6,5 | 1.5" (39)           | .06" (1.7)              | .09" (2.3)              | .25 - .27" (6.3 - 6.7)  | PA66HIRHS | Black   | 500       |         |
| 102-69067         | <b>102-69067</b> | ATSBC2 KSFT6,5 | 1.5" (39)           | .03" (.7)               | .05" (1.3)              | .25 - .27" (6.3 - 6.7)  | PA66HIRHS | Black   | 500       |         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Bundling Clips (continued)

### Standoff Bundling Clips

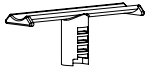
Standoff bundling clips secure the bundle away from the mounting hole.

| Product Selection |                  | Type           | Tape Bar Length (L) | Panel Thickness Minimum | Panel Thickness Maximum | Distance Hole to Bundle | Mounting Hole Ø         | Material  | Color   | Pkg. Qty. | Drawing                                                                               |
|-------------------|------------------|----------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------|---------|-----------|---------------------------------------------------------------------------------------|
| Article No.       | Part No.         |                | in. (mm)            | in. (mm)                | in. (mm)                | in. (mm)                | in. (mm)                |           |         |           |                                                                                       |
| 151-00623         | <b>151-00623</b> | SOCH FT6       | 2.2" (56)           | .03" (0.7)              | .22" (5.7)              | 1.2" (31)               | .25 - .27" (6.3 - 6.9)  | PA66HIRHS | Black   | 1500      |    |
| 151-00629         | <b>151-00629</b> | SOCH FT6       | 2.2" (56)           | .03" (0.7)              | .22" (5.7)              | 1.2" (31)               | .25 - .27" (6.3 - 6.9)  | PA66HIRHS | Black   | 1500      |    |
| 151-00650         | <b>151-00650</b> | SOC8 FT6       | 2.4" (61)           | .03" (0.7)              | .22" (5.7)              | .88" (22.4)             | .24 - .27" (6.2 - 6.8)  | PA66HIRHS | Natural | 1500      |    |
| 155-30902         | <b>155-30902</b> | SOC4 M.FT6     | 2.2" (55)           | .03" (0.7)              | 0.2" (5.1)              | .79" (20)               | .26 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 500       |    |
| 151-00074         | <b>151-00074</b> | SOC4 M.FT6     | 2.2" (55)           | .03" (0.7)              | 0.2" (5.1)              | .51" (13)               | .26 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 500       |    |
| 150-09201         | <b>150-09201</b> | COW2 ODP7      | 1.7" (42)           | .03" (0.8)              | .18" (4.5)              | .79" (20)               | .25 - .28" (6.3 - 7.0)  | PA66      | Brown   | 500       |    |
| 151-00080         | <b>151-00080</b> | COW3 ODP7      | 1.7" (42)           | .03" (0.8)              | .18" (4.5)              | 1.2" (30)               | .25 - .28" (6.3 - 7.0)  | PA66HS    | Black   | 500       |    |
| 151-00665         | <b>151-00665</b> | SOC8 FT6LG     | 1.6" (40)           | .03" (0.7)              | .23" (5.75)             | .276" (7)               | .26 - .28" (6.5 - 7.0)  | PA66HIRHS | Black   | 1000      |    |
| 155-01600         | <b>155-01600</b> | STAND-OFF CLIP | 1.6" (40)           | .02" (0.4)              | .06" (1.6)              | .98" (25)               | .26 - .27" (6.5 - 6.8)  | PA66HIRHS | Black   | 500       |   |
| 150-45397         | <b>150-45397</b> | STAND-OFF CLIP | 1.6" (40)           | .02" (0.4)              | .06" (1.6)              | 1.2" (31)               | .26 - .27" (6.5 - 6.8)  | PA66HIRHS | Black   | 500       |  |
| 151-02600         | <b>151-02600</b> | CH20D7         | 2.0" (50)           | .03" (0.8)              | .06" (1.6)              | .79" (20)               | .28" (7.0)              | PA66      | Black   | 100       |  |
| 151-00903         | <b>151-00903</b> | SOC10 FT6LG    | 2.3" (58)           | .02" (.6)               | .24" (6.7)              | .58" (14.5)             | .24 - .27" (6.1 - 6.9)  | PA66HIRHS | Natural | 3000      |  |
| 151-00932         | <b>151-00932</b> | SOC11 FTOVAL   | 2" (50)             | .02" (.06)              | .27" (6.8)              | .79" (20)               | .26 x .49" (6.5 x 12.5) | PA66HIRHS | Natural | 3000      |  |
| 151-00282         | <b>151-00282</b> | SOC1 0405      | 2.2" (55)           | .03" (0.7)              | .14" (3.5)              | .79" (20)               | .25 - .26" (6.3 - 6.7)  | PA66HIRHS | Black   | 500       |  |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

### Stud Mount Bundling Clips

Stud mount bundling clips are easily inserted onto welded studs to secure the bundle.

| Product Selection |                  | Type      | Length (L) | Recommended Weld Stud Size | Distance Weld Stud to Bundle | Material  | Color | Pkg. Qty. | Drawing                                                                               |
|-------------------|------------------|-----------|------------|----------------------------|------------------------------|-----------|-------|-----------|---------------------------------------------------------------------------------------|
| Article No.       | Part No.         |           | in. (mm)   | in. (mm)                   | in. (mm)                     |           |       |           |                                                                                       |
| 151-00664         | <b>151-00664</b> | BCOS5     | 2.3" (59)  | .2" (5)                    | —                            | PA66HIRHS | Black | 500       |  |
| 151-00281         | <b>151-00281</b> | BCOS6     | 2.3" (59)  | .24" (6)                   | —                            | PA66HIRHS | Black | 500       |                                                                                       |
| 151-26101         | <b>151-26101</b> | TCSB5C-SD | 2.2" (55)  | .2" (5)                    | .49" (12.5)                  | PA66HS    | Black | 500       |                                                                                       |
| 151-00017         | <b>151-00017</b> | Tape Bar  | 2.2" (55)  | .2" (5)                    | .90" (22.8)                  | PA66HIRHS | Black | 500       |  |
| 151-00016         | <b>151-00016</b> | BC30      | 2.2" (55)  | .2" (5)                    | 1.9" (30)                    | PA66HIRHS | Black | 500       |  |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Connector Clips

Connector Clips are initially installed onto the appropriate mating connector found on a wire or cable harness assembly. The connector is then secured to the attachment surface using the connector clip mount. The attachment surface can be a hole, edge, stud, or even another harness assembly depending on the connector clip mount being used.



| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66)</b>            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |



| Product Selection |                  |                        |                         |                         |                        |           |       |           |         |
|-------------------|------------------|------------------------|-------------------------|-------------------------|------------------------|-----------|-------|-----------|---------|
| Article No.       | Part No.         | Type                   | Panel Thickness Minimum | Panel Thickness Maximum | Mounting Hole Ø        | Material  | Color | Pkg. Qty. | Drawing |
|                   |                  |                        | in. (mm)                | in. (mm)                | in. (mm)               |           |       |           |         |
| 151-00785         | <b>151-00785</b> | CCFT6LG                | .03" (.07)              | .16" (4.0)              | .24 - .26" (6.0 - 6.7) | PA66HIRHS | Black | 5000      |         |
| 151-00786         | <b>151-00786</b> | CCFT6XLG               | .03" (.07)              | .43" (11.0)             | .24 - .26" (6.0 - 6.7) | PA66HIRHS | Black | 5000      |         |
| 151-00775         | <b>151-00775</b> | CCSFT6.5               | .07" (1.7)              | .09" (2.3)              | .24 - .26" (6.0 - 6.7) | PA66HIRHS | Black | 5000      |         |
| 155-32602         | <b>155-32602</b> | FT6LG.M.ST.<br>AUFN.II | .03" (.075)             | .20" (5.0)              | .26 - .28" (6.5 - 7.0) | PA66HIRHS | Black | 500       |         |

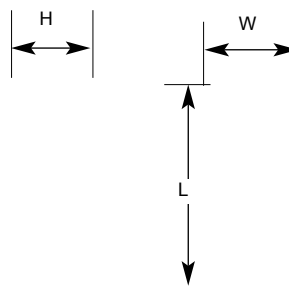
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

Connector Clips (*continued*)

| Product Selection |                  |                               |                         |                         |                              |                     |       |           |                                                                                       |
|-------------------|------------------|-------------------------------|-------------------------|-------------------------|------------------------------|---------------------|-------|-----------|---------------------------------------------------------------------------------------|
| Article No.       | Part No.         | Type                          | Panel Thickness Minimum | Panel Thickness Maximum | Mounting Hole Ø              | Material            | Color | Pkg. Qty. | Drawing                                                                               |
|                   |                  |                               | in. (mm)                | in. (mm)                | in. (mm)                     |                     |       |           |                                                                                       |
| 155-30702         | <b>155-30702</b> | FT6LG.YAZ.<br>CONNECT-TS      | .03" (.07)              | .20" (5.1)              | .25 - .28"<br>(6.3 - 7.0)    | PA66HIRHS           | Black | 500       |    |
| 151-00925         | <b>151-00925</b> | CCOVAL                        | .02" (0.6)              | .24" (6.0)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HIRHS           | Black | 5000      |    |
| 151-00765         | <b>151-00765</b> | CC09                          | .02" (0.6)              | .25" (6.35)             | .35 x .67"<br>(9.0 x 17.0)   | PA66HIRHS           | Black | 1000      |    |
| 151-00704         | <b>151-00704</b> | YCCFT82x185                   | .06" (1.5)              | .18" (4.5)              | .322 x .728"<br>(8.5 x 18.5) | PA66HIRHS           | Black | 1000      |    |
| 151-00675         | <b>151-00675</b> | YCCKSFT6.5                    | .03" (.07)              | .05" (1.3)              | .25 - .26"<br>(6.3 - 6.7)    | PA66HIRHS           | Black | 500       |    |
| 151-00792         | <b>151-00792</b> | YCCKSFT<br>6.5-PT1.7-2.3      | .07" (1.7)              | .09" (2.3)              | .25 - .26"<br>(6.3 - 6.7)    | PA66HIRHS           | Black | 500       |    |
| 151-00835         | <b>151-00835</b> | YCCKSFT62x122<br>PT0.7-1.3    | .03" (.07)              | .05" (1.3)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HS              | Black | 10000     |   |
| 151-00836         | <b>151-00836</b> | YCCKSFT62x122<br>PT1.7-2.3    | .07" (1.7)              | .09" (2.3)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HS              | Black | 10000     |  |
| 151-00833         | <b>151-00833</b> | YCCKSFT62x122<br>PT0.7-1.3 90 | .03" (.07)              | .05" (1.3)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HS              | Black | 10000     |  |
| 151-00834         | <b>151-00834</b> | YCCKSFT62x12<br>2PT1.7-2.3 90 | .07" (1.7)              | .09" (2.3)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HS              | Black | 10000     |  |
| 151-00513         | <b>151-00513</b> | YCCSFT<br>62122               | .02" (.06)              | .04" (1.0)              | .24 x .48"<br>(6.2 x 12.2)   | PA66HIRHS           | Black | 500       |  |
| 155-31102         | <b>155-31102</b> | YAZ-CONN-<br>TAPE-CLIP        | —                       | —                       | —                            | PA66HS              | Black | 500       |  |
| 156-00507         | <b>156-00507</b> | T50RYCCA                      | —                       | —                       | —                            | PA66HS<br>PA66HIRHS | Black | 100       |  |
| 156-00521         | <b>156-00521</b> | T50RYCCB                      | —                       | —                       | —                            | PA66HS<br>PA66HIRHS | Black | 100       |  |
| 155-36002         | <b>155-36002</b> | STECKERHALTER<br>SITZ         | .02" (0.6)              | .12" (3.0)              | .26 - .28"<br>(6.7 - 7.0)    | PA66HIRHS           | Black | 1000      |  |
| 155-03800         | <b>155-03800</b> | FT6 LG-AMP                    | .03" (.07)              | .24" (6.0)              | .26 x .28"<br>(6.7 - 7.0)    | PA66HIRHS           | Black | 500       |  |
| 151-00429         | <b>151-00429</b> | EC42                          | .06" (1.5)              | .16" (4.0)              | —                            | PA66HIRHS           | Black | 500       |  |
| 151-00430         | <b>151-00430</b> | EC43                          | .06" (1.5)              | .16" (4.0)              | —                            | PA66HIRHS           | Black | 500       |  |

## Mounting Cradle

The mounting cradle holds cables and harnesses secure yet clear of the panel surface. This cradle is for use with HellermannTyton cable ties.



| Material Data         |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2 (excluding adhesive)</b>                        |

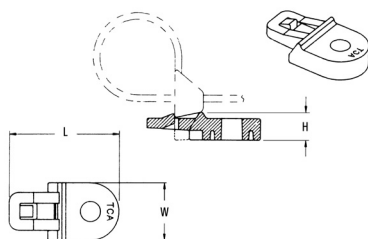


| Product Selection |           |        |                  |             |           |             |                 |         |           |
|-------------------|-----------|--------|------------------|-------------|-----------|-------------|-----------------|---------|-----------|
| Article No.       | Part No.  | Type   | Cable Tie Series | Length (L)  | Width (W) | Height (H)  | Mounting Hole Ø | Color   | Pkg. Qty. |
|                   |           |        |                  | in. (mm)    | in. (mm)  | in. (mm)    | in. (mm)        |         |           |
| 151-27010         | 151-27010 | LKC    | T50 - T250       | .98" (76.2) | .67" (17) | .53" (13.5) | .21" (8)        | Black   | 100       |
| 151-27019         | 151-27019 | LKC    | T50 - T250       | 1.6" (40)   | .75" (19) | .66" (16.8) | .21" (8)        | Natural | 100       |
| 151-27219         | 151-27219 | LKCSF1 | T50 - T250       | 1.6" (40)   | .75" (19) | .66" (16.8) | .23" (6)        | Natural | 100       |
| 151-27202         | 151-27202 | LKCSF1 | T50 - T250       | 1.6" (40)   | .75" (19) | .66" (16.8) | .23" (6)        | Black   | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Lashing Tie Mounts

The lashing tie mount is designed to snap into the T250 lashing tie. The tie head is assembled perpendicular to the mount. The strap is parallel to the mount when inserted into the head. The lashing tie mount is recommended for indoor or outdoor wall mount cable applications.



| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 UV-resistant (PA66UV)</b>             |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



| Product Selection |           |        |                  |            |               |               |              |       |           |
|-------------------|-----------|--------|------------------|------------|---------------|---------------|--------------|-------|-----------|
| Article No.       | Part No.  | Type   | Cable Tie Series | Mounting   | Width (W)     | Length (L)    | Height (H)   | Color | Pkg. Qty. |
|                   |           |        |                  |            | in. (mm)      | in. (mm)      | in. (mm)     |       |           |
| 151-00358         | LTM2500C2 | LTM250 | T250             | .25" screw | .733" (18.62) | 1.46" (37.08) | .378" (9.60) | Black | 100       |
| 151-00293         | LTM2500H4 | LTM250 |                  |            | .733" (18.62) | 1.46" (37.08) | .378" (9.60) | Black | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



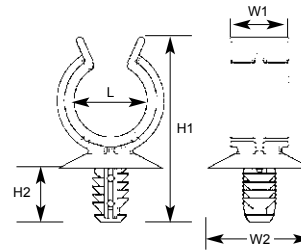
## Fir Tree Mount Tube Clip

Designed to offer a durable single-hole mounting, this tube clip allows the installer to insert the fir tree with minimal force while providing a secure hold.



| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified (PA66HIR)</b>          |
| Color                 | <b>Black</b>                                            |
| Operating Temperature | <b>-40 °F to +110 °F (-40 °C to +230 °C) continuous</b> |
| Flammability          | <b>UL94 HB</b>                                          |

RoHS



| Product Selection |                |                |                     |             |           |             |             |                 |                 |       |           |
|-------------------|----------------|----------------|---------------------|-------------|-----------|-------------|-------------|-----------------|-----------------|-------|-----------|
| Article No.       | Part No.       | Type           | Dimensions in. (mm) |             |           |             |             | Mounting Hole Ø | Panel Thickness | Color | Pkg. Qty. |
|                   |                |                | H1                  | H2          | W1        | W2          | L           |                 |                 |       |           |
| <b>151-14303</b>  | <b>PC15FT7</b> | <b>PC15FT7</b> | 1.07" (27.1)        | .44" (11.1) | .47" (12) | .85" (21.6) | .62" (15.7) | .25" (6.5)      | .12" (3.055)    | Black | 100       |

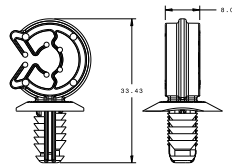
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## C Clip with Fir Tree Mount

The SC6.6 is designed for quick installation of cables to frames or rails. The unique fir tree design allows for easy insertion of the clip into a pre-drilled hole. Once installed, the cable can be quickly snapped in place for a secure fit. The SC6.6 is made of our durable impact modified, heat/UV stabilized PA6/6 material.

| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 high impact modified, heat and UV stabilized (PA66HIRHSUV)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS

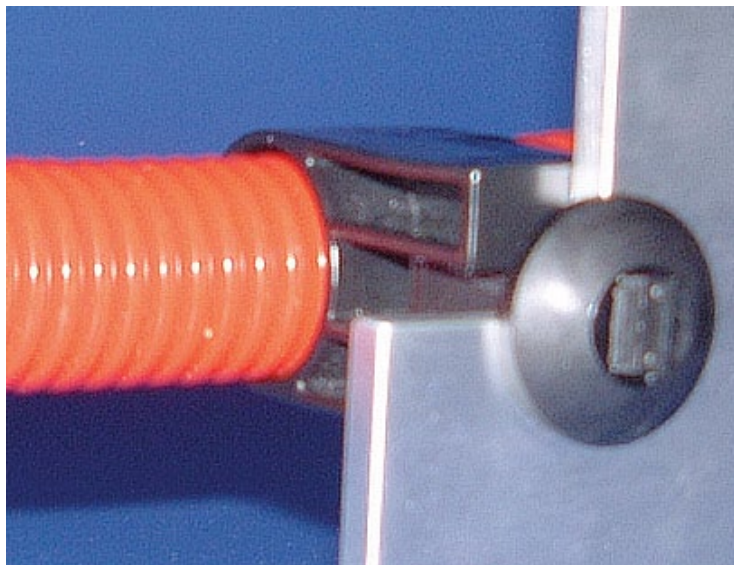


| Product Selection |                  |       |                         |                         |                  |                 |             |       |           |
|-------------------|------------------|-------|-------------------------|-------------------------|------------------|-----------------|-------------|-------|-----------|
| Article No.       | Part No.         | Type  | Panel Thickness Minimum | Panel Thickness Maximum | Bundle Ø Maximum | Mounting Hole Ø | Material    | Color | Pkg. Qty. |
|                   |                  |       | in. (mm)                | in. (mm)                | in. (mm)         | in. (mm)        |             |       |           |
| 151-00927         | <b>151-00927</b> | SC6.6 | .03" (.70)              | .25" (6.35)             | .30" (7.6)       | .26" (6.6)      | PA66HIRHSUV | Black | 100       |

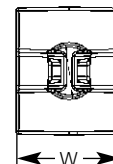
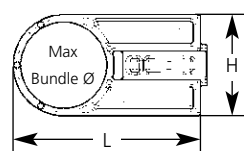
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Guide Standoff

Designed to offer a durable single-hole mounting, this tube clip allows the installer to insert the fire wire with minimal force while providing a secure hold.



| Material Data         |                                                                          | RoHS |
|-----------------------|--------------------------------------------------------------------------|------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |      |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |      |
| Flammability          | UL94 HB                                                                  |      |



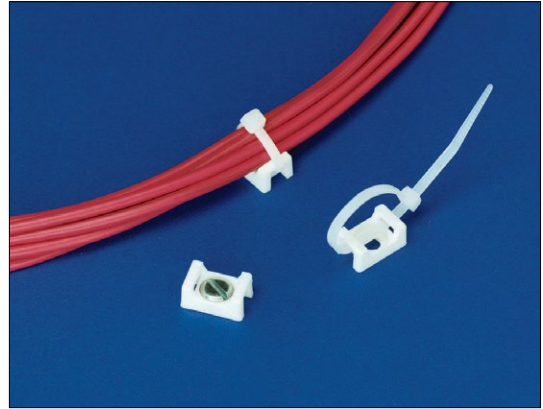
| Product Selection |           |      | Max Bundle Ø | Length (L)   | Width (W)    | Height (H)   | Color | Pkg. Qty. |
|-------------------|-----------|------|--------------|--------------|--------------|--------------|-------|-----------|
| Article No.       | Part No.  | Type | in. (mm)     | in. (mm)     | in. (mm)     | in. (mm)     |       |           |
| 151-00006         | 151-00006 | CGS1 | 1.02" (25.9) | 2.23" (56.6) | 1.00" (25.4) | 1.20" (30.5) | Black | 250       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

**This product for use with the button head tie on p. 34**

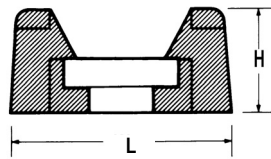
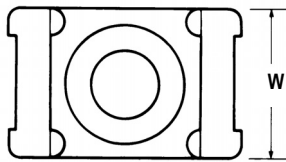
## Cable Tie Mounts

The CTM series is designed to provide stability to wire bundles. These mounts can accommodate miniature, intermediate, or standard cross-section cable ties. Each mount is secured with a single screw.



### Material Data

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



File# E64139

### Product Selection

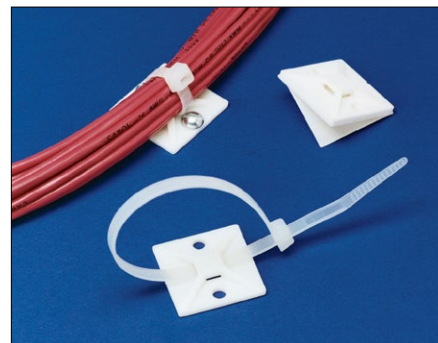
| Product Selection |          |      |                  |            |               |               |               |               |               |              |       |      |
|-------------------|----------|------|------------------|------------|---------------|---------------|---------------|---------------|---------------|--------------|-------|------|
| Article No.       | Part No. | Type | Cable Tie Series | Mounting   | Length (L)    | Width (W)     | Height (H)    | Color         | Pkg. Qty.     |              |       |      |
|                   |          |      |                  |            | in. (mm)      | in. (mm)      | in. (mm)      |               |               |              |       |      |
| 151-30303         | CTM010C2 | CTM0 | T18 - T50        | # 6 Screw  | .578" (14.68) | .375" (9.52)  | .266" (6.76)  | White         | 100           |              |       |      |
| 151-30305         | CTM010M4 |      |                  |            | .578" (14.68) | .375" (9.52)  | .266" (6.76)  | White         | 1000          |              |       |      |
| 151-30300         | CTM00C2  |      |                  |            | .578" (14.68) | .375" (9.52)  | .266" (6.76)  | Black         | 100           |              |       |      |
| 151-30301         | CTM00M4  |      |                  |            | .578" (14.68) | .375" (9.52)  | .266" (6.76)  | Black         | 1000          |              |       |      |
| 151-30404         | CTM110C2 | CTM1 |                  | T18 - T50  | # 8 Screw     | .579" (14.71) | .370" (9.40)  | .266" (6.76)  | White         | 100          |       |      |
| 151-30406         | CTM110M4 |      |                  |            |               | .579" (14.71) | .370" (9.40)  | .266" (6.76)  | White         | 1000         |       |      |
| 151-30400         | CTM10C2  |      |                  |            |               | .579" (14.71) | .370" (9.40)  | .266" (6.76)  | Black         | 100          |       |      |
| 151-30402         | CTM10M4  |      |                  |            |               | .579" (14.71) | .370" (9.40)  | .266" (6.76)  | Black         | 1000         |       |      |
| 151-30504         | CTM210C2 | CTM2 |                  |            |               | T18 - T120    | # 8 Screw     | .857" (21.77) | .605" (15.37) | .372" (9.45) | White | 100  |
| 151-30506         | CTM210M4 |      |                  |            |               |               |               | .857" (21.77) | .605" (15.37) | .372" (9.45) | White | 1000 |
| 151-30500         | CTM20C2  |      |                  |            |               |               |               | .857" (21.77) | .605" (15.37) | .372" (9.45) | Black | 100  |
| 151-30501         | CTM20M4  |      |                  |            |               |               |               | .857" (21.77) | .605" (15.37) | .372" (9.45) | Black | 1000 |
| 151-30605         | CTM310C2 | CTM3 | T18 - T120       |            | #10 Screw     |               |               | .858" (21.79) | .609" (15.47) | .374" (9.50) | White | 100  |
| 151-30607         | CTM310M4 |      |                  |            |               |               |               | .858" (21.79) | .609" (15.47) | .374" (9.50) | White | 1000 |
| 151-30600         | CTM30C2  |      |                  |            |               |               |               | .858" (21.79) | .609" (15.47) | .374" (9.50) | Black | 100  |
| 151-30603         | CTM30M4  |      |                  |            |               |               |               | .858" (21.79) | .609" (15.47) | .374" (9.50) | Black | 1000 |
| 151-30703         | CTM410C2 | CTM4 |                  | T18 - T120 | .25" Screw    |               | .864" (21.95) | .616" (15.65) | .372" (9.45)  | White        | 100   |      |
| 151-30705         | CTM410M4 |      |                  |            |               |               | .864" (21.95) | .616" (15.65) | .372" (9.45)  | White        | 1000  |      |
| 151-30700         | CTM40C2  |      |                  |            |               |               | .864" (21.95) | .616" (15.65) | .372" (9.45)  | Black        | 100   |      |
| 151-30702         | CTM40M4  |      |                  |            |               |               | .864" (21.95) | .616" (15.65) | .372" (9.45)  | Black        | 1000  |      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Tie Mounting Bases

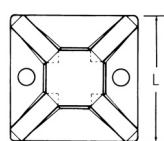
HellermannTyton's 4-way mounting bases are available in four sizes to accommodate T18 through T150 series cable ties. Insertion of ties can be made from all four sides. Each mount may be secured with two screws (four screws for the MB2.5 mount), with adhesive backing, or both, for ease of application and stability.

For applications where higher temperatures, certain chemicals, or UV radiation are a concern and an adhesive is the preferred method for securing, the acrylic adhesive 4-way mounting bases are recommended. The 2-way mounting bases may be secured with one screw, with adhesive backing, or both, and allow ties to be inserted from two sides.

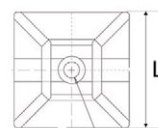


Adhesive mounts are supplied in pairs connected together on an adhesive liner.

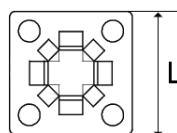
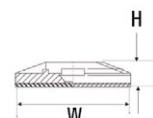
| Material Data         |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66)            |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |
| Flammability          | UL94 V2                                         |



4-way, MB3, MB4 and MB5 mounts



2-way mount



4-way, MB2.5 mount

| Material Data         |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



## Cable Tie Mounting Bases - Screw Mount

c **RU** **US**  
File# E64139

| Product Selection  |           |       |                  |           |            |         |           |         |            |        |       |           |
|--------------------|-----------|-------|------------------|-----------|------------|---------|-----------|---------|------------|--------|-------|-----------|
| Article No.        | Part No.  | Type  | Cable Tie Series | Mounting  | Length (L) |         | Width (W) |         | Height (H) |        | Color | Pkg. Qty. |
|                    |           |       |                  |           | in.        | (mm)    | in.       | (mm)    | in.        | (mm)   |       |           |
| 2- Way Screw Mount |           |       |                  |           |            |         |           |         |            |        |       |           |
| 151-29104          | MB4SH10C2 | MB4SH | T18 - T50        | # 6 Screw | 1.115″     | (28.32) | 1.115″    | (28.32) | .202″      | (5.13) | White | 100       |
| 151-00323          | MB4SH10H4 | MB4SH |                  |           | 1.115″     | (28.32) | 1.115″    | (28.32) | .202″      | (5.13) | White | 500       |
| 151-29100          | MB4SH0C2  | MB4SH |                  |           | 1.115″     | (28.32) | 1.115″    | (28.32) | .202″      | (5.13) | Black | 100       |
| 151-29101          | MB4SH0H4  | MB4SH |                  |           | 1.115″     | (28.32) | 1.115″    | (28.32) | .202″      | (5.13) | Black | 500       |
| 4- Way Screw Mount |           |       |                  |           |            |         |           |         |            |        |       |           |
| 151-28901          | MB2.510C2 | MB2.5 | T18              | # 3 Screw | .625″      | (15.88) | .625″     | (15.88) | .130″      | (3.3)  | White | 100       |
| 151-28902          | MB2.510M4 | MB2.5 |                  |           | .625″      | (15.88) | .625″     | (15.88) | .130″      | (3.3)  | White | 1000      |
| 151-00285          | MB2.50C2  | MB2.5 |                  |           | .625″      | (15.88) | .625″     | (15.88) | .130″      | (3.3)  | Black | 100       |
| 151-00286          | MB2.50M4  | MB2.5 |                  |           | .625″      | (15.88) | .625″     | (15.88) | .130″      | (3.3)  | Black | 1000      |
| 151-28302          | MB310C2   | MB3   | T18, T30         | #4 Screw  | .75″       | (19.0)  | .75″      | (19.0)  | .15″       | (3.8)  | White | 100       |
| 151-28305          | MB310M4   | MB3   |                  |           | .75″       | (19.0)  | .75″      | (19.0)  | .15″       | (3.8)  | White | 1000      |
| 151-00136          | MB30C2    | MB3   |                  |           | .75″       | (19.0)  | .75″      | (19.0)  | .15″       | (3.8)  | Black | 100       |
| 151-28301          | MB30M4    | MB3   |                  |           | .75″       | (19.0)  | .75″      | (19.0)  | .15″       | (3.8)  | Black | 1000      |
| 151-28802          | MB410C2   | MB4   | T18 - T50        | #8 Screw  | 1.12″      | (28.5)  | 1.12″     | (28.5)  | .19″       | (4.8)  | White | 100       |
| 151-00319          | MB410H4   | MB4   |                  |           | 1.12″      | (28.5)  | 1.12″     | (28.5)  | .19″       | (4.8)  | White | 500       |
| 151-00320          | MB40C2    | MB4   |                  |           | 1.12″      | (28.5)  | 1.12″     | (28.5)  | .19″       | (4.8)  | Black | 100       |
| 151-28801          | MB40H4    | MB4   |                  |           | 1.12″      | (28.5)  | 1.12″     | (28.5)  | .19″       | (4.8)  | Black | 500       |
| 151-00324          | MB510C2   | MB5   | T18 - T150       | #8 Screw  | 1.485″     | (37.7)  | 1.485″    | (37.7)  | .245″      | (6.2)  | White | 100       |
| 151-28504          | MB510F4   | MB5   |                  |           | 1.485″     | (37.7)  | 1.485″    | (37.7)  | .245″      | (6.2)  | White | 250       |
| 151-28500          | MB50C2    | MB5   |                  |           | 1.485″     | (37.7)  | 1.485″    | (37.7)  | .245″      | (6.2)  | Black | 100       |
| 151-28501          | MB50F4    | MB5   |                  |           | 1.485″     | (37.7)  | 1.485″    | (37.7)  | .245″      | (6.2)  | Black | 250       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Tie Mounting Bases - Rubber-Based Adhesive

| Product Selection                         |            |        |                  |          |                |                |              |       |           |
|-------------------------------------------|------------|--------|------------------|----------|----------------|----------------|--------------|-------|-----------|
| Article No.                               | Part No.   | Type   | Cable Tie Series | Mounting | Length (L)     | Width (W)      | Height (H)   | Color | Pkg. Qty. |
|                                           |            |        |                  |          | in. (mm)       | in. (mm)       | in. (mm)     |       |           |
| 2- Way Mount with Rubber - Based Adhesive |            |        |                  |          |                |                |              |       |           |
| 151-29203                                 | MB4SHA10C2 | MB4SHA | T18 - T50        | Adhesive | 1.115" (28.32) | 1.115" (28.32) | .232" (5.89) | White | 100       |
| 151-29206                                 | MB4SHA10H4 | MB4SHA |                  |          | 1.115" (28.32) | 1.115" (28.32) | .232" (5.89) | White | 500       |
| 151-29200                                 | MB4SHA0C2  | MB4SHA |                  |          | 1.115" (28.32) | 1.115" (28.32) | .232" (5.89) | Black | 100       |
| 4- Way Mount with Rubber - Based Adhesive |            |        |                  |          |                |                |              |       |           |
| 151-29002                                 | MB2.5A10C2 | MB2.5A | T18              | Adhesive | .625" (15.88)  | .625" (15.88)  | .160" (4.1)  | White | 100       |
| 151-00298                                 | MB2.5A10M4 | MB2.5A |                  |          | .625" (15.88)  | .625" (15.88)  | .160" (4.1)  | White | 1000      |
| 151-29000                                 | MB2.5A0C2  | MB2.5A |                  |          | .625" (15.88)  | .625" (15.88)  | .160" (4.1)  | Black | 100       |
| 151-29001                                 | MB2.5A0M4  | MB2.5A |                  |          | .625" (15.88)  | .625" (15.88)  | .160" (4.1)  | Black | 1000      |
| 151-28718                                 | MB3A10C2   | MB3A   | T18, T30         | Adhesive | .75" (19.0)    | .75" (19.0)    | .18" (4.6)   | White | 100       |
| 151-28721                                 | MB3A10M4   | MB3A   |                  |          | .75" (19.0)    | .75" (19.0)    | .18" (4.6)   | White | 1000      |
| 151-28710                                 | MB3A0C2    | MB3A   |                  |          | .75" (19.0)    | .75" (19.0)    | .18" (4.6)   | Black | 100       |
| 151-28713                                 | MB3A0M4    | MB3A   |                  |          | .75" (19.0)    | .75" (19.0)    | .18" (4.6)   | Black | 1000      |
| 151-28421                                 | MB4A10C2   | MB4A   | T18 - T50        | Adhesive | 1.12" (28.0)   | 1.12" (28.0)   | .22" (5.6)   | White | 100       |
| 151-00321                                 | MB4A10H4   | MB4A   |                  |          | 1.12" (28.0)   | 1.12" (28.0)   | .22" (5.6)   | White | 500       |
| 151-28403                                 | MB4A0C2    | MB4A   |                  |          | 1.12" (28.0)   | 1.12" (28.0)   | .22" (5.6)   | Black | 100       |
| 151-28406                                 | MB4A0H4    | MB4A   |                  |          | 1.12" (28.0)   | 1.12" (28.0)   | .22" (5.6)   | Black | 500       |
| 151-28529                                 | MB5A10C2   | MB5A   | T18 - T150       | Adhesive | 1.485" (37.7)  | 1.485" (37.7)  | .275" (6.9)  | White | 100       |
| 151-00427                                 | MB5A10F4   | MB5A   |                  |          | 1.485" (37.7)  | 1.485" (37.7)  | .275" (6.9)  | White | 250       |
| 151-28602                                 | MB5A0C2    | MB5A   |                  |          | 1.485" (37.7)  | 1.485" (37.7)  | .275" (6.9)  | Black | 100       |
| 151-28605                                 | MB5A0F4    | MB5A   |                  |          | 1.485" (37.7)  | 1.485" (37.7)  | .275" (6.9)  | Black | 250       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



File# E64139

## Cable Tie Mounting Bases - Acrylic Adhesive

| Product Selection                    |            |      |                  |          |            |        |           |        |            |       |       |           |
|--------------------------------------|------------|------|------------------|----------|------------|--------|-----------|--------|------------|-------|-------|-----------|
| Article No.                          | Part No.   | Type | Cable Tie Series | Mounting | Length (L) |        | Width (W) |        | Height (H) |       | Color | Pkg. Qty. |
|                                      |            |      |                  |          | in. (mm)   |        | in. (mm)  |        | in. (mm)   |       |       |           |
| 4 - Way Screw Mount Acrylic Adhesive |            |      |                  |          |            |        |           |        |            |       |       |           |
| 151-00331                            | MB3A10A2C2 | MB3A | T18, T30         | Adhesive | .75"       | (19.0) | .75"      | (19.0) | .18"       | (4.6) | White | 100       |
| 151-28717                            | MB3A10A2H4 | MB3A |                  |          | .75"       | (19.0) | .75"      | (19.0) | .18"       | (4.6) | White | 500       |
| 151-28711                            | MB3A0A2C2  | MB3A |                  |          | .75"       | (19.0) | .75"      | (19.0) | .18"       | (4.6) | Black | 100       |
| 151-28709                            | MB3A0A2H4  | MB3A |                  |          | .75"       | (19.0) | .75"      | (19.0) | .18"       | (4.6) | Black | 500       |
| 151-28420                            | MB4A10A2C2 | MB4A | T18 - T50        | Adhesive | 1.12"      | (28.5) | 1.12"     | (28.5) | .23"       | (5.9) | White | 100       |
| 151-00322                            | MB4A10A2H4 | MB4A |                  |          | 1.12"      | (28.5) | 1.12"     | (28.5) | .23"       | (5.9) | White | 500       |
| 151-28402                            | MB4A0A2C2  | MB4A |                  |          | 1.12"      | (28.5) | 1.12"     | (28.5) | .23"       | (5.9) | Black | 100       |
| 151-28405                            | MB4A0A2H4  | MB4A |                  |          | 1.12"      | (28.5) | 1.12"     | (28.5) | .23"       | (5.9) | Black | 500       |
| 151-28607                            | MB5A10A2C2 | MB5A | T18 - T150       | Adhesive | 1.485"     | (37.7) | 1.485"    | (37.7) | .275"      | (6.9) | White | 100       |
| 151-28610                            | MB5A10A2F4 | MB5A |                  |          | 1.485"     | (37.7) | 1.485"    | (37.7) | .275"      | (6.9) | White | 250       |
| 151-28600                            | MB5A0A2C2  | MB5A |                  |          | 1.485"     | (37.7) | 1.485"    | (37.7) | .275"      | (6.9) | Black | 100       |
| 151-28604                            | MB5A0A2F4  | MB5A |                  |          | 1.485"     | (37.7) | 1.485"    | (37.7) | .275"      | (6.9) | Black | 250       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Tie Mounting Bases - High Temp/Heavy Bond Adhesive

For extreme heavy duty applications, our high temp/heavy bond adhesive mounts work well on difficult surfaces such as paint or plastics. The mounts are made of our high temp, impact modified PA66 material and use a specially formulated acrylic adhesive making the bond extremely durable.

| Product Selection |           |        |                  | Mounting | Length (L) |        | Width (W) |        | Height (H) |       | Color | Pkg. Qty. |
|-------------------|-----------|--------|------------------|----------|------------|--------|-----------|--------|------------|-------|-------|-----------|
| Article No.       | Part No.  | Type   | Cable Tie Series |          | in.        | (mm)   | in.       | (mm)   | in.        | (mm)  |       |           |
|                   |           |        |                  |          |            |        |           |        |            |       |       |           |
| 151-00432         | 151-00432 | MB3APT | T18, T30         | Adhesive | .75"       | (19.0) | .75"      | (19.0) | .15"       | (3.8) | Black | 100       |
| 151-00433         | 151-00433 | MB4APT | T18 - T50        |          | 1.12"      | (28.0) | 1.12"     | (28.0) | .19"       | (4.7) | Black | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



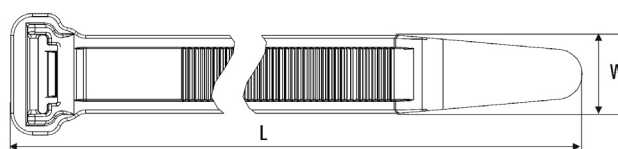
## Wide Strap Heavy Duty Cable Ties

The wide strap cable tie minimizes pinching on soft bundles and features a low profile head to provide compact bundling. A thinner strap provides increased flexibility for improved ergonomics.

- Designed to minimize pinching of soft hoses and convoluted tubing
- Low profile head
- Clamping rails on the bottom of head to increase grip on round bundles
- Large bundle diameter range: .375" - 4.125" (9.5mm - 104.7mm)
- Flexible strap with bent tip for quick insertion into mounts

| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS



### Product Selection

| Article No. | Part No.         | Type | Min. Tensile Strength |       | Length (L) |          | Max. Ø Bundle |          | Width (W) |        | Color | Pkg. Qty. |
|-------------|------------------|------|-----------------------|-------|------------|----------|---------------|----------|-----------|--------|-------|-----------|
|             |                  |      | lbs. (N)              |       | in. (mm)   |          | in. (mm)      |          | in. (mm)  |        |       |           |
| 111-12300   | <b>111-12300</b> | WSS  | 120 lbs               | (534) | 9.1"       | (231.14) | 2.25"         | (57.15)  | .5"       | (12.7) | Black | 300       |
| 111-12301   | <b>111-12301</b> | WSI  | 120 lbs               | (534) | 12.1"      | (307.34) | 3.25"         | (82.55)  | .5"       | (12.7) | Black | 300       |
| 111-12302   | <b>111-12302</b> | WSR  | 120 lbs               | (534) | 15.1"      | (383.54) | 4.125"        | (104.78) | .5"       | (12.7) | Black | 300       |

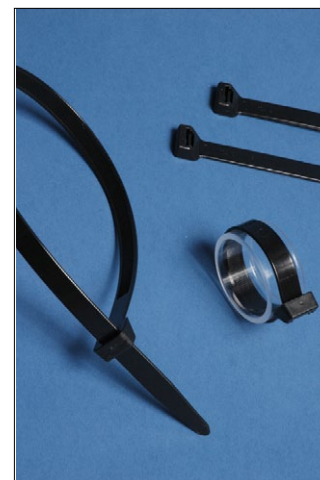
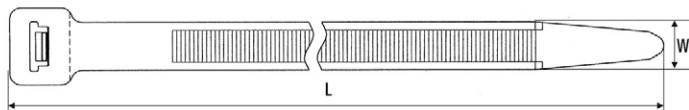
Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## T255 Series Heavy Duty Cable Ties

HellermannTyton's T255 series heavy duty cable ties are ideal for bundles requiring a strong cable tie that may also require a higher temperature rating than the T250 series. These ties have a tensile strength of 250 lbs.

| Material Data         |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS



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### Product Selection

| Article No. | Part No.           | Type  | Min. Tensile Strength |        | Length (L) |       | Max. Ø Bundle |       | Width (W) |        | Color | Pkg. Qty. |
|-------------|--------------------|-------|-----------------------|--------|------------|-------|---------------|-------|-----------|--------|-------|-----------|
|             |                    |       | lbs. (N)              |        | in. (mm)   |       | in. (mm)      |       | in. (mm)  |        |       |           |
| 111-25500   | <b>T255S0HIRX2</b> | T255S | 250 lbs               | (1115) | 8.86"      | (225) | 2.16"         | (55)  | .49"      | (12.5) | Black | 25        |
| 111-25400   | <b>T255R0HIRX2</b> | T255R | 250 lbs               | (1115) | 20.28"     | (520) | 5.71"         | (145) | .49"      | (12.5) | Black | 25        |
| 111-25300   | <b>T255M0HIRX2</b> | T255M | 250 lbs               | (1115) | 22.05"     | (565) | 6.30"         | (160) | .49"      | (12.5) | Black | 25        |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Heavy Duty Cable Ties

### T250 Series

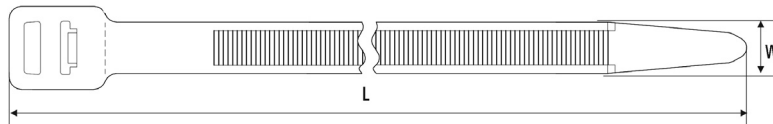
These cable ties offer a high minimum tensile strength and have a buckle feature which allows the end of the cable tie to be tucked away if necessary. The buckle also snaps into HellermannTyton LTM, lashing tie mounts.



T250 heavy duty cable tie and lashing tie mount application

| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |

RoHS



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File# E64139

| Product Selection |                  |        | Min. Tensile Strength |        | Length (L) |        | Max. Ø Bundle |       | Width (W) |        | Color   | Pkg. Qty. |
|-------------------|------------------|--------|-----------------------|--------|------------|--------|---------------|-------|-----------|--------|---------|-----------|
| Article No.       | Part No.         | Type   |                       |        |            |        |               |       |           |        |         |           |
|                   |                  |        | lbs.                  | (N)    | in.        | (mm)   | in.           | (mm)  | in.       | (mm)   |         |           |
| <b>T250S</b>      |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-24702         | <b>T250S9X2</b>  | T250S  | 250 lbs               | (1115) | 9.05"      | (230)  | 2.17"         | (55)  | .49"      | (12.5) | Natural | 25        |
| 111-24700         | <b>T250S0X2</b>  | T250S  | 250 lbs               | (1115) | 9.05"      | (230)  | 2.17"         | (55)  | .49"      | (12.5) | Black   | 25        |
| <b>T250R</b>      |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-24803         | <b>T250R9X2</b>  | T250R  | 250 lbs               | (1115) | 20.47"     | (520)  | 5.71"         | (145) | .49"      | (12.5) | Natural | 25        |
| 111-24801         | <b>T250R0X2</b>  | T250R  | 250 lbs               | (1115) | 20.47"     | (520)  | 5.71"         | (145) | .49"      | (12.5) | Black   | 25        |
| <b>T250M</b>      |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-25002         | <b>T250M9X2</b>  | T250M  | 250 lbs               | (1115) | 22.24"     | (565)  | 5.90"         | (150) | .49"      | (12.5) | Natural | 25        |
| 111-25001         | <b>T250M0X2</b>  | T250M  | 250 lbs               | (1115) | 22.24"     | (565)  | 5.90"         | (150) | .49"      | (12.5) | Black   | 25        |
| <b>T250I</b>      |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-25219         | <b>T250I9X2</b>  | T250I  | 250 lbs               | (1115) | 28.54"     | (725)  | 8.00"         | (203) | .49"      | (12.5) | Natural | 25        |
| 111-00507         | <b>T250I0X2</b>  | T250I  | 250 lbs               | (1115) | 28.54"     | (725)  | 8.00"         | (203) | .49"      | (12.5) | Black   | 25        |
| <b>T250L</b>      |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-00436         | <b>T250L9X2</b>  | T250L  | 250 lbs               | (1115) | 34.65"     | (880)  | 10.00"        | (254) | .49"      | (12.5) | Natural | 25        |
| 111-24601         | <b>T250L0X2</b>  | T250L  | 250 lbs               | (1115) | 34.65"     | (880)  | 10.00"        | (254) | .49"      | (12.5) | Black   | 25        |
| <b>T250XL</b>     |                  |        |                       |        |            |        |               |       |           |        |         |           |
| 111-00466         | <b>T250XL9X2</b> | T250XL | 250 lbs               | (1115) | 40.55"     | (1030) | 12.00"        | (305) | .49"      | (12.5) | Natural | 25        |
| 111-25200         | <b>T250XL0X2</b> | T250XL | 250 lbs               | (1115) | 40.55"     | (1030) | 12.00"        | (305) | .49"      | (12.5) | Black   | 25        |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Button Head Ties

The button head tie is a two piece tie providing for parallel entry and exit through the head. The strap contains serrations on both sides and has two opposed pawls recessed within a domed head. This design allows the strap to be directed clockwise or counter-clockwise prior to insertion into the head, enabling bi-directional looping.

### New and Improved Features

The button head tie offers many improved features for added durability and installation ease.

**A. Pilot bushing** - protects the strap from abrasion on the mounting hole edge

**B. Ribs** - increased ribs added to the bottom of the head for added durability

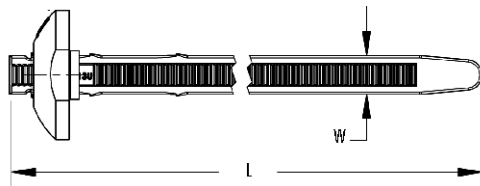
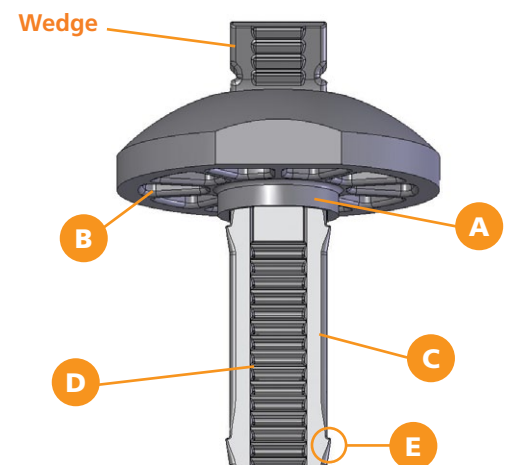
**C. Strap** - more radiused edges for added flexibility

**D. Serrations** - redesigned serrations and wedge provide optimal strength when seated in the head

**E. Retainers** - lower retainers on BT130 hold HellermannTyton's MSBT120 saddle mounts in place during assembly.



| Material Data- Button Head |                                                                          | RoHS |
|----------------------------|--------------------------------------------------------------------------|------|
| Material                   | Polyamide 6.6 heat stabilized (PA66HS)                                   |      |
| Color                      | Black                                                                    |      |
| Operating Temperature      | -40 °F to +221 °F (-40 °C to +105 °C) continuous                         |      |
| Flammability               | UL94 V2                                                                  |      |
| Material Data - Strap      |                                                                          | RoHS |
| Material                   | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |      |
| Color                      | Black                                                                    |      |
| Operating Temperature      | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |      |
| Flammability               | UL94 HB                                                                  |      |



Note: In order to assure the strap is fully locked in its final secure position, the installer must make sure that the "wedge" located at the end of the strap, is fully seated in the button, and flush with the top of the button. The MK9 cable tie tool is recommended and end use testing is advised.



MK9 Tool -  
See page 91

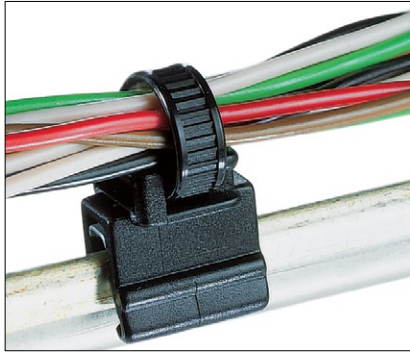
| Product Selection                                        |           |          | Min. Tensile Strength |       | Length (L) |         | Max. Ø Bundle |        | Width (W) |       |       | Pkg. Qty. |
|----------------------------------------------------------|-----------|----------|-----------------------|-------|------------|---------|---------------|--------|-----------|-------|-------|-----------|
| Article No.                                              | Part No.  | Type     |                       |       |            |         |               |        |           |       |       |           |
| BT105 Button Head Ties                                   |           |          |                       |       |            |         |               |        |           |       |       |           |
| 132-00010                                                | 132-00010 | BT105R   | 105 lbs               | (467) | 9.63"      | (244.4) | 2.62"         | (66.7) | .22"      | (5.6) | Black | 50        |
| 132-00011                                                | 132-00011 | BT105L   | 105 lbs               | (467) | 15"        | (381.5) | 4.33"         | (110)  | .22"      | (5.6) | Black | 50        |
| BT105 Button Head Ties with Pilot Bushings               |           |          |                       |       |            |         |               |        |           |       |       |           |
| 132-00006                                                | 132-00006 | BT105RP  | 105 lbs               | (467) | 9.63"      | (244.4) | 2.62"         | (66.7) | .22"      | (5.6) | Black | 50        |
| 132-00007                                                | 132-00007 | BT105LP  | 105 lbs               | (467) | 15"        | (381.5) | 4.33"         | (110)  | .22"      | (5.6) | Black | 50        |
| BT130 Button Head Ties with Retainers and Pilot Bushings |           |          |                       |       |            |         |               |        |           |       |       |           |
| 132-00008                                                | 132-00008 | BT130RDP | 130 lbs               | (578) | 10.51"     | (267.0) | 2.87"         | (73)   | .30"      | (7.6) | Black | 50        |
| 132-00009                                                | 132-00009 | BT130LDP | 130 lbs               | (578) | 15"        | (381.5) | 4.33"         | (110)  | .30"      | (7.6) | Black | 50        |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Ties and Edge Clips

HellermannTyton's edge clips are designed specifically to route bundles by securing them to the edge of a plastic or metal sheet without the need for a mounting hole. The clip is easy to secure and the extraction force is high due to the integrated metal clamp that holds the edge clip in place. Edge clips are available in three configurations: a two piece clip and tie assembly, a one piece clip and tie combination and a edge clip and tape bar combination. When noted (\*), cable ties are outside serrated which can reduce bundle chafing.

### Two Piece Edge Clip and Cable Tie Assemblies



T50ROSEC4A - the cable bundle runs parallel with the edge.

#### Material Data- Cable Tie

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Color                 | Black                                            |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |



#### Material Data - Edge Clip

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Color                 | Black                                                                    |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



#### Product Selection

| Product Selection                      |                  |            | Min. Tensile Strength | Length (L)  | Max. Ø Bundle | Pkg. Qty. | Drawing |
|----------------------------------------|------------------|------------|-----------------------|-------------|---------------|-----------|---------|
| Article No.                            | Part No.         | Type       | lbs. (N)              | in. (mm)    | in. (mm)      |           |         |
| Panel Thickness, — .039" .117" (1-3mm) |                  |            |                       |             |               |           |         |
| 150-76090                              | <b>150-76090</b> | T30REC4A   | 30 lbs (135)          | 5.9 " (150) | 1.3" (33)     | 500       |         |
| 156-00858                              | <b>156-00858</b> | T50SOSEC4A | 50 lbs (225)          | 5.9" (150)  | 1.2" (31)     | 500       |         |
| 156-00539                              | <b>156-00539</b> | T50REC4A   | 50 lbs (225)          | 8" (202)    | 1.8" (45)     | 500       |         |
| 156-00860                              | <b>156-00860</b> | T50ROSEC4A | 50 lbs (225)          | 7.9" (200)  | 1.8" (45)     | 500       |         |
| 156-00856                              | <b>156-00856</b> | T30REC4B   | 50 lbs (135)          | 5.9" (150)  | 1.3" (33)     | 500       |         |
| 156-00859                              | <b>156-00859</b> | T50SOSEC4B | 50 lbs (225)          | 6.5" (165)  | 1.2" (31)     | 500       |         |
| 156-00861                              | <b>156-00861</b> | T50ROSEC4B | 50 lbs (225)          | 8" (202)    | 1.8" (45)     | 500       |         |
| 156-00538                              | <b>156-00538</b> | T50REC4B   | 50 lbs (225)          | 7.9" (200)  | 1.8" (45)     | 500       |         |
| 156-00865                              | <b>156-00865</b> | T50SOSEC5A | 50 lbs (225)          | 5.9" (150)  | 1.2" (31)     | 500       |         |
| 156-00864                              | <b>156-00864</b> | T50ROSEC5A | 50 lbs (225)          | 7.9" (200)  | 1.8" (45)     | 500       |         |
| 156-01007                              | <b>156-01007</b> | T50RDHEC5A | 50 lbs (225)          | 8.3" (210)  | 1.8" (45)     | 500       |         |
| 156-00541                              | <b>156-00541</b> | T50REC5A   | 50 lbs (225)          | 7.9" (200)  | 1.8" (45)     | 500       |         |
| 156-00863                              | <b>156-00863</b> | T50SOSEC5B | 50 lbs (225)          | 5.9" (150)  | 1.2" (31)     | 500       |         |
| 156-00540                              | <b>156-00540</b> | T50REC5B   | 50 lbs (225)          | 8" (202)    | 1.8" (45)     | 500       |         |
| 156-00862                              | <b>156-00862</b> | T50ROSEC5B | 50 lbs (225)          | 7.9" (200)  | 1.8" (45)     | 500       |         |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. \* outside serrated cable tie. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Two Piece Edge Clip and Cable Tie Assemblies (continued)

## Material Data- Cable Tie

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Color                 | Black                                            |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |

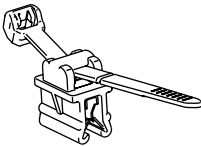
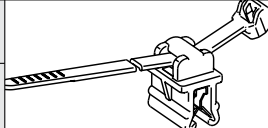
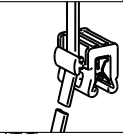
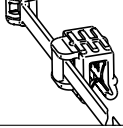


## Material Data - Edge Clip

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Color                 | Black                                                                    |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



## Product Selection

| Product Selection                        |             |            | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      |           |                                                                                       |
|------------------------------------------|-------------|------------|-----------------------|-------|------------|-------|---------------|------|-----------|---------------------------------------------------------------------------------------|
| Article No.                              | Part No.    | Type       | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm) | Pkg. Qty. | Drawing                                                                               |
| Panel Thickness, — .039" - .117" (1-3mm) |             |            |                       |       |            |       |               |      |           |                                                                                       |
| 155-37104                                | 155-37104   | T18REC9    | 18 lbs                | (80)  | 3.9"       | (100) | .75"          | (19) | 500       |  |
| 156-00019                                | 156-00019 * | T50SOSEC9  | 50 lbs                | (225) | 5.9"       | (150) | 1.2"          | (31) | 500       |                                                                                       |
| 156-05903                                | 156-05903   | T50ROSEC9  | 50 lbs                | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |                                                                                       |
| 155-38304                                | 155-38304   | T18R-EC10  | 18 lbs                | (80)  | 3.9"       | (100) | .79"          | (20) | 500       |  |
| 156-05904                                | 156-05904 * | T50ROSEC10 | 50 lbs                | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |                                                                                       |
| 156-00017                                | 156-00017   | T50SOSEC21 | 50 lbs                | (225) | 5.9"       | (150) | 1.3"          | (33) | 500       |  |
| 156-00010                                | 156-00010   | T50ROSEC21 | 50 lbs                | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |                                                                                       |
| 156-00018                                | 156-00018   | T50SOSEC22 | 50 lbs                | (225) | 5.9"       | (150) | 1.3"          | (33) | 500       |                                                                                       |
| 156-00011                                | 156-00011   | T50ROSEC22 | 50 lbs                | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |  |
| 156-01601                                | 156-01601   | CBTO-50R   | 50 lbs                | (225) | 8"         | (202) | 1.85"         | (47) | 500       |                                                                                       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P.

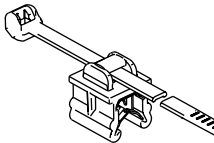
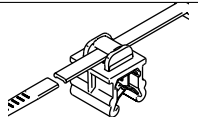
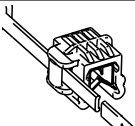
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* outside serrated cable tie

**SD** in the **Type** indicates the edge clip is designed to accommodate small bundle diameters



## Two Piece Edge Clip and Cable Tie Assemblies (continued)

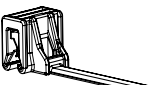
| Product Selection |           |            | Min. Tensile Strength                    |       | Length (L) |       | Max. Ø Bundle |      | Pkg. Qty. | Drawing                                                                             |
|-------------------|-----------|------------|------------------------------------------|-------|------------|-------|---------------|------|-----------|-------------------------------------------------------------------------------------|
| Article No.       | Part No.  | Type       | lbs.                                     | (N)   | in.        | (mm)  | in.           | (mm) |           |                                                                                     |
|                   |           |            | Panel Thickness — .117" - .234" (3-6 mm) |       |            |       |               |      |           |                                                                                     |
| 156-04600         | 156-04600 | T18ROSEC19 | 18 lbs                                   | (80)  | 3.9"       | (100) | .79"          | (20) | 500       |  |
| 156-04601         | 156-04601 | T50SOSEC19 | 50 lbs                                   | (225) | 5.9"       | (150) | 1.2"          | (31) | 500       |                                                                                     |
| 156-04602         | 156-04602 | T50ROSEC19 | 50 lbs                                   | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |                                                                                     |
| 156-00016         | 156-00016 | T50SOSEC20 | 50 lbs                                   | (225) | 5.9"       | (150) | 1.3"          | (33) | 500       |  |
| 156-00873         | 156-00873 | T50ROSEC20 | 50 lbs                                   | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |                                                                                     |
| 156-00006         | 156-00006 | T50ROSEC23 | 50 lbs                                   | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |  |
| 156-00007         | 156-00007 | T50ROSEC24 | 50 lbs                                   | (225) | 7.9"       | (200) | 1.8"          | (45) | 500       |  |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## One Piece Edge Clip and Cable Tie Combinations

The plastic area of the edge clips and the cable ties are molded together.

| Material Data         |                                                  | RoHS |
|-----------------------|--------------------------------------------------|------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |      |
| Color                 | Black                                            |      |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |      |
| Flammability          | UL94 HB                                          |      |

| Product Selection                      |           | Type        | Min. Tensile Strength | Length (L) | Max. Ø Bundle | Pkg. Qty. | Drawing                                                                               |
|----------------------------------------|-----------|-------------|-----------------------|------------|---------------|-----------|---------------------------------------------------------------------------------------|
| Article No.                            | Part No.  |             | lbs. (N)              | in. (mm)   | in. (mm)      |           |                                                                                       |
| Panel Thickness, — .039" .117" (1-3mm) |           |             |                       |            |               |           |                                                                                       |
| 126-00036                              | 126-00036 | T50SOSEC34E | 40 lbs (155)          | 6" (150)   | 1.8" (45)     | 500       |  |
| 156-00858                              | 156-00858 | T50SOSEC4A  | 50 lbs (225)          | 5.9" (150) | 1.2" (31)     | 500       |  |
| 156-00539                              | 156-00539 | T50REC4A    | 50 lbs (225)          | 8" (202)   | 1.8" (45)     | 500       |  |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Edge Clip and Tape Clip Combination

These clips can be secured to cables with cable ties or tape.

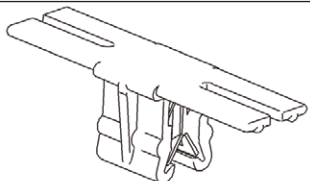
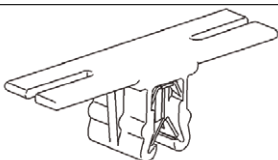
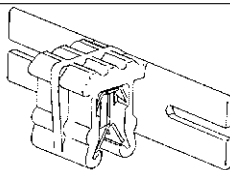
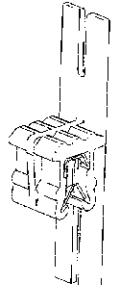
Material Data - Cable Tie and Tape Clip Combination

RoHS

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Color                 | <b>Black</b>                                                                    |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

Product Selection

Product Selection

| Article No.                              | Part No.         | Type | Length (L) |        | Width (W) |        | Pkg. Qty. | Drawing                                                                               |
|------------------------------------------|------------------|------|------------|--------|-----------|--------|-----------|---------------------------------------------------------------------------------------|
|                                          |                  |      | in.        | (mm)   | in.       | (mm)   |           |                                                                                       |
| Panel Thickness — .039" - .117" (1-3 mm) |                  |      |            |        |           |        |           |                                                                                       |
| 151-03404                                | <b>151-03404</b> | EC14 | 1.57"      | (40.0) | .39"      | (10.0) | 500       |   |
| 151-03401                                | <b>151-03401</b> | EC15 | 1.57"      | (40.0) | .39"      | (10.0) | 500       |  |
| 151-03402                                | <b>151-03402</b> | EC16 | 1.57"      | (40.0) | .39"      | (10.0) | 500       |  |
| 151-03403                                | <b>151-03403</b> | EC17 | 1.57"      | (40.0) | .39"      | (10.0) | 500       |  |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Fir Tree Mount and Cable Tie Assemblies

HellermannTyton's fir tree mounts provide a secure grip in a mounting hole and protect against dirt and other impurities. The mount can slide along the strap of the tie for proper orientation. The fir tree mounts are designed to provide a low insertion force and high extraction force.

These mounts are sold as an assembly with the cable tie.



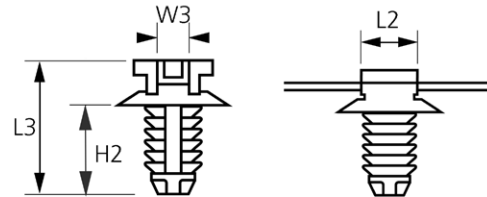
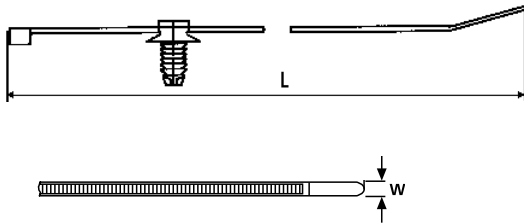
Material Data - All Cable Ties/  
FT7, FT8 and FT10 Mounts

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>    |
| Operating Temperature | <b>-40 °F to +221 °F<br/>(-40 °C to +105 °C)</b> |
| Color                 | <b>Black</b>                                     |



Material Data - FT5, FT6 and FT6LG Mounts

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F<br/>(-40 °C to +110 °C)</b>                                |
| Color                 | <b>Black</b>                                                                    |
| Flammability          | <b>UL94 HB</b>                                                                  |

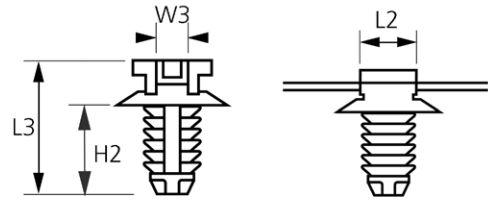
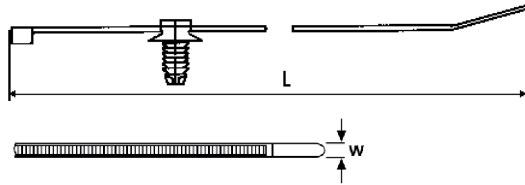


Product Selection

| Article No.                                                                                       | Part No.  | Type        | Min.<br>Tensile<br>Strength<br>lbs.<br>(N) | Max. Ø<br>Bundle<br>in.<br>(mm) | Cable Tie                    |                             | Mount                 |                               |                               |                              |                               | Pkg.<br>Qty. |
|---------------------------------------------------------------------------------------------------|-----------|-------------|--------------------------------------------|---------------------------------|------------------------------|-----------------------------|-----------------------|-------------------------------|-------------------------------|------------------------------|-------------------------------|--------------|
|                                                                                                   |           |             |                                            |                                 | Length<br>(L)<br>in.<br>(mm) | Width<br>(W)<br>in.<br>(mm) | Disc Ø<br>in.<br>(mm) | Length<br>(L2)<br>in.<br>(mm) | Length<br>(L3)<br>in.<br>(mm) | Width<br>(W3)<br>in.<br>(mm) | Height<br>(H2)<br>in.<br>(mm) |              |
| FT5 - Mounting Hole Ø: .177" - .197" (4.5-5.0mm) - Panel Thickness: .028" - .193" (0.7 - 3.0mm)   |           |             |                                            |                                 |                              |                             |                       |                               |                               |                              |                               |              |
| 150-55850                                                                                         | 150-55850 | T30RFT5     | 30 lbs<br>(135)                            | 1.38 " (35)                     | 5.8 " (148)                  | .14 " (3.6)                 | .63 " (16.0)          | .46 " (11.6)                  | .52 " (13.2)                  | .20 " (5)                    | .27 " (6.9)                   | 500          |
| 156-00025                                                                                         | 156-00025 | T50RFT5     | 50 lbs<br>(225)                            | 1.75 " (44.5)                   | 8 " (203.2)                  | .18 " (4.6)                 | .63 " (16.0)          | .46 " (11.6)                  | .52 " (13.2)                  | .20 " (5)                    | .27 " (6.9)                   | 500          |
| FT5.5 - Mounting Hole Ø: .196" - .224" (5.0-5.7mm) - Panel Thickness: .028" - .177" (0.7 - 4.5mm) |           |             |                                            |                                 |                              |                             |                       |                               |                               |                              |                               |              |
| 156-00882                                                                                         | 156-00882 | T50RFT5.5SD | 50 lbs<br>(225)                            | 1.75 " (44.5)                   | 8 " (203.2)                  | .18 " (4.6)                 | .63 " (16.0)          | .38 " (9.6)                   | .69 " (17.5)                  | .24 " (6.1)                  | .39 " (9.9)                   | 500          |
| FT6 - Mounting Hole Ø: .252" - .28" (6.4-7.1mm) - Panel Thickness: .028" - .193" (0.75 - 3.0mm)   |           |             |                                            |                                 |                              |                             |                       |                               |                               |                              |                               |              |
| 150-77940                                                                                         | 150-77940 | T30RFT6     | 30 lbs<br>(135)                            | 1.38 " (35)                     | 5.8 " (148)                  | .14 " (3.6)                 | .63 " (16.0)          | .46 " (11.6)                  | .54 " (13.8)                  | .20 " (5)                    | .295 " (7.5)                  | 500          |
| 156-00156                                                                                         | 156-00156 | T50SFT6     | 50 lbs<br>(225)                            | 1.38 " (35)                     | 6.3 " (160)                  | .18 " (4.6)                 | .63 " (16.0)          | .46 " (11.6)                  | .54 " (13.8)                  | .20 " (5)                    | .295 " (7.5)                  | 500          |
| 156-00157                                                                                         | 156-00157 | T50RFT6     | 50 lbs<br>(225)                            | 1.75 " (44.5)                   | 8 " (203.2)                  | .18 " (4.6)                 | .63 " (16.0)          | .46 " (11.6)                  | .54 " (13.8)                  | .20 " (5)                    | .295 " (7.5)                  | 500          |
| 156-00066                                                                                         | 156-00066 | T50LFT6     | 50 lbs<br>(225)                            | 4.33 " (110)                    | 15 " (380)                   | .18 " (4.7)                 | .63 " (16)            | .46 " (11.6)                  | .54 " (13.8)                  | .20 " (5)                    | .295 " (7.5)                  | 500          |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Fir Tree Mount and Cable Tie Assemblies (continued)



| Product Selection                                                                                |           |           |                                |                        |                     |                    |                 |                      |                      |                     |                      |           |
|--------------------------------------------------------------------------------------------------|-----------|-----------|--------------------------------|------------------------|---------------------|--------------------|-----------------|----------------------|----------------------|---------------------|----------------------|-----------|
| Article No.                                                                                      | Part No.  | Type      | Min. Tensile Strength lbs. (N) | Max. Ø Bundle in. (mm) | Cable Tie           |                    | Mount           |                      |                      |                     |                      | Pkg. Qty. |
|                                                                                                  |           |           |                                |                        | Length (L) in. (mm) | Width (W) in. (mm) | Disc Ø in. (mm) | Length (L2) in. (mm) | Length (L3) in. (mm) | Width (W3) in. (mm) | Height (H2) in. (mm) |           |
| FT6LG - Mounting Hole Ø: .256" - .276" (6.4-7.1mm) - Panel Thickness: .03" - .24" (0.75 - 6.0mm) |           |           |                                |                        |                     |                    |                 |                      |                      |                     |                      |           |
| 150-31090                                                                                        | 150-31090 | T3ORFT6LG | 30 lbs (135)                   | 1.38 " (35)            | 5.8 " (148)         | .14 " (3.6)        | .63 " (16)      | .46 " (11.6)         | .69 " (17.5)         | .19 " (5)           | .44 " (11.1)         | 500       |
| 150-31093                                                                                        | 150-31093 | T5OSFT6LG | 50 lbs (225)                   | 1.38 " (35)            | 6.3 " (160)         | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .69 " (17.5)         | .19 " (5)           | .44 " (11.1)         | 500       |
| 150-31091                                                                                        | 150-31091 | T5ORFT6LG | 50 lbs (225)                   | 1.75 " (44)            | 8 " (203.2)         | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .69 " (17.5)         | .19 " (5)           | .44 " (11.1)         | 500       |
| 156-00054                                                                                        | 156-00054 | T5OIFT6LG | 50 lbs (225)                   | 3.35 " (85)            | 11.8 " (300)        | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .69 " (17.5)         | .19 " (5)           | .44 " (11.1)         | 500       |
| FT7 - Mounting Hole Ø: .256" - .276" (6.5-7.0mm) - Panel Thickness: .031" - .276" (0.8 - 7.0mm)  |           |           |                                |                        |                     |                    |                 |                      |                      |                     |                      |           |
| 156-00057                                                                                        | 156-00057 | T3ORFT7   | 30 lbs (135)                   | 1.38 " (35)            | 5.8 " (148)         | .14 " (3.6)        | .63 " (16)      | .46 " (11.6)         | .75 " (19)           | .20 " (5)           | .5 " (12.7)          | 500       |
| 156-00056                                                                                        | 156-00056 | T5OSFT7   | 50 lbs (225)                   | 1.38 " (35)            | 6.3 " (160)         | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .75 " (19)           | .20 " (5)           | .5 " (12.7)          | 500       |
| 111-85871                                                                                        | 111-85871 | T5ORFT7   | 50 lbs (225)                   | 1.75 " (44)            | 8 " (203.2)         | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .75 " (19)           | .20 " (5)           | .5 " (12.7)          | 500       |
| 111-05350                                                                                        | 111-05350 | T5OIFT7   | 50 lbs (225)                   | 3.35 " (85)            | 11.8 " (300)        | .18 " (4.6)        | .63 " (16)      | .46 " (11.6)         | .75 " (19)           | .20 " (5)           | .5 " (12.7)          | 500       |
| 156-00055                                                                                        | 156-00055 | T5OLFT7   | 50 lbs (225)                   | 4.33 " (110)           | 15 " (380)          | .18 " (4.7)        | .63 " (16)      | .46 " (11.6)         | .75 " (19)           | .20 " (5)           | .5 " (12.7)          | 500       |
| FT8 - Mounting Hole Ø: .3" - .31" (7.7-8.0mm) - Panel Thickness: .03" - .31" (0.8 - 8.0mm)       |           |           |                                |                        |                     |                    |                 |                      |                      |                     |                      |           |
| 156-00375                                                                                        | 156-00375 | T3ORFT8   | 30 lbs (135)                   | 1.38 " (35)            | 5.8 " (148)         | .14 " (3.6)        | .63 " (16)      | .47 " (12.0)         | .7 " (17.8)          | .35 " (9)           | .45 " (11.5)         | 500       |
| 156-00376                                                                                        | 156-00376 | T5ORFT8   | 50 lbs (225)                   | 1.75 " (44)            | 8 " (203.2)         | .18 " (4.6)        | .63 " (16)      | .47 " (12.0)         | .7 " (17.8)          | .35 " (9)           | .45 " (11.5)         | 500       |
| 156-00377                                                                                        | 156-00377 | T5OIFT8   | 50 lbs (225)                   | 3.35 " (81)            | 11.8 " (300)        | .18 " (4.6)        | .63 " (16)      | .47 " (12.0)         | .7 " (17.8)          | .35 " (9)           | .45 " (11.5)         | 500       |
| 156-00378                                                                                        | 156-00378 | T5OLFT8   | 50 lbs (225)                   | 4.33 " (110)           | 15 " (380)          | .18 " (4.7)        | .63 " (16)      | .47 " (12.0)         | .7 " (17.8)          | .35 " (9)           | .45 " (11.5)         | 500       |
| FT10 - Mounting Hole Ø: .38" - .39" (9.7-10.0mm) - Panel Thickness: .031" - .236" (0.8 - 5.0mm)  |           |           |                                |                        |                     |                    |                 |                      |                      |                     |                      |           |
| 156-00089                                                                                        | 156-00089 | T3ORFT10  | 30 lbs (135)                   | 1.38 " (35)            | 5.8 " (148)         | .14 " (3.6)        | .71 " (18)      | .47 " (12)           | .75 " (18.6)         | .20 " (5)           | .48 " (12.1)         | 500       |
| 156-00090                                                                                        | 156-00090 | T5OSFT10  | 50 lbs (225)                   | 1.38 " (35)            | 6.3 " (160)         | .18 " (4.6)        | .71 " (18)      | .47 " (12)           | .75 " (18.6)         | .20 " (5)           | .48 " (12.1)         | 500       |
| 156-00091                                                                                        | 156-00091 | T5ORFT10  | 50 lbs (225)                   | 1.75 " (44)            | 8 " (203.2)         | .18 " (4.6)        | .71 " (18)      | .47 " (12)           | .75 " (18.6)         | .20 " (5)           | .48 " (12.1)         | 500       |
| 156-00092                                                                                        | 156-00092 | T5OIFT10  | 50 lbs (225)                   | 3.35 " (81)            | 11.8 " (300)        | .18 " (4.6)        | .71 " (18.0)    | .47 " (12)           | .75 " (18.6)         | .20 " (5)           | .48 " (12.1)         | 500       |
| 156-00093                                                                                        | 156-00093 | T5OLFT10  | 50 lbs (225)                   | 4.33 " (110)           | 15 " (380)          | .18 " (4.7)        | .71 " (18)      | .47 " (12)           | .75 " (18.6)         | .20 " (5)           | .48 " (12.1)         | 500       |

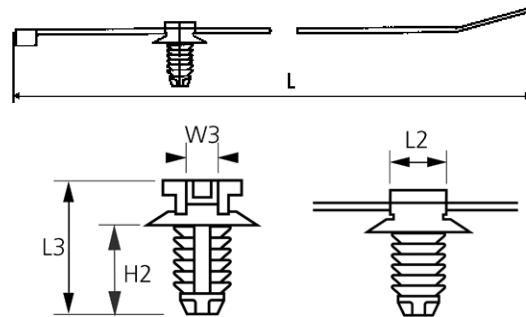
Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes.  
Use **Part No.** for ordering and **Type** for specification purposes.

## High Temperature Fir Tree Mount and Cable Tie Assemblies

HellermannTyton's high temperature fir tree mounts and cable tie assemblies provide excellent resistance in operating temperatures up to 275°F (135°C), while still maintaining tensile and retention strength properties.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 4.6 (PA46)                             |
| Operating Temperature | -40 °F to +275 °F (-40 °C to +135 °C) continuous |
| Flammability          | UL94 V2                                          |



| Product Selection                                                                                   |                 | Min.<br>Tensile<br>Strength<br>lbs. (N) | Max. Ø<br>Bundle<br>in. (mm) | Cable Tie     |              | Mount     |                |                |               |                | Pkg.<br>Qty. |
|-----------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------|------------------------------|---------------|--------------|-----------|----------------|----------------|---------------|----------------|--------------|
| Part No.                                                                                            | Type            |                                         |                              | Length<br>(L) | Width<br>(W) | Disc Ø    | Length<br>(L2) | Length<br>(L3) | Width<br>(W3) | Height<br>(H2) |              |
|                                                                                                     |                 |                                         |                              | in. (mm)      | in. (mm)     |           |                |                |               |                |              |
|                                                                                                     |                 |                                         |                              | in. (mm)      | in. (mm)     |           |                |                |               |                |              |
| FT5 - Mounting Hole Ø : .177" - .197" (4.5 - 5.0mm) - Panel Thickness: .028" - .12" (0.7 - 3.0mm)   |                 |                                         |                              |               |              |           |                |                |               |                |              |
| 150-55948                                                                                           | T30RFT5         | 30 lbs (135)                            | 1.34" (34)                   | 5.9" (150)    | .14" (3.6)   | .63" (16) | .46" (11.6)    | .52" (13.2)    | .20" (5.0)    | .27" (6.9)     | 500          |
| FT6 - Mounting Hole Ø : .25" - .28" (6.4 - 7.1mm) - Panel Thickness: .03" - .12" (0.75 - 3.0mm)     |                 |                                         |                              |               |              |           |                |                |               |                |              |
| 150-77938                                                                                           | T50RFT6         | 50 lbs (225)                            | 1.8" (45)                    | 7.87" (200)   | .18" (4.6)   | .63" (16) | .46" (11.6)    | .54" (13.8)    | .20" (5.0)    | .3" (7.5)      | 500          |
| 156-00085                                                                                           | T50RO<br>SFT6SD | 50 lbs (225)                            | 1.8" (45)                    | 7.87" (200)   | .18" (4.6)   | .63" (16) | .46" (11.6)    | .57" (14.5)    | .21" (5.2)    | .3" (7.5)      | 500          |
| FT6LG - Mounting Hole Ø : .25" - .28" (6.4 - 7.1mm) - Panel Thickness: .03" - .24" (0.75 - 6.0mm)   |                 |                                         |                              |               |              |           |                |                |               |                |              |
| 150-31098                                                                                           | T50RF<br>T6LG   | 50 lbs (225)                            | 1.8" (45)                    | 7.87" (200)   | .18" (4.6)   | .63" (16) | .46" (11.6)    | .69" (17.5)    | .20" (5.0)    | .44" (11.1)    | 500          |
| FT7HD - Mounting Hole Ø : .244" - .284" (6.2 - 7.2mm) - Panel Thickness: .03" - .276" (0.8 - 7.0mm) |                 |                                         |                              |               |              |           |                |                |               |                |              |
| 156-00457                                                                                           | T50RF<br>T7HD   | 50 lbs (225)                            | 1.8" (45)                    | 7.87" (200)   | .18" (4.6)   | .63" (16) | .46" (11.6)    | .78" (19.3)    | .232" (5.9)   | .36" (12.4)    | 500          |
| FT8G - Mounting Hole Ø : .32" - .33" (8.0 - 8.5mm) - Panel Thickness: .06" - .16" (1.5 - 4.0mm)     |                 |                                         |                              |               |              |           |                |                |               |                |              |
| 156-00235                                                                                           | T50RF<br>T8GSD  | 50 lbs (225)                            | 1.8" (45)                    | 7.87" (200)   | .18" (4.6)   | .63" (16) | .46" (11.6)    | .68" (17.2)    | .24" (6.0)    | .18" (4.6)     | 500          |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Fir Tree Mount For Automatic Cable Tie Tool System

Engineered for use with HellermannTyton's automatic cable tie tool systems, this fir tree mount has an anti-rotational design and features a low insertion force and high extraction force. For more information on automatic tool systems, see page 88.

### Material Data

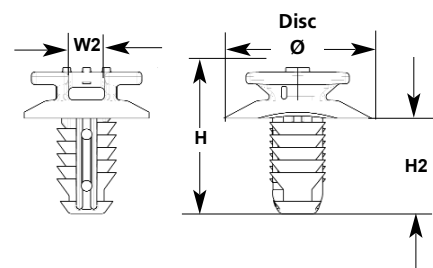
|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Color                 | Black                                                                    |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |

RoHS

### Product Selection

| Article No.                                                                                             | Part No.         | Type  | Disc Ø in. (mm) | Width (W2) in. (mm) | Height (H) in. (mm) | Height (H2) in. (mm) | Pkg. Qty. |
|---------------------------------------------------------------------------------------------------------|------------------|-------|-----------------|---------------------|---------------------|----------------------|-----------|
| <b>FT7AT - Mounting Hole Ø: .24" - .28" (6.0 - 7.0mm) - Panel Thickness: .03" - .276" (0.8 - 7.0mm)</b> |                  |       |                 |                     |                     |                      |           |
| 151-00492                                                                                               | <b>151-00492</b> | FT7AT | .73" (18.6)     | .18" (4.5)          | .72" (18.34)        | .47" (11.9)          | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



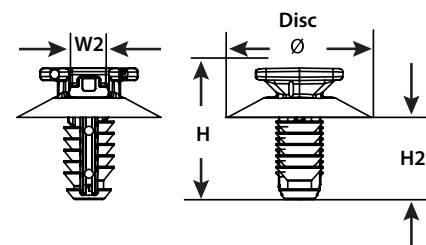
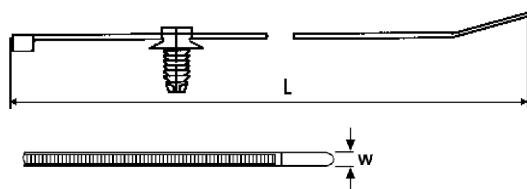
## Heavy Duty Fir Tree Mounts and Cable Tie Assemblies

The FT7HD, is a heavy duty alternative to HellermannTyton's standard FT7 mount and cable tie assembly. The H profile of the mount offers durability and the assembly is available with a 50 lb. cable tie in 8" and 11.8" lengths.

### Material Data

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Color                 | Black                                                                    |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |

RoHS



### Product Selection

| Product Selection                                                                                |           |           | Min.<br>Tensile<br>Strength<br>lbs. (N) | Max. Ø<br>Bundle<br>in.<br>(mm) | Cable Tie                    |                             | Mount                 |                              |                              |                               | Pkg.<br>Qty. |
|--------------------------------------------------------------------------------------------------|-----------|-----------|-----------------------------------------|---------------------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------|-------------------------------|--------------|
| Article<br>No.                                                                                   | Part No.  | Type      |                                         |                                 | Length<br>(L)<br>in.<br>(mm) | Width<br>(W)<br>in.<br>(mm) | Disc Ø<br>in.<br>(mm) | Width<br>(W2)<br>in.<br>(mm) | Height<br>(H)<br>in.<br>(mm) | Height<br>(H2)<br>in.<br>(mm) |              |
|                                                                                                  |           |           |                                         |                                 |                              |                             |                       |                              |                              |                               |              |
| FT7HD - Mounting Hole Ø: .24" - .28" (6.2 - 7.2mm) - Panel Thickness: .03" - .276" (0.8 - 7.0mm) |           |           |                                         |                                 |                              |                             |                       |                              |                              |                               |              |
| 156-00329                                                                                        | 156-00329 | T50RFT7HD | 50 lbs (225)                            | 1.75" (44)                      | 8" (203.2)                   | .18" (4.6)                  | .85"<br>(21.6)        | .232"<br>(5.9)               | .78"<br>(19.8)               | .36"<br>(12.4)                | 500          |
| 156-00282                                                                                        | 156-00282 | T50LFT7HD | 50 lbs (225)                            | 3.35" (85)                      | 11.8" (300)                  | .18" (4.6)                  |                       |                              |                              |                               |              |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Heavy Duty Fir Tree Mounts and Cable Tie Assemblies

Designed specifically for 120 - 250 lb. cable ties, the heavy duty fir tree mounts are optimized for up to 3 to 1 extraction versus insertion force. The "H" profile provides a broad surface contact to minimize the pinching of bundles and will easily hold bundles ranging from 3/8" to 3". Heavy duty fir tree mounts are equipped with a friction tab that will hold the tie in the mount, allowing them to be preassembled prior to installation. These mounts are sold as an assembly with the cable tie.

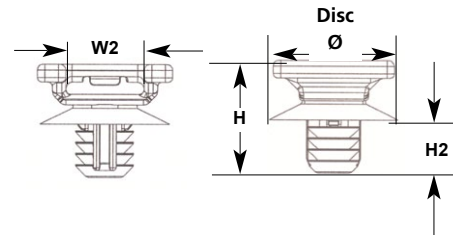
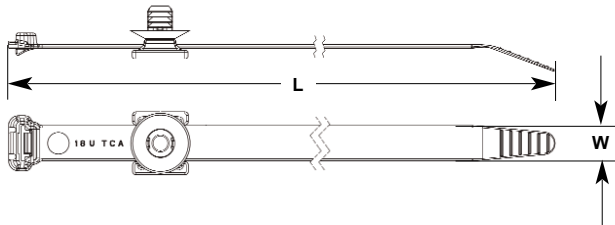
Material Data - Fir Tree Mount and WSS, WSI, WSR Cable Ties

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS)</b> |
| Color                 | <b>Black</b>                                                                    |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |



Material Data - T120R Cable Tie

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Color                 | <b>Black</b>                                            |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 HB</b>                                          |



Product Selection

| Product Selection                                                                                 |           |           | Min.<br>Tensile<br>Strength<br>lbs. (N) | Max. Ø<br>Bundle<br>in.<br>(mm) | Cable Tie                    |                             | Mount                 |                              |                              |                               | Pkg.<br>Qty. |
|---------------------------------------------------------------------------------------------------|-----------|-----------|-----------------------------------------|---------------------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------|-------------------------------|--------------|
| Article<br>No.                                                                                    | Part No.  | Type      |                                         |                                 | Length<br>(L)<br>in.<br>(mm) | Width<br>(W)<br>in.<br>(mm) | Disc Ø<br>in.<br>(mm) | Width<br>(W2)<br>in.<br>(mm) | Height<br>(H)<br>in.<br>(mm) | Height<br>(H2)<br>in.<br>(mm) |              |
|                                                                                                   |           |           |                                         |                                 |                              |                             |                       |                              |                              |                               |              |
| FT9A - Mounting Hole Ø: .343"- .363" (8.75 - 9.25mm) - Panel Thickness: .04" - .26" (1.0 - 6.5mm) |           |           |                                         |                                 |                              |                             |                       |                              |                              |                               |              |
| 156-00067                                                                                         | 156-00067 | T120RFT9A | 120 lbs (534)                           | 4" (101.6)                      | 15.25" (387.4)               | .30" (7.6)                  | .85" (21.6)           | .51" (13)                    | .75" (19.1)                  | .36" (9)                      | 100          |
| 156-00068                                                                                         | 156-00068 | WSSFT9A   | 120 lbs (534)                           | 2.25" (57.1)                    | 9" (228.6)                   | .50" (12.7)                 | .85" (21.6)           | .51" (13)                    | .75" (19.1)                  | .36" (9)                      | 100          |
| 156-00069                                                                                         | 156-00069 | WSIFT9A   | 120 lbs (534)                           | 3.25" (82.5)                    | 12" (304.8)                  | .50" (12.7)                 | .85" (21.6)           | .51" (13)                    | .75" (19.1)                  | .36" (9)                      | 100          |
| 156-00070                                                                                         | 156-00070 | WSRFT9A   | 120 lbs (534)                           | 4.13" (104.8)                   | 15" (381)                    | .50" (12.7)                 | .85" (21.6)           | .51" (13)                    | .75" (19.1)                  | .36" (9)                      | 100          |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

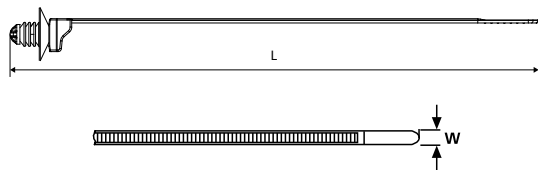
Product Selection

| Product Selection                                                                                   |           |           |                                |                        |                     |                    |                 |                     |                     |                      |           |
|-----------------------------------------------------------------------------------------------------|-----------|-----------|--------------------------------|------------------------|---------------------|--------------------|-----------------|---------------------|---------------------|----------------------|-----------|
| Article No.                                                                                         | Part No.  | Type      | Min. Tensile Strength lbs. (N) | Max. Ø Bundle in. (mm) | Cable Tie           |                    | Mount           |                     |                     |                      | Pkg. Qty. |
|                                                                                                     |           |           |                                |                        | Length (L) in. (mm) | Width (W) in. (mm) | Disc Ø in. (mm) | Width (W2) in. (mm) | Height (H) in. (mm) | Height (H2) in. (mm) |           |
| FT9B - Mounting Hole Ø: .343"- .363" (8.75 - 9.25mm) - Panel Thickness: .04" - .62" (1.0 - 15.8 mm) |           |           |                                |                        |                     |                    |                 |                     |                     |                      |           |
| 156-00071                                                                                           | 156-00071 | T120RFT9B | 120 lbs (534)                  | 4" (101.6)             | 15.25" (387.4)      | .30" (7.6)         | .85" (21.6)     | .51" (13)           | 1.12" (28.4)        | .73" (18.4)          | 100       |
| 156-00072                                                                                           | 156-00072 | WSSFT9B   | 120 lbs (534)                  | 2.25" (57.1)           | 9" (228.6)          | .50" (12.7)        | .85" (21.6)     | .51" (13)           | 1.12" (28.4)        | .73" (18.4)          | 100       |
| 156-00074                                                                                           | 156-00074 | WSRFT9B   | 120 lbs (534)                  | 4.13" (104.8)          | 15" (381)           | .50" (12.7)        | .85" (21.6)     | .51" (13)           | 1.12" (28.4)        | .73" (18.4)          | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Cable Tie with Fir Tree Mount

This fir tree mount tie provides a low insertion force with a high extraction force. The outside serrations present a smooth surface to the cables preventing damage to the insulation. The unique head design allows the cable tie to firmly hold bundles as small as .06" diameter and the disc offers added water protection.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |

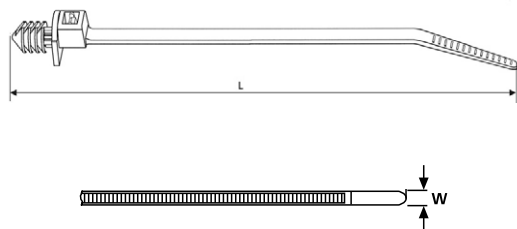


| Product Selection |           |               |                       |                        |                       |            |               |            |       |           |
|-------------------|-----------|---------------|-----------------------|------------------------|-----------------------|------------|---------------|------------|-------|-----------|
| Article No.       | Part No.  | Type          | Min. Tensile Strength | Mounting Hole Ø        | Panel Thickness       | Length (L) | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |
|                   |           |               | lbs. (N)              | in. (mm)               | in. (mm)              | in. (mm)   | in. (mm)      | in. (mm)   |       |           |
| 157-00108         | 157-00108 | T50SOSFT6E2   | 40 lbs. (180)         | .25 - .28" (6.3 - 7.0) | .02 - .16" (.6 - 4.2) | 6.3" (161) | 1.4" (35)     | .18" (4.6) | Black | 1000      |
| 157-00097         | 157-00097 | T50SOSFT6LG-E | 40 lbs. (180)         | .25 - .28" (6.3 - 7.0) | .03 - .28" (.7 - 7.0) | 6.5" (165) | 1.4" (35)     | .18" (4.6) | Black | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Fir Tree Push Mount Ties

Fir tree design grips to the inside of a hole. They can be used on sheet metal, wood, and cast iron. Type T50RTM25E has a longer fir tree for larger panel thicknesses.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |



| Material Data         |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, heat stabilized, UV resistant (PA66HIRHS) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |



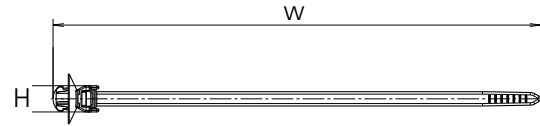
| Product Selection                                      |               |           |                          |                         |                           |             |               |            |       |           |
|--------------------------------------------------------|---------------|-----------|--------------------------|-------------------------|---------------------------|-------------|---------------|------------|-------|-----------|
| Article No.                                            | Part No.      | Type      | Min. Tensile Strength    | Mounting Hole Ø         | Panel Thickness           | Length (L)  | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |
|                                                        |               |           | lbs. (N)                 | in. (mm)                | in. (mm)                  | in. (mm)    | in. (mm)      | in. (mm)   |       |           |
|                                                        |               |           | Heat Stabilized Material |                         |                           |             |               |            |       |           |
| 126-03501                                              | T50RTM250HSM4 | T50RTM25  | 50 lbs (225)             | .25" - .26" (6.5 - 6.6) | .052" - .28" (1.32 - 7.0) | 8.27" (210) | 1.97"(50.0)   | .19" (4.7) | Black | 1000      |
| Impact Modified Heat Stabilized, UV Resistant Material |               |           |                          |                         |                           |             |               |            |       |           |
| 126-03504                                              | T50RTM25E8HM4 | T50RTM25E | 50 lbs (225)             | .25" - .26" (6.5 - 6.6) | .09" - .55" (2.3 - 13.94) | 8.43" (214) | 1.97"(50.0)   | .19" (4.7) | Gray  | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Domed Low-Profile Push Mount Ties

The low profile push mount design provides an overall shortened length which assists in limiting protrusion on the opposing side of application surfaces. The rounded tip of the mount allows for a smoother surface in case of contact with surrounding components or human touch during service. The dome provides a tight, rattle-free installation and the outside serrated strap has ribs designed for convoluted tubing. The dome also acts as a seal to keep out dust and liquid.

| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

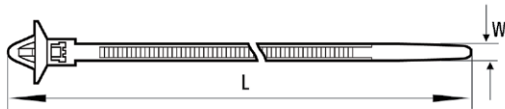


| Product Selection |                  |                  | Min. Tensile Strength | Mounting Hole Ø      | Panel Thickness          | Length (L) | Max. Ø Bundle | Width (W)  |       | Pkg. Qty. |
|-------------------|------------------|------------------|-----------------------|----------------------|--------------------------|------------|---------------|------------|-------|-----------|
| Article No.       | Part No.         | Type             | lbs. (N)              | in. (mm)             | in. (mm)                 | in. (mm)   | in. (mm)      | in. (mm)   | Color |           |
| 126-00099         | <b>126-00099</b> | T50SOSKSFT5SE    | 40 (180)              | .189-.205" (4.8-5.2) | .027 - .051" (.70 - 1.3) | 6.2" (156) | 1.38" (35.0)  | .18" (4.6) | Black | 1000      |
| 126-00075         | <b>126-00075</b> | T50SOSKSFT5.4E   | 50 (225)              | .205-.220" (5.2-5.6) | .027 - .051" (.70 - 1.3) | 6.2" (156) | 1.38" (35.0)  | .18" (4.6) | Black | 500       |
| 126-00081         | <b>126-00081</b> | T50SOSKSFT6SE    | 40 (180)              | .248-.264" (6.3-6.7) | .027 - .051" (.70 - 1.3) | 6.2" (156) | 1.38" (35.0)  | .18" (4.6) | Black | 500       |
| 126-00086         | <b>126-00086</b> | T50SOSSFT6.5S2-E | 50 (225)              | .25-.26" (6.3-6.7)   | .06 - .09" (1.7 - 2.3)   | 6.2" (156) | 1.38" (35.0)  | .18" (4.6) | Black | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Domed Push Mount Ties

The domed head tie provides a tight, rattle-free installation. The dome also acts as a seal to keep out dust and liquid.



| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |



| Product Selection |                  |         | Min. Tensile Strength | Mounting Hole Ø          | Panel Thickness           | Length (L) | Max. Ø Bundle | Width (W)   |         | Pkg. Qty. |
|-------------------|------------------|---------|-----------------------|--------------------------|---------------------------|------------|---------------|-------------|---------|-----------|
| Article No.       | Part No.         | Type    | lbs. (N)              | in. (mm)                 | in. (mm)                  | in. (mm)   | in. (mm)      | in. (mm)    | Color   |           |
| 111-85350         | <b>111-85350</b> | T50SD6  | 50lbs. (225)          | .25 - .30" (6.3 - 7.5)   | .023 - .047" (.06 - 1.2)  | 6.3" (160) | 1.22" (31)    | 1.22" (5.1) | Black   | 500       |
| 126-00015         | <b>126-00015</b> | T50SDOP | 50lbs. (225)          | .25 - .48" (6.2 - 12.2)  | .028 - .079" (0.7 - .028) | 6.3" (160) | 1.18" (30)    | 1.97" (5.0) | Black   | 500       |
| 126-02300         | <b>126-02300</b> | T50SSTS | 50lbs. (225)          | .24 - .255" (6.1 - 6.5)  | .027 - .059" (0.7 - .15)  | 6.7" (170) | 1.22" (31)    | .18" (4.6)  | Natural | 1000      |
| 111-85850         | <b>111-85850</b> | T50MD7  | 50lbs. (225)          | .267 - .283" (6.8 - 7.2) | .05 - .08" (1.2 - 2.0)    | 8.9" (225) | 2.3" (59)     | .2" (5)     | Black   | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Push Mount Ties

One-piece, all plastic ties for quick, simple cable mounting.



### Material Data

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



**CAUS**  
File# E64139

### Product Selection

| Product Selection |           |           |                       |       |                            |                           |             |               |            |         |           |
|-------------------|-----------|-----------|-----------------------|-------|----------------------------|---------------------------|-------------|---------------|------------|---------|-----------|
| Article No.       | Part No.  | Type      | Min. Tensile Strength |       | Mounting Hole Ø            | Panel Thickness           | Length (L)  | Max. Ø Bundle | Width (W)  | Color   | Pkg. Qty. |
|                   |           |           | lbs.                  | (N)   | in. (mm)                   | in. (mm)                  | in. (mm)    | in. (mm)      | in. (mm)   |         |           |
| T30RSF            |           |           |                       |       |                            |                           |             |               |            |         |           |
| 111-85603         | T30RSF9C2 | T30RSF(U) | 30 lbs                | (135) | .19" - .22"<br>(4.76-5.59) | .04" - .09"<br>(0.9-2.36) | 6.34" (161) | 1.25" (31.8)  | .14" (3.6) | Natural | 100       |
| 126-00704         | T30RSF9M4 | T30RSF(U) | 30 lbs                | (135) | .19" - .22"<br>(4.76-5.59) | .04" - .09"<br>(0.9-2.36) | 6.34" (161) | 1.25" (31.8)  | .14" (3.6) | Natural | 1000      |
| 126-00700         | T30RSF0C2 | T30RSF(U) | 30 lbs                | (135) | .19" - .22"<br>(4.76-5.59) | .04" - .09"<br>(0.9-2.36) | 6.34" (161) | 1.25" (31.8)  | .14" (3.6) | Black   | 100       |
| 126-00702         | T30RSF0M4 | T30RSF(U) | 30 lbs                | (135) | .19" - .22"<br>(4.76-5.59) | .04" - .09"<br>(0.9-2.36) | 6.34" (161) | 1.25" (31.8)  | .14" (3.6) | Black   | 1000      |
| T50SSF            |           |           |                       |       |                            |                           |             |               |            |         |           |
| 126-00043         | 126-00043 | T50SSF    | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 6.26" (159) | 1.38" (35)    | .19" (4.7) | Natural | 100       |
| 126-00044         | 126-00044 | T50SSF    | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 6.26" (159) | 1.38" (35)    | .19" (4.7) | Natural | 1000      |
| 126-00045         | 126-00045 | T50SSF    | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 6.26" (159) | 1.38" (35)    | .19" (4.7) | Black   | 100       |
| 126-00046         | 126-00046 | T50SSF    | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 6.26" (159) | 1.38" (35)    | .19" (4.7) | Black   | 1000      |
| T50RSF            |           |           |                       |       |                            |                           |             |               |            |         |           |
| 111-85789         | T50RSF9C2 | T50RSF(U) | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 8.27" (210) | 1.73" (44)    | .19" (4.7) | Natural | 100       |
| 126-01011         | T50RSF9M4 | T50RSF(U) | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 8.27" (210) | 1.73" (44)    | .19" (4.7) | Natural | 1000      |
| 126-01003         | T50RSF0C2 | T50RSF(U) | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 8.27" (210) | 1.73" (44)    | .19" (4.7) | Black   | 100       |
| 126-01004         | T50RSF0M4 | T50RSF(U) | 50 lbs                | (225) | .25" - .28"<br>(6.4-7.1)   | .04" - .14"<br>(1.0-3.56) | 8.27" (210) | 1.73" (44)    | .19" (4.7) | Black   | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Wing Push Mount Ties

Wing design helps stabilize the tie in high vibration applications. They can be used on sheet metal, wood, and cast iron.

### Material Data

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                             |

RoHS



### Material Data

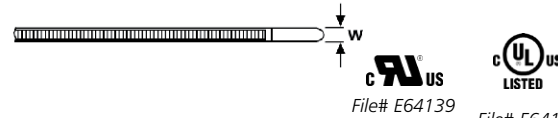
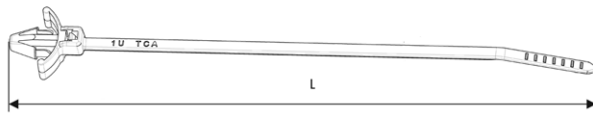
|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS

### Material Data

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS



File# E64139

File# E64139

### Product Selection

| Product Selection |             |         | Min.<br>Tensile<br>Strength | Mounting<br>Hole Ø         | Panel<br>Thickness           | Length (L)  | Max. Ø<br>Bundle | Width (W)  |         |           |              |
|-------------------|-------------|---------|-----------------------------|----------------------------|------------------------------|-------------|------------------|------------|---------|-----------|--------------|
| Article No.       | Part No.    | Type    | lbs. (N)                    | in.<br>(mm)                | in.<br>(mm)                  | in. (mm)    | in. (mm)         | in. (mm)   | Color   | Material  | Pkg.<br>Qty. |
| T18RWPM           |             |         |                             |                            |                              |             |                  |            |         |           |              |
| 126-00041         | 126-00041   | T18RWPM | 18 lbs (80)                 | .19" - .22"<br>(4.76-5.59) | .07" - .13"<br>(1.85 - 3.18) | 4.45" (113) | .87" (22)        | .10" (2.5) | Natural | PA66      | 100          |
| 126-00603         | T18RWPM9M4  | T18RWPM | 18 lbs (80)                 | .19" - .22"<br>(4.76-5.59) | .07" - .13"<br>(1.85 - 3.18) | 4.45" (113) | .87" (22)        | .10" (2.5) |         | PA66      | 1000         |
| 126-00042         | 126-00042*  | T18RWPM | 18 lbs (80)                 | .19" - .22"<br>(4.76-5.59) | .07" - .13"<br>(1.85 - 3.18) | 4.45" (113) | .87" (22)        | .10" (2.5) | Black   | PA66HS    | 1000         |
| T50SSFM           |             |         |                             |                            |                              |             |                  |            |         |           |              |
| 126-00049         | 126-00049   | T50SSFM | 50 lbs (225)                | .24" - .26"<br>(6.0 - 6.6) | .03" - .12"<br>(.7 - 3.0)    | 6.3" (160)  | 1.38" (35)       | .18" (4.7) | Black   | PA66HIRHS | 500          |
| 126-00069         | 126-00069   | T50SSFM | 50 lbs (225)                | .24" - .26"<br>(6.0 - 6.6) | .03" - .12"<br>(.7 - 3.0)    | 6.3" (160)  | 1.38" (35)       | .18" (4.7) | Natural | PA66      | 500          |
| T50SL6            |             |         |                             |                            |                              |             |                  |            |         |           |              |
| 111-85469         | T50SL6.NN6P | T50SL6  | 50 lbs (225)                | .24" - .26"<br>(6.1 - 6.5) | .03" - .10"<br>(0.8 - 2.5)   | 6.50" (165) | 1.34" (34)       | .18" (4.6) | Natural | PA66      | 500          |
| T50SL7            |             |         |                             |                            |                              |             |                  |            |         |           |              |
| 111-85479         | T50SL7.NN6P | T50SL7  | 50 lbs (225)                | .27" - .28"<br>(6.9 - 7.1) | .03" - .10"<br>(0.8 - 2.5)   | 6.50" (165) | 1.34" (34)       | .18" (4.6) | Natural | PA66      | 500          |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. UL recognition applies to T18RWPM ties.

\* UL listing applies to 126-00042.

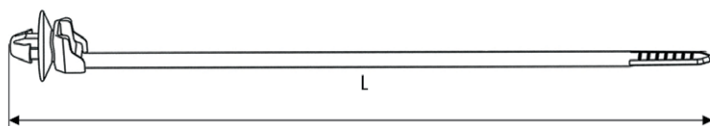
## Arrowhead Mount Ties with Seal

The arrowhead design of these ties offers a positive, low insertion force and a high extraction force. These ties feature a foam rubber seal which provides additional protection against moisture, dirt and other impurities.



| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS



| Product Selection |                  |                     | Min. Tensile Strength | Mounting Hole Ø        | Panel Thickness         | Length (L)  | Max. Ø Bundle | Width (W)  |         |           |
|-------------------|------------------|---------------------|-----------------------|------------------------|-------------------------|-------------|---------------|------------|---------|-----------|
| Article No.       | Part No.         | Type                | lbs. (N)              | in. (mm)               | in. (mm)                | in. (mm)    | in. (mm)      | in. (mm)   | Color   | Pkg. Qty. |
| 126-03100         | <b>126-03100</b> | T50SOSSFT6.5E-MD    | 50 lbs (225)          | .25" - .26" (6.3-6.7)  | .02" - .07" (0.6 - 1.8) | 6.30" (160) | 1.38" (35)    | .18" (4.6) | Green   | 500       |
| 156-00264         | <b>156-00264</b> | T50SOSSFT6.5E-MD    | 50 lbs (225)          | .25" - .26" (6.3-6.7)  | .02" - .07" (0.6 - 1.8) | 6.30" (160) | 1.38" (35)    | .18" (4.6) | Black   | 500       |
| 126-00065*        | <b>126-00065</b> | T50SOSSFT6.5E-MS-MD | 50 lbs (225)          | .25" - .27" (6.3-6.75) | .03" - .06" (0.7 - 1.6) | 6.42" (163) | 1.38" (35)    | .18" (4.6) | Natural | 500       |
| 156-00444         | <b>156-00444</b> | T50ROSAH6MDU        | 50 lbs (225)          | .24 - .25" (6.3 - 6.6) | .03" - .08" (0.7 - 2.1) | 8.5" (216)  | 1.97" (50)    | .20" (5.0) | Natural | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* Arrowhead includes a pointed mount feature to assist in puncturing through plastic sheeting and other protective films.

## Wide Strap Heavy Duty Stud Mount Cable Ties

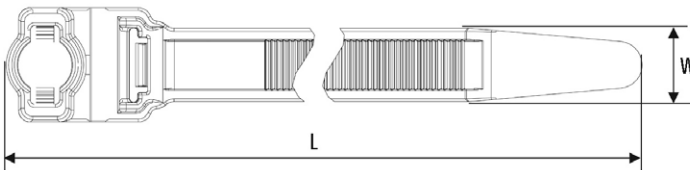
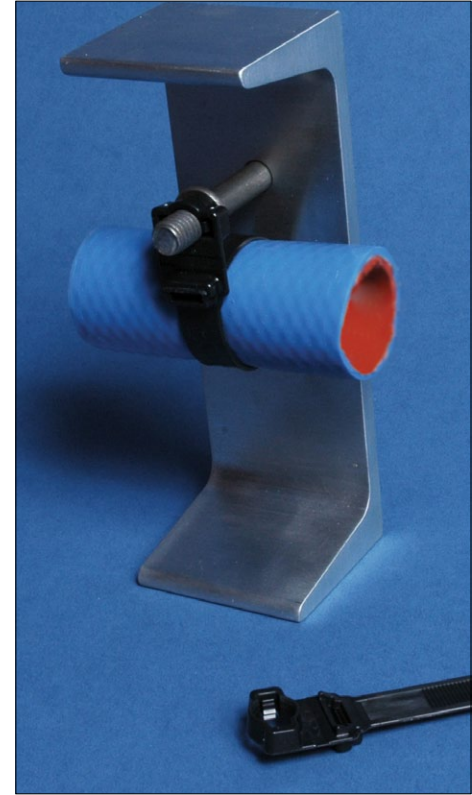
The wide strap stud mount cable tie minimizes pinching on soft bundles and features a low profile head to provide compact bundling. A thinner strap provides increased flexibility for improved ergonomics. Available with a 1/4" and 3/8" stud mount, the wide strap tie utilizes a strong hinge between the stud mount and head to provide superior holding ability on a threaded stud.

- Wide strap to minimize pinching of soft hoses and convoluted tubing
- Clamping rails to increase grip on round bundles
- Wide variation of bundle diameters: .375" - 4.125" (9.5mm - 104.7mm)
- Flexible strap
- Flexible hinge
- Mount provides low insertion and high extraction forces

### Material Data

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                         |
| Flammability          | <b>UL94 HB</b>                                                                  |

RoHS



### Product Selection

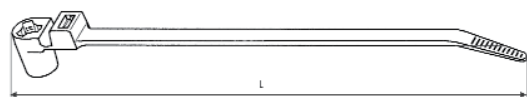
| Product Selection         |           |        |                       |                |                 |            |       |           |  |
|---------------------------|-----------|--------|-----------------------|----------------|-----------------|------------|-------|-----------|--|
| Article No.               | Part No.  | Type   | Min. Tensile Strength | Length (L)     | Max. Ø Bundle   | Width (W)  | Color | Pkg. Qty. |  |
|                           |           |        | lbs. (N)              | in. (mm)       | in. (mm)        | in. (mm)   |       |           |  |
| 1/4" (6.35 mm) Stud Mount |           |        |                       |                |                 |            |       |           |  |
| 157-00400                 | 157-00400 | WSS250 | 120 lbs (534)         | 9.7" (246.38)  | 2.25" (57.15)   | .5" (12.7) | Black | 300       |  |
| 157-00401                 | 157-00401 | WSI250 | 120 lbs (534)         | 12.7" (322.58) | 3.25" (82.55)   | .5" (12.7) | Black | 300       |  |
| 157-00402                 | 157-00402 | WSR250 | 120 lbs (534)         | 15.7" (398.78) | 4.125" (104.78) | .5" (12.7) | Black | 300       |  |
| 8 mm Stud Mount           |           |        |                       |                |                 |            |       |           |  |
| 157-00034                 | 157-00034 | WSS8MM | 120 lbs (534)         | 9.7" (246.38)  | 2.25" (57.15)   | .5" (12.7) | Black | 300       |  |
| 157-00035                 | 157-00035 | WSI8MM | 120 lbs (534)         | 12.7" (322.58) | 3.25" (82.55)   | .5" (12.7) | Black | 300       |  |
| 157-00036                 | 157-00036 | WSR8MM | 120 lbs (534)         | 15.7" (398.78) | 4.125" (104.78) | .5" (12.7) | Black | 300       |  |
| 3/8" (9.25 mm) Stud Mount |           |        |                       |                |                 |            |       |           |  |
| 157-00403                 | 157-00403 | WSS380 | 120 lbs (534)         | 9.7" (246.38)  | 2.25" (57.15)   | .5" (12.7) | Black | 300       |  |
| 157-00404                 | 157-00404 | WSI380 | 120 lbs (534)         | 12.7" (322.58) | 3.25" (82.55)   | .5" (12.7) | Black | 300       |  |
| 157-00405                 | 157-00405 | WSR380 | 120 lbs (534)         | 15.7" (398.78) | 4.125" (104.78) | .5" (12.7) | Black | 300       |  |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Stud Mount Ties

The stud mount tie mounts and secures a cable bundle in one component. The stud mount tie is designed for use on a 1/4" - 20 UNC threaded stud or the exposed threads of a machine screw.

| Material Data         |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 impact modified, heat stabilized (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>           |
| Flammability          | <b>UL94 HB</b>                                                    |



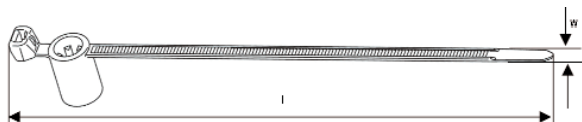
| Product Selection |                      |         | Stud Ø       | Min. Tensile Strength | Length (L)   | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |
|-------------------|----------------------|---------|--------------|-----------------------|--------------|---------------|------------|-------|-----------|
| Article No.       | Part No.             | Type    |              |                       |              |               |            |       |           |
| 157-01300         | <b>T120RSM0HIRK2</b> | T120RSM | .25 " (6.25) | 120 lbs (535)         | 15.94" (405) | 3.98" (101)   | .30" (7.6) | Black | 50        |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Standoff Stud Mount Tie

This tie is easily mounted on the top of the stud, and the additional height gained by this design gives the bundle added clearance from the panel.

| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

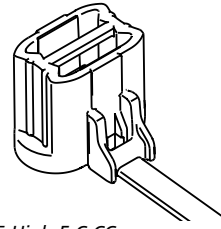


| Product Selection |                  |             | Stud Ø    | Min. Tensile Strength | Length (L)  | Max. Ø Bundle | Width (W)   | Color | Pkg. Qty. |
|-------------------|------------------|-------------|-----------|-----------------------|-------------|---------------|-------------|-------|-----------|
| Article No.       | Part No.         | Type        |           |                       |             |               |             |       |           |
| 155-30602         | <b>155-30602</b> | T50SSBS50TE | .20 " (5) | 45 lbs (200)          | 6.30" (160) | 1.38" (35)    | .181" (4.6) | Black | 500       |
| 157-00083         | <b>157-00083</b> | T50SSBS60TE | .24 " (6) | 45 lbs (200)          | 6.30" (160) | 1.38" (35)    | .181" (4.6) | Black | 1000      |

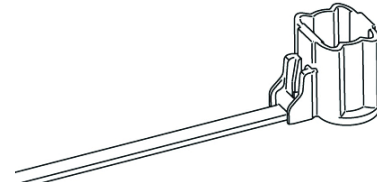
Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Oval Shaped Variable Stud Mount Ties

The special oval shape provides for an approximate .20" (5.5mm) lateral adjustment, allowing for any misalignment of the stud or incorrect positioning of the tie on the cables. The "soft push" mount allows it to be installed onto a weld stud without the use of any tools.



T50SOSSB5-High-E-C-CC



T50SOSSB5-High-E-O-US

### Material Data

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS

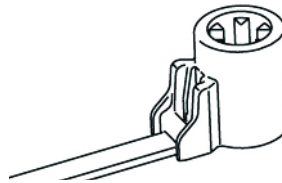
### Product Selection

| Article No. | Part No.         | Type                  | Stud Ø    |         | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |       | Color | Pkg. Qty. |
|-------------|------------------|-----------------------|-----------|---------|-----------------------|-------|------------|-------|---------------|------|-----------|-------|-------|-----------|
|             |                  |                       | in. (mm)  | (mm)    | lbs. (N)              | (N)   | in. (mm)   | (mm)  | in. (mm)      | (mm) | in. (mm)  | (mm)  |       |           |
| 157-00105   | <b>157-00105</b> | T50SOSSB5-High-E-C-CC | .20"/.24" | (5)/(6) | 50 lbs                | (225) | 6.6"       | (167) | 1.4"          | (35) | .20"      | (5.0) | Black | 1000      |
| 157-00106   | <b>157-00106</b> | T50SOSSB5-High-E-O-US | .20"/.24" | (5)/(6) | 50 lbs                | (225) | 6.6"       | (167) | 1.4"          | (35) | .20"      | (5.0) | Black | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Stud Mount Tie with Outside Serrations

Providing an especially secure hold and the ability to mount the cables very close to the stud, this tie is outside serrated preventing damage to the insulation of the cable.



T50SOSSB5SE

### Material Data

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS

### Product Selection

| Article No. | Part No.         | Type        | Stud Ø   |      | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |       | Color | Pkg. Qty. |
|-------------|------------------|-------------|----------|------|-----------------------|-------|------------|-------|---------------|------|-----------|-------|-------|-----------|
|             |                  |             | in. (mm) | (mm) | lbs. (N)              | (N)   | in. (mm)   | (mm)  | in. (mm)      | (mm) | in. (mm)  | (mm)  |       |           |
| 155-12300   | <b>155-12300</b> | T50SOSSB5SE | .20 "    | (5)  | 50 lbs                | (225) | 6.30"      | (160) | 1.38"         | (35) | .18"      | (4.6) | Black | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Flexible Head Stud Mount Tie

Flexible head wraps around cable bundle for easy installation. Tie mounts onto #10-24" stud.

| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |

RoHS



| Article No. | Part No.           | Type   | Stud Ø  | Min. Tensile Strength | Length (L) | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |
|-------------|--------------------|--------|---------|-----------------------|------------|---------------|------------|-------|-----------|
|             |                    |        | in.     | lbs. (N)              | in. (mm)   | in. (mm)      | in. (mm)   |       |           |
| 111-07110   | <b>T50RS5.NB3P</b> | T50RS5 | #10-24" | 50 lbs (225)          | (190)      | 1.5" (40)     | .18" (4.6) | Black | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Stud Mount Lateral Adjustment Tie

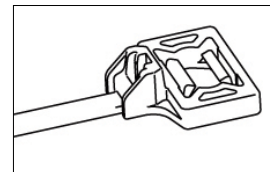
The special shape of this mount provides a .20" (5-6 mm) lateral adjustment to allow for any misalignment of the stud or incorrect positioning of the tie on the cables. The low profile of the mount allows for several ties to be installed one-on-top of the other (on the same stud) to accommodate different cable bundles.

| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b>           |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                          |

RoHS



*T50S0SWSP5E, parallel installation using two stud mount lateral ties.*



| Product Selection |                  |             | Stud Ø   | Min. Tensile Strength | Length (L)  | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |
|-------------------|------------------|-------------|----------|-----------------------|-------------|---------------|------------|-------|-----------|
| Article No.       | Part No.         | Type        | in. (mm) | lbs. (N)              | in. (mm)    | in. (mm)      | in. (mm)   |       |           |
| 155-23601         | <b>155-23601</b> | T50S0SWSP5E | .20" (5) | 50 lbs (225)          | 6.35" (163) | 1.4" (35)     | .18" (4.6) | Black | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Screw Mount Ties



## Material Data

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Polyamide 6.6 (PA66)                            |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |
| Flammability          | UL94 V2                                         |



**RU**  
File# E64139

## Product Selection

| Product Selection |           |        |              | Min. Tensile Strength lbs. (N) |       | Length (L) in. (mm) |       | Max. Ø Bundle in. (mm) |       | Width (W) in. (mm) |       | Color   |      | Pkg. Qty. |  |
|-------------------|-----------|--------|--------------|--------------------------------|-------|---------------------|-------|------------------------|-------|--------------------|-------|---------|------|-----------|--|
| Article No.       | Part No.  | Type   | Mounting     |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| T18MR             |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-00026         | T18MR9C2  | T18MR  | # 4 screw    | 18 lbs                         | (80)  | 4.33"               | (110) | .79"                   | (20)  | .10"               | (2.5) | Natural | 100  |           |  |
| 113-00028         | T18MR9M4  | T18MR  |              | 18 lbs                         | (80)  | 4.33"               | (110) | .79"                   | (20)  | .10"               | (2.5) | Natural | 1000 |           |  |
| 113-00022         | T18MR0C2  | T18MR  |              | 18 lbs                         | (80)  | 4.33"               | (110) | .79"                   | (20)  | .10"               | (2.5) | Black   | 100  |           |  |
| 113-00024         | T18MR0M4  | T18MR  |              | 18 lbs                         | (80)  | 4.33"               | (110) | .79"                   | (20)  | .10"               | (2.5) | Black   | 1000 |           |  |
| T30MR             |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-03019         | T30MR9C2  | T30MR  | # 8 screw    | 30 lbs                         | (135) | 6.30"               | (160) | 1.26"                  | (32)  | .14"               | (3.5) | Natural | 100  |           |  |
| 113-00036         | T30MR9M4  | T30MR  |              | 30 lbs                         | (135) | 6.30"               | (160) | 1.26"                  | (32)  | .14"               | (3.5) | Natural | 1000 |           |  |
| 113-03010         | T30MR0C2  | T30MR  |              | 30 lbs                         | (135) | 6.30"               | (160) | 1.26"                  | (32)  | .14"               | (3.5) | Black   | 100  |           |  |
| 113-03011         | T30MR0M4  | T30MR  |              | 30 lbs                         | (135) | 6.30"               | (160) | 1.26"                  | (32)  | .14"               | (3.5) | Black   | 1000 |           |  |
| T50MR             |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-05004         | T50MR9C2  | T50MR  | # 10 screw   | 50 lbs                         | (225) | 8.46"               | (215) | 1.77"                  | (45)  | .18"               | (4.6) | Natural | 100  |           |  |
| 113-05007         | T50MR9M4  | T50MR  |              | 50 lbs                         | (225) | 8.46"               | (215) | 1.77"                  | (45)  | .18"               | (4.6) | Natural | 1000 |           |  |
| 113-05000         | T50MR0C2  | T50MR  |              | 50 lbs                         | (225) | 8.46"               | (215) | 1.77"                  | (45)  | .18"               | (4.6) | Black   | 100  |           |  |
| 113-05002         | T50MR0M4  | T50MR  |              | 50 lbs                         | (225) | 8.46"               | (215) | 1.77"                  | (45)  | .18"               | (4.6) | Black   | 1000 |           |  |
| T50MI             |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-00032         | T50MI9C2  | T50MI  | # 10 screw   | 50 lbs                         | (225) | 12.40"              | (315) | 3.35"                  | (85)  | .19"               | (4.7) | Natural | 100  |           |  |
| 113-00033         | T50MI9M4  | T50MI  |              | 50 lbs                         | (225) | 12.40"              | (315) | 3.35"                  | (85)  | .19"               | (4.7) | Natural | 1000 |           |  |
| 113-00038         | T50MI0C2  | T50MI  |              | 50 lbs                         | (225) | 12.40"              | (315) | 3.35"                  | (85)  | .19"               | (4.7) | Black   | 100  |           |  |
| 113-00031         | T50MI0M4  | T50MI  |              | 50 lbs                         | (225) | 12.40"              | (315) | 3.35"                  | (85)  | .19"               | (4.7) | Black   | 1000 |           |  |
| T50ML             |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-05419         | T50ML9C2  | T50ML  | # 10 screw   | 50 lbs                         | (225) | 15.35"              | (390) | 4.00"                  | (100) | .18"               | (4.6) | Natural | 100  |           |  |
| 113-05403         | T50ML9M4  | T50ML  |              | 50 lbs                         | (225) | 15.35"              | (390) | 4.00"                  | (100) | .18"               | (4.6) | Natural | 1000 |           |  |
| 113-00007         | T50ML0C2  | T50ML  |              | 50 lbs                         | (225) | 15.35"              | (390) | 4.00"                  | (100) | .18"               | (4.6) | Black   | 100  |           |  |
| 113-00035         | T50ML0M4  | T50ML  |              | 50 lbs                         | (225) | 15.35"              | (390) | 4.00"                  | (100) | .18"               | (4.6) | Black   | 1000 |           |  |
| T120MR            |           |        |              |                                |       |                     |       |                        |       |                    |       |         |      |           |  |
| 113-12029         | T120MR9K2 | T120MR | # 1/4" screw | 120 lbs                        | (535) | 15.55"              | (395) | 4.02"                  | (102) | .30"               | (7.6) | Natural | 50   |           |  |
| 113-00018         | T120MR9H4 | T120MR |              | 120 lbs                        | (535) | 15.55"              | (395) | 4.02"                  | (102) | .30"               | (7.6) | Natural | 500  |           |  |
| 113-12020         | T120MR0K2 | T120MR |              | 120 lbs                        | (535) | 15.55"              | (395) | 4.02"                  | (102) | .30"               | (7.6) | Black   | 50   |           |  |
| 113-00011         | T120MR0H4 | T120MR |              | 120 lbs                        | (535) | 15.55"              | (395) | 4.02"                  | (102) | .30"               | (7.6) | Black   | 500  |           |  |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Screw Mount Ties With Metal Bushing

## Product Selection

| Article No.   | Part No.         | Type   | Mounting             | Min. Tensile Strength<br>lbs. (N) | Length (L)<br>in. (mm) | Max. Ø Bundle<br>in. (mm) | Width (W)<br>in. (mm) | Color   | Pkg. Qty. |
|---------------|------------------|--------|----------------------|-----------------------------------|------------------------|---------------------------|-----------------------|---------|-----------|
| <b>T50MRT</b> |                  |        |                      |                                   |                        |                           |                       |         |           |
| 113-05101     | <b>T50MRT9C2</b> | T50MRT | #6-32 tap thru screw | 50 lbs (225)                      | 8.47" (215)            | 1.77" (45)                | .19" (4.7)            | Natural | 100       |
| 113-05102     | <b>T50MRT9M4</b> | T50MRT |                      | 50 lbs (225)                      | 8.47" (215)            | 1.77" (45)                | .19" (4.7)            | Natural | 1000      |
| 113-05100     | <b>T50MRT0C2</b> | T50MRT |                      | 50 lbs (225)                      | 8.47" (215)            | 1.77" (45)                | .19" (4.7)            | Black   | 100       |
| 113-00037     | <b>T50MRT0M4</b> | T50MRT |                      | 50 lbs (225)                      | 8.47" (215)            | 1.77" (45)                | .19" (4.7)            | Black   | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

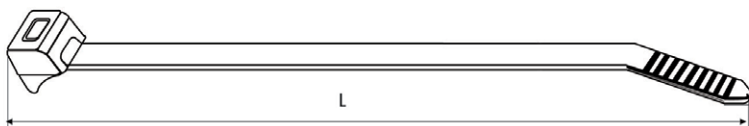
## Clamp Ties

The clamp tie has triangular shaped tabs extending beneath the head, allowing for optimal surface contact and complete circumferential compression to 360 degrees. The clamps are recommended for soft rubber hose applications including fuel, water, and air vacuum lines.



| Material Data         |                                                 | RoHS |
|-----------------------|-------------------------------------------------|------|
| Color                 | Natural                                         |      |
| Material              | Polyamide 6.6 (PA66)                            |      |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |      |
| Flammability          | UL94 V2                                         |      |

| Material Data         |                                                  | RoHS |
|-----------------------|--------------------------------------------------|------|
| Color                 | Black                                            |      |
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |      |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |      |
| Flammability          | UL94 V2                                          |      |



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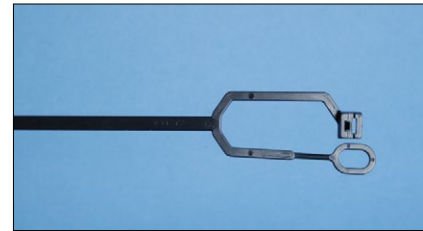
File# E64139

| Product Selection |             |        | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |       | Color   | Pkg. Qty. |
|-------------------|-------------|--------|-----------------------|-------|------------|-------|---------------|------|-----------|-------|---------|-----------|
| Article No.       | Part No.    | Type   |                       |       |            |       |               |      |           |       |         |           |
|                   |             |        | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm) | in.       | (mm)  |         |           |
| CTT20R            |             |        |                       |       |            |       |               |      |           |       |         |           |
| 112-51919         | CTT20R9C2   | CTT20R | 20 lbs                | (90)  | 4"         | (100) | .50"          | (13) | .10"      | (2.5) | Natural | 100       |
| 112-51904         | CTT20R9M4   | CTT20R | 20 lbs                | (90)  | 4"         | (100) | .50"          | (13) | .10"      | (2.5) |         | 1000      |
| 112-51905         | CTT20R0HSC2 | CTT20R | 20 lbs                | (90)  | 4"         | (100) | .50"          | (13) | .10"      | (2.5) | Black   | 100       |
| 112-51960         | CTT20R0HSM4 | CTT20R | 20 lbs                | (90)  | 4"         | (100) | .50"          | (13) | .10"      | (2.5) |         | 1000      |
| CTT60R            |             |        |                       |       |            |       |               |      |           |       |         |           |
| 112-52104         | CTT60R9C2   | CTT60R | 60 lbs                | (265) | 8"         | (205) | 1.77"         | (45) | .19"      | (4.7) | Natural | 100       |
| 112-52106         | CTT60R9M4   | CTT60R | 60 lbs                | (265) | 8"         | (205) | 1.77"         | (45) | .19"      | (4.7) |         | 1000      |
| 112-52112         | CTT60R0HSC2 | CTT60R | 60 lbs                | (265) | 8"         | (205) | 1.77"         | (45) | .19"      | (4.7) | Black   | 100       |
| 112-52114         | CTT60R0HSM4 | CTT60R | 60 lbs                | (265) | 8"         | (205) | 1.77"         | (45) | .19"      | (4.7) |         | 1000      |

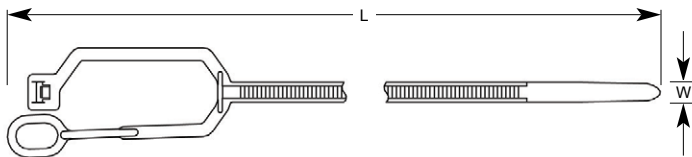
Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Branch Cable Tie

The branch tie is ideal for wire harness applications where wires "branch" away from the main assembly. The branch tie reduces wire harness assembly time by eliminating the need to use electrical tape. After the tie is placed on the main assembly, the strap is inserted through the oval opening and then through the cable tie head. Once applied, the branch tie holds the branch in its proper position on the wire harness.



| Material Data         |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                             |



| Product Selection |                  |       |               |           |                 |           |                       |       |            |       |           |
|-------------------|------------------|-------|---------------|-----------|-----------------|-----------|-----------------------|-------|------------|-------|-----------|
| Article No.       | Part No.         | Type  | Main Bundle Ø |           | Branch Bundle Ø |           | Min. Tensile Strength |       | Length (L) |       | Pkg. Qty. |
|                   |                  |       | in.           | (mm)      | in.             | (mm)      | lbs.                  | (N)   | in.        | (mm)  |           |
| 115-00042         | <b>115-00042</b> | YT200 | .63" – 1.57"  | (16 - 40) | .59" – 1.18"    | (15 - 30) | 33 lbs                | (147) | 7.87"      | (200) | 100       |

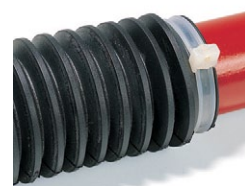
Installation tools -MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Kabelrap Bundling System

The patented Kabelrap bundling system offers a very high bundling strength and is particularly resistant to saltwater, oils, greases, and hydraulic fluids. Special hand tool required for installation.

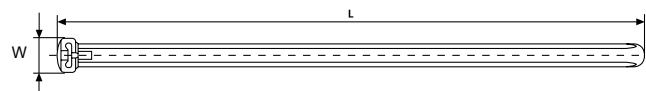


Required Tool - 121-00680



Kabelrap Application

| Material Data         |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 UV-resistant (PA66UV)</b>             |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



| Product Selection |                  |        |                       |       |            |       |               |      |           |      |
|-------------------|------------------|--------|-----------------------|-------|------------|-------|---------------|------|-----------|------|
| Article No.       | Part No.         | Type   | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |      |
|                   |                  |        | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm) | in.       | (mm) |
| 121-61860         | <b>121-61860</b> | KR6/18 | 110 lbs               | (490) | 7.25"      | (183) | 1.5"          | (39) | .24"      | (6)  |
| 121-63560         | <b>121-63560</b> | KR6/35 | 110 lbs               | (490) | 14"        | (356) | 3.75"         | (93) | .25"      | (6)  |
| 121-82160         | <b>121-82160</b> | KR8/21 | 175 lbs               | (785) | 8.25"      | (210) | 1.75"         | (47) | .31"      | (8)  |
| 121-83360         | <b>121-83360</b> | KR8/33 | 175 lbs               | (785) | 13.25"     | (337) | 3.37"         | (86) | .31"      | (8)  |

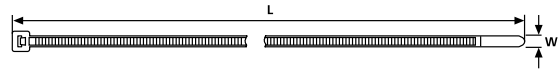
Required Installation Tool - 121-00680. Black is the standard color. Natural is available based upon minimums, custom terms and lead times. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Standard Cable Ties

### T18 - T30 Series - Natural and Black

## Material Data

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Polyamide 6.6 (PA66)                            |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |
| Flammability          | UL94 V2                                         |



File# E64139

File# E64139

## Product Selection

|             |          |       | US Gov.     | Min. Tensile | Length (L)   | Max. Ø      | Width (W)  |         |           |
|-------------|----------|-------|-------------|--------------|--------------|-------------|------------|---------|-----------|
| Article No. | Part No. | Type  | Designation | lbs. (N)     | in. (mm)     | in. (mm)    | in. (mm)   | Color   | Pkg. Qty. |
| T18S        |          |       |             |              |              |             |            |         |           |
| 111-02805   | T18S9C2  | T18S  | –           | 18 lbs (80)  | 3.27" (83)   | .63" (16)   | .09" (2.3) | Natural | 100       |
| 111-02809   | T18S9M4  | T18S  | –           | 18 lbs (80)  | 3.27" (83)   | .63" (16)   | .09" (2.3) |         | 1000      |
| 111-02810   | T18S0C2  | T18S  | –           | 18 lbs (80)  | 3.27" (83)   | .63" (16)   | .09" (2.3) | Black   | 100       |
| 111-02811   | T18S0M4  | T18S  | –           | 18 lbs (80)  | 3.27" (83)   | .63" (16)   | .09" (2.3) |         | 1000      |
| T18R        |          |       |             |              |              |             |            |         |           |
| 112-01819   | T18R9C2  | T18R  | MS3367-4-9  | 18 lbs (80)  | 4" (100)     | .87" (22)   | .10" (2.5) | Natural | 100       |
| 111-01872   | T18R9M4  | T18R  | MS3367-4-9  | 18 lbs (80)  | 4" (100)     | .87" (22)   | .10" (2.5) |         | 1000      |
| 111-00405   | T18R0C2  | T18R  | *           | 18 lbs (80)  | 4" (100)     | .87" (22)   | .10" (2.5) | Black   | 100       |
| 111-01841   | T18R0M4  | T18R  | *           | 18 lbs (80)  | 4" (100)     | .87" (22)   | .10" (2.5) |         | 1000      |
| T18I        |          |       |             |              |              |             |            |         |           |
| 111-02311   | T18I9C2  | T18I  | –           | 18 lbs (80)  | 5.51" (140)  | 1.38" (35)  | .10" (2.5) | Natural | 100       |
| 111-02322   | T18I9M4  | T18I  | –           | 18 lbs (80)  | 5.51" (140)  | 1.38" (35)  | .10" (2.5) |         | 1000      |
| 111-02308   | T18I0C2  | T18I  | –           | 18 lbs (80)  | 5.51" (140)  | 1.38" (35)  | .10" (2.5) | Black   | 100       |
| 111-02315   | T18I0M4  | T18I  | –           | 18 lbs (80)  | 5.51" (140)  | 1.38" (35)  | .10" (2.5) |         | 1000      |
| T18L        |          |       |             |              |              |             |            |         |           |
| 111-02189   | T18L9C2  | T18L  | –           | 18 lbs (80)  | 8.0" (205)   | 2.17" (55)  | .10" (2.5) | Natural | 100       |
| 111-02026   | T18L9M4  | T18L  | –           | 18 lbs (80)  | 8.0" (205)   | 2.17" (55)  | .10" (2.5) |         | 1000      |
| 111-00401   | T18L0C2  | T18L  | –           | 18 lbs (80)  | 8.0" (205)   | 2.17" (55)  | .10" (2.5) | Black   | 100       |
| 111-02015   | T18L0M4  | T18L  | –           | 18 lbs (80)  | 8.0" (205)   | 2.17" (55)  | .10" (2.5) |         | 1000      |
| T30R        |          |       |             |              |              |             |            |         |           |
| 112-03019   | T30R9C2  | T30R  | MS3367-5-9  | 30 lbs (135) | 5.9" (150)   | 1.38" (35)  | .14" (3.5) | Natural | 100       |
| 111-03047   | T30R9M4  | T30R  | MS3367-5-9  | 30 lbs (135) | 5.9" (150)   | 1.38" (35)  | .14" (3.5) |         | 1000      |
| 111-00438   | T30R0C2  | T30R  | *           | 30 lbs (135) | 5.9" (150)   | 1.38" (35)  | .14" (3.5) | Black   | 100       |
| 111-03034   | T30R0M4  | T30R  | *           | 30 lbs (135) | 5.9" (150)   | 1.38" (35)  | .14" (3.5) |         | 1000      |
| T30L        |          |       |             |              |              |             |            |         |           |
| 111-03325   | T30L9C2  | T30L  | –           | 30 lbs (135) | 7.48" (190)  | 1.97" (50)  | .14" (3.5) | Natural | 100       |
| 111-03327   | T30L9M4  | T30L  | –           | 30 lbs (135) | 7.48" (190)  | 1.97" (50)  | .14" (3.5) |         | 1000      |
| 111-03313   | T30L0C2  | T30L  | –           | 30 lbs (135) | 7.48" (190)  | 1.97" (50)  | .14" (3.5) | Black   | 100       |
| 111-03315   | T30L0M4  | T30L  | –           | 30 lbs (135) | 7.48" (190)  | 1.97" (50)  | .14" (3.5) |         | 1000      |
| T30LL       |          |       |             |              |              |             |            |         |           |
| 111-03515   | T30LL9C2 | T30LL | –           | 30 lbs (135) | 11.42" (290) | 3.15" (80)  | .14" (3.5) | Natural | 100       |
| 111-03517   | T30LL9M4 | T30LL | –           | 30 lbs (135) | 11.42" (290) | 3.15" (80)  | .14" (3.5) |         | 1000      |
| 111-03501   | T30LL0C2 | T30LL | –           | 30 lbs (135) | 11.42" (290) | 3.15" (80)  | .14" (3.5) | Black   | 100       |
| 111-03511   | T30LL0M4 | T30LL | –           | 30 lbs (135) | 11.42" (290) | 3.15" (80)  | .14" (3.5) |         | 1000      |
| T30XL       |          |       |             |              |              |             |            |         |           |
| 111-02900   | T30XL9C2 | T30XL | –           | 30 lbs (135) | 14.37" (365) | 4.13" (105) | .14" (3.5) | Natural | 100       |
| 111-02907   | T30XL9M4 | T30XL | –           | 30 lbs (135) | 14.37" (365) | 4.13" (105) | .14" (3.5) |         | 1000      |
| 111-02901   | T30XL0C2 | T30XL | –           | 30 lbs (135) | 14.37" (365) | 4.13" (105) | .14" (3.5) | Black   | 100       |
| 111-02903   | T30XL0M4 | T30XL | –           | 30 lbs (135) | 14.37" (365) | 4.13" (105) | .14" (3.5) |         | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. MK9 and MK9P cannot be used with T18S cable ties.

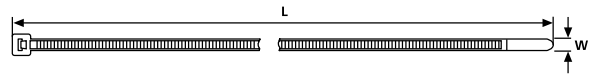
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* Military black available. Contact HellermannTyton for more information.

## Standard Cable Ties

### T40 - T50 Series - Natural and Black

| Material Data         |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Polyamide 6.6 (PA66)                            |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |
| Flammability          | UL94 V2                                         |



File# E64139



File# E64139

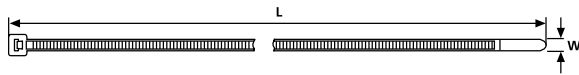
| Product Selection |          |         |                        | File# E64139      File# E64139 |       |            |       |                  |       |           |       |         |           |
|-------------------|----------|---------|------------------------|--------------------------------|-------|------------|-------|------------------|-------|-----------|-------|---------|-----------|
| Article No.       | Part No. | Type    | US Gov.<br>Designation | Min. Tensile<br>Strength       |       | Length (L) |       | Max. Ø<br>Bundle |       | Width (W) |       | Color   | Pkg. Qty. |
|                   |          |         |                        | lbs.                           | (N)   | in.        | (mm)  | in.              | (mm)  | in.       | (mm)  |         |           |
| T40R              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 112-04019         | T40R9C2  | T40R(U) | —                      | 40 lbs                         | (180) | 8.27"      | (210) | 2.16"            | (55)  | .16"      | (4.0) | Natural | 100       |
| 111-04131         | T40R9M4  | T40R(U) | —                      | 40 lbs                         | (180) | 8.27"      | (210) | 2.16"            | (55)  | .16"      | (4.0) |         | 1000      |
| 112-04060         | T40R0C2  | T40R(U) | —                      | 40 lbs                         | (180) | 8.27"      | (210) | 2.16"            | (55)  | .16"      | (4.0) | Black   | 100       |
| 111-04122         | T40R0M4  | T40R(U) | —                      | 40 lbs                         | (180) | 8.27"      | (210) | 2.16"            | (55)  | .16"      | (4.0) |         | 1000      |
| T40I              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 111-04609         | T40I9C2  | T40I    | —                      | 40 lbs                         | (180) | 11.42"     | (290) | 3.15"            | (80)  | .16"      | (4.0) | Natural | 100       |
| 111-04612         | T40I9M4  | T40I    | —                      | 40 lbs                         | (180) | 11.42"     | (290) | 3.15"            | (80)  | .16"      | (4.0) |         | 1000      |
| 111-04600         | T40I0C2  | T40I    | —                      | 40 lbs                         | (180) | 11.42"     | (290) | 3.15"            | (80)  | .16"      | (4.0) | Black   | 100       |
| 111-04604         | T40I0M4  | T40I    | —                      | 40 lbs                         | (180) | 11.42"     | (290) | 3.15"            | (80)  | .16"      | (4.0) |         | 1000      |
| T40L              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 111-04300         | T40L9C2  | T40L    | —                      | 40 lbs                         | (180) | 14.4"      | (365) | 4.13"            | (105) | .16"      | (4.0) | Natural | 100       |
| 111-04311         | T40L9M4  | T40L    | —                      | 40 lbs                         | (180) | 14.4"      | (365) | 4.13"            | (105) | .16"      | (4.0) |         | 1000      |
| 111-04301         | T40L0C2  | T40L    | —                      | 40 lbs                         | (180) | 14.4"      | (365) | 4.13"            | (105) | .16"      | (4.0) | Black   | 100       |
| 111-04305         | T40L0M4  | T40L    | —                      | 40 lbs                         | (180) | 14.4"      | (365) | 4.13"            | (105) | .16"      | (4.0) |         | 1000      |
| T50S              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 111-05811         | T50S9C2  | T50S    | —                      | 50 lbs                         | (225) | 5.9"       | (150) | 1.38"            | (35)  | .18"      | (4.6) | Natural | 100       |
| 111-05813         | T50S9M4  | T50S    | —                      | 50 lbs                         | (225) | 5.9"       | (150) | 1.38"            | (35)  | .18"      | (4.6) |         | 1000      |
| 111-05806         | T50S0C2  | T50S    | —                      | 50 lbs                         | (225) | 5.9"       | (150) | 1.38"            | (35)  | .18"      | (4.6) | Black   | 100       |
| 111-05808         | T50S0M4  | T50S    | —                      | 50 lbs                         | (225) | 5.9"       | (150) | 1.38"            | (35)  | .18"      | (4.6) |         | 1000      |
| T50R              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 112-05019         | T50R9C2  | T50R    | MS3367-1-9             | 50 lbs                         | (225) | 7.9"       | (200) | 1.97"            | (50)  | .18"      | (4.6) | Natural | 100       |
| 111-04862         | T50R9M4  | T50R    | MS3367-1-9             | 50 lbs                         | (225) | 7.9"       | (200) | 1.97"            | (50)  | .18"      | (4.6) |         | 1000      |
| 111-04878         | T50R0C2  | T50R    | *                      | 50 lbs                         | (225) | 7.9"       | (200) | 1.97"            | (50)  | .18"      | (4.6) | Black   | 100       |
| 111-04846         | T50R0M4  | T50R    | *                      | 50 lbs                         | (225) | 7.9"       | (200) | 1.97"            | (50)  | .18"      | (4.6) |         | 1000      |
| T50I              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 112-05219         | T50I9C2  | T50I    | MS3367-7-9             | 50 lbs                         | (225) | 11.8"      | (300) | 3.35"            | (85)  | .18"      | (4.6) | Natural | 100       |
| 111-05230         | T50I9M4  | T50I    | MS3367-7-9             | 50 lbs                         | (225) | 11.8"      | (300) | 3.35"            | (85)  | .18"      | (4.6) |         | 1000      |
| 111-00444         | T50I0C2  | T50I    | *                      | 50 lbs                         | (225) | 11.8"      | (300) | 3.35"            | (85)  | .18"      | (4.6) | Black   | 100       |
| 111-05216         | T50I0M4  | T50I    | *                      | 50 lbs                         | (225) | 11.8"      | (300) | 3.35"            | (85)  | .18"      | (4.6) |         | 1000      |
| T50L              |          |         |                        |                                |       |            |       |                  |       |           |       |         |           |
| 112-05419         | T50L9C2  | T50L    | MS3367-2-9             | 50 lbs                         | (225) | 15.35"     | (390) | 4.33"            | (110) | .18"      | (4.6) | Natural | 100       |
| 111-05449         | T50L9M4  | T50L    | MS3367-2-9             | 50 lbs                         | (225) | 15.35"     | (390) | 4.33"            | (110) | .18"      | (4.6) |         | 1000      |
| 111-00445         | T50L0C2  | T50L    | *                      | 50 lbs                         | (225) | 15.35"     | (390) | 4.33"            | (110) | .18"      | (4.6) | Black   | 100       |
| 111-00504         | T50L0M4  | T50L    | *                      | 50 lbs                         | (225) | 15.35"     | (390) | 4.33"            | (110) | .18"      | (4.6) |         | 1000      |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes.

Use **Part No.** for ordering and **Type** for specification purposes.

\* Military black available. Contact HellermannTyton for more information.

## Heavy Duty Cable Ties



## Material Data

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                         |



## T120 Series



File# E64139

File# E64139

| Product Selection |          |       |                     | File# E64139          |       |            |       |               |       |           |       | File# E64139 |      |
|-------------------|----------|-------|---------------------|-----------------------|-------|------------|-------|---------------|-------|-----------|-------|--------------|------|
| Article No.       | Part No. | Type  | US Gov. Designation | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |       | Width (W) | Color | Pkg. Qty.    |      |
|                   |          |       |                     | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm)  | in.       |       |              | (mm) |
| T120S             |          |       |                     |                       |       |            |       |               |       |           |       |              |      |
| 111-12819         | T120S9K2 | T120S | –                   | 120 lbs               | (535) | 8.85"      | (225) | 2.17"         | (55)  | .30"      | (7.6) | Natural      | 50   |
| 111-12813         | T120S9H4 | T120S | –                   | 120 lbs               | (535) | 8.85"      | (225) | 2.17"         | (55)  | .30"      | (7.6) |              | 500  |
| 111-12803         | T120S0K2 | T120S | –                   | 120 lbs               | (535) | 8.85"      | (225) | 2.17"         | (55)  | .30"      | (7.6) | Black        | 50   |
| 111-12808         | T120S0H4 | T120S | –                   | 120 lbs               | (535) | 8.85"      | (225) | 2.17"         | (55)  | .30"      | (7.6) |              | 500  |
| T120I             |          |       |                     |                       |       |            |       |               |       |           |       |              |      |
| 111-12211         | T120I9K2 | T120I | –                   | 120 lbs               | (535) | 11.81"     | (300) | 3.15"         | (80)  | .30"      | (7.6) | Natural      | 50   |
| 111-12213         | T120I9H4 | T120I | –                   | 120 lbs               | (535) | 11.81"     | (300) | 3.15"         | (80)  | .30"      | (7.6) |              | 500  |
| 111-12201         | T120I0K2 | T120I | –                   | 120 lbs               | (535) | 11.81"     | (300) | 3.15"         | (80)  | .30"      | (7.6) | Black        | 50   |
| 111-12206         | T120I0H4 | T120I | –                   | 120 lbs               | (535) | 11.81"     | (300) | 3.15"         | (80)  | .30"      | (7.6) |              | 500  |
| T120R             |          |       |                     |                       |       |            |       |               |       |           |       |              |      |
| 112-12019         | T120R9K2 | T120R | MS3367-3-9          | 120 lbs               | (535) | 15.24"     | (387) | 4.13"         | (105) | .30"      | (7.6) | Natural      | 50   |
| 111-12036         | T120R9H4 | T120R | MS3367-3-9          | 120 lbs               | (535) | 15.24"     | (387) | 4.13"         | (105) | .30"      | (7.6) |              | 500  |
| 112-12060         | T120R0K2 | T120R | *                   | 120 lbs               | (535) | 15.24"     | (390) | 4.13"         | (105) | .30"      | (7.6) | Black        | 50   |
| 111-12013         | T120R0H4 | T120R | *                   | 120 lbs               | (535) | 15.24"     | (387) | 4.13"         | (105) | .30"      | (7.6) |              | 500  |
| T120L             |          |       |                     |                       |       |            |       |               |       |           |       |              |      |
| 111-12419         | T120L9K2 | T120L | MS3367-6-9          | 120 lbs               | (535) | 30.0"      | (760) | 8.85"         | (225) | .30"      | (7.6) | Natural      | 50   |
| 111-12405         | T120L0K2 | T120L | *                   | 120 lbs               | (535) | 30.0"      | (760) | 8.85"         | (225) | .30"      | (7.6) | Black        | 50   |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. \*Military black available. Contact HellermannTyton for more information.

## T150 Series



File# E64139

File# E64139

| Product Selection |            |          |                     |                       |               |              |               |  |           |       |          |
|-------------------|------------|----------|---------------------|-----------------------|---------------|--------------|---------------|--|-----------|-------|----------|
| Article No.       | Part No.   | Type     | US Gov. Designation | Min. Tensile Strength | Length (L)    |              | Max. Ø Bundle |  | Width (W) | Color | Pkg. Qty |
|                   |            |          |                     | lbs. (N)              | in. (mm)      | in. (mm)     | in. (mm)      |  |           |       |          |
| T150R             |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15203         | T150R9X2   | T150R(U) | –                   | 175 lbs (780)         | 15.35" (390)  | 4.13" (105)  | .35" (8.8)    |  | Natural   | 25    |          |
| 111-15200         | T150R0X2   | T150R(U) | –                   | 175 lbs (780)         | 15.35" (390)  | 4.13" (105)  | .35" (8.8)    |  | Black     | 25    |          |
| T150M             |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15619         | T150M9X2   | T150M    | –                   | 175 lbs (780)         | 21.00" (530)  | 5.91" (150)  | .35" (8.9)    |  | Natural   | 25    |          |
| 111-00124         | T150M0X2   | T150M    | –                   | 175 lbs (780)         | 21.00" (530)  | 5.91" (150)  | .35" (8.9)    |  | Black     | 25    |          |
| T150L             |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15419         | T150L9X2   | T150L    | –                   | 175 lbs (780)         | 32.28" (820)  | 9.65" (245)  | .35" (8.9)    |  | Natural   | 25    |          |
| 111-15405         | T150L0X2   | T150L    | –                   | 175 lbs (780)         | 32.28" (820)  | 9.65" (245)  | .35" (8.9)    |  | Black     | 25    |          |
| T150LL            |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15719         | T150LL9X2  | T150LL   | –                   | 175 lbs (780)         | 36.42" (925)  | 10.83" (275) | .35" (8.9)    |  | Natural   | 25    |          |
| 111-15700         | T150LL0X2  | T150LL   | –                   | 175 lbs (780)         | 36.42" (925)  | 10.83" (275) | .35" (8.9)    |  | Black     | 25    |          |
| T150XL            |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15519         | T150XL9X2  | T150XL   | –                   | 175 lbs (780)         | 43.11" (1095) | 13.00" (330) | .35" (8.9)    |  | Natural   | 25    |          |
| 111-15500         | T150XL0X2  | T150XL   | –                   | 175 lbs (780)         | 43.11" (1095) | 13.00" (330) | .35" (8.9)    |  | Black     | 25    |          |
| T150XLL           |            |          |                     |                       |               |              |               |  |           |       |          |
| 111-15304         | T150XLL9X2 | T150XLL  | –                   | 175 lbs (780)         | 52.17" (1325) | 15.95" (405) | .35" (8.9)    |  | Natural   | 25    |          |
| 111-15300         | T150XLL0X2 | T150XLL  | –                   | 175 lbs (780)         | 52.17" (1325) | 15.95" (405) | .35" (8.9)    |  | Black     | 25    |          |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

For product information visit or [www.hellermanntyton.com](http://www.hellermanntyton.com) or call 800-537-1512

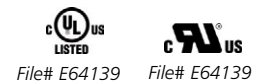
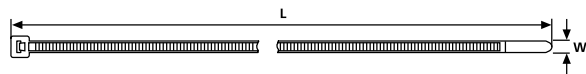


## Standard Cable Ties- Specialty Materials

### T18 - T120 Series - Heat Stabilized

HellermannTyton's heat stabilized cable ties provide excellent resistance when exposed to high heat applications.

| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 6.6 heat stabilized (PA66HS)           |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C) continuous |
| Flammability          | UL94 V2                                          |



File# E64139File# E64139

| Product Selection |            |       |                       |              |               |            |       |           |  |  |
|-------------------|------------|-------|-----------------------|--------------|---------------|------------|-------|-----------|--|--|
| Article No.       | Part No.   | Type  | Min. Tensile Strength | Length (L)   | Max. Ø Bundle | Width (W)  | Color | Pkg. Qty. |  |  |
|                   |            |       | lbs. (N)              | in. (mm)     | in. (mm)      | in. (mm)   |       |           |  |  |
| T18S              |            |       |                       |              |               |            |       |           |  |  |
| 111-02815         | T18S0HSM4  | T18S  | 18 lbs (80)           | 3.27" (83)   | .63" (16)     | .09" (2.3) | Black | 1000      |  |  |
| T18R              |            |       |                       |              |               |            |       |           |  |  |
| 111-01905         | T18R0HSC2  | T18R  | 18 lbs (80)           | 4" (100)     | .87" (22)     | .10" (2.5) | Black | 100       |  |  |
| 111-00476         | T18R0HSM4  | T18R  | 18 lbs (80)           | 4" (100)     | .87" (22)     | .10" (2.5) | Black | 1000      |  |  |
| T18I              |            |       |                       |              |               |            |       |           |  |  |
| 111-02305         | T18I0HSM4  | T18I  | 18 lbs (80)           | 5.5" (140)   | 1.38" (35)    | .10" (2.5) | Black | 1000      |  |  |
| T18L              |            |       |                       |              |               |            |       |           |  |  |
| 111-00403         | T18L0HSC2  | T18L  | 18 lbs (80)           | 8.0" (205)   | 2.17" (55)    | .10" (2.5) | Black | 100       |  |  |
| 111-00404         | T18L0HSM4  | T18L  | 18 lbs (80)           | 8.0" (205)   | 2.17" (55)    | .10" (2.5) | Black | 1000      |  |  |
| T30R              |            |       |                       |              |               |            |       |           |  |  |
| 111-03067         | T30R0HSC2  | T30R  | 30 lbs (135)          | 5.9" (150)   | 1.38" (35)    | .14" (3.5) | Black | 100       |  |  |
| 111-03068         | T30R0HSM4  | T30R  | 30 lbs (135)          | 5.9" (150)   | 1.38" (35)    | .14" (3.5) | Black | 1000      |  |  |
| T50R              |            |       |                       |              |               |            |       |           |  |  |
| 111-04900         | T50R0HSC2  | T50R  | 50 lbs (225)          | 7.9" (200)   | 1.97" (50)    | .18" (4.6) | Black | 100       |  |  |
| 111-04901         | T50R0HSM4  | T50R  | 50 lbs (225)          | 7.9" (200)   | 1.97" (50)    | .18" (4.6) | Black | 1000      |  |  |
| T50I              |            |       |                       |              |               |            |       |           |  |  |
| 111-05248         | T50I0HSC2  | T50I  | 50 lbs (225)          | 11.8" (300)  | 3.35" (85)    | .18" (4.6) | Black | 100       |  |  |
| 111-05251         | T50I0HSM4  | T50I  | 50 lbs (225)          | 11.8" (300)  | 3.35" (85)    | .18" (4.6) | Black | 1000      |  |  |
| T50L              |            |       |                       |              |               |            |       |           |  |  |
| 111-05470         | T50L0HSC2  | T50L  | 50 lbs (225)          | 15.35" (390) | 4.33" (110)   | .18" (4.6) | Black | 100       |  |  |
| 111-05471         | T50L0HSM4  | T50L  | 50 lbs (225)          | 15.35" (390) | 4.33" (110)   | .18" (4.6) | Black | 1000      |  |  |
| T120R             |            |       |                       |              |               |            |       |           |  |  |
| 111-12061         | T120R0HSC2 | T120R | 120 lbs (535)         | 15.24" (387) | 4.13" (105)   | .30" (7.6) | Black | 50        |  |  |
| 111-12058         | T120R0HSH4 | T120R | 120 lbs (535)         | 15.24" (387) | 4.13" (105)   | .30" (7.6) | Black | 500       |  |  |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. MK9, MK9HT, and MK9P tools cannot be used with T18S cable ties.

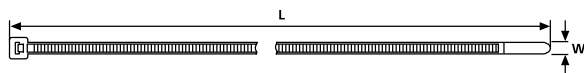
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Standard Cable Ties- Specialty Materials

### T18 -T50 Series - Flame Retardant

HellermannTyton's flame retardant cable ties meet the UL 94V0 flammability requirements.

| Material Data         |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>Polyamide 6.6 V0 (PA66V0)</b>            |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b> |
| Flammability          | <b>continuous</b><br><b>UL94 V0</b>         |



File# E64139



File# E64139

File# E64139

File# E64139

| Product Selection |           |      |                       |       |            |       |               |       |           |       |       |           |
|-------------------|-----------|------|-----------------------|-------|------------|-------|---------------|-------|-----------|-------|-------|-----------|
| Article No.       | Part No.  | Type | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |       | Width (W) |       | Color | Pkg. Qty. |
|                   |           |      | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm)  | in.       | (mm)  |       |           |
| T18R              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-01834         | T18R9VOC2 | T18R | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | .10"      | (2.5) | White | 100       |
| 111-01835         | T18R9VOM4 | T18R | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | .10"      | (2.5) | White | 1000      |
| 111-01833         | T18R0VOC2 | T18R | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | .10"      | (2.5) | Black | 100       |
| T18I              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-02304         | T18I9VOM4 | T18I | 18 lbs                | (80)  | 5.5"       | (144) | 1.38"         | (35)  | .10"      | (2.5) | White | 1000      |
| T18L              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-02045         | T18L9VOC2 | T18L | 18 lbs                | (80)  | 7.95"      | (202) | 2.17"         | (55)  | .10"      | (2.5) | White | 100       |
| 111-02046         | T18L9VOM4 | T18L | 18 lbs                | (80)  | 7.95"      | (202) | 2.17"         | (55)  | .10"      | (2.5) | White | 1000      |
| 111-02044         | T18L0VOC2 | T18L | 18 lbs                | (80)  | 7.95"      | (202) | 2.17"         | (55)  | .10"      | (2.5) | Black | 100       |
| T30R              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-03073         | T30R9VOC2 | T30R | 30 lbs                | (135) | 5.83"      | (148) | 1.38"         | (35)  | .14"      | (3.6) | White | 100       |
| 111-03074         | T30R9VOM4 | T30R | 30 lbs                | (135) | 5.83"      | (148) | 1.38"         | (35)  | .14"      | (3.6) | White | 1000      |
| 111-03072         | T30R0VOC2 | T30R | 30 lbs                | (135) | 5.83"      | (148) | 1.38"         | (35)  | .14"      | (3.6) | Black | 100       |
| T50R              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-04909         | T50R9VOC2 | T50R | 50 lbs                | (225) | 7.95"      | (202) | 1.97"         | (50)  | .18"      | (4.6) | White | 100       |
| 111-04911         | T50R9VOM4 | T50R | 50 lbs                | (225) | 7.95"      | (202) | 1.97"         | (50)  | .18"      | (4.6) | White | 1000      |
| 111-04887         | T50R0VOC2 | T50R | 50 lbs                | (225) | 7.95"      | (202) | 1.97"         | (50)  | .18"      | (4.6) | Black | 100       |
| 111-04908         | T50R0VOM4 | T50R | 50 lbs                | (225) | 7.95"      | (202) | 1.97"         | (50)  | .18"      | (4.6) | Black | 1000      |
| T50I              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-05254         | T50I9VOC2 | T50I | 50 lbs                | (225) | 11.82"     | (300) | 3.35"         | (85)  | .18"      | (4.6) | White | 100       |
| 111-05255         | T50I9VOM4 | T50I | 50 lbs                | (225) | 11.82"     | (300) | 3.35"         | (85)  | .18"      | (4.6) | White | 1000      |
| 111-05258         | T50I0VOC2 | T50I | 50 lbs                | (225) | 11.82"     | (300) | 3.35"         | (85)  | .18"      | (4.6) | Black | 100       |
| T50L              |           |      |                       |       |            |       |               |       |           |       |       |           |
| 111-05438         | T50L9VOC2 | T50L | 50 lbs                | (225) | 15.35"     | (390) | 4.33"         | (110) | .19"      | (4.7) | White | 100       |
| 111-05476         | T50L9VOM4 | T50L | 50 lbs                | (225) | 15.35"     | (390) | 4.33"         | (110) | .19"      | (4.7) | White | 1000      |
| 111-05475         | T50L0VOC2 | T50L | 50 lbs                | (225) | 15.35"     | (390) | 4.33"         | (110) | .19"      | (4.7) | Black | 100       |

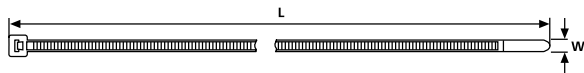
Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Standard Cable Ties- Specialty Materials

### T18 - T120 Series - Polypropylene

HellermannTyton's polypropylene cable ties offer added resistance to most chemicals.

| Material Data         |                                                         |
|-----------------------|---------------------------------------------------------|
| Material              | <b>Polypropylene (PP)</b>                               |
| Operating Temperature | <b>-40 °F to +239 °F (-40 °C to +115 °C) continuous</b> |
| Flammability          | <b>UL94 HB</b>                                          |



| Product Selection |            |       | Min. Tensile Strength |       | Length (L) |         | Max. Ø Bundle |        | Width (W) |       | Color   | Pkg. Qty. |
|-------------------|------------|-------|-----------------------|-------|------------|---------|---------------|--------|-----------|-------|---------|-----------|
| Article No.       | Part No.   | Type  |                       |       |            |         |               |        |           |       |         |           |
|                   |            |       | lbs.                  | (N)   | in.        | (mm)    | in.           | (mm)   | in.       | (mm)  |         |           |
| T18R              |            |       |                       |       |            |         |               |        |           |       |         |           |
| 111-01921         | T18R9PPC2  | T18R  | 11 lbs                | (49)  | 4"         | (100)   | .75"          | (19)   | .10"      | (2.5) | Natural | 100       |
| 111-01922         | T18R9PPM4  | T18R  | 11 lbs                | (49)  | 4"         | (100)   | .75"          | (19)   | .10"      | (2.5) | Natural | 1000      |
| 111-01917         | T18R0PPC2  | T18R  | 11 lbs                | (49)  | 4"         | (100)   | .75"          | (19)   | .10"      | (2.5) | Black   | 100       |
| 111-01918         | T18R0PPM4  | T18R  | 11 lbs                | (49)  | 4"         | (100)   | .75"          | (19)   | .10"      | (2.5) | Black   | 1000      |
| T30R              |            |       |                       |       |            |         |               |        |           |       |         |           |
| 111-03017         | T30R9PPC2  | T30R  | 20 lbs                | (89)  | 5.83"      | (148)   | 1.26"         | (32)   | .14"      | (3.6) | Natural | 100       |
| T50R              |            |       |                       |       |            |         |               |        |           |       |         |           |
| 111-04931         | T50R9PPC2  | T50R  | 30 lbs                | (133) | 8.0"       | (203.8) | 1.75"         | (44.5) | .19"      | (4.7) | Natural | 100       |
| 111-04928         | T50R0PPC2  | T50R  | 30 lbs                | (133) | 8.0"       | (203.8) | 1.75"         | (44.5) | .19"      | (4.7) | Black   | 100       |
| 111-04929         | T50R0PPM4  | T50R  | 30 lbs                | (133) | 8.0"       | (203.8) | 1.75"         | (44.5) | .19"      | (4.7) | Black   | 1000      |
| T50I              |            |       |                       |       |            |         |               |        |           |       |         |           |
| 111-05262         | T50I9PPM4  | T50I  | 30 lbs                | (133) | 11.8"      | (300)   | 3.35"         | (85)   | .18"      | (4.6) | Natural | 1000      |
| T120R             |            |       |                       |       |            |         |               |        |           |       |         |           |
| 111-12067         | T120R0PPK2 | T120R | 60 lbs                | (267) | 15.35"     | (390)   | 4.13"         | (105)  | .30"      | (7.6) | Black   | 50        |
| 111-12066         | T120R0PPH4 | T120R | 60 lbs                | (267) | 15.35"     | (390)   | 4.13"         | (105)  | .30"      | (7.6) | Black   | 500       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

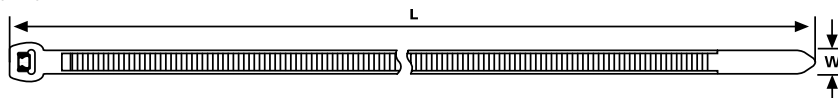
## PEEK Tie For High Temperature Applications

HellermannTyton's high performance PEEK material withstands temperatures up to +500°F (+260°C) and highly resistant to chemicals. The cable ties are designed with a contoured head making it ideal for space restricted areas. The outside serrations minimize any damage to the cable insulation. HellermannTyton's fir tree mounts provide a secure grip in a mounting hole and protect against dirt and other impurities. The mount can slide along the strap of the tie for proper orientation. The fir tree mounts are designed to provide a low insertion force and high extraction force. HellermannTyton's cable tie anchor mounts are designed with a 4-way entry point which allows the mount to be placed parallel or perpendicular to the wire bundle.



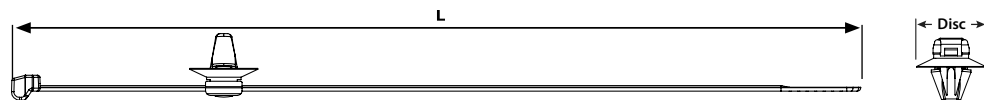
The contoured head takes up less space, gives a low insertion force, and offers high strength.

| Material Data         |                                                         | RoHS |
|-----------------------|---------------------------------------------------------|------|
| Material              | <b>Polyetheretherketone (PEEK)</b>                      |      |
| Operating Temperature | <b>-67 °F to +500 °F (-55 °C to +260 °C) continuous</b> |      |
| Flammability          | <b>UL94 V0</b>                                          |      |



### Product Selection

| Product Selection |                  | Type  | Min. Tensile Strength | Max Ø Bundle | Length (L) | Width (W)  | Mounting Hole Ø | Panel Thickness | Disc     | Color | Pkg. Qty. |
|-------------------|------------------|-------|-----------------------|--------------|------------|------------|-----------------|-----------------|----------|-------|-----------|
| Article No.       | Part No.         |       | lbs. (N)              | in. (mm)     | in. (mm)   | in. (mm)   | in. (mm)        | in. (mm)        | in. (mm) |       |           |
| Cable Ties        |                  |       |                       |              |            |            |                 |                 |          |       |           |
| 118-00032         | <b>118-00032</b> | PT2A  | 52 lbs. (230)         | 1.38" (35)   | 5.7" (145) | .13" (3.4) | –               | –               | –        | Beige | 100       |
| 111-01235         | <b>111-01235</b> | PT220 | 85 lbs. (380)         | 2.2" (56)    | 8.6" (220) | .18" (4.6) | –               | –               | –        | Beige | 100       |



### Product Selection

| Article No. | Part No.         | Type           | Min. Tensile Strength | Max Ø Bundle | Length (L) | Width (W)  | Mounting Hole Ø         | Panel Thickness          | Disc      | Color      | Pkg. Qty. |
|-------------|------------------|----------------|-----------------------|--------------|------------|------------|-------------------------|--------------------------|-----------|------------|-----------|
|             |                  |                | lbs. (N)              | in. (mm)     | in. (mm)   | in. (mm)   | in. (mm)                | in. (mm)                 | in. (mm)  |            |           |
| 156-00455   | <b>156-00455</b> | T50RO SP1SFT65 | 50 lbs. (225)         | 1.77" (45)   | 7.9" (200) | .18" (4.6) | .25" - .26" (6.3 - 6.7) | .028" - .051" (.7 - 1.3) | .63" (16) | Gray Beige | 100       |
| 156-00456   | <b>156-00456</b> | T50RO SP2SFT65 | 50 lbs. (225)         | 1.77" (45)   | 7.9" (200) | .18" (4.6) | .25" - .26" (6.3 - 6.7) | .028" - .051" (.7 - 1.3) | .63" (16) | Gray Beige | 100       |

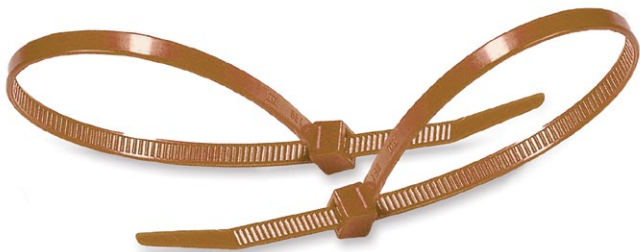


### Product Selection

| Product Selection |           | Type  | Cable Tie Series | Mounting  | Length (L)  | Width (W)   | Height (H) | Color | Pkg. Qty. |
|-------------------|-----------|-------|------------------|-----------|-------------|-------------|------------|-------|-----------|
| Article No.       | Part No.  |       |                  |           | in. (mm)    | in. (mm)    | in. (mm)   |       |           |
|                   |           |       |                  |           | Mounts      |             |            |       |           |
| 151-00757         | 151-00757 | CTAM1 | T18 - T50        | #10 Screw | .81" (20.5) | .40" (10.2) | .22" (5.5) | Beige | 100       |
| 151-00758         | 151-00758 | CTAM2 | T18 - T50        | #10 Screw | .81" (20.5) | .40" (10.2) | .22" (5.5) | Beige | 100       |

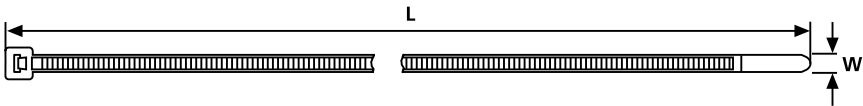
Cable Ties/High Temperature Ties

HellermannTyton's high temperature cable ties provide excellent resistance in operating temperatures up to 275°F (135°C), while still maintaining tensile strength properties.



| Material Data         |                                                  |
|-----------------------|--------------------------------------------------|
| Material              | Polyamide 4.6 (PA46)                             |
| Operating Temperature | -40 °F to +275 °F (-40 °C to +135 °C) continuous |
| Flammability          | UL94 V2                                          |

RoHS



| Product Selection |             |             |                       |             |              |            |       |           |  |
|-------------------|-------------|-------------|-----------------------|-------------|--------------|------------|-------|-----------|--|
| Article No.       | Part No.    | Type        | Min. Tensile Strength | Length (L)  | Max Ø Bundle | Width (W)  | Color | Pkg. Qty. |  |
|                   |             |             | lbs. (N)              | in. (mm)    | in. (mm)     | in. (mm)   |       |           |  |
| 116-01811         | T18R1STNLM5 | T18R1STNLM5 | 18 lbs. (80)          | 4" (100)    | .87" (22)    | .10" (2.5) | Brown | 100       |  |
| 116-03011         | T30R1STNLM4 | T30R1STNLM4 | 30 lbs. (135)         | 5.9" (150)  | 1.38" (35)   | .14" (3.5) | Brown | 100       |  |
| 116-05011         | T50R1STNLM5 | T50R1STNLM5 | 50 lbs. (225)         | 7.9" (200)  | 1.97" (50)   | .18" (4.6) | Brown | 100       |  |
| 111-05443         | T50L1STNLM4 | T50L1STNLM4 | 50 lbs. (225)         | 15.3" (390) | 4.33" (110)  | .18" (4.6) | Brown | 100       |  |

## E/TFE Cable Ties

Tefzel ties provide excellent protection against radiation, ultraviolet light, and a wide range of chemicals. They are also rated for low outgassing applications. HellermannTyton's Tefzel ties come in a standard color of blue for easy identification.

Technical drawing of a rectangular strip. The length is labeled  $L$  and the width is labeled  $w$ . The strip has a textured surface and a small rectangular feature at one end.

| Material Data         |                                                  |  |
|-----------------------|--------------------------------------------------|-------------------------------------------------------------------------------------|
| Material              | Polyamide 4.6 (PA46)                             |                                                                                     |
| Operating Temperature | -40 °F to +275 °F (-40 °C to +135 °C) continuous |                                                                                     |
| Flammability          | UL94 V2                                          |                                                                                     |

| Product Selection |                  |       | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |       | Width (W) |       | Color | Pkg. Qty. |
|-------------------|------------------|-------|-----------------------|-------|------------|-------|---------------|-------|-----------|-------|-------|-----------|
| Article No.       | Part No.         | Type  | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm)  | in.       | (mm)  |       |           |
| 111-00659         | <b>111-00659</b> | T18R  | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | .10"      | (2.5) | Blue  | 100       |
| 111-00698         | <b>111-00698</b> | T30R  | 30 lbs                | (133) | 5.9"       | (150) | 1.42"         | (36)  | .14"      | (3.5) | Blue  | 100       |
| 111-00732         | <b>111-00732</b> | T50R  | 50 lbs                | (222) | 8"         | (200) | 1.97"         | (50)  | .18"      | (4.6) | Blue  | 100       |
| 111-00718         | <b>111-00718</b> | T50L  | 50 lbs                | (222) | 15"        | (380) | 4.13"         | (105) | .18"      | (4.6) | Blue  | 100       |
| 111-01125         | <b>111-01125</b> | T120R | 120 lbs               | (535) | 15"        | (380) | 4.13"         | (105) | .30"      | (7.6) | Blue  | 50        |

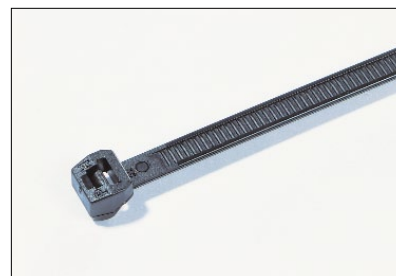
Tefzel is a registered trademark of E.I. DuPont Corporation. Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P.

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

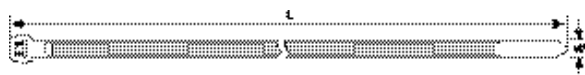
## Outside Serrated Cable Ties

The outside serrated cable ties are for specific applications where thin walled or soft insulation is used (such as in aircraft, trains, etc.) and for applications that are very sensitive to the amount of force applied to the cable.

|                       |                                                     |                                                                                     |
|-----------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------|
| Material Data         |                                                     |  |
| Material              | Polyamide 6.6 heat stabilized (PA66HS)              |                                                                                     |
| Operating Temperature | -40 °F to +221 °F<br>(-40 °C to +105 °C) continuous |                                                                                     |
| Flammability          | UL94 V2                                             |                                                                                     |



Outside serrated cable ties are also available in natural. Contact HellermannTyton for more information.



| Product Selection |                  |        | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |       | Width (W) |       | Color | Pkg. Qty. |
|-------------------|------------------|--------|-----------------------|-------|------------|-------|---------------|-------|-----------|-------|-------|-----------|
| Article No.       | Part No.         | Type   | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm)  | in.       | (mm)  |       |           |
| 118-04700         | <b>118-04700</b> | T18ROS | 18 lbs                | (80)  | 3.94"      | (100) | .79"          | (20)  | .10"      | (2.5) | Black | 100       |
| 118-04800         | <b>118-04800</b> | T30ROS | 30 lbs                | (135) | 5.71"      | (145) | 1.34"         | (35)  | .13"      | (3.4) | Black | 100       |
| 118-04900         | <b>118-04900</b> | T30LOS | 30 lbs                | (135) | 7.87"      | (200) | 2.0"          | (50)  | .13"      | (3.4) | Black | 100       |
| 118-00110         | <b>118-00110</b> | T50SOS | 50 lbs                | (225) | 6.0        | (150) | 1.36"         | (35)  | .18"      | (4.6) | Black | 1000      |
| 118-00111         | <b>118-00111</b> | T50ROS | 50 lbs                | (225) | 8"         | (200) | 1.95"         | (50)  | .18"      | (4.6) | Black | 1000      |
| 118-05900         | <b>118-05900</b> | T50LOS | 50 lbs                | (225) | 15"        | (384) | 4.29"         | (110) | .18"      | (4.6) | Black | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

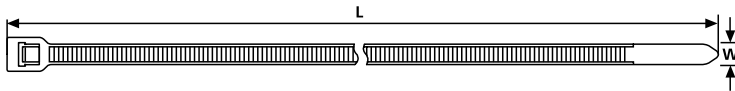


## Releasable Ties

The extended pawl allows for simple and quick release of the ties. Perfect for prototype construction and service requiring the addition of wires on existing harnesses.

### Material Data

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                             |



RT40R



RT50S and RT50LL

**US**  
File# E64139

### Product Selection

| Product Selection |           |        |                       |             |               |            |         |          |  |  |
|-------------------|-----------|--------|-----------------------|-------------|---------------|------------|---------|----------|--|--|
| Article No.       | Part No.  | Type   | Min. Tensile Strength | Length (L)  | Max. Ø Bundle | Width (W)  | Color   | Pkg. Qty |  |  |
|                   |           |        | lbs. (N)              | in. (mm)    | in. (mm)      | in. (mm)   |         |          |  |  |
| RT40R             |           |        |                       |             |               |            |         |          |  |  |
| 115-06219         | RT40R9C2  | RT40R  | 40 lbs (80)           | 8.46" (215) | 2.0" (51)     | .16" (4.0) | Natural | 100      |  |  |
| 115-06204         | RT40R9M4  | RT40R  | 40 lbs (80)           | 8.46" (215) | 2.0" (51)     | .16" (4.0) |         | 1000     |  |  |
| 115-06200         | RT40R0C2  | RT40R  | 40 lbs (80)           | 8.46" (215) | 2.0" (51)     | .16" (4.0) | Black   | 100      |  |  |
| 115-06202         | RT40R0M4  | RT40R  | 40 lbs (80)           | 8.46" (215) | 2.0" (51)     | .16" (4.0) |         | 1000     |  |  |
| RT50S             |           |        |                       |             |               |            |         |          |  |  |
| 115-06319         | RT50S9C2  | RT50S  | 50 lbs (225)          | 6.5" (165)  | 1.38" (35)    | .18" (4.6) | Natural | 100      |  |  |
| 115-06304         | RT50S9M4  | RT50S  | 50 lbs (225)          | 6.5" (165)  | 1.38" (35)    | .18" (4.6) |         | 1000     |  |  |
| 115-06300         | RT50S0C2  | RT50S  | 50 lbs (225)          | 6.5" (165)  | 1.38" (35)    | .18" (4.6) | Black   | 100      |  |  |
| 115-00035         | RT50S0M4  | RT50S  | 50 lbs (225)          | 6.5" (165)  | 1.38" (35)    | .18" (4.6) |         | 1000     |  |  |
| RT50LL            |           |        |                       |             |               |            |         |          |  |  |
| 115-06102         | RT50LL9C2 | RT50LL | 50 lbs (225)          | 15" (380)   | 3.98" (101)   | .18" (4.6) | Natural | 100      |  |  |
| 115-06104         | RT50LL9M4 | RT50LL | 50 lbs (225)          | 15" (380)   | 3.98" (101)   | .18" (4.6) |         | 1000     |  |  |
| 115-00039         | RT50LL0C2 | RT50LL | 50 lbs (225)          | 15" (380)   | 3.98" (101)   | .18" (4.6) | Black   | 100      |  |  |
| 115-06101         | RT50LL0M4 | RT50LL | 50 lbs (225)          | 15" (380)   | 3.98" (101)   | .18" (4.6) |         | 1000     |  |  |

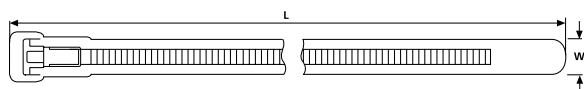
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## REL Releasable Ties

Ideal for use in applications where there is the need to repeatedly open and close the tie.



| Material Data         |                                                 | RoHS |
|-----------------------|-------------------------------------------------|------|
| Material              | Polyamide 6.6 (PA66)                            |      |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |      |
| Flammability          | UL94 V2                                         |      |

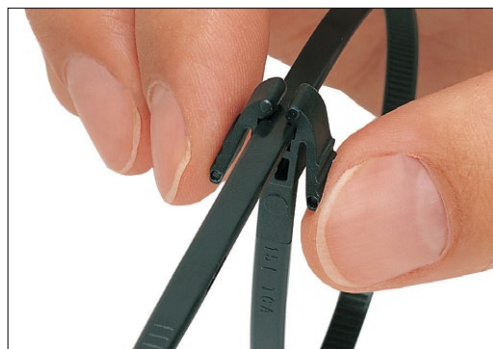


| Product Selection |           |        |                       |       |            |       |               |      |           |       |         |           |
|-------------------|-----------|--------|-----------------------|-------|------------|-------|---------------|------|-----------|-------|---------|-----------|
| Article No.       | Part No.  | Type   | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |       | Color   | Pkg. Qty. |
|                   |           |        | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm) | in.       | (mm)  |         |           |
| REL50R            |           |        |                       |       |            |       |               |      |           |       |         |           |
| 115-00503         | REL50R9C2 | REL50R | 50 lbs                | (225) | 5.5"       | (140) | 1.38"         | (35) | .29"      | (7.4) | Natural | 100       |
| 115-00505         | REL50R9L4 | REL50R | 50 lbs                | (225) | 5.5"       | (140) | 1.38"         | (35) | .29"      | (7.4) |         | 200       |
| 115-00500         | REL50R0C2 | REL50R | 50 lbs                | (225) | 5.5"       | (140) | 1.38"         | (35) | .29"      | (7.4) | Black   | 100       |
| 115-00502         | REL50R0L4 | REL50R | 50 lbs                | (225) | 5.5"       | (140) | 1.38"         | (35) | .29"      | (7.4) |         | 200       |
| REL50L            |           |        |                       |       |            |       |               |      |           |       |         |           |
| 115-00605         | REL50L9C2 | REL50L | 50 lbs                | (225) | 9.84"      | (250) | 2.76"         | (70) | .29"      | (7.4) | Natural | 100       |
| 115-00607         | REL50L9L4 | REL50L | 50 lbs                | (225) | 9.84"      | (250) | 2.76"         | (70) | .29"      | (7.4) |         | 200       |
| 115-00600         | REL50L0C2 | REL50L | 50 lbs                | (225) | 9.84"      | (250) | 2.76"         | (70) | .29"      | (7.4) | Black   | 100       |
| 115-00602         | REL50L0L4 | REL50L | 50 lbs                | (225) | 9.84"      | (250) | 2.76"         | (70) | .29"      | (7.4) |         | 200       |

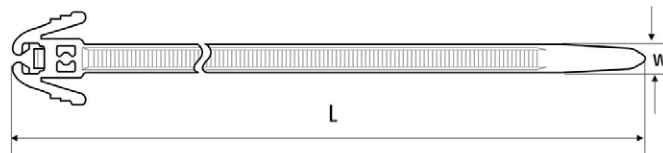
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Pinch Releasable Ties

Patented pinch release mechanism for easy handling allows tie to be released using one hand.



| Material Data         |                                                 | RoHS |
|-----------------------|-------------------------------------------------|------|
| Material              | Polyamide 6.6 (PA66)                            |      |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |      |
| Flammability          | UL94 V2                                         |      |



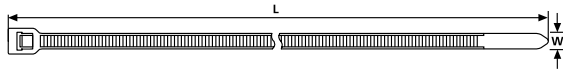
| Product Selection |             |        |                       |       |            |       |               |      |           |       |       |           |
|-------------------|-------------|--------|-----------------------|-------|------------|-------|---------------|------|-----------|-------|-------|-----------|
| Article No.       | Part No.    | Type   | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |      | Width (W) |       | Color | Pkg. Qty. |
|                   |             |        | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm) | in.       | (mm)  |       |           |
| 115-40200         | REZ200.NB3P | REZ200 | 30 lbs                | (135) | 7.88"      | (200) | 1.97"         | (50) | .19"      | (4.7) | Black | 100       |
| 115-40300         | REZ300.NB3P | REZ300 | 30 lbs                | (135) | 12.00"     | (305) | 3.15"         | (80) | .19"      | (4.7) | Black | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Heavy Duty Releasable Cable Ties

The RT150 and RT250 heavy duty releasable cable ties feature an extended pawl which allows for simple and quick release of the ties.

### RT150 Heavy Duty Releasable Cable Ties



#### Material Data

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                             |

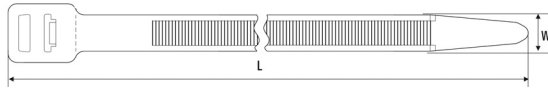


#### Product Selection

| Article No. | Part No.           | Type     | Min. Tensile Strength | Length (L)   |             | Max. Ø Bundle |          | Width (W) |          | Color | Pkg. Qty. |
|-------------|--------------------|----------|-----------------------|--------------|-------------|---------------|----------|-----------|----------|-------|-----------|
|             |                    |          | lbs. (N)              | in. (mm)     | in. (mm)    | in. (mm)      | in. (mm) | in. (mm)  | in. (mm) |       |           |
| 115-00036   | <b>RT150REPOX2</b> | RT150REP | 175 lbs (780)         | 15.35" (390) | 4" (105)    | .346" (8.8)   |          | Black     | 25       |       |           |
| 115-00037   | <b>RT150MEPOX2</b> | RT150MEP | 175 lbs (780)         | 21.06" (535) | 5.90" (150) | .346" (8.8)   |          | Black     | 25       |       |           |
| 115-00038   | <b>RT150LEPOX2</b> | RT150LEP | 175 lbs (780)         | 32.28" (820) | 9.65" (245) | .346" (8.8)   |          | Black     | 25       |       |           |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

### RT250 Heavy Duty Releasable Cable Ties



#### Material Data

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                                |
| Operating Temperature | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C) continuous</b> |
| Flammability          | <b>UL94 V2</b>                                             |



#### Product Selection

| Product Selection |            |         |                       |        |            |          |               |         |           |         |         |           |
|-------------------|------------|---------|-----------------------|--------|------------|----------|---------------|---------|-----------|---------|---------|-----------|
| Article No.       | Part No.   | Type    | Min. Tensile Strength |        | Length (L) |          | Max. Ø Bundle |         | Width (W) |         | Color   | Pkg. Qty. |
|                   |            |         | lbs.                  | (N)    | in.        | (mm)     | in.           | (mm)    | in.       | (mm)    |         |           |
| RT250S            |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75819         | RT250S9X2  | RT250S  | 250 lbs               | (1115) | 9.05"      | (230)    | 2.17"         | (55)    | .49"      | (12.5 ) | Natural | 25        |
| 115-41800         | RT250S0X2  | RT250S  | 250 lbs               | (1115) | 9.05"      | (230)    | 2.17"         | (55)    | .49"      | (12.5 ) | Black   | 25        |
| RT250R            |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75019         | RT250R9X2  | RT250R  | 250 lbs               | (1115) | 20.47"     | (520)    | 5.71"         | (145)   | .49"      | (12.5)  | Natural | 25        |
| 115-41300         | RT250R0X2  | RT250R  | 250 lbs               | (1115) | 20.47"     | (520)    | 5.71"         | (145)   | .49"      | (12.5 ) | Black   | 25        |
| RT250M            |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75619         | RT250M9X2  | RT250M  | 250 lbs               | (1115) | 22.24"     | (565)    | 5.90"         | (150)   | .49"      | (12.5 ) | Natural | 25        |
| 131-75610         | RT250M0X2  | RT250M  | 250 lbs               | (1115) | 22.24"     | (565)    | 5.90"         | (150)   | .49"      | (12.5 ) | Black   | 25        |
| RT250I            |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75219         | RT250I9X2  | RT250I  | 250 lbs               | (1115) | 28.54"     | (725)    | 8.00"         | (203)   | .49"      | (12.5 ) | Natural | 25        |
| 115-41401         | RT250I0X2  | RT250I  | 250 lbs               | (1115) | 28.54"     | (725)    | 8.00"         | (203)   | .49"      | (12.5 ) | Black   | 25        |
| RT250L            |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75419         | RT250L9X2  | RT250L  | 250 lbs               | (1115) | 34.65"     | (880)    | 10.00"        | (254)   | .49"      | (12.5)  | Natural | 25        |
| 115-41500         | RT250L0X2  | RT250L  | 250 lbs               | (1115) | 34.65"     | (880)    | 10.00"        | (254)   | .49"      | (12.5 ) | Black   | 25        |
| RT250XL           |            |         |                       |        |            |          |               |         |           |         |         |           |
| 131-75519         | RT250XL9X2 | RT250XL | 250 lbs               | (1115) | 40"        | (1016.0) | 12"           | (304.8) | .49"      | (12.5 ) | Natural | 25        |
| 131-75510         | RT250XL0X2 | RT250XL | 250 lbs               | (1115) | 40"        | (1016.0) | 12"           | (304.8) | .49"      | (12.5 ) | Black   | 25        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

**US**  
File# E64139

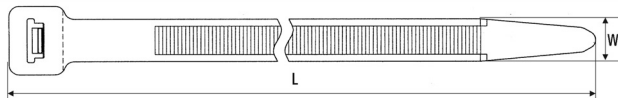
## Heavy Duty Releasable Cable Ties

## RT255 Heavy Duty Releasable Ties

## Material Data

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |

RoHS



## Product Selection

| Article No. | Part No.     | Type   | Min. Tensile Strength |        | Length (L) |       | Max. Ø Bundle |       | Width (W) |        | Color | Pkg. Qty. |
|-------------|--------------|--------|-----------------------|--------|------------|-------|---------------|-------|-----------|--------|-------|-----------|
|             |              |        | lbs.                  | (N)    | in.        | (mm)  | in.           | (mm)  | in.       | (mm)   |       |           |
| 115-01200   | RT255S0HIRX2 | RT255S | 250 lbs               | (1112) | 8.86"      | (225) | 2.16"         | (55)  | .49"      | (12.5) | Black | 25        |
| 115-01300   | RT255R0HIRX2 | RT255R | 250 lbs               | (1112) | 20.28"     | (515) | 5.71"         | (145) | .49"      | (12.5) | Black | 25        |
| 115-01400   | RT255M0HIRX2 | RT255M | 250 lbs               | (1112) | 22.05"     | (560) | 6.30"         | (160) | .49"      | (12.5) | Black | 25        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

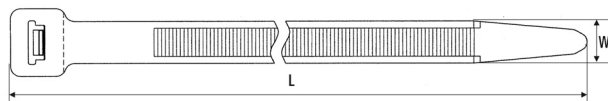
## SR255 Heavy Duty Sub-Releasable Ties

The SR255 series releasable heavy duty cable tie offers a release that is lower than the head of the cable tie, facilitating easy installation with the use of a HellermannTyton cable tie tool.

## Material Data

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Material              | Polyamide 6.6 impact modified, Heat Stabilized, UV Resistant (PA66HIRHS) |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C) continuous                         |
| Flammability          | UL94 HB                                                                  |

RoHS



## Product Selection

| Article No. | Part No.        | Type   | Min. Tensile Strength |        | Length (L) |       | Max. Ø Bundle |       | Width (W) |        | Color | Pkg. Qty. |
|-------------|-----------------|--------|-----------------------|--------|------------|-------|---------------|-------|-----------|--------|-------|-----------|
|             |                 |        | lbs.                  | (N)    | in.        | (mm)  | in.           | (mm)  | in.       | (mm)   |       |           |
| 115-42002   | SR255S0HIHSUVX2 | SR255S | 250 lbs               | (1112) | 8.86"      | (225) | 2.16"         | (50)  | .49"      | (12.5) | Black | 25        |
| 115-42101   | SR255X0HIHSUVX2 | SR255X | 250 lbs               | (1112) | 14"        | (372) | 3.94"         | (100) | .49"      | (12.5) | Black | 25        |

Installation tools - MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Speedy Tie

An entirely new design in cable management, the SpeedyTie is a fully re-usable, easily releasable lashing tie. The SpeedyTie's unique design allows it to be released with one hand.

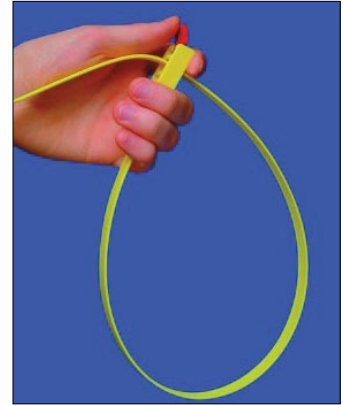
- Just one click to tie and untie
- Fully re-usable
- Once applied, the tail can be neatly tucked away for added safety
- Highly visible yellow color — also available in black, impact modified material
- Versatile design allows use for multiple applications

The SpeedyTie is a versatile tool for countless applications, including:

- In plant transfer of products
- Temporary and secure bundling
- Packaging

| Material Data         |                                                    |  |
|-----------------------|----------------------------------------------------|--|
| Material              | Polyamide 6.6 (PA66)                               |  |
| Color                 | Yellow , Red                                       |  |
| Operating Temperature | -40 °F to +185 °F<br>(-40 °C to +85 °C) continuous |  |
| Flammability          | UL94 V2                                            |  |

RoHS



SpeedyTie - Quick and easy.

### Packaging Configurations

#### Distributor Packs

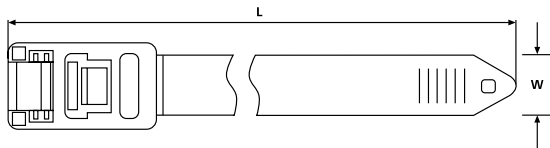
- Printed bag with a hang hole
- Display box
- 60 SpeedyTies - 12 bags of 5

#### OEM Packs

- Plain bag (no hang hole)
- Standard box
- 300 SpeedyTies - 12 bags of 25



Distributor Pack - point of purchase display for the SpeedyTie.



| Product Selection |                |          | Description                                  | Min. Tensile Strength | Length (L)   | Max. Ø Bundle | Width (W) | Pkg. Qty. | Carton Qty. |
|-------------------|----------------|----------|----------------------------------------------|-----------------------|--------------|---------------|-----------|-----------|-------------|
| Article No.       | Part No.       | Type     |                                              | lbs. (N)              | in. (mm)     | in. (mm)      | in. (mm)  |           |             |
| 115-00001         | RTT750HR.NX900 | RTT750HR | Distributor Pack - order in carton qty. only | 200 lbs (888)         | 29.52" (750) | 8.27" (210)   | .51" (13) | 5         | 60          |
| 115-00000         | RTT750HR.NX1P  | RTT750HR | OEM Pack - order in carton qty. only         | 200 lbs (888)         | 29.52" (750) | 8.27" (210)   | .51" (13) | 25        | 300         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Stainless Steel Cable Ties

HellermannTyton's stainless steel ties are designed to secure hoses, cables, poles, pipes, and more when harsh environmental conditions may adversely affect the bundling application. Used where corrosion, vibration, weathering, radiation, and temperature extremes are a concern, HellermannTyton's stainless steel ties can be used in virtually any indoor, outdoor, and underground application.

### MK9SST Stainless Steel Cable Tie Installation Tool

| Product Selection |               |        |                                                                                                                                                                                                                                                                                                         |                                               |           |
|-------------------|---------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------|
| Article No.       | Part No.      | Type   | Description                                                                                                                                                                                                                                                                                             | Cable Tie Series                              | Pkg. Qty. |
| 110-95000         | <b>MK9SST</b> | MK9SST | Adapted for use with stainless steel ties, the MK9 Stainless Steel tool retains the same design features as the MK9 series. The MK9SST accommodates all HellermannTyton stainless steel ties. Comes standard with padded foam grips for comfort and control and a hook for hanging on a belt or tether. | All MBT Series for both 304 and 316 materials | 1         |

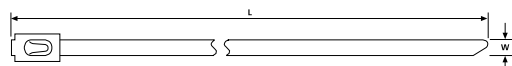
#### 304 Material

Grade 304 material is commonly used for stainless steel bundling applications and suits most general purpose requirements. It features the ability to withstand most environmental conditions, particularly in applications where vibration, general weathering, radiation and temperature extremes are a concern.

- Self locking, ball bearing mechanism for quick and easy installation, either by hand or by tensioning tool
- Fully enclosed head does not allow dirt or grit to interfere with locking mechanism
- High tensile strength option for added strength and safety on heavy duty applications



HellermannTyton's MK9SST tool is durable and lightweight, offering superior stainless steel cable tie installation.



| Material Data         |                                                | RoHS |
|-----------------------|------------------------------------------------|------|
| Material              | <b>Stainless Steel Type SS304 (SS304)</b>      |      |
| Operating Temperature | <b>-112 °F to +1000 °F (-80 °C to +538 °C)</b> |      |

| Product Selection            |          |         |                       |             |               |            |           |
|------------------------------|----------|---------|-----------------------|-------------|---------------|------------|-----------|
| Article No.                  | Part No. | Type    | Min. Tensile Strength | Length (L)  | Max. Ø Bundle | Width (W)  | Pkg. Qty. |
|                              |          |         | lbs. (N)              | in. (mm)    | in. (mm)      | in. (mm)   |           |
| 150 lb. Stainless Steel Ties |          |         |                       |             |               |            |           |
| 111-93058                    | MBT5S-S  | MBT5SS  | 150 lbs (670)         | 5.0" (127)  | 1" (25)       | .18" (4.6) | 100       |
| 111-93088                    | MBT8S-S  | MBT8SS  | 150 lbs (670)         | 7.9" (201)  | 2" (50)       | .18" (4.6) | 100       |
| 111-93148                    | MBT14S-S | MBT14SS | 150 lbs (670)         | 14.3" (362) | 4" (102)      | .18" (4.6) | 100       |
| 111-93208                    | MBT20S-S | MBT20SS | 150 lbs (670)         | 20.5" (521) | 6" (152)      | .18" (4.6) | 100       |
| 111-93278                    | MBT27S-S | MBT27SS | 150 lbs (670)         | 26.8" (681) | 8" (203)      | .18" (4.6) | 100       |
| 111-93338                    | MBT33S-S | MBT33SS | 150 lbs (670)         | 33" (838)   | 10" (254)     | .18" (4.6) | 100       |
| 250 lb. Stainless Steel Ties |          |         |                       |             |               |            |           |
| 111-94088                    | MBT8H-S  | MBT8HS  | 250 lbs (1115)        | 7.9" (201)  | 2" (50)       | .31" (7.9) | 50        |
| 111-94148                    | MBT14H-S | MBT14HS | 250 lbs (1115)        | 14.3" (362) | 4" (102)      | .31" (7.9) | 50        |
| 111-94208                    | MBT20H-S | MBT20HS | 250 lbs (1115)        | 20.5" (521) | 6" (152)      | .31" (7.9) | 50        |
| 111-94278                    | MBT27H-S | MBT27HS | 250 lbs (1115)        | 26.8" (681) | 8" (203)      | .31" (7.9) | 50        |
| 111-94338                    | MBT33H-S | MBT33HS | 250 lbs (1115)        | 33" (838)   | 10" (254)     | .31" (7.9) | 50        |

Installation tools for the above cable ties - MK9SST. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. Stainless steel ties and materials should be tested thoroughly under end use conditions to determine suitability for the application.



## Stainless Steel Cable Ties (continued)

### 316 Material

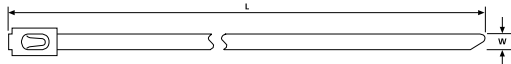
Grade 316 material is highly resistant to corrosion and widely used in marine environments where chemicals, salts, acids, and temperature extremes may affect the bundling application. MBT stainless steel ties in 316 steel material are also available with a nylon 11 protective coating. This coating creates a barrier and protectant from chemical reactions of dissimilar metals.

- Self locking, ball bearing mechanism for quick and easy installation, either by hand or by tensioning tool
- Fully enclosed head does not allow dirt or grit to interfere with locking mechanism
- High tensile strength option available for added strength and safety on heavy duty applications



#### Material Data

|                       |                                                |
|-----------------------|------------------------------------------------|
| Material              | <b>Stainless Steel Type SS316 (SS316)</b>      |
| Operating Temperature | <b>-112 °F to +1000 °F (-80 °C to +538 °C)</b> |



| Product Selection                   |               |        | Min. Tensile Strength |        | Length (L) |       | Max. Ø Bundle |        | Width (W) |       | Pkg. Qty. |
|-------------------------------------|---------------|--------|-----------------------|--------|------------|-------|---------------|--------|-----------|-------|-----------|
| Article No.                         | Part No.      | Type   | lbs. (N)              |        | in. (mm)   |       | in. (mm)      |        | in. (mm)  |       |           |
| <b>150 lb. Stainless Steel Ties</b> |               |        |                       |        |            |       |               |        |           |       |           |
| 111-93959                           | <b>MBT5S</b>  | MBT5S  | 150 lbs               | (670)  | 5.0"       | (127) | 1.0"          | (25.4) | .18"      | (4.6) | 100       |
| 111-93089                           | <b>MBT8S</b>  | MBT8S  | 150 lbs               | (670)  | 7.9"       | (201) | 2.0"          | (50)   | .18"      | (4.6) | 100       |
| 111-93149                           | <b>MBT14S</b> | MBT14S | 150 lbs               | (670)  | 14.3"      | (362) | 4.0"          | (102)  | .18"      | (4.6) | 100       |
| 111-93209                           | <b>MBT20S</b> | MBT20S | 150 lbs               | (670)  | 20.5"      | (521) | 6.0"          | (152)  | .18"      | (4.6) | 100       |
| 111-93279                           | <b>MBT27S</b> | MBT27S | 150 lbs               | (670)  | 26.8"      | (681) | 8.0"          | (203)  | .18"      | (4.6) | 100       |
| 111-93339                           | <b>MBT33S</b> | MBT33S | 150 lbs               | (670)  | 33.0"      | (838) | 10.0"         | (254)  | .18"      | (4.6) | 100       |
| <b>250 lb. Stainless Steel Ties</b> |               |        |                       |        |            |       |               |        |           |       |           |
| 111-94089                           | <b>MBT8H</b>  | MBT8H  | 250 lbs               | (1115) | 7.9"       | (201) | 2.0"          | (50.8) | .31"      | (7.9) | 50        |
| 111-94149                           | <b>MBT14H</b> | MBT14H | 250 lbs               | (1115) | 14.3"      | (362) | 4.0"          | (102)  | .31"      | (7.9) | 50        |
| 111-94209                           | <b>MBT20H</b> | MBT20H | 250 lbs               | (1115) | 20.5"      | (521) | 6.0"          | (152)  | .31"      | (7.9) | 50        |
| 111-94279                           | <b>MBT27H</b> | MBT27H | 250 lbs               | (1115) | 26.8"      | (681) | 8.0"          | (203)  | .31"      | (7.9) | 50        |
| 111-94339                           | <b>MBT33H</b> | MBT33H | 250 lbs               | (1115) | 33.0"      | (838) | 10.0"         | (254)  | .31"      | (7.9) | 50        |

Installation tools for the above cable ties - MK9SST. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. Stainless steel ties and materials should be tested thoroughly under end use conditions to determine suitability for the application.

## Snapper Hose Clamps

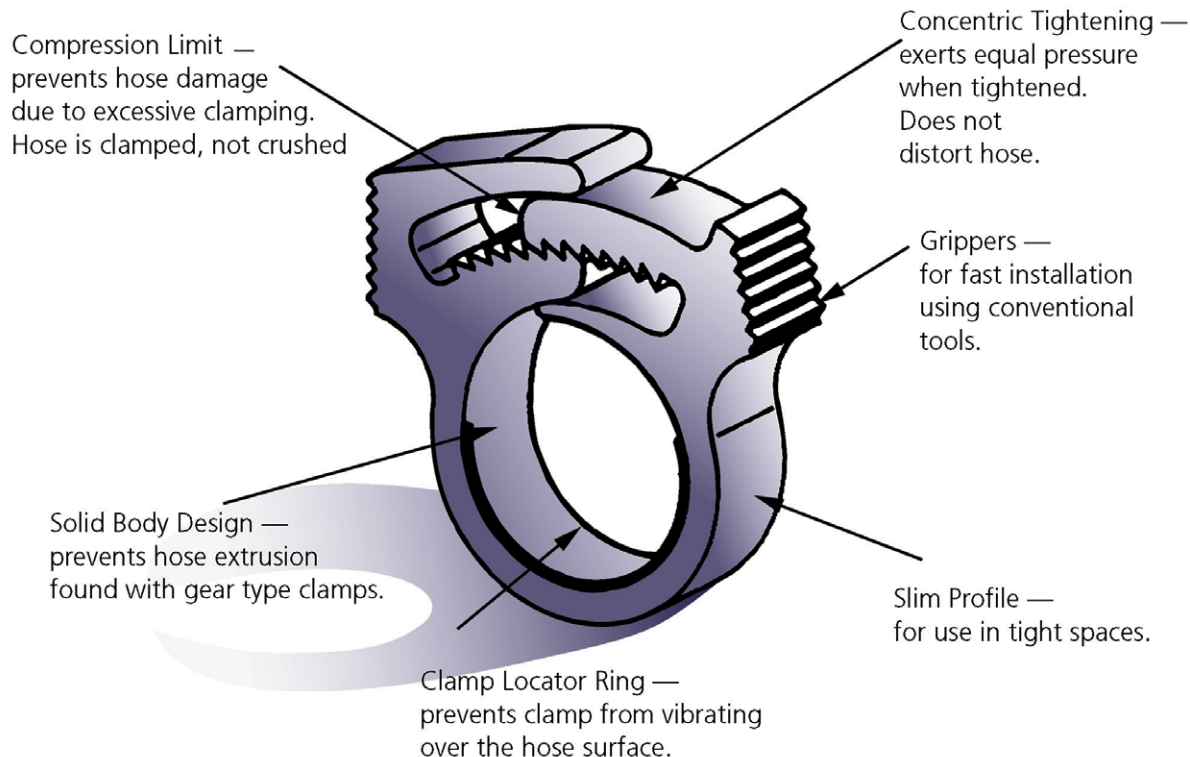
HellermannTyton's Snapper is a lightweight, corrosion resistant hose clamp manufactured from high performance, thermoplastic materials selected to work well in a variety of diverse environments. A quick, ratchet closure provides for reduced application time and allows for application after connection of the hose. Release is achieved by initiating opposed lateral movement of the ratchet ends. Heat stabilized materials are available for high temperature, motor and under-hood applications. Snappers are also stable in a wide variety of chemicals including salts, bases, alcohols, ethers, detergents, gasoline, lubricating oils, and greases.



The Snapper is available in 32 standard sizes ranging from 1/4" to 4-1/2" ID. Snappers are manufactured in white polyacetal and black polyamide 6.6 glass filled impact modified heat stabilized material. Custom designed and different colored or shaped Snappers are available based upon applications and volume requirements.

### Snapper Clamp Features

- Will not rust or corrode
- Installation and removal can be five times faster than conventional clamps
- Completely reusable
- Safety engineered
- No protruding band or cluster
- Can be installed with hose in place
- Will not damage hose
- One hand installation for tight places



## Snapper Hose Clamp Applications



Snapper clamp selection will vary with hose thickness and fitting sizes. End use testing is recommended to determine the actual size needed for each application.

### Snapper Clamp Applications

Snapper hose clamps are used in a variety of markets and diverse applications.

- Automotive
- Air Lines
- Pumps
- Marine
- Drain Lines
- Sprayers
- Truck
- Water Lines
- Fuel Lines
- Heavy Equipment
- Sprinkler Systems
- Garden Hoses
- Many more hose and tubing applications

| Double Braid Utility Hoses |               | Clear Vinyl Tubing |             | Neoprene Hoses |             | Fuel Line Hoses |            |
|----------------------------|---------------|--------------------|-------------|----------------|-------------|-----------------|------------|
| Diameter                   | Product       | (I.D.) - (O.D.)    | Product     | Diameter       | Product     | Diameter        | Product    |
| 1/4"                       | Snapper 8     | 3/16" - 5/16"      | Snapper 1.5 | 1/8"           | Snapper 1.5 | 1/4"            | Snapper 6  |
| 3/8"                       | Snapper 12    | 1/4" - 3/8"        | Snapper 4   | 3/16"          | Snapper 2   | 5/8"            | Snapper 8  |
| 1/2"                       | Snapper 19    | 5/16" - 7/16"      | Snapper 6   | 9/32"          | Snapper 8   | 3/8"            | Snapper 12 |
| 5/8"                       | Snapper 22    | 3/8" - 1/2"        | Snapper 8   | 3/8"           | Snapper 12  |                 |            |
| 3/4"                       | Snapper 28    | 1/2" - 5/8"        | Snapper 12  | Garden Hoses   |             | Heater Hoses    |            |
| 1"                         | Snapper 33/34 | 5/8" - 7/8"        | Snapper 19  | 1/2"           | Snapper 14  | 1/2"            | Snapper 18 |
| 1-1/4"                     | Snapper 38    | 3/4" - 1"          | Snapper 24  | 5/8"           | Snapper 18  | 5/8"            | Snapper 19 |
| 1-1/2"                     | Snapper 50    | 1" - 1-1/4"        | Snapper 32  | 3/4"           | Snapper 32  | 3/8"            | Snapper 24 |

## Snapper Hose Clamp Tools

Snapper installation tools are available in both pneumatic and mechanical versions. They are specifically developed to increase reliability, reduce operator fatigue and installation time.

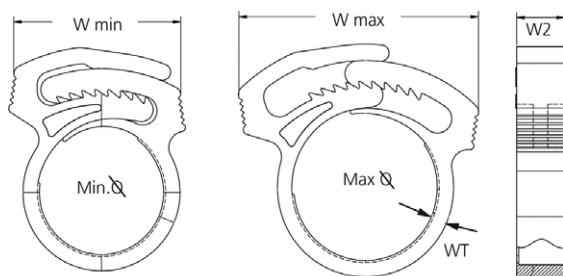


| Product Selection |                    |             | Tool Description |                      |            | Snapper Range |
|-------------------|--------------------|-------------|------------------|----------------------|------------|---------------|
| Article No.       | Part No.           | Type        | Type             | Use                  | Stroke     |               |
| 191-00010         | <b>PHSNP2-36</b>   | PHSNP2-36   | Pneumatic        | Production           | Horizontal | 2-36          |
| 191-00012         | <b>PHSNP38-100</b> | PHSNP38-100 |                  |                      | Vertical   | 38-100        |
| 191-00014         | <b>PSNP2-22</b>    | PSNP2-22    |                  |                      |            | 2-22          |
| 191-00019         | <b>PSNP24-70</b>   | PSNP24-70   |                  |                      |            | 24-70         |
| 191-02220         | <b>ASNP2-22</b>    | ASNP2-22    | Mechanical       | Production           | Vertical   | 2-22          |
| 191-24700         | <b>ASNP24-70</b>   | ASNP24-70   |                  | Maintenance/ Removal | Vertical   | 24-70         |
| 191-01700         | <b>MSNP1-70</b>    | MSNP1-70    |                  |                      |            | 1-70          |

Use **Part No.** for ordering and **Type** for specification purposes.

## Snapper Hose Clamps

### Polyamide 6.6 Glass Filled Impact Modified Heat Stabilized



## Material Data

|                       |                                                                               |
|-----------------------|-------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 glass filled impact modified heat stabilized (PA66GF13%)</b> |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C)</b>                                  |
| Color                 | <b>Black</b>                                                                  |
| Flammability          | <b>UL94 HB</b>                                                                |

RoHS

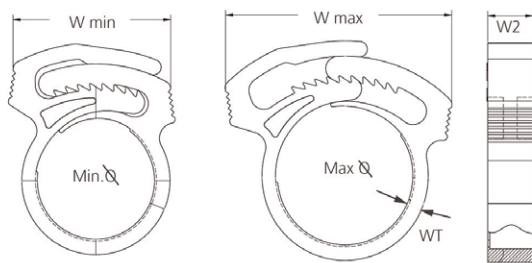
## Product Selection

| Article No. | Part No.      | Type    | Min. Ø           | Max. Ø           | Width (W2)<br>in. (mm) | Wall Thickness (WT)<br>in. (mm) | Width (W) Min.<br>in. (mm) | Width (W) Max.<br>in. (mm) | Pkg. Qty. |
|-------------|---------------|---------|------------------|------------------|------------------------|---------------------------------|----------------------------|----------------------------|-----------|
| 192-10010   | SNP1GHS0C2    | SNP1    | 0.233 " (5.928)  | 0.262 " (6.643)  | 0.149" (3.838)         | 0.04 " (1.01)                   | 0.323" (8.181)             | 0.456" (11.615)            | 100       |
| 190-00019   | SNP1GHS0M4    |         | 0.233 " (5.928)  | 0.262 " (6.643)  | 0.149" (3.838)         | 0.04 " (1.01)                   | 0.323" (8.181)             | 0.456" (11.615)            | 1000      |
| 190-00029   | SNP1.25GHS0C2 | SNP1.25 | 0.275 " (6.95)   | 0.297 " (7.563)  | 0.15" (3.838)          | 0.042 " (1.111)                 | 0.408" (10.403)            | 0.491" (12.423)            | 100       |
| 190-00030   | SNP1.25GHS0M4 |         | 0.275 " (6.95)   | 0.297 " (7.563)  | 0.15" (3.838)          | 0.042 " (1.111)                 | 0.408" (10.403)            | 0.491" (12.423)            | 1000      |
| 190-00251   | SNP1.5GHS0C2  | SNP1.5  | 0.314 " (7.972)  | 0.35 " (8.891)   | 0.147" (3.737)         | 0.055 " (1.414)                 | 0.414" (10.504)            | 0.593" (15.049)            | 100       |
| 190-00035   | SNP1.5GHS0M4  |         | 0.314 " (7.972)  | 0.35 " (8.891)   | 0.147" (3.737)         | 0.055 " (1.414)                 | 0.414" (10.504)            | 0.593" (15.049)            | 1000      |
| 192-10020   | SNP2GHS0C2    | SNP2    | 0.359 " (9.096)  | 0.403 " (10.22)  | 0.233" (5.959)         | 0.068 " (1.717)                 | 0.477" (12.12)             | 0.679" (17.271)            | 100       |
| 190-00098   | SNP2GHS0M4    |         | 0.359 " (9.096)  | 0.403 " (10.22)  | 0.233" (5.959)         | 0.068 " (1.717)                 | 0.477" (12.12)             | 0.679" (17.271)            | 1000      |
| 190-00132   | SNP3GHS0C2    | SNP3    | 0.396 " (10.016) | 0.45 " (11.446)  | 0.234" (5.959)         | 0.07 " (1.818)                  | 0.567" (14.342)            | 0.805" (20.402)            | 100       |
| 190-00134   | SNP3GHS0M4    |         | 0.396 " (10.016) | 0.45 " (11.446)  | 0.234" (5.959)         | 0.07 " (1.818)                  | 0.567" (14.342)            | 0.805" (20.402)            | 1000      |
| 192-10040   | SNP4GH0C2     | SNP4    | 0.413 " (10.527) | 0.462 " (11.753) | 0.235" (5.959)         | 0.067 " (1.717)                 | 0.529" (13.433)            | 0.756" (19.19)             | 100       |
| 190-00167   | SNP4GHS0M4    |         | 0.413 " (10.527) | 0.462 " (11.753) | 0.235" (5.959)         | 0.067 " (1.717)                 | 0.529" (13.433)            | 0.756" (19.19)             | 1000      |
| 192-10060   | SNP6GHS0C2    | SNP6    | 0.459 " (11.651) | 0.522 " (13.286) | 0.235" (5.959)         | 0.07 " (1.818)                  | 0.578" (14.645)            | 0.846" (21.513)            | 100       |
| 190-00186   | SNP6GHS0M4    |         | 0.459 " (11.651) | 0.522 " (13.286) | 0.235" (5.959)         | 0.07 " (1.818)                  | 0.578" (14.645)            | 0.846" (21.513)            | 1000      |
| 192-10070   | SNP7GHS0C2    | SNP7    | 0.463 " (11.753) | 0.558 " (14.206) | 0.235" (5.959)         | 0.07 " (1.818)                  | 0.653" (16.564)            | 0.981" (24.947)            | 100       |
| 190-00202   | SNP7GHS0M4    |         | 0.463 " (11.753) | 0.558 " (14.206) | 0.235" (5.959)         | 0.07 " (1.818)                  | 0.653" (16.564)            | 0.981" (24.947)            | 1000      |
| 192-10080   | SNP8GHS0C2    | SNP8    | 0.524 " (13.286) | 0.599 " (15.228) | 0.233" (5.959)         | 0.07 " (1.818)                  | 0.653" (16.564)            | 0.981" (24.947)            | 100       |
| 190-00222   | SNP8GHS0M4    |         | 0.524 " (13.286) | 0.599 " (15.228) | 0.233" (5.959)         | 0.07 " (1.818)                  | 0.653" (16.564)            | 0.981" (24.947)            | 1000      |
| 192-10100   | SNP10GHS0C2   | SNP10   | 0.582 " (14.819) | 0.664 " (16.863) | 0.235" (5.959)         | 0.069 " (1.717)                 | 0.682" (17.372)            | 1.038" (26.361)            | 100       |
| 190-00043   | SNP10GHS0M4   |         | 0.582 " (14.819) | 0.664 " (16.863) | 0.235" (5.959)         | 0.069 " (1.717)                 | 0.682" (17.372)            | 1.038" (26.361)            | 1000      |
| 190-00254   | SNP12AGHS0C2  | SNP12A  | .626 " (15.9)    | .716 " (18.2)    | .233" (5.92)           | .070 " (1.78)                   | .816" (20.7)               | 1.172" (29.8)              | 100       |
| 190-00255   | SNP12AGHS0M4  |         | .626 " (15.9)    | .716 " (18.2)    | .233" (5.92)           | .070 " (1.78)                   | .816" (20.7)               | 1.172" (29.8)              | 1000      |
| 190-00300   | SNP14AGHS0C2  | SNP14A  | 0.729 " (18.52)  | 0.827 " (21.01)  | 0.234" (5.94)          | 0.070 " (1.78)                  | 0.823" (20.9)              | 1.185" (30.1)              | 100       |
| 190-00301   | SNP14AGHS0M4  |         | 0.729 " (18.52)  | 0.827 " (21.01)  | 0.234" (5.94)          | 0.070 " (1.78)                  | 0.823" (20.9)              | 1.185" (30.1)              | 1000      |
| 192-10160   | SNP16GHS0C2   | SNP16   | 0.776 " (19.735) | 0.867 " (21.973) | 0.234" (5.959)         | 0.068 " (1.717)                 | 0.795" (20.2)              | 1.222" (31.209)            | 100       |
| 190-00076   | SNP16GHS0M4   |         | 0.776 " (19.735) | 0.867 " (21.973) | 0.234" (5.959)         | 0.068 " (1.717)                 | 0.795" (20.2)              | 1.222" (31.209)            | 1000      |
| 190-00258   | SNP18AGHS0C2  | SNP18A  | .802 " (20.4)    | .940 " (23.9)    | .240" (6.1)            | .070 " (1.78)                   | .958" (24.3)               | 1.418" (36)                | 100       |
| 190-00259   | SNP18AGHS0M4  |         | .802 " (20.4)    | .940 " (23.9)    | .240" (6.1)            | .070 " (1.78)                   | .958" (24.3)               | 1.418" (36)                | 1000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.  
 Snapper performance varies on application and environmental factors; end use testing is highly recommended.

## Snapper Hose Clamps

### Polyamide 6.6 Glass Filled Impact Modified Heat Stabilized (*continued*)



| Material Data         |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Material              | Polyamide 6.6 glass filled impact modified heat stabilized (PA66GF13%) |
| Operating Temperature | -40 °F to +221 °F (-40 °C to +105 °C)                                  |
| Color                 | Black                                                                  |
| Flammability          | UL94 HB                                                                |

RoHS

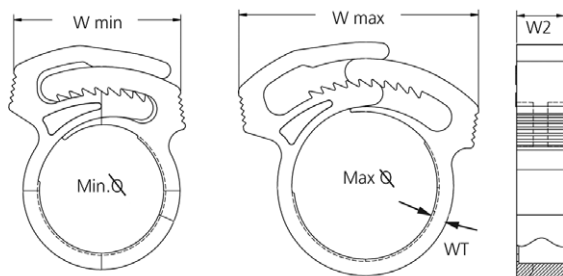
#### Product Selection

| Article No. | Part No.     | Type   | Min. Ø           | Max. Ø           | Width (W2)      | Wall Thickness (WT) | Width (W) Min. | Width (W) Max.  | Pkg. Qty. |
|-------------|--------------|--------|------------------|------------------|-----------------|---------------------|----------------|-----------------|-----------|
|             |              |        |                  |                  | in. (mm)        | in. (mm)            | in. (mm)       | in. (mm)        |           |
| 190-00090   | SNP19GHS0C2  | SNP19  | 0.878 " (22.28)  | 1.011 " (25.652) | 0.234" (5.959)  | 0.071 " (1.818)     | 0.908"(23.028) | 1.423" (36.158) | 100       |
| 190-00093   | SNP19GHS0M4  |        | 0.878 " (22.28)  | 1.011 " (25.652) | 0.234" (5.959)  | 0.071 " (1.818)     | 0.908"(23.028) | 1.423" (36.158) | 1000      |
| 192-10220   | SNP22GHS0C2  | SNP22  | 0.948 " (24.119) | 1.096 " (27.798) | 0.236" (5.959)  | 0.071 " (1.818)     | 0.941"(23.937) | 1.488" (37.774) | 100       |
| 190-00111   | SNP22GHS0M4  |        | 0.948 " (24.119) | 1.096 " (27.798) | 0.236" (5.959)  | 0.071 " (1.818)     | 0.941"(23.937) | 1.488" (37.774) | 1000      |
| 192-10240   | SNP24GHS0C2  | SNP24  | 1.007 " (25.55)  | 1.16 " (29.434)  | 0.295" (7.474)  | 0.07 " (1.818)      | 0.973"(24.745) | 1.538" (39.087) | 100       |
| 190-00119   | SNP24GHS0H4  |        | 1.007 " (25.55)  | 1.16 " (29.434)  | 0.295" (7.474)  | 0.07 " (1.818)      | 0.973"(24.745) | 1.538" (39.087) | 500       |
| 190-00127   | SNP28GHS0C2  | SNP28  | 1.148 " (29.127) | 1.325 " (33.624) | 0.291" (7.373)  | 0.069 " (1.717)     | 1.018"(25.856) | 1.647" (41.814) | 100       |
| 190-00128   | SNP28GHS0H4  |        | 1.148 " (29.127) | 1.325 " (33.624) | 0.291" (7.373)  | 0.069 " (1.717)     | 1.018"(25.856) | 1.647" (41.814) | 500       |
| 192-10320   | SNP32GHS0K2  | SNP32  | 1.245 " (31.58)  | 1.436 " (36.485) | 0.29" (7.373)   | 0.069 " (1.717)     | 1.075" (27.27) | 1.741" (44.238) | 50        |
| 190-00140   | SNP32GHS0H4  |        | 1.245 " (31.58)  | 1.436 " (36.485) | 0.29" (7.373)   | 0.069 " (1.717)     | 1.075" (27.27) | 1.741" (44.238) | 500       |
| 190-00244   | SNP33GHS0K2  | SNP33  | 1.311 " (33.317) | 1.63 " (41.391)  | 0.293" (7.474)  | 0.068 " (1.717)     | 1.58" (9.797)  | 2.542" (64.539) | 50        |
| 190-00148   | SNP33GHS0H4  |        | 1.311 " (33.317) | 1.63 " (41.391)  | 0.293" (7.474)  | 0.068 " (1.717)     | 1.58" (9.797)  | 2.542" (64.539) | 500       |
| 190-00149   | SNP34GHS0K2  | SNP34  | 1.367 " (34.748) | 1.6 " (40.676)   | 0.295" (7.474)  | 0.069 " (1.717)     | 1.198"(30.401) | 1.986" (50.399) | 50        |
| 190-00150   | SNP34GHS0H4  |        | 1.367 " (34.748) | 1.6 " (40.676)   | 0.295" (7.474)  | 0.069 " (1.717)     | 1.198"(30.401) | 1.986" (50.399) | 500       |
| 192-10360   | SNP36GHS0K2  | SNP36  | 1.504 " (38.223) | 1.762 " (44.764) | 0.29" (7.373)   | 0.068 " (1.717)     | 1.274" (32.32) | 2.113" (53.631) | 50        |
| 190-00158   | SNP36GHS0H4  |        | 1.504 " (38.223) | 1.762 " (44.764) | 0.29" (7.373)   | 0.068 " (1.717)     | 1.274" (32.32) | 2.113" (53.631) | 500       |
| 192-10380   | SNP38GHS0K2  | SNP38  | 1.629 " (41.391) | 1.903 " (48.341) | 0.294" (7.474)  | 0.069 " (1.717)     | 1.362"(34.643) | 2.261" (57.469) | 50        |
| 190-00163   | SNP38GHS0H4  |        | 1.629 " (41.391) | 1.903 " (48.341) | 0.294" (7.474)  | 0.069 " (1.717)     | 1.362"(34.643) | 2.261" (57.469) | 500       |
| 191-00005   | SNP42NGHS0K2 | SNP42N | 1.768 " (44.866) | 2.054 " (52.224) | 0.358" (9.09)   | 0.069 " (1.717)     | 1.383"(35.148) | 2.325" (59.085) | 50        |
| 191-00008   | SNP42NGHS0C2 |        | 1.768 " (44.866) | 2.054 " (52.224) | 0.358" (9.09)   | 0.069 " (1.717)     | 1.383"(35.148) | 2.325" (59.085) | 100       |
| 192-10500   | SNP50GHS0C2  | SNP50  | 2.042 " (51.92)  | 2.327 " (59.07)  | 0.294" (7.474)  | 0.068 " (1.717)     | 1.425"(36.158) | 2.364" (60.095) | 100       |
| 190-00197   | SNP60GHS0C2  | SNP60  | 2.308 " (58.66)  | 2.639 " (67.04)  | 0.294" (7.474)  | 0.068 " (1.717)     | 1.463"(38.481) | 2.585" (65.65)  | 100       |
| 190-00209   | SNP70GHS0C2  | SNP70  | 2.562 " (65.10)  | 2.961 " (75.22)  | 0.374" (9.494)  | 0.078 " (2.02)      | 1.834"(46.561) | 3.02" (76.659)  | 100       |
| 190-00215   | SNP76GHS0C2  | SNP76  | 2.901 " (73.69)  | 3.276 " (83.19)  | 0.391" (9.898)  | 0.067 " (1.717)     | 1.704"(43.329) | 2.862" (72.72)  | 100       |
| 190-00229   | SNP80GHS0C2  | SNP80  | 3.224 " (81.86)  | 3.600 " (91.47)  | 0.453" (11.514) | 0.101 " (2.525)     | 1.913"(48.581) | 3.171" (80.598) | 100       |
| 190-00249   | SNP90GHS0C2  | SNP90  | 3.583 " (91.06)  | 4.008 " (101.79) | 0.389" (9.898)  | 0.068 " (1.717)     | 1.936"(49.187) | 3.236" (82.214) | 100       |
| 192-11000   | SNP100GHS0X2 | SNP100 | 3.956 " (100.46) | 4.491 " (114.06) | 0.398" (10.1)   | 0.099 " (2.424)     | 2.068" (52.52) | 3.543" (89.991) | 25        |
| 190-00053   | SNP101GHS0X2 | SNP101 | 4.121 " (104.65) | 4.718 " (119.88) | 0.446" (11.312) | 0.099 " (2.525)     | 2.426" (61.61) | 4.261"(108.272) | 25        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. Snapper performance varies on application and environmental factors; end use testing is highly recommended.



## Snapper Hose Clamps Polyacetal (POM)



## Material Data

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>Polyacetal (POM)</b>                     |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b> |
| Color                 | <b>White</b>                                |
| Flammability          | <b>UL94 HB</b>                              |

RoHS

## Product Selection

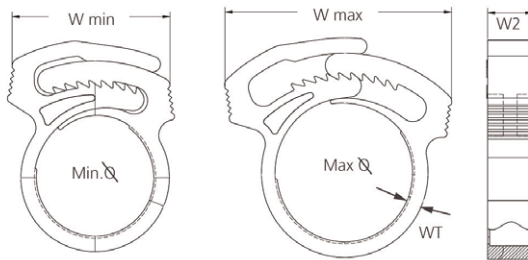
| Article No. | Part No.           | Type    | Min. Ø          | Max. Ø          | Width (W2)    | Wall Thickness (WT) | Width (W) Min. | Width (W) Max. | Pkg. Qty. |
|-------------|--------------------|---------|-----------------|-----------------|---------------|---------------------|----------------|----------------|-----------|
|             |                    |         |                 |                 | in. (mm)      | in. (mm)            | in. (mm)       | in. (mm)       |           |
| 190-00022   | <b>SNP110C2</b>    | SNP1    | 0.228 " (5.8)   | 0.256 " (6.5)   | 0.148" (3.8)  | 0.04 " (1)          | 0.32" (8.1)    | 0.451" (11.5)  | 100       |
| 190-00023   | <b>SNP110M4</b>    |         | 0.228 " (5.8)   | 0.256 " (6.5)   | 0.148" (3.8)  | 0.04 " (1)          | 0.32" (8.1)    | 0.451" (11.5)  | 1000      |
| 190-00027   | <b>SNP1.2510C2</b> | SNP1.25 | 0.269 " (6.8)   | 0.291 " (7.4)   | 0.149" (3.8)  | 0.042 " (1.1)       | 0.404" (10.3)  | 0.486" (12.3)  | 100       |
| 190-00028   | <b>SNP1.2510M4</b> |         | 0.269 " (6.8)   | 0.291 " (7.4)   | 0.149" (3.8)  | 0.042 " (1.1)       | 0.404" (10.3)  | 0.486" (12.3)  | 1000      |
| 190-00033   | <b>SNP1.510C2</b>  | SNP1.5  | 0.307 " (7.8)   | 0.342 " (8.7)   | 0.146" (3.7)  | 0.054 " (1.4)       | 0.41" (10.4)   | 0.587" (14.9)  | 100       |
| 190-00034   | <b>SNP1.510M4</b>  |         | 0.307 " (7.8)   | 0.342 " (8.7)   | 0.146" (3.7)  | 0.054 " (1.4)       | 0.41" (10.4)   | 0.587" (14.9)  | 1000      |
| 190-00101   | <b>SNP210C2</b>    | SNP2    | 0.351 " (8.9)   | 0.394 " (10)    | 0.231" (5.9)  | 0.067 " (1.7)       | 0.472" (12)    | 0.672" (17.1)  | 100       |
| 190-00102   | <b>SNP210M4</b>    |         | 0.351 " (8.9)   | 0.394 " (10)    | 0.231" (5.9)  | 0.067 " (1.7)       | 0.472" (12)    | 0.672" (17.1)  | 1000      |
| 190-00135   | <b>SNP310C2</b>    | SNP3    | 0.387 " (9.8)   | 0.44 " (11.2)   | 0.232" (5.9)  | 0.069 " (1.8)       | 0.561" (14.2)  | 0.797" (20.2)  | 100       |
| 190-00136   | <b>SNP310M4</b>    |         | 0.387 " (9.8)   | 0.44 " (11.2)   | 0.232" (5.9)  | 0.069 " (1.8)       | 0.561" (14.2)  | 0.797" (20.2)  | 1000      |
| 190-00165   | <b>SNP410C2</b>    | SNP4    | 0.404 " (10.3)  | 0.452 " (11.5)  | 0.233" (5.9)  | 0.066 " (1.7)       | 0.524" (13.3)  | 0.749" (19)    | 100       |
| 190-00170   | <b>SNP410M4</b>    |         | 0.404 " (10.3)  | 0.452 " (11.5)  | 0.233" (5.9)  | 0.066 " (1.7)       | 0.524" (13.3)  | 0.749" (19)    | 1000      |
| 190-00187   | <b>SNP610C2</b>    | SNP6    | 0.449 " (11.4)  | 0.511 " (13)    | 0.233" (5.9)  | 0.069 " (1.8)       | 0.572" (14.5)  | 0.838" (21.3)  | 100       |
| 190-00190   | <b>SNP610M4</b>    |         | 0.449 " (11.4)  | 0.511 " (13)    | 0.233" (5.9)  | 0.069 " (1.8)       | 0.572" (14.5)  | 0.838" (21.3)  | 1000      |
| 190-00204   | <b>SNP710C2</b>    | SNP7    | 0.453 " (11.5)  | 0.546 " (13.9)  | 0.233" (5.9)  | 0.069 " (1.8)       | 0.647" (16.4)  | 0.971" (24.7)  | 100       |
| 190-00206   | <b>SNP710M4</b>    |         | 0.453 " (11.5)  | 0.546 " (13.9)  | 0.233" (5.9)  | 0.069 " (1.8)       | 0.647" (16.4)  | 0.971" (24.7)  | 1000      |
| 190-00224   | <b>SNP810C2</b>    | SNP8    | 0.513 " (13)    | 0.586 " (14.9)  | 0.231" (5.9)  | 0.069 " (1.8)       | 0.647" (16.4)  | 0.971" (24.7)  | 100       |
| 190-00226   | <b>SNP810M4</b>    |         | 0.513 " (13)    | 0.586 " (14.9)  | 0.231" (5.9)  | 0.069 " (1.8)       | 0.647" (16.4)  | 0.971" (24.7)  | 1000      |
| 190-00045   | <b>SNP1010C2</b>   | SNP10   | 0.569 " (14.5)  | 0.65 " (16.5)   | 0.233" (5.9)  | 0.068 " (1.7)       | 0.675" (17.2)  | 1.028" (26.1)  | 100       |
| 190-00046   | <b>SNP1010M4</b>   |         | 0.569 " (14.5)  | 0.65 " (16.5)   | 0.233" (5.9)  | 0.068 " (1.7)       | 0.675" (17.2)  | 1.028" (26.1)  | 1000      |
| 190-00252   | <b>SNP12A10C2</b>  | SNP12A  | .615 " (15.62)  | .704 " (17.88)  | .233" (5.92)  | .070 " (1.78)       | .802" (20.37)  | 1.152" (29.26) | 100       |
| 190-00253   | <b>SNP12A10M4</b>  |         | .615 " (15.62)  | .704 " (17.88)  | .233" (5.92)  | .070 " (1.78)       | .802" (20.37)  | 1.152" (29.26) | 1000      |
| 190-00302   | <b>SNP14A10C2</b>  | SNP14A  | 0.714 " (18.4)  | 0.810 " (20.57) | 0.233" (5.92) | 0.069 " (1.75)      | 0.805" (20.45) | 1.157" (29.39) | 100       |
| 190-00303   | <b>SNP14A10M4</b>  |         | 0.714 " (18.4)  | 0.810 " (20.57) | 0.233" (5.92) | 0.069 " (1.75)      | 0.805" (20.45) | 1.157" (29.39) | 1000      |
| 190-00077   | <b>SNP1610C2</b>   | SNP16   | 0.759 " (19.31) | 0.848 " (21.5)  | 0.232" (5.9)  | 0.067 " (1.7)       | 0.787" (20)    | 1.21" (30.9)   | 100       |
| 190-00079   | <b>SNP1610M4</b>   |         | 0.759 " (19.31) | 0.848 " (21.5)  | 0.232" (5.9)  | 0.067 " (1.7)       | 0.787" (20)    | 1.21" (30.9)   | 1000      |
| 181-00256   | <b>SNP18A10C2</b>  | SNP18A  | .790 " (20)     | .933 " (23.7)   | .239" (6.07)  | .067 " (1.7)        | .940" (23.9)   | 1.391" (35.3)  | 100       |
| 190-00257   | <b>SNP18A10M4</b>  |         | .790 " (20)     | .933 " (23.7)   | .239" (6.07)  | .067 " (1.7)        | .940" (23.9)   | 1.391" (35.3)  | 1000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

Acetal black is also available based upon minimum volume requirements. Snapper performance varies on application and environmental factors; end use testing is highly recommended.



## Snapper Hose Clamps Polyacetal (POM) (continued)



### Material Data

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>Polyacetal (POM)</b>                     |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b> |
| Color                 | <b>White</b>                                |
| Flammability          | <b>UL94 HB</b>                              |



### Product Selection

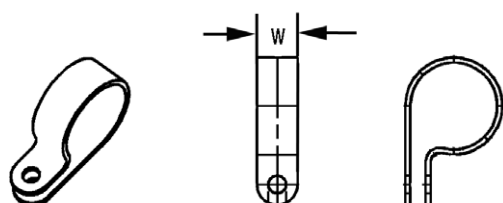
| Article No. | Part No.          | Type   | Min. Ø          | Max. Ø          | Width (W2)    | Wall Thickness (WT) | Width (W) Min. | Width (W) Max. | Pkg. Qty. |
|-------------|-------------------|--------|-----------------|-----------------|---------------|---------------------|----------------|----------------|-----------|
|             |                   |        |                 |                 | in. (mm)      | in. (mm)            | in. (mm)       | in. (mm)       |           |
| 190-00094   | <b>SNP1910C2</b>  | SNP19  | 0.859 " (21.8)  | 0.989 " (25.1)  | 0.232" (5.9)  | 0.07 " (1.8)        | 0.899" (22.8)  | 1.409" (35.8)  | 100       |
| 190-00095   | <b>SNP1910M4</b>  |        | 0.859 " (21.8)  | 0.989 " (25.1)  | 0.232" (5.9)  | 0.07 " (1.8)        | 0.899" (22.8)  | 1.409" (35.8)  | 1000      |
| 190-00113   | <b>SNP2210C2</b>  | SNP22  | 0.928 " (23.6)  | 1.072 " (27.2)  | 0.234" (5.9)  | 0.07 " (1.8)        | 0.932" (23.7)  | 1.473" (37.4)  | 100       |
| 190-00114   | <b>SNP2210M4</b>  |        | 0.928 " (23.6)  | 1.072 " (27.2)  | 0.234" (5.9)  | 0.07 " (1.8)        | 0.932" (23.7)  | 1.473" (37.4)  | 1000      |
| 190-00121   | <b>SNP2410C2</b>  | SNP24  | 0.985 " (25)    | 1.135 " (28.8)  | 0.292" (7.4)  | 0.069 " (1.8)       | 0.963" (24.5)  | 1.523" (38.7)  | 100       |
| 190-00122   | <b>SNP2410H4</b>  |        | 0.985 " (25)    | 1.135 " (28.8)  | 0.292" (7.4)  | 0.069 " (1.8)       | 0.963" (24.5)  | 1.523" (38.7)  | 500       |
| 190-00124   | <b>SNP2810C2</b>  | SNP28  | 1.123 " (28.5)  | 1.296 " (32.9)  | 0.288" (7.3)  | 0.068 " (1.7)       | 1.008" (25.6)  | 1.631" (41.4)  | 100       |
| 190-00125   | <b>SNP2810H4</b>  |        | 1.123 " (28.5)  | 1.296 " (32.9)  | 0.288" (7.3)  | 0.068 " (1.7)       | 1.008" (25.6)  | 1.631" (41.4)  | 500       |
| 190-00142   | <b>SNP3210K2</b>  | SNP32  | 1.218 " (30.9)  | 1.405 " (35.7)  | 0.287" (7.3)  | 0.068 " (1.7)       | 1.064" (27)    | 1.724" (43.8)  | 50        |
| 190-00143   | <b>SNP3210H4</b>  |        | 1.218 " (30.9)  | 1.405 " (35.7)  | 0.287" (7.3)  | 0.068 " (1.7)       | 1.064" (27)    | 1.724" (43.8)  | 500       |
| 190-00146   | <b>SNP3310K2</b>  | SNP33  | 1.283 " (32.6)  | 1.595 " (40.5)  | 0.29" (7.4)   | 0.067 " (1.7)       | 1.564" (9.7)   | 2.517" (63.9)  | 50        |
| 190-00147   | <b>SNP3310H4</b>  |        | 1.283 " (32.6)  | 1.595 " (40.5)  | 0.29" (7.4)   | 0.067 " (1.7)       | 1.564" (9.7)   | 2.517" (63.9)  | 500       |
| 190-00151   | <b>SNP3410K2</b>  | SNP34  | 1.338 " (34)    | 1.566 " (39.8)  | 0.292" (7.4)  | 0.068 " (1.7)       | 1.186" (30.1)  | 1.966" (49.9)  | 50        |
| 190-00152   | <b>SNP3410H4</b>  |        | 1.338 " (34)    | 1.566 " (39.8)  | 0.292" (7.4)  | 0.068 " (1.7)       | 1.186" (30.1)  | 1.966" (49.9)  | 500       |
| 190-00157   | <b>SNP3610K2</b>  | SNP36  | 1.472 " (37.4)  | 1.724 " (43.8)  | 0.287" (7.3)  | 0.067 " (1.7)       | 1.261" (32)    | 2.092" (53.1)  | 50        |
| 190-00156   | <b>SNP3610H4</b>  |        | 1.472 " (37.4)  | 1.724 " (43.8)  | 0.287" (7.3)  | 0.067 " (1.7)       | 1.261" (32)    | 2.092" (53.1)  | 500       |
| 190-00162   | <b>SNP3810K2</b>  | SNP38  | 1.594 " (40.5)  | 1.862 " (47.3)  | 0.291" (7.4)  | 0.068 " (1.7)       | 1.349" (34.3)  | 2.239" (56.9)  | 50        |
| 190-00245   | <b>SNP3810H4</b>  |        | 1.594 " (40.5)  | 1.862 " (47.3)  | 0.291" (7.4)  | 0.068 " (1.7)       | 1.349" (34.3)  | 2.239" (56.9)  | 500       |
| 190-00247   | <b>SNP42N10K2</b> | SNP42N | 1.73 " (43.9)   | 2.01 " (51.1)   | 0.354" (9)    | 0.068 " (1.7)       | 1.369" (34.8)  | 2.302" (58.5)  | 50        |
| 190-00246   | <b>SNP42N10C2</b> |        | 1.73 " (43.9)   | 2.01 " (51.1)   | 0.354" (9)    | 0.068 " (1.7)       | 1.369" (34.8)  | 2.302" (58.5)  | 100       |
| 190-00248   | <b>SNP5010C2</b>  | SNP50  | 1.999 " (50.8)  | 2.277 " (57.8)  | 0.291" (7.4)  | 0.067 " (1.7)       | 1.411" (35.8)  | 2.341" (59.5)  | 100       |
| 190-00196   | <b>SNP6010C2</b>  | SNP60  | 2.259 " (57.4)  | 2.582 " (65.6)  | 0.291" (7.4)  | 0.067 " (1.7)       | 1.449" (38.1)  | 2.559" (65)    | 100       |
| 190-00212   | <b>SNP7010C2</b>  | SNP70  | 2.507 " (63.7)  | 2.897 " (73.6)  | 0.37" (9.4)   | 0.077 " (2)         | 1.816" (46.1)  | 2.99" (75.9)   | 100       |
| 190-00217   | <b>SNP7610C2</b>  | SNP76  | 2.839 " (72.1)  | 3.206 " (81.4)  | 0.387" (9.8)  | 0.066 " (1.7)       | 1.687" (42.9)  | 2.834" (72)    | 100       |
| 190-00231   | <b>SNP8010C2</b>  | SNP80  | 3.155 " (80.1)  | 3.523 " (89.5)  | 0.449" (11.4) | 0.1 " (2.5)         | 1.894" (48.1)  | 3.14" (79.8)   | 100       |
| 190-00233   | <b>SNP9010C2</b>  | SNP90  | 3.506 " (89.1)  | 3.922 " (99.6)  | 0.385" (9.8)  | 0.067 " (1.7)       | 1.917" (48.7)  | 3.204" (81.4)  | 100       |
| 190-00052   | <b>SNP10010X2</b> | SNP100 | 3.871 " (98.3)  | 4.395 " (111.6) | 0.394" (10)   | 0.098 " (2.4)       | 2.048" (52)    | 3.508" (89.1)  | 25        |
| 190-00250   | <b>SNP10110X2</b> | SNP101 | 4.033 " (102.4) | 4.617 " (117.3) | 0.442" (11.2) | 0.098 " (2.5)       | 2.402" (61)    | 4.219" (107.2) | 25        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Clamps and Clips

### P Clamps

HellermannTyton's P clamps are designed for locating wires, cables, and components in instruments, appliances, and electrical apparatus. These injection molded clamps are used for both internal and external installations. The inside edges are radiused to prevent cutting into cable insulation.



#### Material Data

|                       |                                               |
|-----------------------|-----------------------------------------------|
| Material              | <b>Polyamide 6.6 heat stabilized (PA66HS)</b> |
| Color                 | <b>Black</b>                                  |
| Operating Temperature | <b>-40 °F to +221 °F (-40 °C to +105 °C)</b>  |
| Flammability          | <b>UL94 V2</b>                                |

#### Product Selection

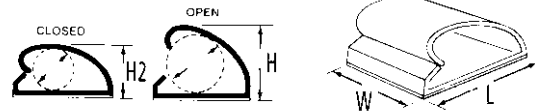
| Article No. | Part No.         | Type | Max. Ø Bundle | Width (W)     | Mounting Hole Centers | Mounting Hole Ø | Radius        | Pkg. Qty. |
|-------------|------------------|------|---------------|---------------|-----------------------|-----------------|---------------|-----------|
|             |                  |      | in. (mm)      | in. (mm)      | in. (mm)              | in. (mm)        | in. (mm)      |           |
| 211-60000   | <b>211-60000</b> | H1P  | .125" (3.2)   | .393" (10.0)  | .3346" (8.5)          | .1654" (4.2)    | .01969" (0.5) | 100       |
| 211-60010   | <b>211-60010</b> | H1P  | .125" (3.2)   | .393" (10.0)  | .3346" (8.5)          | .1654" (4.2)    | .01969" (0.5) | 1000      |
| 211-60001   | <b>211-60001</b> | H2P  | .196" (5.0)   | .3937" (10.0) | .375" (9.5)           | .1654" (4.2)    | .03937" (1.0) | 100       |
| 211-60020   | <b>211-60020</b> | H2P  | .196" (5.0)   | .3937" (10.0) | .375" (9.5)           | .1654" (4.2)    | .03937" (1.0) | 1000      |
| 211-60002   | <b>211-60002</b> | H3P  | .255" (6.5)   | .3937" (10.0) | .3937" (10.0)         | .1654" (4.2)    | .03937" (1.0) | 100       |
| 211-60040   | <b>211-60040</b> | H3P  | .255" (6.5)   | .3937" (10.0) | .3937" (10.0)         | .1654" (4.2)    | .03937" (1.0) | 1000      |
| 211-60003   | <b>211-60003</b> | H4P  | .314" (8.0)   | .3937" (10.0) | .3937" (10.0)         | .1654" (4.2)    | .03937" (1.0) | 100       |
| 211-60050   | <b>211-60050</b> | H4P  | .314" (8.0)   | .3937" (10.0) | .3937" (10.0)         | .1654" (4.2)    | .03937" (1.0) | 1000      |
| 211-60005   | <b>211-60005</b> | H6P  | .433" (11.0)  | .3937" (10.0) | .5118" (13.0)         | .1654" (4.2)    | .03937" (1.0) | 100       |
| 211-60061   | <b>211-60061</b> | H6P  | .433" (11.0)  | .3937" (10.0) | .5118" (13.0)         | .1654" (4.2)    | .03937" (1.0) | 1000      |
| 211-60006   | <b>211-60006</b> | H7P  | .492" (12.5)  | .3937" (10.0) | .5512" (14.0)         | .1654" (4.2)    | .05906" (1.5) | 100       |
| 211-60078   | <b>211-60078</b> | H7P  | .492" (12.5)  | .3937" (10.0) | .5512" (14.0)         | .1654" (4.2)    | .05906" (1.5) | 1000      |
| 211-60007   | <b>211-60007</b> | H8P  | .55" (14.0)   | .3937" (10.0) | .5906" (15.0)         | .1654" (4.2)    | .05906" (1.5) | 100       |
| 211-60090   | <b>211-60090</b> | H8P  | .55" (14.0)   | .3937" (10.0) | .5906" (15.0)         | .1654" (4.2)    | .05906" (1.5) | 1000      |
| 211-60098   | <b>211-60098</b> | H9P  | .629" (16.0)  | .3937" (10.0) | .63" (16.0)           | .1654" (4.2)    | .05906" (1.5) | 1000      |
| 211-60110   | <b>211-60110</b> | H10P | .688" (17.5)  | .3937" (10.0) | .6693" (17.0)         | .1654" (4.2)    | .05906" (1.5) | 1000      |
| 211-60120   | <b>211-60120</b> | H11P | .748" (19.0)  | .3937" (10.0) | .7087" (18.0)         | .1654" (4.2)    | .07874" (2.0) | 1000      |
| 211-60130   | <b>211-60130</b> | H12P | .807" (20.5)  | .3937" (10.0) | .748" (19.0)          | .1654" (4.2)    | .07874" (2.0) | 1000      |
| 211-60140   | <b>211-60140</b> | H13P | .866" (22.0)  | .4724" (12.0) | .8071" (20.5)         | .2047" (5.2)    | .07874" (2.0) | 1000      |
| 211-60150   | <b>211-60150</b> | H14P | .944" (24.0)  | .4724" (12.0) | .8465" (21.5)         | .2047" (5.2)    | .07874" (2.0) | 1000      |
| 211-60160   | <b>211-60160</b> | H15P | 1.003" (25.5) | .4724" (12.0) | .9055" (23.0)         | .2047" (5.2)    | .09843" (2.5) | 1000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## WAC Adhesive

WAC Adhesive clamps offer a fast, convenient, low cost method of routing wires and cables. The easy to install adhesive system eliminates the time and expense of drilling holes. Ideal for economical wire and cable retention applications. Extruded from PVC. For 0.5" to 1" bundles.

| Material Data         |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>PVC (Polyvinylchloride)</b>              |
| Color                 | <b>Gray</b>                                 |
| Operating Temperature | <b>-20 °F to +150 °F (-28 °C to +65 °C)</b> |
| Flammability          | <b>UL94 V0 (excluding adhesive)</b>         |



| Product Selection |                  |        | Min. Ø Bundle | Max. Ø Bundle | Length (L)   | Width (W)     | Height (H)    | Height (H2)  | Pkg. Qty. |
|-------------------|------------------|--------|---------------|---------------|--------------|---------------|---------------|--------------|-----------|
| Article No.       | Part No.         | Type   | in. (mm)      | in. (mm)      | in. (mm)     | in. (mm)      | in. (mm)      | in. (mm)     |           |
| 151-00667         | <b>151-00667</b> | WACO75 | 0.5" (12.7)   | 0.75" (19.1)  | 1.13" (28.7) | 1" (25.4)     | 0.62" (15.75) | 1.05" (26.7) | 500       |
| 151-00668         | <b>151-00668</b> | WAC100 | 0.75" (19.1)  | 1.0" (25.4)   | 1.5" (38.1)  | 1.25" (31.75) | 0.85" (21.59) | 1.39" (34.3) | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

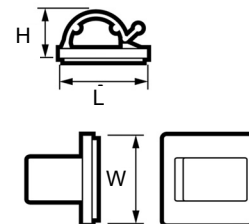
## RB Clips

RB self-adhesive clips are ideal for cable and pipe bundles. Bundles are easily snapped into or out of clips. The RB clips suit diameters of 1/8", 5/16", and 1/2".



Adhesive clips come in pairs connected together on adhesive liner.

| Material Data         |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                 |
| Color                 | <b>Natural</b>                              |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b> |
| Flammability          | <b>UL94 V2 (excluding adhesive)</b>         |



| Product Selection |               |      | Max. Ø Bundle | Length (L)    | Width (W)     | Height (H)  | Pkg. Qty. |
|-------------------|---------------|------|---------------|---------------|---------------|-------------|-----------|
| Article No.       | Part No.      | Type | in. (mm)      | in. (mm)      | in. (mm)      | in. (mm)    |           |
| 151-14005         | <b>RB5H4</b>  | RB5  | .1969" (5.0)  | .75" (19.0)   | .75" (19.0)   | .24" (6.0)  | 500       |
| 151-13608         | <b>RB8L4</b>  | RB8  | .315" (8.0)   | 1" (25.0)     | 1" (25.0)     | .45" (11.5) | 200       |
| 151-00506         | <b>RB14L4</b> | RB14 | .5512" (14.0) | 1.307" (33.2) | 1.079" (27.4) | .63" (16.0) | 200       |

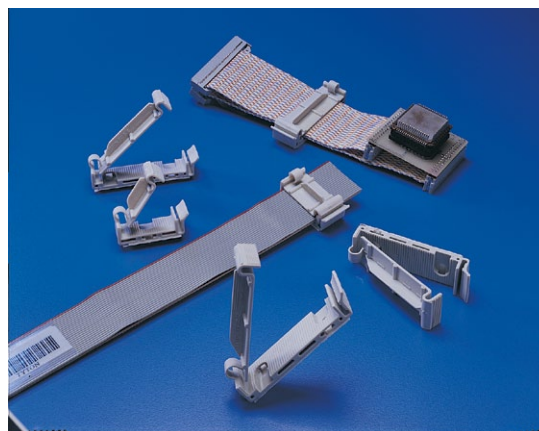
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Dual Adjustable Flat Ribbon Cable Clamps

Designed to route, protect and secure flat ribbon cables in computers, electronics, panels and components, this unique adjustable clamp will not damage sensitive wire and cable. The clamp will adjust and close to the exact height of the ribbon cable, using only as much force as needed to secure the cable. The clamp is releasable on demand and adjustable on both sides. The low profile design allows for use in confined areas where space is a premium.

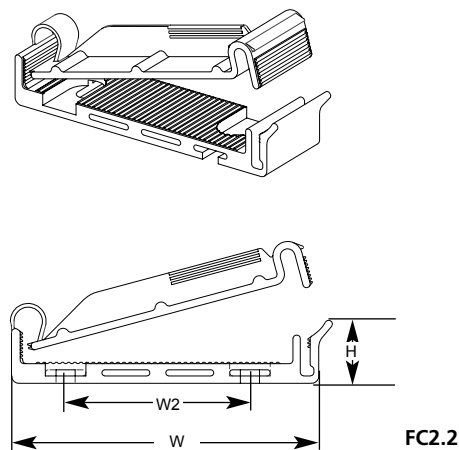
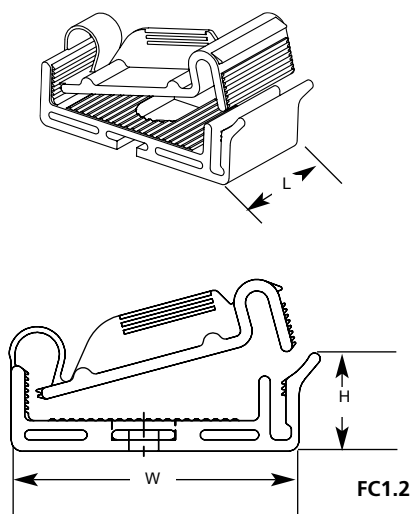
The clamp is adjustable so that single or stacked cable can be routed. The "snap clamp" design of this flat ribbon clamp makes it an excellent choice for specification and installation.

Both adhesive backed and non-adhesive screw mount versions are available.



### Material Data

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | <b>Polyamide 6.6 (PA66)</b>                 |
| Color                 | <b>Telecom Gray</b>                         |
| Operating Temperature | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b> |
| Flammability          | <b>UL94 V2 (excluding adhesive)</b>         |



### Product Selection

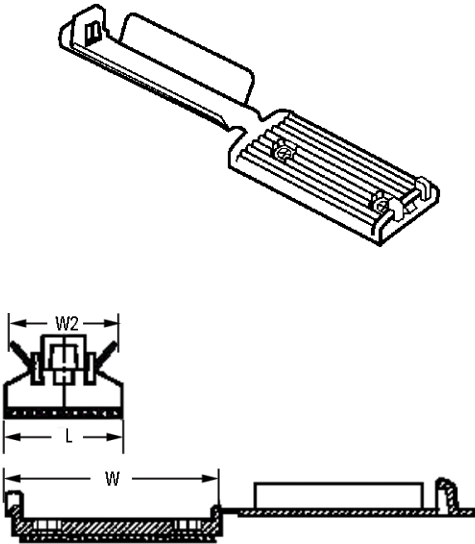
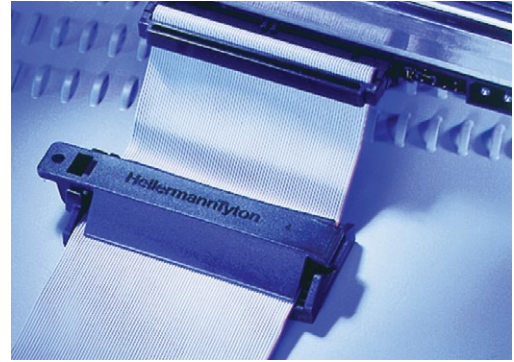
| Product Selection |          |        |            |      |           |        |            |        |            |         |                 |       |                 |         |           |
|-------------------|----------|--------|------------|------|-----------|--------|------------|--------|------------|---------|-----------------|-------|-----------------|---------|-----------|
| Article No.       | Part No. | Type   | Length (L) |      | Width (W) |        | Width (W2) |        | Height (H) |         | Mounting Hole Ø |       | Max Cable Width |         | Pkg. Qty. |
|                   |          |        | in. (mm)   |      | in. (mm)  |        | in. (mm)   |        | in. (mm)   |         | in. (mm)        |       | in. (mm)        |         |           |
| Adhesive          |          |        |            |      |           |        |            |        |            |         |                 |       |                 |         |           |
| 154-00013         | FC1.2AK2 | FC1.2A | .75"       | (19) | 1.5"      | (38.1) | n/a        | n/a    | .51"       | (13.1)  | n/a             | n/a   | 1.2 "           | (30.48) | 50        |
| 154-00012         | FC1.2AH4 | FC1.2A | .75"       | (19) | 1.5"      | (38.1) | n/a        | n/a    | .51"       | (12.9)  | n/a             | n/a   | 1.2 "           | (30.48) | 500       |
| 154-00017         | FC2.2AK2 | FC2.2A | .75"       | (19) | 2.5"      | (63.5) | n/a        | n/a    | .51"       | (12.75) | n/a             | n/a   | 2.0 "           | (50.8)  | 50        |
| 154-00016         | FC2.2AH4 | FC2.2A | .75"       | (19) | 2.5"      | (63.5) | n/a        | n/a    | .51"       | (12.75) | n/a             | n/a   | 2.0 "           | (50.8)  | 500       |
| Non-Adhesive      |          |        |            |      |           |        |            |        |            |         |                 |       |                 |         |           |
| 154-00011         | FC1.2K2  | FC1.2  | .75"       | (19) | 1.5"      | (38.1) | n/a        | n/a    | .51"       | (12.9)  | .138"           | (6.0) | 1.2 "           | (30.48) | 50        |
| 154-00010         | FC1.2H4  | FC1.2  | .75"       | (19) | 1.5"      | (38.1) | n/a        | n/a    | .51"       | (12.9)  | .138"           | (6.0) | 1.2 "           | (30.48) | 500       |
| 154-00015         | FC2.2K2  | FC2.2  | .75"       | (19) | 2.5"      | (63.5) | 1.5"       | (38.1) | .51"       | (12.95) | .138"           | (6.0) | 2.0 "           | (50.8)  | 50        |
| 154-00014         | FC2.2H4  | FC2.2  | .75"       | (19) | 2.5"      | (63.5) | 1.5"       | (38.1) | .51"       | (12.95) | .138"           | (6.0) | 2.0 "           | (50.8)  | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Flat Ribbon Cable Clamps

HellermannTyton's flat ribbon cable clamps secure and route flat cable, ideal for automotive and household appliance applications. Available in adhesive backed and non-adhesive screw mount versions.

- Performs well in very dry, air-conditioned areas
- The rounded edges and soft wings protect and hold the cable securely
- Clamps are offered in four sizes that are easy to fasten and unfasten



| Material Data         |                                              | RoHS |
|-----------------------|----------------------------------------------|------|
| Material              | Polyamide 6.6 high impact modified (PA66HIR) |      |
| Color                 | Black                                        |      |
| Operating Temperature | -40 °F to +230 °F (-40 °C to +110 °C)        |      |
| Flammability          | UL94 HB (only clamp without adhesive)        |      |

| Product Selection |           |        | Length (L)   | Width (W)   | Width (W2)  | Mounting Hole Ø | Pkg. Qty. |
|-------------------|-----------|--------|--------------|-------------|-------------|-----------------|-----------|
| Article No.       | Part No.  | Type   |              |             |             |                 |           |
|                   |           |        |              |             |             |                 |           |
| Adhesive          |           |        |              |             |             |                 |           |
| 151-15250         | 151-15250 | FKH25A | 1.22" (31.0) | .98" (25.0) | .86" (22.0) | n/a n/a         | 100       |
| 151-15300         | 151-15300 | FKH30A | 1.37" (35.0) | .98" (25.0) | .86" (22.0) | n/a n/a         | 100       |
| 151-15500         | 151-15500 | FKH50A | 2.22" (56.6) | .98" (25.0) | .86" (22.0) | n/a n/a         | 100       |
| 151-15800         | 151-15800 | FKH80A | 3.38" (86.0) | .98" (25.0) | .86" (22.0) | n/a n/a         | 100       |
| Non-Adhesive      |           |        |              |             |             |                 |           |
| 151-16250         | 151-16250 | FKH25  | 1.22" (31.0) | .98" (25.0) | .86" (22.0) | .122" (3.1)     | 100       |
| 151-16300         | 151-16300 | FKH30  | 1.37" (35.0) | .98" (25.0) | .86" (22.0) | .122" (3.1)     | 100       |
| 151-16500         | 151-16500 | FKH50  | 2.22" (56.6) | .98" (25.0) | .86" (22.0) | .122" (3.1)     | 100       |
| 151-16800         | 151-16800 | FKH80  | 3.38" (86.0) | .98" (25.0) | .86" (22.0) | .122" (3.1)     | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Mechanical Cable Tie Tools



Ranging from the high performance Mark 7 and Mark 9 series tools to pocket-sized twist tools, HellermannTyton offers a range of mechanical tools which can be used with any HellermannTyton cable tie. When using these tools, the cable tie is hand applied and then manually tensioned and cut-off, without the use of an extraneous power source.

## MARK 7 AND MARK 9 TOOLS

Specifically developed for maximum ergonomic and performance values, the Mark 7 and Mark 9 series tools combine reduced hand effort and durable components to ensure efficient assembly and a longer life cycle. The Mark 7 tools are used with T18 through T50 series HellermannTyton cable ties. The Mark 9 tools can be used with nearly every HellermannTyton cable tie. Able to accommodate ties to .530" in width, the Mark 9 is used with HellermannTyton's T18 series cable ties to the heavy duty ties, including the T250 series, Wide Strap series and EL-TY. High tension versions of both the Mark 7 and Mark 9 tools (MK7HT and MK9HT) offer the same design features as their standard counterparts but with higher cut-off tension capabilities. The Mark 9 and Mark 7 high tension tools both offer a 5/8" stroke.



MK7 & MK9



## Mark 7 and Mark 9 Features

- An easy to read display speeds adjustment and verification.
- Thumb tab on larger tension knob for easy adjustment.
- On the Mark 7, a larger knob sets the three variable tension levels (minimum, intermediate, and standard). The smaller knob fine tunes within the tension range.
- The larger knob on the Mark 9 sets to two variable tension levels (standard and heavy). The smaller knob fine tunes the tension setting.
- Housings are manufactured from a high impact, glass reinforced nylon.
- A double wall linkage adds more strength.
- Tough chromium steel components ensure longevity.
- MK7 & MK9 are military specified.
- Single and dual lock-out features available for tensioning ranges.
- Cable tie tension and cut-off tools reduce operator fatigue and speed assembly.
- The Mark 7 features a one inch stroke, while the Mark 9 has a 5/8 inch stroke.  
Both reduce trigger cycles required to install cable ties.
- Ergonomic design on both tools ideally fit the operator's hand. Removable padded hand grips further reduce impact to the hand.
- Low friction bearing mechanisms reduce hand effort and provide a smooth stroke.
- Extremely light, the Mark 7 weighs only 10 ounces. The Mark 9 weighs just 13 ounces.
- Quick tension adjustability for flush cut-off.



MK7

## Mark 7 Tool

| Product Selection |                    |             |                                                                                                                                    |                                                |           |
|-------------------|--------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------|
| Article No.       | Part No.           | Type        | Description                                                                                                                        | Cable Tie Series                               | Pkg. Qty. |
| 110-07500         | <b>MK7</b>         | MK7         | Durable and lightweight, the Mark 7 tool is user friendly and adjustable, with top-of-the-line design features.                    | T18 thru T50 Series<br>CTT20 thru CTT60 Series | 1         |
| 110-07000         | <b>MK7HT</b>       | MK7HT       | The Mark 7 High Tension tool has the same design features as the MK7, although this tool offers an increased tension range.        | T30 thru T50 Series<br>CTT20 thru CTT60 Series | 1         |
| 110-08000         | <b>MK7LK</b>       | MK7LK       | The Mark 7 Lock-Out tool has the same design features as the MK7, although this tool offers complete lock-out of tension settings. | T30 thru T50 Series<br>CTT20 thru CTT60 Series | 1         |
| 110-00448         | <b>MK7BLADEKIT</b> | MK7BLADEKIT | Service kit for MK7 tool includes replacement blade, screw for nose piece, and instruction card.                                   |                                                | 1         |
| 110-00449         | <b>MK7-449</b>     | MK7-449     | Replacement blade for MK7 series tools.                                                                                            |                                                | 1         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.  
Minimum order quantity for the MK7-449 is 5.

## Mark 9 Tool



MK9



MK9SST

| Product Selection |                    |             |                                                                                                                                                                                               |                                                                                        |           |
|-------------------|--------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------|
| Article No.       | Part No.           | Type        | Description                                                                                                                                                                                   | Cable Tie Series                                                                       | Pkg. Qty. |
| 110-09500         | <b>MK9</b>         | MK9         | The Mark 9 tool has the same design features as the MK7 series tools. The MK9 accommodates heavy duty cable ties.                                                                             | T18* thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Wide Strap Series | 1         |
| 110-09000         | <b>MK9HT</b>       | MK9HT       | The Mark 9 High Tension tool has the same design features as the MK9, but offers an increased tension range.                                                                                  | T18* thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Wide Strap Series | 1         |
| 110-09700         | <b>MK9RE</b>       | MK9RE       | The MK9 Rounded Edge tool has the same design features as the MK9 although it has a special nose piece that leaves a 2mm round tail.                                                          | T18* thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Wide Strap Series | 1         |
| 110-09600         | <b>MK9REF</b>      | MK9REF      | The Mark 9 Reduced Effort tool has a reduced effort trigger mechanism for operators with small hands. It has a shorter pawl stroke.                                                           | T18* thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Wide Strap Series | 1         |
| 110-95000         | <b>MK9SST</b>      | MK9SST      | Adapted for use with stainless steel ties, the MK9 Stainless Steel tool retains the same design features as the MK9 series. The MK9SST accommodates all HellermannTyton stainless steel ties. | All MBT Series for both 304 and 316 materials                                          | 1         |
| 110-00220         | <b>MK9BLADEKIT</b> | MK9BLADEKIT | Service kit for the MK9 tool includes replacement blade, screw for nose piece, and instruction card.                                                                                          |                                                                                        | 1         |
| 110-00221         | <b>MK9-221</b>     | MK9-221     | Replacement blade for MK9 series                                                                                                                                                              |                                                                                        | 1         |
| 110-05114         | <b>MK9SS-114</b>   | MK9SS-114   | Replacement blade for MK9SST series tools                                                                                                                                                     |                                                                                        | 1         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. \* Does not include T18S series ties .08" wide.

## Other Mechanical Cable Tie Tools

| Product Selection |             |      |                                                                                                                                                                                  |                                                |           |
|-------------------|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------|
| Article No.       | Part No.    | Type | Description                                                                                                                                                                      | Cable Tie Series                               | Pkg. Qty. |
| 110-21000         | <b>TWT1</b> | TWT  | The TytonTwyster is a lightweight and economical twist tool. Offers speed and efficiency. Fits into a pocket. (Color Orange)                                                     | T18 thru T50 Series<br>CTT20 thru CTT60 Series | 1         |
| 110-22000         | <b>TWT2</b> | TWT  | The TytonTwyster is a lightweight and economical twist tool. Offers speed and efficiency. Fits into a pocket. (Color Blue)                                                       | T120 thru T150 Series<br>CTT175 Series         | 1         |
| 110-11150         | <b>T150</b> | T150 | The T150 Tool is a heavy duty installer controlled tool for use in the field. Pliers action provides mechanical advantage. Padded foam grip handles provide comfort and control. | T150 Series<br>CTT175 Series                   | 1         |
| 110-11250         | <b>T250</b> | T250 | The T250 has the same design features as the T150 Tool, but can tension and cutoff a wider tie.                                                                                  | T150 thru T250 Series<br>CTT175 Series         | 1         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Power Assisted Cable Tie Tools

HellermannTyton's Mark 7 and Mark 9 power assisted (MK7P & MK9P) tools utilize pneumatic power to tension and cut-off HellermannTyton cable ties. The MK7P and MK9P tools feature an ergonomic design while offering time/labor savings and ease of use benefits derived from pneumatic power. These tools feature a non-slip, comfortable grip, soft touch trigger, and one touch tensioning/cut-off capability. HellermannTyton's pneumatic cable tie tools are lightweight, high performance, and suited for extended use.

### Product Features

#### - Ergonomic

The ergonomic design of the pneumatic cable tie tools incorporates a comfortable grip, low weight, and easy trigger depression to reduce installer effort and strain while installing cable ties.

#### - Operation

MK7P & MK9P speed assembly. Just one pulse of the soft touch trigger assembly actuates an immediate tension and cut-off of the cable tie.

- Cable tie waste is ejected to the side after the cable tie is applied, ensuring smooth operation of the tool.
- Uses dry or lubricated air.
- Operates between 90 PSI and 105 PSI maximum.
- Supplied with a 6 inch lead which comes with a male quick connect fitting with a female coupler for 1/8" flow.

#### - Design

HellermannTyton's pneumatic tools are manufactured with tough, chromium steel components and high impact, glass reinforced nylon housings for maximum durability.

#### - Tensioning

An easy to read indicator verifies tension settings. The tools feature an easy dial-in tension adjustment, along with a lock-out capability. The tension adjustment on the MK7P and the MK9P is designed with an operator friendly, positive "click" design for easy use. The tension can readily be locked out to allow the tension adjustment to remain at a constant setting that can only be changed by approved personnel. The fine adjust tension knob has a unique lever feature used to reduce adjustment torque.



MK9P

## Mark 7 Pneumatic

The Mark 7 Pneumatic (MK7P) is built to perform in demanding production and manufacturing environments. Heavy duty precision parts ensure repeatability in the tensioning process. The MK7P fits comfortably in the operator's hand, reducing hand, arm and wrist fatigue. Due to its ergonomic features, HellermannTyton's MK7P makes it easier for the installer to consistently apply cable ties while maintaining correct tension and flush cut-off. Safety is enhanced, as the MK7P can eliminate sharp edges of a cut-off cable tie.



MK7P

| Material Data      |                                |
|--------------------|--------------------------------|
| Power Supply       | <b>Dry or lubricated air</b>   |
| Cycle Time         | <b>4 strokes per second</b>    |
| Weight             | <b>16oz</b>                    |
| Pawl Travel Stroke | <b>1.0" (2.54 cm)</b>          |
| Tension Force      | <b>60 to 170 N, adjustable</b> |

| Product Selection |                 |                   |                                                                                                                                                                        |                                                |           |
|-------------------|-----------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------|
| Article No.       | Part No.        | Type              | Description                                                                                                                                                            | Cable Tie Series                               | Pkg. Qty. |
| 110-07101         | <b>MK7P</b>     | MK7P              | Includes Mark 7 Pneumatic tool and quick connect fittings. Ergonomic tool uses pneumatic power and accomplishes rapid tension and cut-off with one trigger depression. | T18 thru T50 Series<br>CTT20 thru CTT60 Series | 1         |
| 110-07111         | <b>MK7P-342</b> | Replacement Blade | MK7P Replacement Blade                                                                                                                                                 |                                                | 1         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. Minimum order quantity for MK7P-342 is 5.

## MK9 Pneumatic

The Mark 9 Pneumatic (MK9P) is constructed with heavy duty parts to ensure that it performs optimally in demanding environments. It is ideally designed to apply heavy-duty ties (T50-T250), clamp and button head ties.

Like the MK7P, HellermannTyton's MK9P incorporates the next level of ergonomic improvement with its low weight, comfortable grip and easy trigger depression. Very durable, the pneumatic MK9P features adjustable, easy to read tension settings. Lock-out features are available.

The MK9P is available with lower air attachment (standard) or can be ordered with an upper air attachment.

| Material Data      |                                |
|--------------------|--------------------------------|
| Power Supply       | <b>Dry or Lubricated Air</b>   |
| Cycle Time         | <b>2 strokes per second</b>    |
| Weight             | <b>32oz</b>                    |
| Pawl Travel Stroke | <b>1.25" (3.175 cm)</b>        |
| Tension Force      | <b>60 to 170 N, adjustable</b> |

| Product Selection |                 |          |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                      |           |
|-------------------|-----------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------|
| Article No.       | Part No.        | Type     | Description                                                                                                                                                                                                                                                                                                                                                            | Cable Tie Series                                                                     | Pkg. Qty. |
| 110-09101         | <b>MK9P</b>     | MK9P     | Includes Mark 9 Pneumatic tool and quick connect fittings. Included is a 1/8" flow quick disconnect fitting and a 10" whip and 1/8" make fitting. Ergonomic tool uses pneumatic power and accomplishes rapid tension and cut-off with one trigger depression.                                                                                                          | T50 thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Button Head Ties | 1         |
| 110-09112         | <b>MK9PUA</b>   | MK9P     | Includes Mark 9 Pneumatic tool with upper air option for top air connection. Supplied with a 1/8" flow quick disconnect fitting and a 10" whip and 1/8" quick disconnect fitting. Includes a hanger for an optional overhead tool balancer (not included). Ergonomic tool uses pneumatic power and accomplishes rapid tension and cut-off with one trigger depression. | T50 thru T250 Series<br>CTT20 thru CTT175 Series<br>EL-TY Series<br>Button Head Ties | 1         |
| 110-09111         | <b>MK9P-109</b> | MK9P-109 | MK9P Replacement Blade                                                                                                                                                                                                                                                                                                                                                 |                                                                                      | 1**       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\*\*Minimum order quantity of MK9P-109 is 5.



MK9PUA (Upper Air)



MK9P

## Common Accessories for MK7P and MK9P

HellermannTyton offers a portable kit that incorporates carbon dioxide (CO<sub>2</sub>) as the primary air source. This unique feature will allow for greater flexibility, mobility and the elimination of air line to the tool.

| Product Selection |                    |             |                                                                                                      |           |
|-------------------|--------------------|-------------|------------------------------------------------------------------------------------------------------|-----------|
| Article No.       | Part No.           | Type        | Description                                                                                          | Pkg. Qty. |
| 110-09002         | <b>MKPCOKIT</b>    | MKPCOKIT    | MKPCOKIT is a complete kit that includes the belt, holster, hose/regulator, pouch and 16oz air tank. | 1         |
| 110-09003         | <b>MKPCOTANK</b>   | MKPCOTANK   | Standard 16oz air tank for CO <sub>2</sub> air supply to tool.                                       | 1         |
| 110-09004         | <b>MKPCOTANK20</b> | MKPCOTANK20 | Special 20oz canister tank for CO <sub>2</sub> feature.                                              | 1         |
| 110-09005         | <b>MKPCOHOSE</b>   | MKPCOHOSE   | Hose attachment from air tank to the tool with regulator.                                            | 1         |
| 110-09006         | <b>MKPCOBELT</b>   | MKPCOBELT   | Adjustable belt for air tank and pouch and tool holster for MK7P or MK9P tools.                      | 1         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## Automatic Cable Tie Systems

HellermannTyton's automatic cable tie tool systems are compact, fast, reliable, and versatile, accommodating a variety of wiring harness, and bundling and securing requirements. These tool systems are designed to provide significant labor and cost savings through process improvements, lower installed costs and greater consistency, quality and ergonomic benefits.

### Product Features

#### - Fast

Cable ties are installed quickly with one easy trigger depression, increasing productivity while decreasing labor costs.

#### - Reliable

HellermannTyton's automatic cable tie systems have been tested to perform extremely consistently without interruption to work flow.

#### - Ergonomic

The ergonomic design of the automatic cable tie tool systems feature a comfortable grip, low weight, and easy trigger depression to reduce installer effort and strain while installing cable ties.

#### - Easy to Use - Providing Valuable Operator Feedback

Equipped with a self-diagnostic LED information panel, the automatic cable tie systems easily guide the user through the cycles of cable tie installations.

#### - Automation

The automatic cable tie systems can be implemented into fully automated applications to further increase productivity and decrease labor costs.

#### - Flexible Manufacturing/Versatility

HellermannTyton's automatic cable tie tool systems support principles of flexible manufacturing requirements and environments. The systems can be used in handheld, bench mount and overhead assembly configurations. The versatile overhead assembly option provides the ultimate integration to the customer's manufacturing area. HellermannTyton's automatic tools are powered by a standard 110 AC 24V (AT2000) and 110 AC 27 V (AT2060) electrical outlet that converts to a low DC voltage to the tool. All power systems offer the installer the mobility needed to tackle different harnessing requirements.

#### - Uniform Fastening Quality

HellermannTyton's automatic cable tie systems feature adjustable tension control to deliver consistent levels of cable tie fastening.

#### - Range

HellermannTyton offers the widest range of automatic cable tie tool systems which cover cable tie tensile strengths of 18, 30, and 50 pounds with bundle diameters between 1/16" to over 3".



AT53080



An LED panel shows the status of the tool.

| Product Selection |          |               |
|-------------------|----------|---------------|
| Article No.       | Part No. | Max. Ø Bundle |
| 120-00000         | AT2000   | .75" (20 mm)  |
| 103-00000         | AT2060   | 1.25" (31 mm) |
| 102-00000         | AT53080  | 3.14" (80 mm) |



**AT2000****For bundles up to 3/4"**

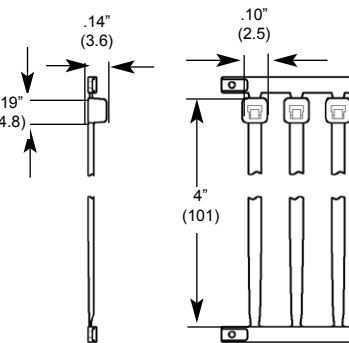
HellermannTyton's AT2000 completely installs cables ties on bundles up to 3/4" in diameter. This automatic cable tie tool is highly reliable and offers ergonomic benefits including low weight, easy trigger depression, a comfortable hand grip and correct balance—all which reduce operator strain. The AT2000 possesses an LED panel which makes it easier to maintain and operate the tool.

**AT2000 Technical Specifications**

|               |                                                    |
|---------------|----------------------------------------------------|
| Power Supply  | <b>Electrical, with Power Pack or Battery Pack</b> |
| Cycle Time    | <b>0.8 s</b>                                       |
| Weight        | <b>2.6lbs</b>                                      |
| Installation  | <b>Handheld, bench mount or overhead</b>           |
| Tension Force | <b>Adjustable</b>                                  |

**AT2000 Cable Tie Specifications**

|                                      |                                                                 |
|--------------------------------------|-----------------------------------------------------------------|
| <b>Operating Temperature</b>         |                                                                 |
| Natural Polyamide 6.6                | <b>-40 °F to +185 °F<br/>(-40 °C to +85 °C)<br/>continuous</b>  |
| Heat stabilized, black Polyamide 6.6 | <b>-40 °F to +221 °F<br/>(-40 °C to +105 °C)<br/>continuous</b> |
| Natural, Stanyl Polyamide 4.6        | <b>-40 °F to +275 °F<br/>(-40 °C to +135 °C)<br/>continuous</b> |
| Reel Diameter                        | <b>17.7 " (450)</b>                                             |
| Reel Width                           | <b>5.20 " (132)</b>                                             |

**RoHS**

AT2000 Cable Ties

**CA**  
 File# E64139
**Product Selection**

| Article No. | Part No.         | Type          | Description                                                           | Min. Tensile Strength | Max. Ø Bundle | Pkg. Qty. |
|-------------|------------------|---------------|-----------------------------------------------------------------------|-----------------------|---------------|-----------|
|             |                  |               |                                                                       | lbs. (N)              | in. (mm)      |           |
| 120-00000   | <b>AT2000</b>    | Autotool 2000 | Includes AT2000 tool, power supply, power cord, tool cord, and manual |                       |               | 1         |
| 120-00060   | <b>120-00060</b> | Control Box   | Control Box for linking AT2000 to automation                          |                       |               | 1         |

**Natural Cable Ties**

|           |                  |                  |                                                 |                |              |                                                                     |
|-----------|------------------|------------------|-------------------------------------------------|----------------|--------------|---------------------------------------------------------------------|
| 120-40009 | <b>T18RA50</b>   | T18RA50-N66-NA   | Cable ties on bandolier for use with the AT2000 | 18 lbs<br>(80) | .75"<br>(20) | 20,000 per carton includes:<br>50 per bandolier<br>500 per package  |
| 120-46009 | <b>T18RA3500</b> | T18RA3500-N66-NA | Cable ties on reel for use with the AT2000      | 18 lbs<br>(80) | .75"<br>(20) | 14,000 per carton includes:<br>3,500 per reel<br>4 reels per carton |
| 120-05009 | <b>T18RA5000</b> | T18RA5000-N66-NA | Cable ties on reel for use with the AT2000      | 18 lbs<br>(80) | .75"<br>(20) | 10,000 per carton includes:<br>5,000 per reel<br>2 reels per carton |

**Black, Heat Stabilized Cable Ties**

|           |                     |                  |                                                 |                |              |                                                                     |
|-----------|---------------------|------------------|-------------------------------------------------|----------------|--------------|---------------------------------------------------------------------|
| 120-40010 | <b>T18RA50HSW</b>   | T18RA50-HSW-BK   | Cable ties on bandolier for use with the AT2000 | 18 lbs<br>(80) | .75"<br>(20) | 20,000 per carton includes:<br>50 per bandolier<br>500 per package  |
| 120-05010 | <b>T18RA5000HSW</b> | T18RA5000-HSW-BK | Cable ties on reel for use with the AT2000      | 18 lbs<br>(80) | .75"<br>(20) | 10,000 per carton includes:<br>5,000 per reel<br>2 reels per carton |

**Natural, Stanyl Cable Ties**

|           |                    |                 |                                            |                |              |                                                                     |
|-----------|--------------------|-----------------|--------------------------------------------|----------------|--------------|---------------------------------------------------------------------|
| 120-04609 | <b>T18RA5000HR</b> | T18RA5000HR-N46 | Cable ties on reel for use with the AT2000 | 18 lbs<br>(80) | .75"<br>(20) | 10,000 per carton includes:<br>5,000 per reel<br>2 reels per carton |
|-----------|--------------------|-----------------|--------------------------------------------|----------------|--------------|---------------------------------------------------------------------|

V/O rated ties can be made available for the AT2000. Various tie colors available upon request (Contact HellermannTyton for lead time). Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

For information on AT2000's Bench Mount System and Overhead Suspension Assembly see page 91-92.

For information on Wire Retainers for Harness Boards and AT2000's battery pack see page 93.

## AT2060

HellermannTyton's AT2060 automatically installs cable ties for bundles up to 1-1/4". The many ergonomic benefits include easy trigger depression and low weight that reduces operator effort and strain. Operation and maintenance of the tool are enhanced by the self-diagnostic LED panel located on the AT2060.

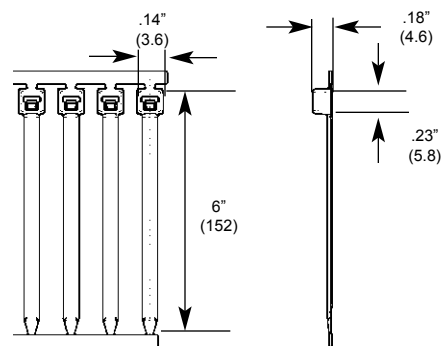


AT2060 Technical Specifications

|               |                    |
|---------------|--------------------|
| Power Supply  | <b>Electrical</b>  |
| Cycle Time    | <b>1.2 seconds</b> |
| Weight        | <b>3.9lbs</b>      |
| Pawl Travel   | <b>1.25"</b>       |
| Stroke        | <b>(3.175 cm)</b>  |
| Tension Force | <b>Adjustable</b>  |

AT2060 Cable Tie Specifications

|                                       |                                                        |
|---------------------------------------|--------------------------------------------------------|
| <b>Operating Temperature</b>          |                                                        |
| Natural Polyamide 6.6                 | <b>-40 °F to +185 °F</b><br><b>(-40 °C to +85 °C)</b>  |
| Heat stabilized, black, Polyamide 6.6 | <b>-40 °F to +221 °F</b><br><b>(-40 °C to +105 °C)</b> |
| Reel Diameter                         | <b>17.7 " (450)</b>                                    |
| Reel Width                            | <b>7.197 " (182.8)</b>                                 |
| Reel Weight                           | <b>7 lbs</b>                                           |



Product Selection

| Article No. | Part No.      | Type   | Description                                                                                      | Min. Tensile Strength | Max. Ø Bundle | Pkg. Qty. |
|-------------|---------------|--------|--------------------------------------------------------------------------------------------------|-----------------------|---------------|-----------|
|             |               |        |                                                                                                  | lbs. (N)              | in. (mm)      |           |
| 103-00000   | <b>AT2060</b> | AT2060 | Includes AT2060 tool, power supply, power cord, tool cord, and maintenance and operation manual. |                       |               | 1         |

### Natural Cable Ties

|           |                  |           |                                                        |                 |            |                                                                    |
|-----------|------------------|-----------|--------------------------------------------------------|-----------------|------------|--------------------------------------------------------------------|
| 103-00002 | <b>T30RA30</b>   | T30RA     | Cable ties on a bandolier for use with the AT2060 tool | 30 lbs (133.44) | 1.25" (31) | 6,000 per carton includes:<br>30 per bandolier<br>600 per bag      |
| 103-00001 | <b>T30RA3000</b> | T30RA3000 | Cable ties on a reel for use with the AT2060 tool      | 30 lbs (133.44) | 1.25" (31) | 6,000 per carton includes:<br>3,000 per reel<br>2 reels per carton |

### Black, Heat Stabilized Cable Ties

|           |                     |       |                                                        |                 |            |                                                                    |
|-----------|---------------------|-------|--------------------------------------------------------|-----------------|------------|--------------------------------------------------------------------|
| 103-00003 | <b>T30RA300HS</b>   | T30RA | Cable ties on a bandolier for use with the AT2060 tool | 30 lbs (133.44) | 1.25" (31) | 6,000 per carton includes:<br>30 per bandolier<br>600 per bag      |
| 103-00004 | <b>T30RA30000HS</b> | T30RA | Cable ties on a reel for use with the AT2060 tool      | 30 lbs (133.44) | 1.25" (31) | 6,000 per carton includes:<br>3,000 per reel<br>2 reels per carton |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. V/O rated ties and 4/6 ties for high temperatures can be made available for the AT2060. Various colors available upon request (Contact HellermannTyton for lead time).

**For information on AT2060's Bench Mount System and Overhead Suspension Assembly see page 91-92.**

**For information on Wire Retainers for Harness Boards see page 93.**

## AT2000 and AT2060 Accessories

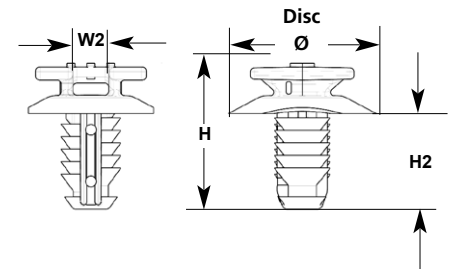
### Fir Tree Mount For Automatic Cable Tie Tool System

This fir tree mount is designed for use with HellermannTyton Automatic Cable Tie Tool Systems. For more information on this system, contact HellermannTyton.

| Material Data         |                                                                                      |  |
|-----------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 high impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |                                                                                     |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                              |                                                                                     |
| Flammability          | <b>UL94 HB</b>                                                                       |                                                                                     |

| Product Selection                                                                                      |                  |       |                 |                     |                     |                      |           |
|--------------------------------------------------------------------------------------------------------|------------------|-------|-----------------|---------------------|---------------------|----------------------|-----------|
| Article No.                                                                                            | Part No.         | Type  | Disc Ø in. (mm) | Width (W2) in. (mm) | Height (H) in. (mm) | Height (H2) in. (mm) | Pkg. Qty. |
| <b>FT7AT - Mounting Hole Ø: .24" - .8" (6.2 - 7.2mm) - Panel Thickness: .03" - .276" (0.8 - 7.0mm)</b> |                  |       |                 |                     |                     |                      |           |
| 151-00492                                                                                              | <b>151-00492</b> | FT7AT | .73" (18.6)     | .18" (4.5)          | .72" (18.34)        | .47" (11.9)          | 100       |

Installation tools - MK7, MK7HT, MK7P, MK9, MK9HT, MK9P. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## AT2000 & AT2060 Bench Mount System

HellermannTyton offers a portable bench mount system which works with the AT2000 and AT2060 tool systems. It is extremely easy to set up and use. Within seconds, the AT2000 or the AT2060 can be converted from a handheld tool to a bench mount system. With the touch of the foot pedal, the cable tie is applied.



AT2000 and AT2060 Bench Mount System

| Product Selection |                      |                 |                                                             |           |
|-------------------|----------------------|-----------------|-------------------------------------------------------------|-----------|
| Article No.       | Part No.             | Type            | Description                                                 | Pkg. Qty. |
| 120-00040         | <b>AT2BENCHMOUNT</b> | Bench Mount Kit | Includes foot pedal, tie reel stand and tool mounting stand | 1         |

Use **Part No.** for ordering and **Type** for specification purposes.

## AT2000 or AT2060 Overhead Suspension Assembly

HellermannTyton's overhead suspension assembly system holds the AT2000 or AT2060, reel of cable ties, and power source. The overhead assembly is available in several configurations in a variety of mounting options and is easily integrated into various manufacturing environments. The modular design allows for easy additions or modifications of the system design.

The overhead assembly system provides additional ergonomic advantages to the AT2000 and AT2060. The system features overhead hanging, a trolley slide which allows for mobility within the frame, and an adjustable counter balance. These features allow for low operator strain and easy use. Since the assembly integrates the automatic cable tie systems and reel of ties, continuous feed is achieved. Reloading of cable ties is greatly reduced, further optimizing efficiencies.



*The picture shows just one configuration of an overhead assembly.*

The HellermannTyton team of tool systems specialists will assist in the custom design of a system to specially accommodate individual manufacturing sites and production needs. The modular features and inherent ergonomic benefits improve production and make operation more efficient.

Contact HellermannTyton for more information. Fasteners for unit assembly are included. Permanent mounting fasteners are not included.



*Mobile Trolley Unit Configuration*

## AT2000 Battery Pack

HellermannTyton's battery pack powers the AT2000 and is worn by the operator, allowing for complete mobility.

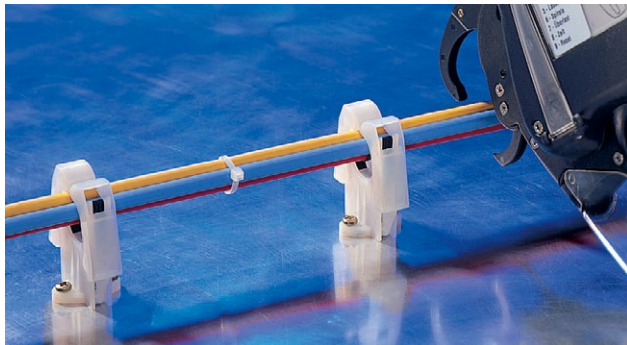


| Product Selection |                   |                 |                                           |           |
|-------------------|-------------------|-----------------|-------------------------------------------|-----------|
| Article No.       | Part No.          | Type            | Description                               | Pkg. Qty. |
| 120-00030         | <b>AT06500030</b> | Battery Pack    | Battery with belt clip and connector cord | 1         |
| 120-00010         | <b>AT06500020</b> | Battery Charger | Charging unit for battery                 | 1         |

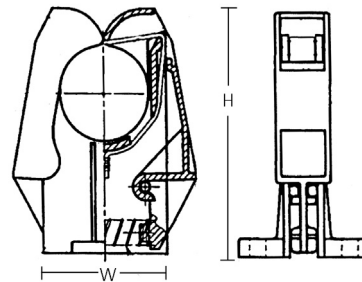
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Wire Retainer for Harness Boards

Designed for use in harness board assemblies, these wire retainers stand-off wire and cable bundles for easier cable tie application. Wires are individually inserted, and bundles are preformed, making harnessing easier.



Wire Retainer for Harness Boards



| Product Selection |              |      |                        |  | Height (H)  | Width (W)  | Max. Ø Bundle | Pkg. Qty. |
|-------------------|--------------|------|------------------------|--|-------------|------------|---------------|-----------|
| Article No.       | Part No.     | Type | Description            |  | in. (mm)    | in. (mm)   | in. (mm)      |           |
| 120-00080         | <b>HH-20</b> | HH20 | Harness Board Assembly |  | 2.12 " (54) | 1.22" (31) | .83" (20)     | 25        |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



## AutoTool System 3080

### For bundles up to 3.14"

HellermannTyton's ATS3080 automatically installs cable ties for bundles up to 3.14" in diameter with one trigger depression. This innovative system utilizes strap and closures (ordered separately) to achieve a waste free system. The ATS3080 uses only the required strap length required for the diameter. The strap is outside serrated so that it will not damage sensitive wire and cable bundles.

This well balanced tool has ergonomic benefits that include low weight and a comfortable hand grip which reduces operator strain and injury while installing cable ties. The ATS3080 possesses a LED panel that provides critical operational feedback that makes it easier to maintain and operate the tool.

The ATS3080 has three jaw diameters available; 1.18" (30mm), 1.96" (50mm), and 3.14" (80mm). The jaws are easily interchanged and further tool adjustment between the three jaw diameters is unnecessary.



ATS3080 Technical Specifications

|               |                                        |
|---------------|----------------------------------------|
| Power Supply  | <b>Electrical</b>                      |
| Cycle Time    | <b>approx. 1.3 sec. (50 mm jaw)</b>    |
| Weight        | <b>3.2lbs</b>                          |
| Installation  | <b>Mobile, bench mount or overhead</b> |
| Tension Force | <b>Adjustable</b>                      |



Closures and strap for ATS3080



ATS3080 Cable Tie Specifications

|                                |                                                                                 |
|--------------------------------|---------------------------------------------------------------------------------|
| Material                       | <b>Polyamide 6.6 high impact modified, heat and UV stabilized (PA66HIRHSUV)</b> |
| Operating Temperature          | <b>-40 °C to +95 °C continuous, (+105 °C for 5000 h)</b>                        |
| Flammability                   | <b>UL94 HB</b>                                                                  |
| <b>Strap Reel Dimensions</b>   |                                                                                 |
| Reel Diameter                  | <b>15.25" (387 mm)</b>                                                          |
| Reel Width                     | <b>3.5" (88.9 mm)</b>                                                           |
| Reel Weight                    | <b>6lbs (2.72 kg)</b>                                                           |
| <b>Closure Reel Dimensions</b> |                                                                                 |
| Reel Diameter                  | <b>15.25" (387 mm)</b>                                                          |
| Reel Width                     | <b>3.5" (88.9 mm)</b>                                                           |
| Reel Weight                    | <b>3.5lbs (1.58 kg)</b>                                                         |







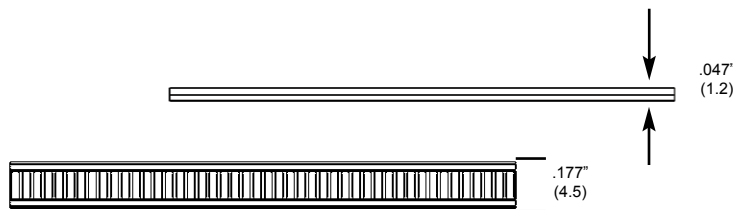
ATS3080 with mobile trolley unit



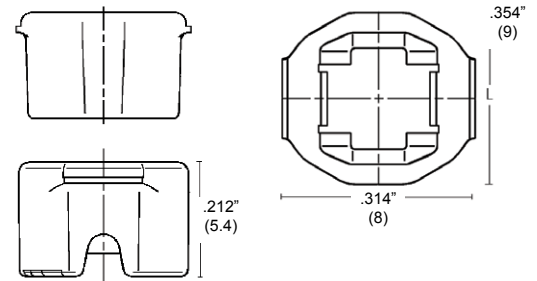
ATS3080 with overhead



ATS3080 with bench mount



Strap ATS3080



Closures ATS3080

## Product Selection

| Article No.                       | Part No.           | Type                     | Description                                                                                                                                               | Min Tensile Unlocking Strength (lbs) | Pkg. Qty. ft. (m) |
|-----------------------------------|--------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------|
| 102-00000                         | <b>ATS3080</b>     | ATS3080                  | Includes ATS3080 tool, power cord, tool cord, and maintenance and operation manual. Does not include power supply.                                        |                                      | 1                 |
| 102-00010                         | <b>ATS10200010</b> | Power Pack ATS3080       | Power Supply Unit for ATS3080<br>Input: 230/115 VAC, 50-60 Hz<br>Output: 48 VDC, max. 50W                                                                 |                                      | 1                 |
| <b>Natural Strap and Closures</b> |                    |                          |                                                                                                                                                           |                                      |                   |
| 102-66109                         | <b>ATS10266109</b> | Strap Natural ATS3080    | ATS3080 Strap                                                                                                                                             | 50 lbs                               | 1640 ft. (500)    |
| 102-66209                         | <b>ATS10266209</b> | Closures Natural ATS3080 | ATS3080 Closure                                                                                                                                           | 50 lbs                               | 5000 pcs          |
| <b>Black Strap and Closures</b>   |                    |                          |                                                                                                                                                           |                                      |                   |
| 102-66110                         | <b>ATS10266110</b> | Strap Black ATS3080      | ATS3080 Strap                                                                                                                                             | 50 lbs                               | 1640 ft. (500)    |
| 102-66210                         | <b>ATS10266210</b> | Closures Black ATS3080   | ATS3080 Closures                                                                                                                                          | 50 lbs                               | 5000 pcs          |
| 102-00040                         | <b>ATS10200040</b> | Bench Mount Kit          | Bench Mount Kit for ATS 3080<br>Integrated pneumatic system that coordinates tool and reels.<br>Foot pedal application, other actuation options available |                                      | 1                 |
| 102-00050                         | <b>ATS10200050</b> | Overhead Suspender       | Overhead Suspender ATS 3080                                                                                                                               |                                      | 1                 |
| 102-00030                         | <b>ATSTROLLEY</b>  | Trolley ATS 3080         | Trolley                                                                                                                                                   |                                      | 1                 |

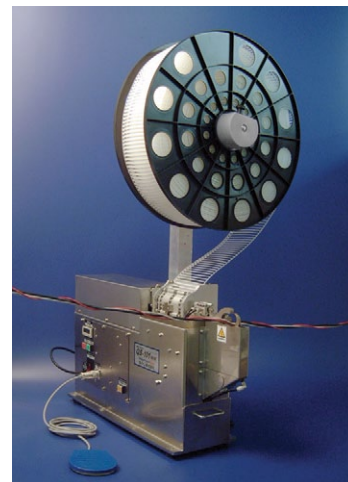
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Quick Tool

HellermannTyton's Quick Tool is an automatic bench mount system suited for high volume cable tie applications. This air powered tool accommodates a reel of 5,000 ties and, like HellermannTyton's other automated systems, can be integrated into further automation as well as fully incorporated into conveyor or assembly line applications.

### Product Features

- The system is a one piece, bench top unit which increases efficiency through quick and reliable fastening.
- It can be installed where a 110 VAC electrical outlet and pneumatic air source are available.
- Provides consistent fastening tension.
- Controls fastening tension.
- Ties are available in two styles: standard and heat stabilized.
- Custom colors for Quick Tool ties are also available. Contact HellermannTyton for more information.



QS101 Cable Tie Specifications

|                                       |                                              |
|---------------------------------------|----------------------------------------------|
| <b>Operating Temperature</b>          |                                              |
| Natural Polyamide 6.6                 | <b>-40 °F to +185 °F (-40 °C to +85 °C)</b>  |
| Heat stabilized, black, Polyamide 6.6 | <b>-40 °F to +221 °F (-40 °C to +105 °C)</b> |
| Reel Diameter                         | <b>18" (457 mm)</b>                          |
| Reel Width                            | <b>5.20" (132 mm)</b>                        |
| Reel Weight                           | <b>4.8 lbs (2.18 kg)</b>                     |



QS101 Technical Specifications

|               |                                          |
|---------------|------------------------------------------|
| Max. Ø Bundle | <b>0.630" (16.00 mm)</b>                 |
| Wattage       | <b>70W</b>                               |
| Power Supply  | <b>Electrical/Pneumatic Power</b>        |
| Cycle Time    | <b>1.2 Seconds</b>                       |
| Weight        | <b>40 lbs.</b>                           |
| Installation  | <b>Bench</b>                             |
| Tension Force | <b>Adjustable (9.92 lbs - 19.84 lbs)</b> |

Product Selection

| Article No. | Part No.     | Type  | Description                                                                       | Min Tensile Unlocking Strength (lbs) | Max. Ø Bundle | Width (W) | Length (L) | Pkg. Qty. |
|-------------|--------------|-------|-----------------------------------------------------------------------------------|--------------------------------------|---------------|-----------|------------|-----------|
|             |              |       |                                                                                   |                                      | in. (mm)      | in. (mm)  | in. (mm)   |           |
| 105-00000   | <b>QS101</b> | QS101 | Includes Quick Tool, power cord, maintenance and operation manual and foot pedal. |                                      |               |           |            | 1         |

#### Natural Cable Ties

|           |               |        |                                                 |    |            |             |             |                                                         |
|-----------|---------------|--------|-------------------------------------------------|----|------------|-------------|-------------|---------------------------------------------------------|
| 105-00006 | <b>QTTIE9</b> | QTTIE9 | Cable ties on reel for use with the Quick Tool. | 18 | .63 " (16) | .10 " (2.5) | 4.0 " (101) | 10,000 per carton: 5,000 per reel<br>2 reels per carton |
|-----------|---------------|--------|-------------------------------------------------|----|------------|-------------|-------------|---------------------------------------------------------|

#### Black Heat Stabilized Cable Ties

|           |                 |          |                                                 |    |            |             |             |                                                         |
|-----------|-----------------|----------|-------------------------------------------------|----|------------|-------------|-------------|---------------------------------------------------------|
| 105-00001 | <b>QTTIEOHS</b> | QTTIEOHS | Cable ties on reel for use with the Quick Tool. | 18 | .63 " (16) | .10 " (2.5) | 4.0 " (101) | 10,000 per carton: 5,000 per reel<br>2 reels per carton |
|-----------|-----------------|----------|-------------------------------------------------|----|------------|-------------|-------------|---------------------------------------------------------|

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

**Various colored cable ties available upon request. Contact HellermannTyton for more information and lead times.**

## SwiftMark Automatic Label Printer and Applicator

HellermannTyton's SwiftMark prints and applies labels automatically to wire and cable. With the largest wire range in the industry, the SwiftMark has uncompromising application speed and easily marks within .5" of the end of the cable or connector.

### Product Features

- Fastest cycle time in the industry
- Touch screen LCD
- WYSIWYG touch screen LCD
- Marks to within .5" of the end of the cable
- Labels cables from .06" to .75" (1.52 mm to 19 mm) in diameter
- Print repeat
- Works with various sizes of self-laminating adhesive labels
- Print label sets
- Ribbon save feature minimizes ribbon usage by up to 85%
- Download large sequential databases immediately
- 300 d.p.i. thermal transfer printer
- Stores label files on removable SD card
- USB, parallel port, and serial connections
- Accommodates various types of cable and cable bundles
- Eliminates label wrinkles or "flags"
- Adjustable wire grippers
- Easy to load with labels and ribbon
- Automatically keeps track of application cycles
- Foot pedal, touch screen, and 24V wrap initiation options
- Electric universal power supply
- Prints and applies up to 5,000 labels in eight hours
- Ethernet Ready

### SwiftMark Includes

- 1 SwiftMark
- 1 Foot pedal
- 1 External power supply
- 1 Manual
- 1 Tagprint Pro V2.0 label printing software.
- 1 Driver disk



### Specifications

|                     |                                                                               |
|---------------------|-------------------------------------------------------------------------------|
| Width               | 20"                                                                           |
| Height              | 15"                                                                           |
| Depth               | 31"                                                                           |
| Weight              | 60 lbs.                                                                       |
| Wire Range          | .060" - .75"                                                                  |
| Label Widths        | .5" - 2"                                                                      |
| Power               | Electric universal power supply                                               |
| Storage Temperature | -30 °F to +160 °F (-34 °C to +71 °C)                                          |
| Connections         | USB, RS-232, Serial, Parallel, SD/MMC secure digital card interface, Ethernet |

### Product Selection

| Article No. | Part No.  | Type  | Description                                      | Pkg. Qty. |
|-------------|-----------|-------|--------------------------------------------------|-----------|
| 558-00060   | 556-00060 | SMLA1 | SwiftMark Automatic Label Printer and Applicator | 1         |

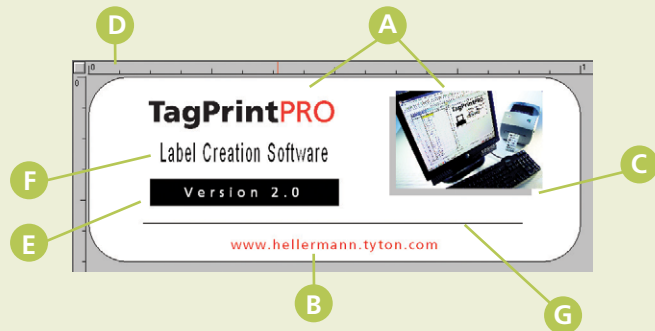
Contact HellermannTyton for details and label information. Use **Part No.** for ordering and **Type** for specification purposes.

## TagPrint™ Pro Professional Label Creation Software

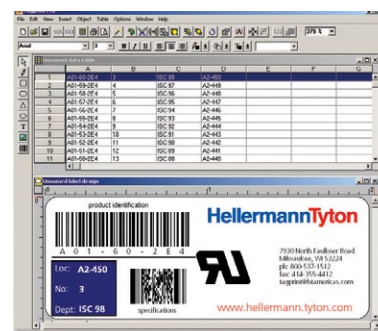
TagPrint™ Pro label creation and printing software is powerful, multi-functional and extremely easy to use. Used to provide solutions for industrial identification, TagPrint™ Pro speeds production and offers many options for a wide variety of labeling requirements. "What You See Is What You Get" (WYSIWYG) label creation, bar coding, serialization, label sets, wire lists, graphics and text choices are just some capabilities of TagPrint™ Pro software. TagPrint™ Pro can be utilized with HellermannTyton's wide array of label options including laser, ink jet, dot matrix and thermal transfer printable labels.

### New Features for Version 2.0

- Alphanumeric sequences
- Print to multiple printers at one time
- Print later feature allows user to save jobs in queue and print all at one time
- Print faster
- Connect or import directly from other databases including Excel, Access, text files
- More bar code types
- Inverse, flip, and mirror image options for graphic images
- Multi-lingual
- Print log available
- Manually adjust font size to 1/10 of a point
- Customize height and width of characters
- Customize line spacing
- Compatible with all TagPrint Pro version 1.0 files
- And much more!



- A** Easily import a variety of image types into the label design
- B** Use any Windows based font in the label design for complete customization
- C** Layer objects like professional page layout programs
- D** Rulers on top and side allow for exact placement of objects
- E** Easily change text color, fill color and border color to make text stand out and accomplish "full reverse" printing
- F** Allow text characters to be stretched or compressed to almost any height or width
- G** Draw lines, circles and boxes on the label as a simple way of making the label look more professional



### Product Selection

| Article No. | Part No.          | Type                              | System Requirements                 | Pkg. Qty. |
|-------------|-------------------|-----------------------------------|-------------------------------------|-----------|
| 556-00022   | <b>556-00022</b>  | TAGPRINTPRO Version 2.0 - Full    | Windows 98se, ME, NT4.0, 2000 or XP | 1         |
| 556-00024   | <b>556-00024*</b> | TAGPRINTPRO Version 2.0 - Upgrade | Windows 98se, ME, NT4.0, 2000 or XP | 1         |

\*Existing owners of previous versions of TagPrint can qualify for an upgrade at a reduced cost with proof of purchase and a valid serial number. Contact HellermannTyton for details. Use **Part No.** for ordering and **Type** for specification purposes.

## Spirit® 2100 Portable Printing System



The Spirit 2100 provides fast, high quality, thermal transfer printing for permanent and highly legible label printing. The Spirit 2100 prints on many different types of label materials for wire, cable, and component marking. Self-laminating, white and metalized polyester, and tamper evident materials for calibration and security labeling are available for use with the Spirit system.

### Product Features

- “What You See Is What You Get” label design and creation.
- Choose from normal or bold fonts to complete the label design
- Easily change text sizes: tiny, normal or large text
- And much more! Contact HellermannTyton for more details

| Product Selection |          |        | Description                                                                                                                                                                                                                                                                       | Pkg. Qty. |
|-------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Article No.       | Part No. | Type   |                                                                                                                                                                                                                                                                                   |           |
| 557-00085         | HT2100   | HT2100 | Portable Printing System includes: Spirit 2100 printer, HT2100 rechargeable battery and charger, ribbon cartridge, TAGH73-336, printer manual, hard shell case, cleaning card, cleaning pen and Spiritlink computer interface software (interface software cable sold separately) | 1         |

Use **Part No.** for ordering and **Type** for specification purposes.

## Spirit 2100 Accessories

| Product Selection |           |           |                             |           |
|-------------------|-----------|-----------|-----------------------------|-----------|
| Article No.       | Part No.  | Type      | Description                 | Pkg. Qty. |
| 591-00076         | BC10      | BC10      | Battery Charger             | 1         |
| 557-00002         | 2100CASE  | 2100CASE  | Spirit Carrying Case        | 1         |
| 557-00004         | 2100CABLE | 2100CABLE | SpiritLink interface cable. | 1         |
| 557-00003         | RBP1      | RBP1      | Battery Pack                | 1         |
| 557-00005         | 2100PEN   | 2100PEN   | Cleaning Pen                | 1         |
| 557-00006         | TS3003039 | TS3003039 | Spirit label Spindle Roll   | 1         |
| 557-00007         | TS3003040 | TS3003040 | Spirit label Spindle cap    | 1         |
| 557-00008         | 2100CARD  | 2100CARD  | Printhead cleaning card     | 1         |

Use **Part No.** for ordering and **Type** for specification purposes.

## Ribbon

The ribbon is supplied in a self-contained cartridge for easy loading. *One ribbon per package.*

| Product Selection |          |       |                              |           |        |            |        |               |
|-------------------|----------|-------|------------------------------|-----------|--------|------------|--------|---------------|
| Article No.       | Part No. | Type  | Description                  | Width (W) |        | Height (H) |        | Pkg. Qty.     |
|                   |          |       |                              | In.       | (mm)   | In.        | (mm)   |               |
| 557-00009*        | HHGR     | HHGR  | Replacement ribbon cartridge | 2.0       | (50.8) | 2.50       | (63.5) | 131 ft (40 m) |
| 557-00092         | HHHST    | HHHST | Ribbon cartridge             | 2.0       | (50.8) | 2.50       | (63.5) | 131 ft (40 m) |
| 557-00075**       | HHDTH    | HHDTH | Replacement Durattach ribbon | 2.0       | (50.8) | 2.50       | (63.5) | 131 ft (40 m) |

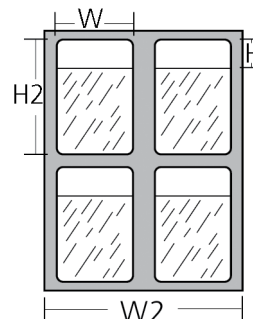
Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* HHGR works on all materials

\*\* HHDT can only be used with label materials that have the DTH extension. This provides superior performance to most chemicals and solvents.

## Spirit 2100 Self-Laminating Labels

Self-laminating labels are used for marking wire and cable. The clear overlap protects printed information.



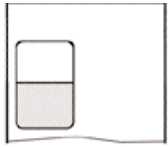
| Product Selection |            |        | Drawing Reference |       | Width (W) |         | Height of Printable Area (H) |         | Height of Label (H2) |         | Width of Liner (W2) |         | Pkg. Qty. |
|-------------------|------------|--------|-------------------|-------|-----------|---------|------------------------------|---------|----------------------|---------|---------------------|---------|-----------|
| Article No.       | Part No.   | Type   |                   |       |           |         |                              |         |                      |         |                     |         |           |
|                   |            |        |                   |       | In.       | (mm.)   | In.                          | (mm.)   | In.                  | (mm.)   | In.                 | (mm.)   |           |
| 100 Material      |            |        |                   |       |           |         |                              |         |                      |         |                     |         |           |
| 557-00026         | TAGH26-100 | TAGH26 | A                 | White | .5"       | (12.7)  | .35"                         | (8.8)   | .75"                 | (19.05) | .875"               | (22.22) | 500       |
| 557-00011         | TAGH2-100  | TAGH2  | B                 | White | .5"       | (12.7)  | .5"                          | (12.7)  | 1.435"               | (36.5)  | .875"               | (22.22) | 250       |
| 557-00025         | TAGH25-100 | TAGH25 | C                 | White | .75"      | (19.05) | .5"                          | (12.7)  | 1.75"                | (44.45) | .875"               | (22.22) | 175       |
| 557-00027         | TAGH51-100 | TAGH51 | D                 | White | 1.0"      | (25.4)  | .35"                         | (8.8)   | .75"                 | (19.05) | 1.125"              | (28.57) | 500       |
| 557-00021         | TAGH22-100 | TAGH22 | E                 | White | 1.0"      | (25.4)  | .5"                          | (12.7)  | 1.435"               | (36.5)  | 1.125"              | (28.57) | 250       |
| 557-00018         | TAGH9-100  | TAGH9  | F                 | White | 1.0"      | (25.4)  | .75"                         | (19.05) | 2.25"                | (57.1)  | 1.125"              | (53.97) | 100       |
| 557-00013         | TAGH3-100  | TAGH3  | G                 | White | 1.0"      | (25.4)  | 1.0"                         | (25.4)  | 3.75"                | (95.25) | 1.125"              | (28.57) | 100       |
| 557-00028         | TAGH95-100 | TAGH95 | H                 | White | 1.5"      | (38.1)  | 1.0"                         | (25.4)  | 3.75"                | (95.25) | 1.625"              | (41.25) | 100       |
| 557-00010         | TAGH1-100  | TAGH1  | I                 | White | 1.9"      | (48.26) | .75"                         | (19.05) | 3.19"                | (81.02) | 2.025"              | (51.43) | 100       |
| 557-00024         | TAGH24-100 | TAGH24 | J                 | White | 2.0"      | (50.8)  | .5"                          | (12.7)  | 1.435"               | (36.5)  | 2.125"              | (53.97) | 250       |
| 557-00020         | TAGH10-100 | TAGH10 | K                 | White | 2.0"      | (50.8)  | .75"                         | (19.05) | 2.25"                | (57.1)  | 2.125"              | (53.97) | 100       |
| 557-00015         | TAGH6-100  | TAGH6  | L                 | White | 2.0"      | (50.8)  | 1.0"                         | (25.4)  | 3.75"                | (95.25) | 2.125"              | (53.97) | 100       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



**Spirit 2100 Self-Laminating Labels *continued***

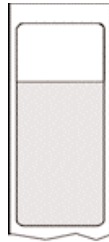
(Not shown to scale)



TAG26-100

**A**

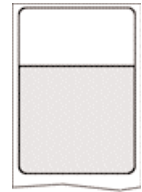
TAGH2-100

**B**

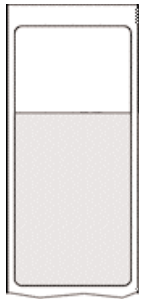
TAGH25-100

**C**

TAGH51-100

**D**

TAGH22-100

**E**

TAGH9-100

**F**

TAGH3-100

**G**

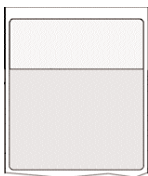
TAGH95-100

**H**

TAGH1-100

**I**

TAGH24-100

**J**

TAGH10-100

**K**

TAGH6-100

**L**

## TT230SM Printer

HellermannTyton's TT230SM thermal transfer printer is the next generation of printer available for small to medium volume users looking for an easy to use and functional thermal transfer printer. The TT230SM prints to a wide variety of materials including all of HellermannTyton labels and ShrinkTrak. The TT230SM is also Ethernet network ready, which gives the user options on placing the unit away from the host computer. The TT230SM comes with a label holder (caddy) for loading large reels behind the printer for easy dispensing and printing. There also is an optional carrying case that can be used to safely transport the printer to remote job sites.



### Product Features

- Print on ShrinkTrak
- Print on Adhesive Labels
- Print on Tiptags
- Uses standard ribbons
- Print head 300dpi
- Barcodes: standard and 2D
- Print speed up to 3" (76.2mm) per second
- Max print width 4.1" (106mm)
- Max label width 4.37 (111mm)
- Max print length 39" (101cm)
- 8MB DRAM, 2MB Flash
- Interfaces: RS232-C, Ethernet, USB v.2.0 and Centronics
- Windows drivers: 2000, XP, NT4.0, Vista, 7
- Dimensions: 7.95" (201mm) x 10.16" (258mm) x 6.81" (172mm)
- Weight 4.4lbs (2kg)

| Article No. | Part No.         | Type         | Description                       | Pkg. Qty. |
|-------------|------------------|--------------|-----------------------------------|-----------|
| 556-00230   | <b>556-00230</b> | TT230SM      | TT230SM Printer                   | 1         |
| 556-00231   | <b>556-00231</b> | CASE230SM    | Carrying Case for TT230SM Printer | 1         |
| 556-00236   | <b>556-00236</b> | TT230BATTERY | TT230SM Rechargeable Battery Pack | 1         |

## TT230SM Thermal Transfer Ribbons

### Product Selection

| Article No.   | Part No.            | Type         | Color       | Label Material |       |     |         |         |      |     |      |       |            | Width (W)  |          | Length (L) |
|---------------|---------------------|--------------|-------------|----------------|-------|-----|---------|---------|------|-----|------|-------|------------|------------|----------|------------|
|               |                     |              |             | Paper          | 100   | 250 | 795     | 822     | 822C | 900 | 1500 | DTH   | ShrinkTrak | In. (mm)   | Ft. (M)  |            |
| 556-00147**   | <b>TT822OUTSM2</b>  | TT822OUTSM2  | Red         | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00148**   | <b>TT822OUTSM3</b>  | TT822OUTSM3  | Orange      | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00149**   | <b>TT822OUTSM4</b>  | TT822OUTSM4  | Yellow      | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00150**   | <b>TT822OUTSM5</b>  | TT822OUTSM5  | Green       | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00151**   | <b>TT822OUTSM6</b>  | TT822OUTSM6  | Blue        | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00152**   | <b>TT822OUTSM7</b>  | TT822OUTSM7  | Purple      | •              | •     | •   | •       | •       | •    | •   | •    | •     | •          | 4.33 (110) | 242 (74) |            |
| 556-00153* ** | <b>TT822OUTSM8</b>  | TT822OUTSM8  | Silver Gray |                |       |     |         |         |      |     | •    |       | •          | 4.33 (110) | 242 (74) |            |
| 556-00143***  | <b>TTDTHOUTSM</b>   | TTDTHOUTSM   | Black       |                |       |     |         |         |      |     |      | • (5) | • (5)      | 4.33 (110) | 242 (74) |            |
| 556-00145     | <b>TT822OUTSM</b>   | TT822OUTSM   | Black       | •              | (1)   | •   | • (1,2) | • (1,2) | •    |     | •    |       | • (4)      | 4.33 (110) | 242 (74) |            |
| 556-00163     | <b>TTTHSTOUTSM</b>  | TTTHSTOUTSM  | Black       |                | ° (1) | °   |         |         |      |     |      |       | • (4)      | 4.33 (110) | 242 (74) |            |
| 556-00169     | <b>TT100OUTSM</b>   | TT100OUTSM   | Black       | •              | ° (1) | °   |         |         |      |     |      |       | • (4)      | 4.33 (110) | 242 (74) |            |
| 556-00190     | <b>TTWHITEOUTSM</b> | TTWHITEOUTSM | White       |                |       |     |         |         |      |     | •    |       |            | 4.33 (110) | 229 (70) |            |

Use **Part No.** for ordering and **Type** for specification purposes.

• =Recommended ribbon

° =Acceptable ribbon alternative

(1) UL Recognized material / ribbon combination with HellermannTyton thermal transfer printers

(2) CSA Normal Use approved material / ribbon combination with HellermannTyton thermal transfer printers

(3) CSA Heavy Duty Use approved material / ribbon combination with HellermannTyton thermal transfer printers

(4) Meets ASM-DTL-23053/5 Class I & III, SAE-AS81531 for print performance

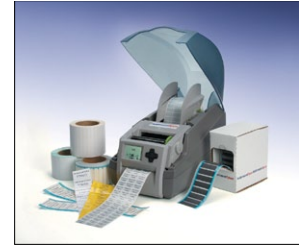
(5) Outstanding chemical, abrasion and solvent resistance where UL and CSA requirements are not needed

\*\* 24 ribbon minimum order

\* for use on black ShrinkTrak

## TTM430/TTM460 Thermal Transfer Printer

HellermannTyton's TTM430 and TTM460 thermal transfer printers are ideal for medium to large volume users looking for an easy to use and extremely functional thermal transfer printer. The TTM430 is a high quality 300 dpi printer with excellent print resolution for text and barcodes used in general industrial applications. The TTM460 is a 600 dpi printer which produces the highest quality print for very small text or smooth graphics.



### Product Features

- Print speed up to 7.87" per second
- Straight through design allows easy loading of ribbon and labels
- Larger spools or fanfold material can be fed through the back of the printer
- 64mb memory/8mb flash
- Easy to use operations and status panel
- Two adjustable gap and reflex sensors
- Optional cutter face plate allows labels and ShrinkTrak to be cut off after printing
- Printer status screen with date/time/network status/head temperature/ribbon amount
- Maximum print width – 4.25" (108mm)
- Minimum print width – .24" (6mm)

#### Product Selection

| Article No. | Part No.         | Type             | Description                   | Pkg. Qty. |
|-------------|------------------|------------------|-------------------------------|-----------|
| 556-00430   | <b>556-00430</b> | TTM430           | TTM430 Printer                | 1         |
| 556-00431   | <b>556-00431</b> | 430CFP           | Cutter Face Plate             | 1         |
| 556-00432   | <b>556-00432</b> | 430WLAN          | WLAN Wireless Card            | 1         |
| 556-00433   | <b>556-00433</b> | 430RLH           | Label Holder for TTM430       | 1         |
| 556-00434   | <b>556-00434</b> | 430RRH           | Ribbon Holder for TTM430      | 1         |
| 556-03065   | <b>556-03065</b> | Printhead TTM430 | Replacement Print Head TTM430 | 1         |

Use **Part No.** for ordering and **Type** for specification purposes.

## TTM430/TTM460 Thermal Transfer Ribbons

#### Product Selection

| Article No.  | Part No.         | Type       | Color       | Label Material |       |       |         |         |       |       |       |       |            | Width (W)     |            | Length (L) |
|--------------|------------------|------------|-------------|----------------|-------|-------|---------|---------|-------|-------|-------|-------|------------|---------------|------------|------------|
|              |                  |            |             | Paper          | 100   | 250   | 795     | 822     | 822C  | 900   | 1500  | DTH   | ShrinkTrak | In. (mm)      | Ft. (M)    |            |
| 556-00101    | <b>TT822OUT</b>  | TT822OUT   | Black       | •              | •     | •     | •       | •       | •     |       | • (5) |       | ° (4)      | 4.33" (110.0) | 984' (300) |            |
| 556-00104    | <b>TT100OUT</b>  | TT100OUT   | Black       | •              | • (1) | •     | •       | •       | •     |       |       |       | ° (4)      | 4.33" (110)   | 984' (300) |            |
| 556-00162    | <b>TTHSTOUT</b>  | TTHSTOUT   | Black       |                | ° (1) | °     |         |         |       |       |       |       | • (4)      | 4.0" (101.6)  | 984' (300) |            |
| 556-00144*** | <b>TTDTHOUT</b>  | TTDTHOUT   | Black       |                | (1)   |       |         |         |       |       |       | • (5) | • (5)      | 4.0" (101.6)  | 984' (300) |            |
| 556-00106    | <b>TT900OUT</b>  | TT900OUT   | Black       |                | • (5) | • (5) | • (5)   | • (5)   | • (5) | • (5) |       |       |            | 4.0" (101.6)  | 984' (300) |            |
| 556-00155**  | <b>TT822OUT2</b> | TT822OUT2  | Red         | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00156**  | <b>TT822OUT3</b> | TT822OUT3  | Orange      | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00157**  | <b>TT822OUT4</b> | TT822OUT4  | Yellow      | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00158**  | <b>TT822OUT5</b> | TT822OUT5  | Green       | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00159**  | <b>TT822OUT6</b> | TT822OUT6  | Blue        | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00160**  | <b>TT822OUT7</b> | TT822OUT7  | Purple      | •              | •     | •     | •       | •       | •     |       | • (5) |       |            | 4.33" (110.0) | 984' (300) |            |
| 556-00161    | <b>TT822OUT8</b> | TT822OUT8  | Silver Gray | •              |       | •     | • (1,2) | • (1,2) | •     |       | • (5) |       | •          | 4.33" (110.0) | 984' (300) |            |
| 556-00189    | <b>556-00189</b> | TTWHITEOUT | White       | •              |       | •     | • (1,2) | • (1,2) | •     |       | • (5) |       |            | 4.33" (110)   | 984' (300) |            |

\*Call HellermannTyton for assistance when using this ribbon

\*\* 10 ribbon minimum order

• = Recommended ribbon

(1) UL Recognized material & ribbon combination with HellermannTyton thermal transfer printers

(2) CSA Normal Use approved material & ribbon combination with HellermannTyton thermal transfer printers

(3) CSA Heavy Duty use approved material / ribbon combination with HellermannTyton thermal transfer printers

(4) Meets ASM-DTL-23053/5 Class I & III, SAE-AS81531 for print performance

(5) Outstanding chemical, abrasion, and solvent resistance where UL and CSA requirements are not needed

#### Material Shortcut Key

|            |                                             |
|------------|---------------------------------------------|
| 100        | Self-laminating Vinyl                       |
| 250        | Conformable Woven Cloth                     |
| 795        | Metalized Polyester                         |
| 822        | White Polyester                             |
| 822C       | Clear Polyester                             |
| 900        | Polyamide Film                              |
| 1500       | Continuous Vinyl                            |
| DTH        | Duratech                                    |
| ShrinkTrak | Flexible, radiation cross-linked polyolefin |

## TipTags Cable Markers

HellermannTyton's TipTags are non-adhesive, cross laminated polyolefin tags with die cut cable tie slots for mechanical fastening. These cable markers are designed to mark wire bundles or large cables. TipTags are ideal for applications where exceptional print performance and long term service life are critical. TipTags consist of a thin, strong material which allows the tags to be lightweight, very strong, tear resistant, and work well in thermal transfer printers.



- Thermal transfer printable for high print contrast
- Halogen free for low smoke and low fire hazard applications
- White front and yellow back for versatility
- Superior strength and tear resistance for long lasting identification
- Pre-cut slots to secure the TipTag using HellermannTyton cable ties
- Printable on both sides
- Printable with Durattach ribbon on white side for the most durable mark in the industry
- Pre-cut sensor slot which ensures the markers will work in any thermal transfer printer
- Perforated in a bandolier for easy knitting and access to individual markers
- Thin profile to take up less space and eliminate any chance of the marker damaging wire insulation
- Lightweight design for applications that require long-term fuel and weight considerations

Material: Polyolefin cross laminated with clear polyester laminate  
 Polyolefin base: 6.5 mil  
 Clear polyester laminate: 1.0 mil

Properties: Halogen-free (low smoke and low fire hazard)  
 Superior print performance, especially with Durattach ribbons  
 Unaffected by most chemicals  
 Wide service temperature range  
 Non-toxic, odorless, and can be recycled or incinerated

Service Temperature Range: -58°F to +221°F (-50°F to +105°C)  
 Can withstand spikes up to 135°C (275°F) for short periods of time

Approvals: SAE-AS81531 and Mil-Std 202G, Method 215J



## TipTags Cable Markers *continued*

| Material Data         |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Material              | Polyolefin, cross laminated                                            |
| Operating Temperature | -58 °F to +221 °F (-50 °C to +105 °C) continuous                       |
| Certification         | Meets SAE-AS81531, Mil-Std 202G Method 215J, and BS 4G 198-3, Type 11a |

RoHS

| Product Selection |                  |                  |              |             |                |           |
|-------------------|------------------|------------------|--------------|-------------|----------------|-----------|
| Article No.       | Part No.         | Type             | Marker Size  |             | Printable Area |           |
|                   |                  |                  | in.          | (mm)        | in.            | (mm)      |
| 556-26008         | <b>556-26008</b> | TIPTAGVA15X65YEW | 2.59" X .68" | (65 X 17.4) | 2.58" X .59"   | (65 X 15) |
| 556-26006         | <b>556-26006</b> | TIPTAGVA10X65YEW | 2.59" X .50" | (65 X 12.7) | 2.58" X .39"   | (65 X 10) |
| 556-26007         | <b>556-26007</b> | TIPTAGVA10X90YEW | 3.54" X .50" | (90 X 12.7) | 3.54" X .40"   | (90 X 10) |
| 556-26009         | <b>556-26009</b> | TIPTAGVA15X90YEW | 3.54" X .68" | (90 X 17.4) | 3.54" X .59"   | (90 X 15) |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## T18 - T30 Series Cable Ties - Natural and Black

| Material Data         |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Polyamide 6.6 (PA66)                            |
| Operating Temperature | -40 °F to +185 °F (-40 °C to +85 °C) continuous |

RoHS



File# E64139



File# E64139

| Product Selection |                 |       |                     |                       |       |            |       |               |       |         |
|-------------------|-----------------|-------|---------------------|-----------------------|-------|------------|-------|---------------|-------|---------|
| Article No.       | Part No.        | Type  | US Gov. Designation | Min. Tensile Strength |       | Length (L) |       | Max. Ø Bundle |       | Color   |
|                   |                 |       |                     | lbs.                  | (N)   | in.        | (mm)  | in.           | (mm)  |         |
| 111-02809         | <b>T18S9M4</b>  | T18S  | -                   | 18 lbs                | (80)  | 3.27"      | (83)  | .63"          | (16)  | Natural |
| 111-02811         | <b>T18S0M4</b>  | T18S  | -                   | 18 lbs                | (80)  | 3.27"      | (83)  | .63"          | (16)  | Black   |
| 111-01872         | <b>T18R9M4</b>  | T18R  | MS3367-4-9          | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | Natural |
| 111-01841         | <b>T18R0M4</b>  | T18R  | *                   | 18 lbs                | (80)  | 4"         | (100) | .87"          | (22)  | Black   |
| 111-02322         | <b>T18I9M4</b>  | T18I  | -                   | 18 lbs                | (80)  | 5.51"      | (140) | 1.38"         | (35)  | Natural |
| 111-02315         | <b>T18I0M4</b>  | T18I  | -                   | 18 lbs                | (80)  | 5.51"      | (140) | 1.38"         | (35)  | Black   |
| 111-02026         | <b>T18L9M4</b>  | T18L  | -                   | 18 lbs                | (80)  | 8.0"       | (205) | 2.17"         | (55)  | Natural |
| 111-02015         | <b>T18L0M4</b>  | T18L  | -                   | 18 lbs                | (80)  | 8.0"       | (205) | 2.17"         | (55)  | Black   |
| 111-03047         | <b>T30R9M4</b>  | T30R  | MS3367-5-9          | 30 lbs                | (135) | 5.9"       | (150) | 1.38"         | (35)  | Natural |
| 111-03034         | <b>T30R0M4</b>  | T30R  | *                   | 30 lbs                | (135) | 5.9"       | (150) | 1.38"         | (35)  | Black   |
| 111-03327         | <b>T30L9M4</b>  | T30L  | -                   | 30 lbs                | (135) | 7.48"      | (190) | 1.97"         | (50)  | Natural |
| 111-03315         | <b>T30L0M4</b>  | T30L  | -                   | 30 lbs                | (135) | 7.48"      | (190) | 1.97"         | (50)  | Black   |
| 111-03517         | <b>T30LL9M4</b> | T30LL | -                   | 30 lbs                | (135) | 11.42"     | (290) | 3.15"         | (80)  | Natural |
| 111-03511         | <b>T30LL0M4</b> | T30LL | -                   | 30 lbs                | (135) | 11.42"     | (290) | 3.15"         | (80)  | Black   |
| 111-02907         | <b>T30XL9M4</b> | T30XL | -                   | 30 lbs                | (135) | 14.37"     | (365) | 4.13"         | (105) | Natural |
| 111-02903         | <b>T30XL0M4</b> | T30XL | -                   | 30 lbs                | (135) | 14.37"     | (365) | 4.13"         | (105) | Black   |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* Military black available. Contact HellermannTyton for more information.

## ShrinkTrak™ Heat Shrinkable Markers

HellermannTyton's ShrinkTrak™ heat shrinkable markers make it easy to mark wire, cable, and other components. These ladder-style markers are designed with side slits for easier application. All ShrinkTrak™ markers are military specified. They also reduce printer jams with their efficient and high performance design. For seamless labeling, ShrinkTrak™ can be printed using HellermannTyton's TagPrint™ Pro professional label creation software, thermal transfer printers and ribbons to create a permanent and solvent resistant print when shrunk and applied.

### Versatile

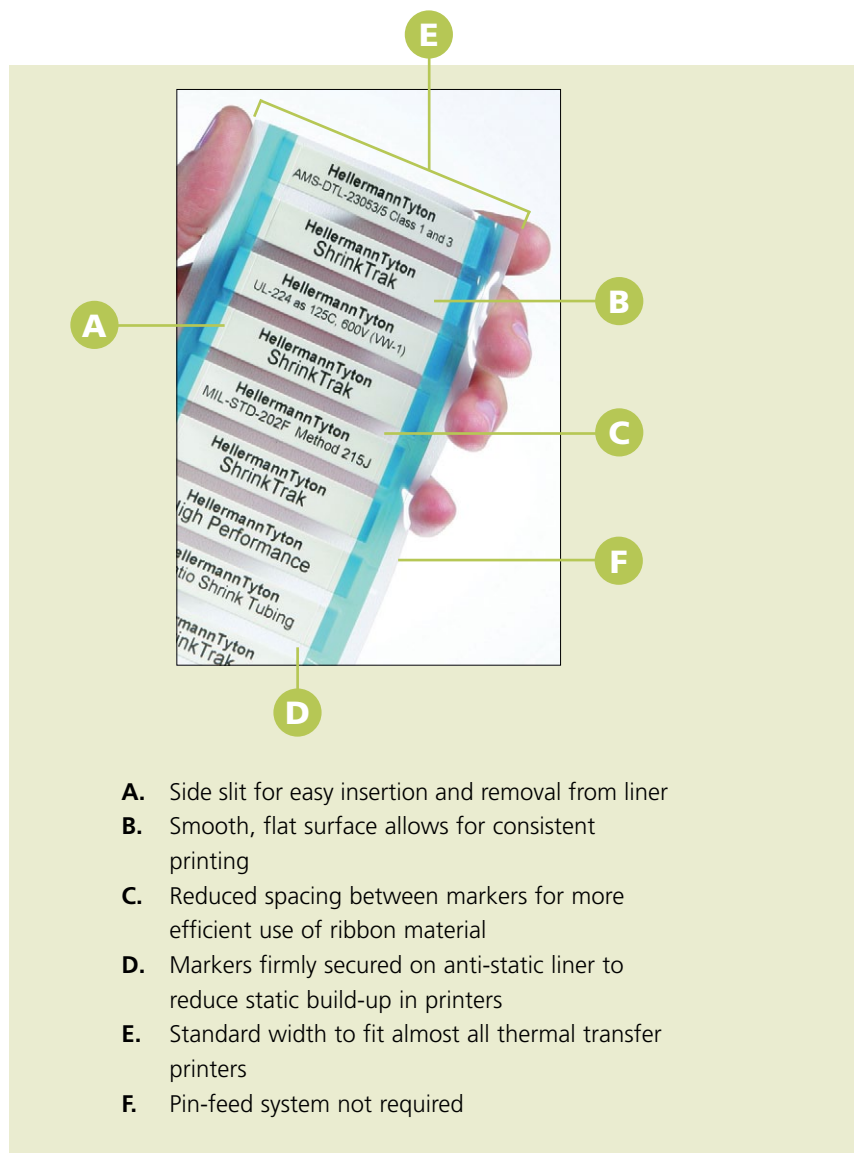
- Flexible, flame retardant, heat shrinkable polyolefin tubing meets all military specifications
- 3:1 shrink ratio
- Standard colors - yellow, white and black
- Larger packaging options result in less box changes

### High Performance Design

- Center slit versions reduce or eliminate hand cutting
- Non-slip, printable liner allows additional marker data to be printed on the reverse side for records and placement instructions
- Utilize HellermannTyton's Durattach ribbon system for the highest print performance on the market

### Reduce Printer Jams

- Markers dispense directly into HellermannTyton thermal transfer printers with custom box opening
- Dispense markers faster and easier with waxed core dispenser



- A. Side slit for easy insertion and removal from liner
- B. Smooth, flat surface allows for consistent printing
- C. Reduced spacing between markers for more efficient use of ribbon material
- D. Markers firmly secured on anti-static liner to reduce static build-up in printers
- E. Standard width to fit almost all thermal transfer printers
- F. Pin-feed system not required

### Ease of Use - Step by Step Guide



**Step 1**  
Print with thermal transfer printer



**Step 2**  
Bend liner at side slit



**Step 3**  
Insert wire into marker



**Step 4**  
Pull-up on wire - the marker will pull away from liner



**ShrinkTrak Applied!**



ShrinkTrak™ Heat Shrinkable Markers *continued*

| Material Data                                 |                                                                                 |
|-----------------------------------------------|---------------------------------------------------------------------------------|
| Material                                      | <b>Polyolefin, cross-linked (POX)</b>                                           |
| Product Thickness                             | <b>3 mil total thickness</b>                                                    |
| Shrink Temperature<br>(nominal)               | <b>+194 °F (+90 °C)</b>                                                         |
| Operating Temperature                         | <b>-67 °F to +275 °F (-55 °C to +135 °C)</b>                                    |
| Flame Retardant                               | <b>Yes</b>                                                                      |
| Flammability                                  | <b>UL224 VW1</b>                                                                |
| Flexibility                                   | <b>flexible</b>                                                                 |
| Abrasion Resistance                           | <b>Good</b>                                                                     |
| Solvent Resistance                            | <b>Good</b>                                                                     |
| Standard Colors                               | <b>White, Yellow &amp; Black</b>                                                |
| *For other colors, contact<br>HellermannTyton |                                                                                 |
| UL Rating                                     | <b>Meets UL-224 as +257 °F (+125 °C), 600V (VW-1)</b>                           |
| Certification                                 | <b>AMS-DTL-23053/5 Class 1 and 3, SAE-AS81531,<br/>MIL-STD-202G Method 215K</b> |



## Recommended Thermal Transfer Ribbons

## TT230SM Printer

TTDTHOUTSM

T822OUTSM

TTHSTOUTSM

TT900OUTSM

## TTM430/TTM460

**or other thermal  
transfer printers**

TTDTHOUT

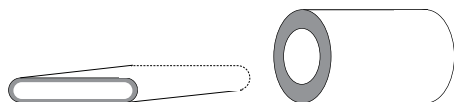
TT822OUT

TTHSTOUT

TT900OUT



| ShrinkTrak Specifications                                                                  |                                    |                                   |                                   |                                    |                                    |                                    |                                   |
|--------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|
| Diameter Size                                                                              | 0.125"                             | 0.187"                            | 0.25"                             | 0.375"                             | 0.50"                              | 0.75"                              | 1.0"                              |
| Wire Size Range<br>(AWG/MCM)                                                               | 18-22<br>(.044 - .1)               | 12-18<br>(.063 - .17)             | 10-16<br>(.083 - .230)            | 8-14<br>(.122 - .340)              | 2-10<br>(.166 - .470)              | 6-0000<br>(.25 - .725)             | 1-400<br>(.330 - .876)            |
| Inside Diameter as<br>Supplied In.<br>(mm)*                                                | 0.118 +/- 0.024<br>(3.0 +/- 0.6)   | 0.177 +/- 0.032<br>(4.5 +/- 0.8)  | 0.236 +/- 0.040<br>(6.0 +/- 1.0)  | 0.354 +/- 0.040<br>(9.0 +/- 1.0)   | 0.470 +/- 0.024<br>(12.0 +/- 1.0)  | 0.732 +/- 0.040<br>(18.6 +/- 1.0)  | 1.024 +/- 0.040<br>(26.0 +/- 1.0) |
| Inside Diameter<br>After Recovery In.<br>(mm)                                              | 0.043<br>(1.0)                     | 0.063<br>(1.6)                    | 0.083<br>(2.1)                    | 0.122<br>(3.1)                     | 0.166<br>(4.2)                     | 0.25<br>(6.35)                     | 0.33<br>(8.3)                     |
| Wall Thickness<br>After Recovery In.<br>(mm)                                               | 0.0209 +/- 0.040<br>(.53 +/- 0.10) | 0.026 +/- 0.004<br>(.65 +/- 0.10) | 0.028 +/- 0.004<br>(.71 +/- 0.10) | 0.031 +/- 0.006<br>(0.78 +/- 0.15) | 0.033 +/- 0.006<br>(0.83 +/- 0.15) | 0.036 +/- 0.006<br>(0.91 +/- 0.15) | 0.039 +/- 0.006<br>(.99 +/- 1.6)  |
| Overall Width<br>In. (mm)                                                                  | 0.209 +/- 0.040<br>(5.3 +/- 1.0)   | 0.303 +/- 0.052<br>(7.7 +/- 1.3)  | 0.398 +/- 0.063<br>(10.1 +/- 1.6) | 0.587 +/- 0.063<br>(14.9 +/- 1.6)  | 0.776 +/- 0.063<br>(19.7 +/- 1.6)  | 1.21 +/- 0.063<br>(30.8 +/- 1.6)   | 1.63 +/- 0.063<br>(41.38 +/- 1.6) |
| Overall Height<br>In. (mm)                                                                 | 0.020<br>(0.508)                   | 0.020<br>(0.508)                  | 0.020<br>(0.508)                  | 0.022<br>(0.558)                   | 0.023<br>(0.582)                   | 0.025<br>(0.63)                    | 0.03<br>(0.76)                    |
| Dimensional<br>Reference (if the<br>wire or cable<br>diameter is less<br>than or equal to) |                                    |                                   |                                   |                                    |                                    |                                    |                                   |

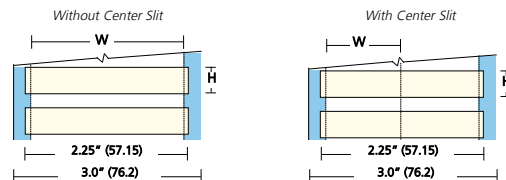


\*As supplied

\*\*Recovered

\* Contact HellermannTyton for custom color options.

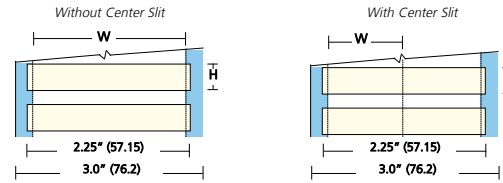
\*\* Meets printer performance requirements of SAE-AS81531 using the ribbons listed above in any thermal transfer printer, including HellermannTyton's TT320SM and TT1210

ShrinkTrak Heat Shrinkable Markers *continued*

## Product Selection

| Product Selection                   |                  |                 |                              |        |             |           |         |            |         |           |
|-------------------------------------|------------------|-----------------|------------------------------|--------|-------------|-----------|---------|------------|---------|-----------|
| Article No.                         | Part No.         | Type            | Cross Ref to Former Part No. | Color  | Center Slit | Width (W) |         | Height (H) |         | Pkg. Qty. |
|                                     |                  |                 |                              |        |             | In.       | (mm.)   | In.        | (mm.)   |           |
| 0.125" (3.17mm) - Outside Diameter  |                  |                 |                              |        |             |           |         |            |         |           |
| 553-50001                           | <b>553-50001</b> | HST3-1BK        | THS-610BM                    | Black  | -           | 1.9"      | (48.26) | .235"      | (5.97)  | 250       |
| 553-50002                           | <b>553-50002</b> | HST3-1WH        | THS-610W                     | White  | -           | 1.9"      | (48.26) | 1.90"      | (48)    | 250       |
| 553-50003                           | <b>553-50003</b> | HST3-1WH        | THS-610W10C                  | White  | -           | 1.9"      | (48.26) | 1.90"      | (48)    | 1000      |
| 553-50078                           | <b>553-50078</b> | HST3-1WH        | THS-610W25C                  | White  | -           | 1.9"      | (48.26) | .235"      | (5.97)  | 2500      |
| 553-50004                           | <b>553-50004</b> | HST3-1WH-S      | THS-610WP                    | White  | Single      | .95"      | (24.1)  | .235"      | (5.97)  | 500       |
| 553-50074                           | <b>553-50074</b> | HST3-1WH-S      | THS-610WP10C                 | White  | Single      | .95"      | (24.1)  | .235"      | (5.97)  | 2000      |
| 553-50067                           | <b>553-50067</b> | HST3-1WH-S      | THS-610WP25C                 | White  | Single      | .95"      | (24.1)  | .235"      | (5.97)  | 5000      |
| 553-50070                           | <b>553-50070</b> | HST3-1WH-2S     | THS-610W2P                   | White  | Double      | .63"      | (16.08) | .235"      | (5.97)  | 750       |
| 553-50075                           | <b>553-50075</b> | HST3-1WH-2S     | THS-610W2P10C                | White  | Double      | .63"      | (16.08) | .235"      | (5.97)  | 3000      |
| 553-50063                           | <b>553-50063</b> | HST3-1WH-3S     | THS-610W3P                   | White  | Triple      | .475"     | (12.07) | .235"      | (5.97)  | 1000      |
| 553-50088                           | <b>553-50088</b> | HST3-1WH-3S     | THS-610W3P10C                | White  | Triple      | .475"     | (12.07) | .475"      | (12)    | 4000      |
| 553-50006                           | <b>553-50006</b> | HST3-1YE        | THS-610Y10C                  | Yellow | -           | 1.9"      | (48.26) | .235"      | (5.97)  | 1000      |
| 553-50005                           | <b>553-50005</b> | HST3-1YE        | THS-610Y                     | Yellow | -           | 1.9"      | (48.26) | .235"      | (5.97)  | 250       |
| 553-50007                           | <b>553-50007</b> | HST3-1YE-S      | THS-610YP                    | Yellow | Single      | .95"      | (24.1)  | .235"      | (5.97)  | 500       |
| 553-50076                           | <b>553-50076</b> | HST3-1YE-S      | THS-610YP10C                 | Yellow | Single      | .95"      | (24.1)  | .235"      | (5.97)  | 2000      |
| 553-50071                           | <b>553-50071</b> | HST3-1YE-2S     | THS-610Y2P                   | Yellow | Double      | .63"      | (16.08) | .235"      | (5.97)  | 750       |
| 553-50077                           | <b>553-50077</b> | HST3-1YE-2S     | THS-610Y2P10C                | Yellow | Double      | .63"      | (16.08) | .235"      | (5.97)  | 3000      |
| 0.187" (4.74 mm) - Outside Diameter |                  |                 |                              |        |             |           |         |            |         |           |
| 553-50008                           | <b>553-50008</b> | HST4.8-1.6BK    | THS-615BM                    | Black  | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 250       |
| 553-50009                           | <b>553-50009</b> | HST4.8-1.6WH    | THS-615W                     | White  | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 250       |
| 553-50010                           | <b>553-50010</b> | HST4.8-1.6WH    | THS-615W10C                  | White  | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 1000      |
| 553-50177                           | <b>553-50177</b> | HST4.8-1.6WH    | THS-615W30C                  | White  | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 3000      |
| 553-50079                           | <b>553-50079</b> | HST4.8-1.6WH    | THS-615W50C                  | White  | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 5000      |
| 553-50011                           | <b>553-50011</b> | HST4.8-1.6WH-S  | THS-615WP                    | White  | Single      | .95"      | (24.1)  | .312"      | (7.92)  | 500       |
| 553-50080                           | <b>553-50080</b> | HST4.8-1.6WH-S  | THS-615WP10C                 | White  | Single      | .95"      | (24.1)  | .312"      | (7.92)  | 2000      |
| 553-50068                           | <b>553-50068</b> | HST4.8-1.6WH-2S | THS-615W2P                   | White  | Double      | .633"     | (16.08) | .312"      | (7.92)  | 750       |
| 553-50072                           | <b>553-50072</b> | HST4.8-1.6WH-2S | THS-615W2P10C                | White  | Double      | .633"     | (16.08) | .312"      | (7.92)  | 3000      |
| 553-50064                           | <b>553-50064</b> | HST4.8-1.6WH-3S | THS-615W3P                   | White  | Triple      | .475"     | (12.07) | .312"      | (7.92)  | 1000      |
| 553-50081                           | <b>553-50081</b> | HST4.8-1.6WH-3S | THS-615W3P10C                | White  | Triple      | .475"     | (12.07) | .312"      | (7.92)  | 4000      |
| 553-50013                           | <b>553-50013</b> | HST4.8-1.6YE    | THS-615Y10C                  | Yellow | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 1000      |
| 553-50012                           | <b>553-50012</b> | HST4.8-1.6YE    | THS-615Y                     | Yellow | -           | 1.9"      | (48.26) | .312"      | (7.92)  | 250       |
| 553-50014                           | <b>553-50014</b> | HST4.8-1.6YE-S  | THS-615YP                    | Yellow | Single      | .95"      | (24.1)  | .312"      | (7.92)  | 500       |
| 553-50069                           | <b>553-50069</b> | HST4.8-1.6YE-2S | THS-615Y2P                   | Yellow | Double      | .633"     | (16.08) | .312"      | (7.92)  | 750       |
| 553-50073                           | <b>553-50073</b> | HST4.8-1.6YE-2S | THS-615Y2P10C                | Yellow | Double      | .633"     | (16.08) | .312"      | (7.92)  | 3000      |
| 553-50176                           | <b>553-50176</b> | HST4.8-1.6WH-S  | THS-615Y2P10C                | White  | Double      | .633"     | (16.08) | .312"      | (7.92)  | 3000      |
| 0.25" (6.35mm) - Outside Diameter   |                  |                 |                              |        |             |           |         |            |         |           |
| 553-50015                           | <b>553-50015</b> | HST6-2BK        | THS-620BM                    | Black  | -           | 1.9"      | (48.26) | .420"      | (10.67) | 250       |
| 553-50016                           | <b>553-50016</b> | HST6-2WH        | THS-620W                     | White  | -           | 1.9"      | (48.26) | .420"      | (10.67) | 250       |
| 553-50017                           | <b>553-50017</b> | HST6-2WH        | THS-620W10C                  | White  | -           | 1.9"      | (48.26) | .420"      | (10.67) | 1000      |
| 553-50018                           | <b>553-50018</b> | HST6-2WH        | THS-620W50C                  | White  | -           | 1.9"      | (48.26) | .420"      | (10.67) | 5000      |
| 553-50019                           | <b>553-50019</b> | HST6-2WHC       | THS-620WP                    | White  | Single      | .95"      | (24.1)  | .420"      | (10.67) | 500       |
| 553-50020                           | <b>553-50020</b> | HST6-2YE-S      | THS-620YP10C                 | Yellow | -           | 1.9"      | (48.26) | .420"      | (10.67) | 2000      |
| 553-50021                           | <b>553-50021</b> | HTS6-2YE-2S     | THS-620Y2P                   | Yellow | -           | 1.9"      | (48.26) | .420"      | (10.67) | 1000      |
| 553-50022                           | <b>553-50022</b> | HST6-2YE-S      | THS-620Y3P                   | Yellow | Single      | .95"      | (24.1)  | .420"      | (10.67) | 1000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

ShrinkTrak Heat Shrinkable Markers *continued*

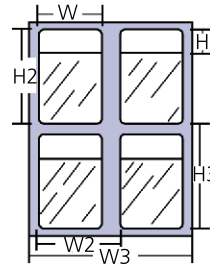
## Product Selection

| Product Selection                             |                  |               |                              |        |             |           |         |            |         |           |
|-----------------------------------------------|------------------|---------------|------------------------------|--------|-------------|-----------|---------|------------|---------|-----------|
| Article No.                                   | Part No.         | Type          | Cross Ref to Former Part No. | Color  | Center Slit | Width (W) |         | Height (H) |         | Pkg. Qty. |
|                                               |                  |               |                              |        |             | In.       | (mm.)   | In.        | (mm.)   |           |
| 0.25" (6.35mm) - Outside Diameter (continued) |                  |               |                              |        |             |           |         |            |         |           |
| 553-50082                                     | <b>553-50082</b> | HST6-2WH-2S   | THS-620W2P                   | White  | Double      | .633"     | (16.08) | .420"      | (10.67) | 750       |
| 553-50083                                     | <b>553-50083</b> | HST6-2YE-2S   | THS-620Y2P                   | Yellow | Double      | .633"     | (16.08) | .420"      | (10.67) | 750       |
| 553-50084                                     | <b>553-50084</b> | HST6-2WH-S    | THS-620WP10C                 | White  | Single      | .95"      | (24.1)  | .420"      | (10.67) | 2000      |
| 553-50085                                     | <b>553-50085</b> | HST6-2YE-S    | THS-620YP10C                 | Yellow | Single      | .95"      | (24.1)  | .420"      | (10.67) | 2000      |
| 553-50089                                     | <b>553-50089</b> | HST6-2WH-3S   | THS-620W3P10C                | White  | Triple      | .475"     | (12.07) | .420"      | (10.67) | 4000      |
| 0.375" (9.52 mm) - Outside Diameter           |                  |               |                              |        |             |           |         |            |         |           |
| 553-50023                                     | <b>553-50023</b> | HST9-3BK      | THS-625BM                    | Black  | -           | 1.9"      | (48.26) | .597"      | (15.16) | 250       |
| 553-50024                                     | <b>553-50024</b> | HST9-3WH      | THS-625W                     | White  | -           | 1.9"      | (48.26) | .597"      | (15.16) | 250       |
| 553-50025                                     | <b>553-50025</b> | HST9-3WH-S    | THS-625WP                    | White  | Single      | .95"      | (24.1)  | .597"      | (15.16) | 500       |
| 553-50066                                     | <b>553-50066</b> | HST9-3WH-3S   | THS-625W3P                   | White  | Triple      | .475"     | (12.07) | .597"      | (15.16) | 1000      |
| 553-50026                                     | <b>553-50026</b> | HST9-3YE      | THS-625Y                     | Yellow | -           | 1.9"      | (48.26) | .597"      | (15.16) | 250       |
| 553-50027                                     | <b>553-50027</b> | HST9-3YE-S    | THS-625YP                    | Yellow | Single      | .95"      | (24.1)  | .597"      | (15.16) | 500       |
| 553-50192                                     | <b>553-50192</b> | HST9-3WH      | THS-625W10C                  | White  | -           | 1.9"      | (48.26) | .597"      | (15.16) | 1000      |
| 0.50" (12.7 mm) - Outside Diameter            |                  |               |                              |        |             |           |         |            |         |           |
| 553-50028                                     | <b>553-50028</b> | HST12-4BK     | THS-630BM                    | Black  | -           | 1.9"      | (48.26) | .77"       | (19.55) | 250       |
| 553-50029                                     | <b>553-50029</b> | HST12-4WH     | THS-630W                     | White  | -           | 1.9"      | (48.26) | .77"       | (19.55) | 250       |
| 553-50030                                     | <b>553-50030</b> | HST12-4WH-S   | THS-630WP                    | White  | Single      | .95"      | (24.1)  | .77"       | (19.55) | 500       |
| 553-50086                                     | <b>553-50086</b> | HST12-4WH-3S  | THS-630W3P                   | White  | Triple      | .475"     | (12.07) | .77"       | (19.55) | 1000      |
| 553-50031                                     | <b>553-50031</b> | HST12-4YE     | THS-630Y                     | Yellow | -           | 1.9"      | (48.26) | .77"       | (19.55) | 250       |
| 553-50032                                     | <b>553-50032</b> | HST12-4YE-S   | THS-630YP                    | Yellow | Single      | .95"      | (24.1)  | .77"       | (19.55) | 500       |
| 553-50087                                     | <b>553-50087</b> | HST12-4YE-3S  | THS-630Y3P                   | Yellow | Triple      | .475"     | (12.07) | .77"       | (19.55) | 1000      |
| 553-50231                                     | <b>553-50231</b> | HST12-4WH     | THS-630W10C                  | White  | -           | 1.9"      | (48.26) | .77"       | (19.55) | 1000      |
| 553-50232                                     | <b>553-50232</b> | HST12-4WH-S   | THS-630WP10C                 | White  | Single      | .95"      | (24.1)  | .77"       | (19.55) | 2000      |
| 0.75" (19.05 mm) - Outside Diameter           |                  |               |                              |        |             |           |         |            |         |           |
| 553-50033                                     | <b>553-50033</b> | HST18-6BK     | THS-635BM                    | Black  | -           | 1.9"      | (48.26) | 1.2"       | (30.48) | 250       |
| 553-50034                                     | <b>553-50034</b> | HST18-6WH     | THS-635W                     | White  | -           | 1.9"      | (48.26) | 1.2"       | (30.48) | 250       |
| 553-50035                                     | <b>553-50035</b> | HST18-6WH-S   | THS-635WP                    | White  | Single      | .95"      | (24.1)  | 1.2"       | (30.48) | 500       |
| 553-50036                                     | <b>553-50036</b> | HST18-6YE     | THS-635Y                     | Yellow | -           | 1.9"      | (48.26) | 1.2"       | (30.48) | 250       |
| 553-50037                                     | <b>553-50037</b> | HST18-6YE-S   | THS-635YP                    | Yellow | Single      | .95"      | (24.1)  | 1.2"       | (30.48) | 500       |
| 553-50233                                     | <b>553-50233</b> | HST18-6WH     | THS-635W10C                  | White  | -           | 1.9"      | (48.26) | 1.2"       | (30.48) | 1000      |
| 553-50234                                     | <b>553-50234</b> | HST18-6WH-S   | THS-635WP10C                 | White  | Single      | .95"      | (24.1)  | 1.2"       | (30.48) | 2000      |
| 1.0" (25.4mm) - Outside Diameter              |                  |               |                              |        |             |           |         |            |         |           |
| 553-50038                                     | <b>553-50038</b> | HST24-8BK     | THS-640BM                    | Black  | -           | 1.9"      | (48.26) | 1.69"      | (42.93) | 250       |
| 553-50039                                     | <b>553-50039</b> | HST24-8WH     | THS-640W                     | White  | -           | 1.9"      | (48.26) | 1.69"      | (42.93) | 250       |
| 553-50040                                     | <b>553-50040</b> | HST24-8WH-S   | THS-640WP                    | White  | Single      | .95"      | (24.1)  | 1.69"      | (42.93) | 500       |
| 553-50041                                     | <b>553-50041</b> | HST24-8YE     | THS-640Y                     | Yellow | -           | 1.9"      | (48.26) | 1.69"      | (42.93) | 250       |
| 553-50042                                     | <b>553-50042</b> | HST24-8YE-S   | THS-640YP                    | Yellow | Single      | .95"      | (24.1)  | 1.69"      | (42.93) | 500       |
| 1.5" (38.1mm) - Outside Diameter              |                  |               |                              |        |             |           |         |            |         |           |
| 553-50226                                     | <b>553-50226</b> | HFST39-13WH-S | THS-645WP                    | White  | Single      | .95"      | (24.13) | 2.26"      | (57.40) | 300       |
| 553-50209                                     | <b>553-50209</b> | HST39-13WH    | THS-645W                     | White  | -           | 1.9"      | (48.26) | 2.26"      | (57.40) | 150       |
| 553-50225                                     | <b>553-50225</b> | HFST39-13YE   | THS-645Y                     | Yellow | -           | 1.9"      | (48.26) | 2.26"      | (57.40) | 150       |
| 553-50227                                     | <b>553-50227</b> | HFST39-13YE-S | THS-645YP                    | Yellow | Single      | .95"      | (24.13) | 2.26"      | (57.40) | 300       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Thermal Transfer Self-Laminating Labels

HellermannTyton's self-laminating labels are used for marking wire and cable. The clear overlap protects printed information.



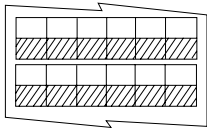
### Product Selection

| Article No.          | Part No.             | Type    | Drawing Reference<br>(page 171) | Width (W)<br>In. (mm) | Height of Printable Area (H)<br>In. (mm) | Height of Label (H2)<br>In. (mm) | Vertical Repeat (H3)<br>In. (mm) | Horizontal Repeat (W2)<br>In. (mm) | Width of Liner (W3)<br>In. (mm) | Labels per Row | Pkg. Qty. |
|----------------------|----------------------|---------|---------------------------------|-----------------------|------------------------------------------|----------------------------------|----------------------------------|------------------------------------|---------------------------------|----------------|-----------|
| <b>100B Material</b> |                      |         |                                 |                       |                                          |                                  |                                  |                                    |                                 |                |           |
| 596-00009            | <b>TAG26T6-100B</b>  | TAG26T6 | A                               | .5"<br>(12.7)         | .375"<br>(9.52)                          | .75"<br>(19.05)                  | 1.0"<br>(25.4)                   | .5"<br>(12.7)                      | 3.35"<br>(85.09)                | 6              | 10000     |
| 596-00010            | <b>TAG2T5-100B</b>   | TAG2T5  | B                               | .5"<br>(12.7)         | .5"<br>(12.7)                            | 1.43"<br>(36.5)                  | 1.62"<br>(41.28)                 | .66"<br>(16.81)                    | 3.35"<br>(85.09)                | 5              | 10000     |
| 596-00014            | <b>TAG51T3-100B</b>  | TAG51T3 | C                               | 1.0"<br>(25.4)        | .35"<br>(8.8)                            | .75"<br>(19.05)                  | .937"<br>(23.7)                  | 1.075"<br>(27.3)                   | 3.35"<br>(85.09)                | 3              | 10000     |
| 596-00006            | <b>TAG22T2-100B</b>  | TAG22T2 | D                               | 1.0"<br>(25.4)        | .5"<br>(12.7)                            | 1.43"<br>(36.5)                  | 1.62"<br>(41.28)                 | 1.075"<br>(27.3)                   | 2.25"<br>(57.1)                 | 2              | 5000      |
| 596-00007            | <b>TAG22T3-100B</b>  | TAG22T3 | E                               | 1.0"<br>(25.4)        | .5"<br>(12.7)                            | 1.43"<br>(36.5)                  | 1.62"<br>(41.28)                 | 1.075"<br>(27.3)                   | 3.35"<br>(85.09)                | 3              | 5000      |
| 596-00027            | <b>TAG9T3-100B</b>   | TAG9T3  | F                               | 1.0"<br>(25.4)        | .75"<br>(19.05)                          | 2.25"<br>(57.1)                  | 2.5"<br>(63.5)                   | 1.0"<br>(25.4)                     | 3.35"<br>(85.09)                | 3              | 5000      |
| 596-00013            | <b>TAG3T3-100B</b>   | TAG3T3  | G                               | 1.0"<br>(25.4)        | 1.0"<br>(25.4)                           | 3.75"<br>(95.25)                 | 4.0"<br>(101.6)                  | 1.075"<br>(27.3)                   | 3.35"<br>(85.09)                | 3              | 3000      |
| 596-00011            | <b>TAG38T4-100B*</b> | TAG38T4 | H                               | 1.0"<br>(25.4)        | 1.5"<br>(38.1)                           | 7.347"<br>(188.89)               | 7.75"<br>(196.80)                | 1.0"<br>(25.4)                     | 4.10"<br>(104.14)               | 4              | 1000      |
| 596-00045            | <b>TAG53T2-100B</b>  | TAG53T2 | I                               | 1.5"<br>(38.1)        | .7"<br>(17.78)                           | 1.437"<br>(36.49)                | 1.62"<br>(41.28)                 | 1.5"<br>(38.1)                     | 3.35"<br>(89.05)                | 2              | 2500      |
| 596-00005            | <b>TAG1T1-100B</b>   | TAG1T1  | J                               | 1.9"<br>(48.2)        | .75"<br>(19.05)                          | 3.12"<br>(79.2)                  | 3.42"<br>(86.8)                  | 1.9"<br>(48.2)                     | 3.875"<br>(98.42)               | 2              | 2500      |
| 596-00008            | <b>TAG24T1-100B</b>  | TAG24T1 | K                               | 2.0"<br>(50.8)        | .5"<br>(12.7)                            | 1.437"<br>(36.49)                | 1.68"<br>(42.6)                  | 2.0"<br>(50.8)                     | 2.2"<br>(55.9)                  | 1              | 1000      |
| 596-00002            | <b>TAG10T2-100B</b>  | TAG10T2 | L                               | 2.0"<br>(50.8)        | .75"<br>(19.05)                          | 2.25"<br>(57.1)                  | 2.5"<br>(63.5)                   | 2.0"<br>(50.8)                     | 3.875"<br>(98.42)               | 2              | 2500      |
| 596-00021            | <b>TAG7T1-100B*</b>  | TAG7T1  | M                               | 2.0"<br>(50.8)        | 1.5"<br>(38.1)                           | 7.347"<br>(188.89)               | 7.75"<br>(196.80)                | 2.0"<br>(50.8)                     | 4.10"<br>(104.14)               | 2              | 1000      |
| 596-00016            | <b>TAG6T1-100B</b>   | TAG6T1  | N                               | 2.0"<br>(50.8)        | 1.5"<br>(38.1)                           | 3.75"<br>(95.25)                 | 4.0"<br>(101.6)                  | 2.0"<br>(50.8)                     | 2.20"<br>(68.58)                | 1              | 1000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

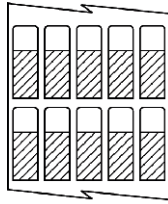
## Thermal Transfer Self-Laminating Labels *continued*

(Not shown to scale)



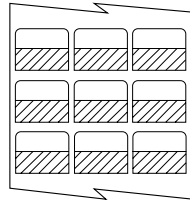
*TAG26T6-100B*

**A**



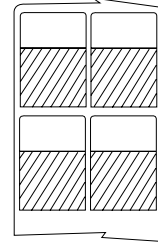
*TAG2T5-100B*

**B**



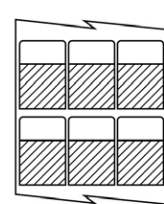
*TAG51T3-100B*

**C**



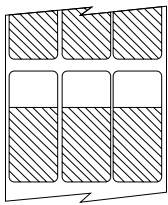
*TAG22T2-100B*

**D**



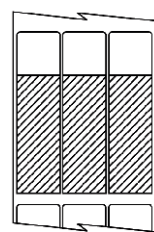
*TAG22T3-100B*

**E**



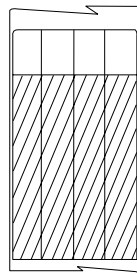
*TAG9T3-100B*

**F**



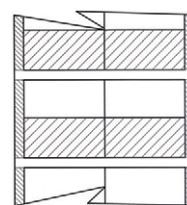
*TAG3T3-100B*

**G**



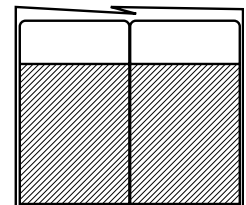
*TAG38T4-100B*

**H**



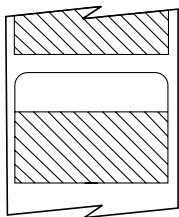
*TAG53T2-100B*

**I**



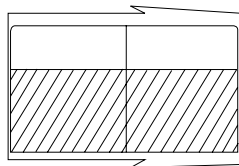
*TAG1T1-100B*

**J**



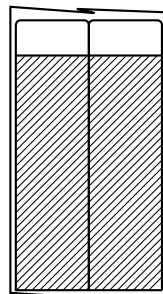
*TAG24T1-100B*

**K**



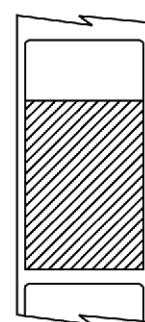
*TAG10T2-100B*

**L**



*TAG7T1-100B*

**M**

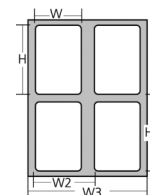


*TAG6T1-100B*

**N**

## Thermal Transfer Labels

HellermannTyton thermal transfer labels provide the best printing quality. These labels are particularly suitable for permanent marking on the flat surfaces of production machines and equipment. The technology used in the printing of thermal transfer labels produces the most accurate barcodes of all existing printing technologies. The large selection of labels makes it easy to find the correct label for almost any application. Thermal transfer labels are designed for high heat and are resistant to chemicals as well as petroleum based oils and solvents.



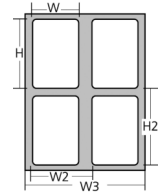
### Product Selection

| Product Selection |             |         |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
|-------------------|-------------|---------|-------------------|-----------|---------|------------|---------|----------------------|-------|------------------------|-------|---------------------|--------|----------------|-----------|
| Article No.       | Part No.    | Type    | Drawing Reference | Width (W) |         | Height (H) |         | Vertical Repeat (H2) |       | Horizontal Repeat (W2) |       | Width of Liner (W3) |        | Labels per Row | Pkg. Qty. |
|                   |             |         | pages (168-169)   | In.       | (mm.)   | In.        | (mm.)   | In.                  | (mm.) | In.                    | (mm.) | In.                 | (mm.)  |                |           |
| 250 Material      |             |         |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 598-00277         | TYHCT-250   | TYHC    | A                 | .250"     | (6.35)  | 1.50"      | (38.10) | 1.625                | 41.27 | .250"                  | 6.35  | 4.120"              | 104.70 | 16             | 5000      |
| 596-21250         | TAG21T6-250 | TAG21T6 | B                 | .5"       | (12.7)  | .75"       | (19.05) | .875"                | 22.22 | .5"                    | 12.7  | 3.25"               | 82.55  | 6              | 10000     |
| 596-11250         | TAG11T4-250 | TAG11T4 | C                 | .65"      | (16.5)  | .2"        | (5.08)  | .3"                  | 7.62  | .65"                   | 16.5  | 2.6"                | 66.04  | 4              | 5000      |
| 596-28250         | TAG28T4-250 | TAG28T4 | D                 | .80"      | (20.3)  | 1.43"      | (36.3)  | 1.62"                | 41.1  | .80"                   | 20.3  | 3.45"               | 87.6   | 4              | 5000      |
| 596-15250         | TAG15T3-250 | TAG15T3 | E                 | 1.0"      | (25.4)  | .5"        | (12.7)  | .6"                  | 15.24 | 1.0"                   | 25.4  | 3.35"               | 85.09  | 3              | 10000     |
| 596-00044         | TAG35T2-250 | TAG35T2 | F                 | 2.0"      | (50.8)  | .375"      | (9.53)  | .50"                 | 12.7  | 2.0"                   | 50.8  | 4.1"                | 104.14 | 2              | 10000     |
| 336 Material      |             |         |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-00026         | TAG96T1-336 | TAG96T1 | G                 | 1.875"    | (47.6)  | .25"       | (6.35)  | .375"                | 9.35  | 1.875"                 | 47.6  | 2.0"                | 50.8   | 1              | 5000      |
| 596-00041         | TAG69T1-336 | TAG69T1 | H                 | 2.0"      | (50.8)  | .275"      | (6.98)  | .5"                  | 12.7  | 2.0"                   | 50.8  | 2.125"              | 53.97  | 1              | 10000     |
| 596-00040         | TAG68T1-336 | TAG68T1 | J                 | 3.8"      | (96.5)  | .275"      | (6.98)  | .5"                  | 12.7  | 3.8"                   | 96.5  | 4.0"                | 101.6  | 1              | 10000     |
| 795 Material      |             |         |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-15795         | TAG15T3-795 | TAG15T3 | E                 | 1.0"      | (25.4)  | .5"        | (12.7)  | .6"                  | 15.24 | 1.0"                   | 25.4  | 3.35"               | 85.09  | 3              | 10000     |
| 596-27795         | TAG27T1-795 | TAG27T1 | J                 | 1.5"      | (38.11) | .75"       | (19.05) | .875"                | 22.2  | 1.5"                   | 38.11 | 2.20"               | 55.88  | 1              | 3000      |
| 596-75795         | TAG75T1-795 | TAG75T1 | K                 | 2.0"      | (50.8)  | .625"      | (15.87) | .75"                 | 19.05 | 2.0"                   | 50.8  | 2.12"               | 53.8   | 1              | 2000      |
| 596-73795         | TAG73T1-795 | TAG73T1 | AA                | 2.0"      | (50.8)  | 1.0"       | (25.4)  | 1.125"               | 28.57 | 1.0"                   | 25.4  | 2.20"               | 55.83  | 1              | 3000      |
| 596-76795         | TAG76T1-795 | TAG76T1 | L                 | 2.5"      | (63.5)  | 2.0"       | (50.8)  | 2.12"                | 53.8  | 2.5"                   | 63.5  | 2.62"               | 66.5   | 1              | 1000      |
| 596-72795         | TAG72T1-795 | TAG72T1 | M                 | 2.75"     | (69.85) | 1.25"      | (31.75) | 1.375"               | 34.93 | 2.75"                  | 69.85 | 2.95"               | 74.95  | 1              | 5000      |
| 596-78795         | TAG78T1-795 | TAG78T1 | N                 | 3.0"      | (76.2)  | 4.0"       | (101.6) | 4.12"                | 104.7 | 3.0"                   | 76.2  | 3.12"               | 79.2   | 1              | 500       |
| 596-80795         | TAG80T1-795 | TAG80T1 | O                 | 3.0"      | (76.2)  | 5.0"       | (127)   | 3.0"                 | 76.2  | 3.0"                   | 76.2  | 3.125"              | 79.37  | 1              | 500       |
| 596-79795         | TAG79T1-795 | TAG79T1 | P                 | 4.0"      | (101.6) | 2.0"       | (50.8)  | 2.12"                | 53.97 | 4.0"                   | 101.6 | 4.25"               | 107.9  | 1              | 500       |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

\* TAG17T2-822 not recommended for TT10SM, TT210SM, TT230SM, TT300SM, TT310SM, and TT330SM printers. Use TAG82T2 instead.



Thermal Transfer Labels *continued*

| Product Selection            |                  |          |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
|------------------------------|------------------|----------|-------------------|-----------|---------|------------|---------|----------------------|-------|------------------------|-------|---------------------|--------|----------------|-----------|
| Article No.                  | Part No.         | Type     | Drawing Reference | Width (W) |         | Height (H) |         | Vertical Repeat (H2) |       | Horizontal Repeat (W2) |       | Width of Liner (W3) |        | Labels per Row | Pkg. Qty. |
|                              |                  |          | (pages 168-169)   | In.       | (mm.)   | In.        | (mm.)   | In.                  | (mm.) | In.                    | (mm.) | In.                 | (mm.)  |                |           |
| 822 Material                 |                  |          |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-27822                    | TAG27T1-822      | TAG27T1  | J                 | 1.5"      | (38.11) | .75"       | (19.05) | .875"                | 22.2  | 1.5"                   | 38.11 | 2.20"               | 55.88  | 1              | 3000      |
| 596-00019                    | TAG75T1-822      | TAG75T1  | K                 | 2.0"      | (50.8)  | .625"      | (15.87) | .75"                 | 19.05 | 2.0"                   | 50.8  | 2.12"               | 53.8   | 1              | 2000      |
| 596-70822                    | TAG70T12-822     | TAG70T12 | Q                 | .25"      | (6.35)  | .25"       | (6.35)  | .5"                  | 12.7  | .25"                   | 6.35  | 3.2"                | 81.2   | 12             | 10000     |
| 596-00028                    | TAGPP1T6-822     | TAGPP1T6 | R                 | .625"     | (15.87) | .333"      | (8.45)  | .75"                 | 19.05 | .625"                  | 15.87 | 3.8"                | 96.52  | 6              | 1000      |
| 596-00082                    | TAGPP1T6-82210M  | TAGPP1T6 | R                 | .625"     | (15.87) | .333"      | (8.45)  | .75"                 | 19.05 | .625"                  | 15.87 | 3.8"                | 96.52  | 6              | 10000     |
| 596-11822                    | TAG11T4-822      | TAG11T4  | C                 | .65"      | (16.5)  | .2"        | (5.08)  | .3"                  | 7.62  | .65"                   | 16.5  | 2.6"                | 66.04  | 4              | 5000      |
| 596-00046                    | TAGPP2T6-822     | TAGPP2T6 | T                 | .66"      | (16.7)  | .33"       | (8.38)  | .75"                 | 19.05 | .66"                   | 16.7  | 4.125"              | 104.7  | 6              | 1000      |
| 596-00083                    | TAGPP3T4-822     | TAGPP3T4 | U                 | .688"     | (17.4)  | .25"       | (6.35)  | .375"                | 9.52  | .688"                  | 17.4  | 2.9"                | 73.66  | 4              | 1000      |
| 596-13822                    | TAG13T4-822      | TAG13T4  | V                 | .75"      | (19.05) | .25"       | (6.35)  | .35"                 | 8.89  | .75"                   | 19.05 | 3.35"               | 85.09  | 4              | 10000     |
| 596-15822                    | TAG15T3-822      | TAG15T3  | E                 | 1.0"      | (25.4)  | .5"        | (12.7)  | .6"                  | 15.24 | 1.0"                   | 25.4  | 3.35"               | 85.09  | 3              | 1000      |
| 596-84822                    | TAG84T3-822      | TAG84T3  | S                 | 1.25"     | (31.75) | .375"      | (9.53)  | .50"                 | 12.7  | 1.25"                  | 31.75 | 4.0"                | 101.6  | 3              | 10000     |
| 596-00023                    | TAG83T1-822      | TAG83T1  | W                 | 4.0"      | (101.6) | .312"      | (7.52)  | .438"                | 11.13 | 4.0"                   | 101.6 | 4.1"                | 104.14 | 1              | 5000      |
| 596-00022                    | TAG81T8-822      | TAG81T8  | X                 | .325"     | (8.25)  | .20"       | (5.08)  | .30"                 | 7.62  | .325"                  | 8.25  | 2.6"                | 66.04  | 8              | 5000      |
| 596-16822                    | TAG16T3-822      | TAG16T3  | Y                 | .9"       | (22.86) | .25"       | (6.35)  | .35"                 | 8.89  | .9"                    | 22.86 | 3.35"               | 85.09  | 3              | 10000     |
| 596-17822                    | TAG17T2-822      | TAG17T2  | Z                 | 1.5"      | (38.11) | .25"       | (6.35)  | .35"                 | 8.89  | 1.65"                  | 41.98 | 3.35"               | 85.09  | 2              | 10000     |
| 596-73822                    | TAG73T1-822      | TAG73T1  | AA                | 2.0"      | (50.8)  | 1.0"       | (25.4)  | 1.125"               | 28.57 | 1.0"                   | 25.4  | 2.20"               | 55.83  | 1              | 3000      |
| 596-42822                    | TAG72T1-822      | TAG72T1  | M                 | 2.75"     | (69.85) | 1.25"      | (31.75) | 1.375"               | 34.93 | 2.75"                  | 69.85 | 2.95"               | 74.95  | 1              | 3000      |
| 596-71822                    | TAG71T5-822      | TAG71T5  | BB                | .5"       | (12.7)  | .43"       | (11.1)  | .662"                | 16.81 | .43"                   | 11.1  | 3.35"               | 85.09  | 5              | 10000     |
| 596-82822                    | TAG82T2-822      | TAG82T2  | CC                | 1.5"      | (38.1)  | .25"       | (6.35)  | .30"                 | 7.62  | 1.5"                   | 38.1  | 3.20"               | 81.28  | 2              | 10000     |
| 822C Material*               |                  |          |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-00029                    | TAGPP1T6-822C    | TAGPP1T6 | R                 | .625"     | (15.87) | .333"      | (8.45)  | .75"                 | 19.05 | .625"                  | 15.87 | 3.8"                | 96.52  | 6              | 1000      |
| 596-00030                    | TAGPP1T6-822C10M | TAGPP1T6 | R                 | .625"     | (15.87) | .333"      | (8.45)  | .75"                 | 19.05 | .625"                  | 15.87 | 3.8"                | 96.52  | 6              | 10000     |
| 596-00003                    | TAG11T4-822C     | TAG11T4  | C                 | .65"      | (16.5)  | .2"        | (5.08)  | .3"                  | 7.62  | .65"                   | 16.5  | 2.6"                | 66.04  | 4              | 5000      |
| 596-00047                    | TAGPP2T6-822C    | TAGPP2T6 | T                 | .66"      | (16.7)  | .33"       | (8.38)  | .75"                 | 19.05 | .66"                   | 16.7  | 4.125"              | 104.7  | 6              | 1000      |
| 596-00084                    | TAGPP3T4-822C    | TAGPP3T4 | U                 | .688"     | (17.4)  | .25"       | (6.35)  | .375"                | 9.52  | .688"                  | 17.4  | 2.9"                | 73.66  | 4              | 1000      |
| 596-00001                    | TAG15T3-822C10M  | TAG15T3  | E                 | 1.0"      | (25.4)  | .5"        | (12.7)  | .6"                  | 15.24 | 1.0"                   | 25.4  | 3.35"               | 85.09  | 3              | 10000     |
| 596-00043                    | TAG27T1-822C     | TAG27T1  | J                 | 1.5"      | (38.11) | .75"       | (19.05) | .875"                | 22.2  | 1.5"                   | 38.11 | 2.20"               | 55.88  | 1              | 3000      |
| DTH Material***              |                  |          |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-00033                    | TAG13T4-DTH      | TAG13T4  | V                 | .75"      | (19.05) | .25"       | (6.35)  | .35"                 | 8.89  | .75"                   | 19.05 | 3.35"               | 85.09  | 4              | 10000     |
| 596-00034                    | TAG16T3-DTH      | TAG16T3  | Y                 | .9"       | (22.86) | .25"       | (6.35)  | .35"                 | 8.89  | .9"                    | 22.86 | 3.35"               | 85.09  | 3              | 10000     |
| 596-00035                    | TAG15T3-DTH      | TAG15T3  | E                 | 1.0"      | (25.4)  | .5"        | (12.7)  | .6"                  | 15.24 | 1.0"                   | 25.4  | 3.35"               | 85.09  | 3              | 10000     |
| 596-00036                    | TAG27T2-DTH      | TAG27T2  | J                 | 1.5"      | (38.11) | .75"       | (19.05) | .875"                | 22.2  | 1.5"                   | 38.11 | 2.20"               | 55.83  | 2              | 10000     |
| 596-00037                    | TAG99T1-DTH      | TAG99T1  | DD                | 2.0"      | (50.8)  | .25"       | (6.35)  | .375"                | 9.52  | 2.0"                   | 50.8  | 2.2"                | 55.8   | 1              | 2500      |
| 596-00038                    | TAG73T1-DTH      | TAG73T1  | AA                | 2.0"      | (50.8)  | 1.0"       | (25.4)  | 1.125"               | 28.57 | 1.0"                   | 25.4  | 2.20"               | 55.83  | 1              | 3000      |
| 596-00039                    | TAG33T1-DTH      | TAG33T1  | EE                | 3.0"      | (76.2)  | 2.0"       | (50.8)  | 2.125"               | 53.97 | 2.0"                   | 50.8  | 3.1"                | 78.74  | 1              | 1000      |
| PAP - Non-Adhesive Cardstock |                  |          |                   |           |         |            |         |                      |       |                        |       |                     |        |                |           |
| 596-00017                    | TAG74T2-PAP      | TAG74T2  | FF                | 1.75"     | (44.45) | .375"      | (9.53)  | .562"                | 14.2  | 1.75"                  | 44.45 | 3.5"                | 88.9   | 2              | 1000      |
| 596-00025                    | TAG82T2-PAP      | TAG82T2  | GG                | 2.0"      | (50.8)  | .396"      | (10.05) | .562"                | 14.2  | 2.0"                   | 50.8  | 4.05"               | 102.0  | 2              | 1000      |
| 596-00024                    | TAG85T1-PAP      | TAG85T1  | HH                | 3.0"      | (76.2)  | .50"       | (12.7)  | .60"                 | 15.24 | 3.0"                   | 76.2  | 3.2"                | 8.28   | 1              | 5000      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

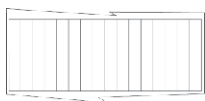
\* Clear

\*\* Not recommended for TT1210 printer

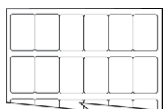
\*\*\* For use with DTH ribbons only!

## Thermal Transfer Labels continued

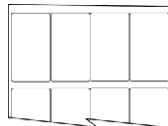
(Not shown to scale)



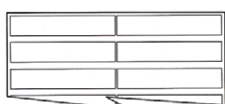
TYHCT-250

**A**

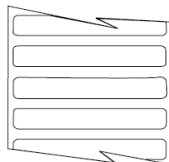
TAG21T6-250

**B**TAG11T4-250,  
TAG11T4-822,  
TAG11T4-822C**C**

TAG28T4-250

**D**TAG15T3-DTH,  
TAG15T3-795,  
TAG15T3-822,  
TAG15T3-822C10M  
TAG15T3-250**E**

TAG35T2-250

**F**

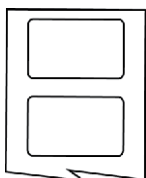
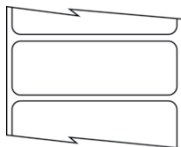
TAG96T1-336

**G**

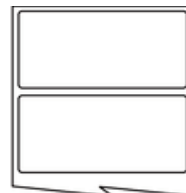
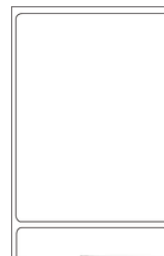
TAG69T1-336

**H**

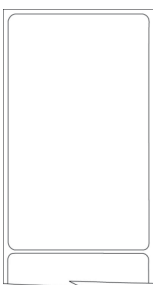
TAG68T1-336

**I**TAG27T1-822,  
TAG27T1-795,  
TAG27T1-822C,  
TAG27T2-DTH**J**TAG75T1-822  
TAG75T1-795**K**

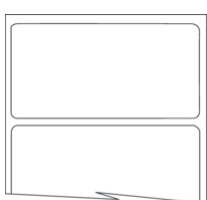
TAG76T1-795

**L**TAG72T1-795,  
TAG72T1-822**M**

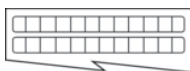
TAG78T1-795

**N**

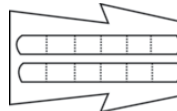
TAG80T1-795

**O**

TAG79T1-795

**P**

TAG70T12-822

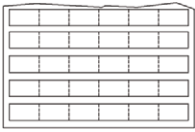
**Q**TAGPP1T6-822,  
TAGPP1T6-822C,  
TAGPP1T6-82210M,  
TAGPP1T6-822C10M**R**

TAG84T3-822

**S**

## Thermal Transfer Labels continued

(Not shown to scale)



*TAGPP2T6-822,  
TAGPP2T6-822C*  
**T**



*TAGPP3T4-822,  
TAGPP3T4-822C*  
**U**



*TAG13T4-822,  
TAG13T4-900,  
TAG13T4-DTH*  
**V**



*TAG83T1-822*  
**W**



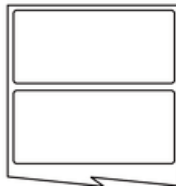
*TAG81T8-822*  
**X**



*TAG16T3-DTH,  
TAG16T3-822,*  
**Y**



*TAG17T2-822*  
**Z**



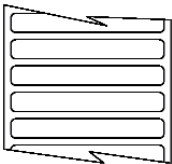
*TAG73T1-822,  
TAG73T1-DTH,  
TAG73T1-795*  
**AA**



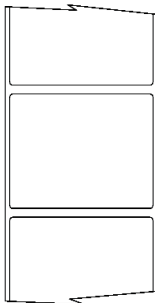
*TAG71T5-822*  
**BB**



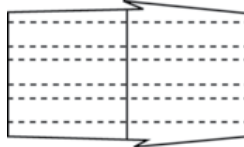
*TAG82T2-822*  
**CC**



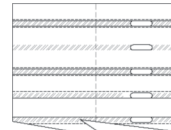
*TAG99T1-DTH*  
**DD**



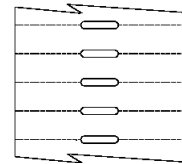
*TAG33T1-DTH*  
**EE**



*TAG74T2-PAP*  
**FF**



*TAG82T2-PAP*  
**GG**



*TAG85T1-PAP*  
**HH**

## Spiralwrap

Spiralwrap protective sheathing allows flexible routing and lead-out of cables. The inner edges are beveled to prevent damage to cables. U.L. Recognized Spiralwrap is reusable and resistant to most chemicals. Natural and black are standard colors (see material descriptions). Colors may be available dependent upon volume requirements. Contact HellermannTyton for more information.

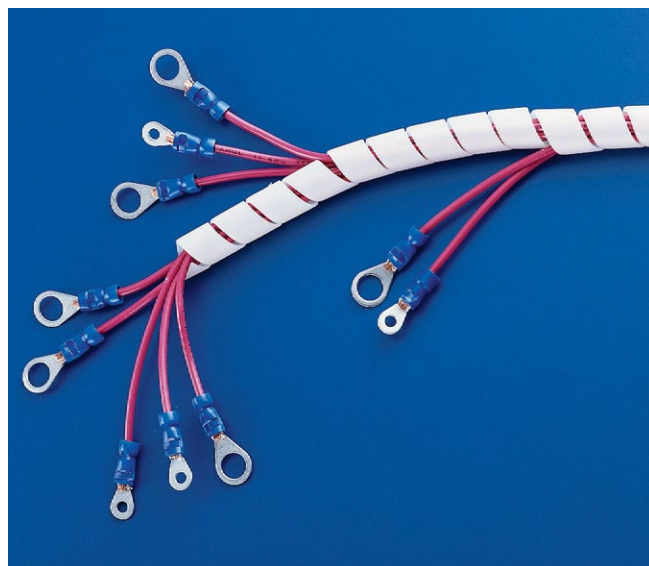
### Application

**Control Cabinet Doors:** Protects cable from friction when one end of the cable is fastened within the panel and the other is fastened to the panel door. Allows flexibility and prevents wire chafing when door is opened and closed.

**Robotics:** Protects hoses and wires during movement.

**Pneumatic Hoses:** Protects hoses from abrasion while on semi-trucks and other vehicles.

**Spark Plug Wires:** Lengthens the life of spark plug wires by reducing abrasion to wire insulation.



### Installation

Spiralwrap can be installed in two basic ways:

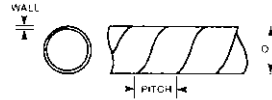
In a gapped installation, Spiralwrap is wrapped with space between the sheathing. This accommodates wire breakouts and also keeps the wire bundle flexible.

In a butted installation, Spiralwrap is wrapped so the sheathing completely insulates the wire bundle. This provides superior abrasion resistance and additional rigidity.

| Polyethylene (PE)      | Size |      |      |      |      |    |
|------------------------|------|------|------|------|------|----|
|                        | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
| Color                  |      |      |      |      |      |    |
| Brown (1)              | X    | X    |      | X    |      |    |
| Red (2)                | X    |      | X    | X    | X    | X  |
| Orange (3)             | X    |      | X    |      |      |    |
| Yellow (4)             | X    | X    | X    | X    | X    | X  |
| Green (5)              | X    | X    | X    |      |      |    |
| Blue (6)               | X    | X    | X    | X    | X    | X  |
| Purple (7)             | X    |      | X    |      |      |    |
| Gray (8)               |      |      |      |      |      |    |
| White (10)             | X    | X    | X    | X    | X    | X  |
| Pink (15)              |      |      | X    |      |      |    |
| DG Orange (DG3)        | X    | X    | X    | X    | X    | X  |
| DG Yellow (DG4)        |      |      | X    |      |      |    |
| DG Green (DG5)         |      |      |      |      |      |    |
| Glow in the Dark (DG9) |      |      | X    |      |      |    |
| DG Pink (DG15)         |      | X    | X    |      |      |    |

All size/color combinations denoted with an "X" in the table above are available upon request. Contact HellermannTyton for pricing, part numbers, minimum order quantities and lead times. Additional size/color combinations may be available upon request. Contact your local HellermannTyton representative for pricing and minimums.

## Spiralwrap (continued)



File # E147924

| Product Selection                              |          |        |               |                |               |               |               |         |           |  |  |  |
|------------------------------------------------|----------|--------|---------------|----------------|---------------|---------------|---------------|---------|-----------|--|--|--|
| Article No.                                    | Part No. | Type   | Ø D           | Wall Thickness | Pitch         | Min. Ø Bundle | Max. Ø Bundle | Color   | Pkg. Qty. |  |  |  |
|                                                |          |        | in. (mm)      | in. (mm)       | in. (mm)      | in. (mm)      | in. (mm)      |         |           |  |  |  |
| Natural Polyethylene (PE)                      |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05013                                      | 1NFP9C   | 1NFP   | .125" (3.18)  | .032" (.81)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Natural | 100       |  |  |  |
| 161-05043                                      | 2NFP9C   | 2NFP   | .250" (6.35)  | .045" (1.14)   | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Natural | 100       |  |  |  |
| 161-05027                                      | 2.5NFP9C | 2.5NFP | .375" (9.53)  | .052" (1.32)   | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Natural | 100       |  |  |  |
| 161-05055                                      | 3NFP9C   | 3NFP   | .5" (12.7)    | .062" (1.57)   | .563" (14.3)  | .375" (9.52)  | 4" (102)      | Natural | 100       |  |  |  |
| 161-05075                                      | 4NFP9C   | 4NFP   | .750" (19.05) | .065" (1.65)   | .750" (19.05) | .750" (19.10) | 5" (127)      | Natural | 100       |  |  |  |
| 161-05080                                      | 5NFP9C   | 5NFP   | 1" (25.4)     | .095" (2.41)   | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Natural | 100       |  |  |  |
| Black Polyethylene (PE)                        |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05004                                      | 1NFP0C   | 1NFP   | .125" (3.18)  | .032" (.81)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Black   | 100       |  |  |  |
| 161-05036                                      | 2NFP0C   | 2NFP   | .250" (6.35)  | .045" (1.14)   | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Black   | 100       |  |  |  |
| 161-05024                                      | 2.5NFP0C | 2.5NFP | .375" (9.53)  | .052" (1.32)   | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Black   | 100       |  |  |  |
| 161-05052                                      | 3NFP0C   | 3NFP   | .5" (12.7)    | .062" (1.57)   | .5" (12.7)    | .375" (9.52)  | 4" (102)      | Black   | 100       |  |  |  |
| 161-05074                                      | 4NFP0C   | 4NFP   | .750" (19.05) | .065" (1.65)   | .750" (19.05) | .750" (19.10) | 5" (127)      | Black   | 100       |  |  |  |
| 161-05079                                      | 5NFP0C   | 5NFP   | 1" (25.4)     | .095" (2.41)   | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Black   | 100       |  |  |  |
| Natural Polyethylene (PE), flame-retardant     |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05001                                      | 1FRP9C   | 1FRP   | .125" (3.18)  | .032" (.81)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Natural | 100       |  |  |  |
| 161-05030                                      | 2FRP9C   | 2FRP   | .250" (6.35)  | .045" (1.14)   | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Natural | 100       |  |  |  |
| 161-05017                                      | 2.5FRP9C | 2.5FRP | .375" (9.53)  | .052" (1.32)   | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Natural | 100       |  |  |  |
| 161-05049                                      | 3FRP9C   | 3FRP   | .5" (12.7)    | .062" (1.57)   | .563" (14.3)  | .375" (9.52)  | 4" (102)      | Natural | 100       |  |  |  |
| 161-05058                                      | 4FRP9C   | 4FRP   | .750" (19.05) | .065" (1.65)   | .750" (19.05) | .750" (19.10) | 5" (127)      | Natural | 100       |  |  |  |
| 161-05077                                      | 5FRP9C   | 5FRP   | 1" (25.4)     | .095" (2.41)   | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Natural | 100       |  |  |  |
| Black Polyethylene (PE), flame-retardant       |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05000                                      | 1FRP0C   | 1FRP   | .125" (3.18)  | .032" (.81)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Black   | 100       |  |  |  |
| 161-05029                                      | 2FRP0C   | 2FRP   | .250" (6.35)  | .045" (1.14)   | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Black   | 100       |  |  |  |
| 161-05016                                      | 2.5FRP0C | 2.5FRP | .375" (9.53)  | .052" (1.32)   | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Black   | 100       |  |  |  |
| 161-05048                                      | 3FRP0C   | 3FRP   | .5" (12.7)    | .062" (1.57)   | .563" (14.3)  | .375" (9.52)  | 4" (102)      | Black   | 100       |  |  |  |
| 161-05057                                      | 4FRP0C   | 4FRP   | .750" (19.05) | .065" (1.65)   | .750" (19.05) | .750" (19.10) | 5" (127)      | Black   | 100       |  |  |  |
| 161-05084                                      | 5FRP0C   | 5FRP   | 1" (25.4)     | .095" (2.41)   | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Black   | 100       |  |  |  |
| Natural Polyamide 6 (PA6)                      |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05003                                      | 1N9C     | 1N     | .125" (3.18)  | .015" (.38)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Natural | 100       |  |  |  |
| 161-05034                                      | 2N9C     | 2N     | .250" (6.35)  | .0250" (.64)   | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Natural | 100       |  |  |  |
| 161-05019                                      | 2.5N9C   | 2.5N   | .375" (9.53)  | .035" (.89)    | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Natural | 100       |  |  |  |
| 161-05051                                      | 3N9C     | 3N     | .5" (12.7)    | .035" (.89)    | .500" (12.7)  | .375" (9.52)  | 4" (102)      | Natural | 100       |  |  |  |
| 161-05072                                      | 4N9C     | 4N     | .750" (19.05) | .032" (.81)    | .750" (19.05) | .5" (12.7)    | 5" (127)      | Natural | 100       |  |  |  |
| 161-05085                                      | 5N9C     | 5N     | 1" (25.4)     | .032" (.81)    | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Natural | 100       |  |  |  |
| Black Polyamide 6 (PA6)                        |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05002                                      | 1N0C     | 1N     | .125" (3.18)  | .015" (.38)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Black   | 100       |  |  |  |
| 161-05032                                      | 2N0C     | 2N     | .250" (6.35)  | .025" (.64)    | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Black   | 100       |  |  |  |
| 161-05018                                      | 2.5N0C   | 2.5N   | .375" (9.53)  | .035" (.89)    | .438" (11.13) | .3125" (7.92) | 3" (76.2)     | Black   | 100       |  |  |  |
| 161-05050                                      | 3N0C     | 3N     | .5" (12.7)    | .035" (.89)    | .50" (12.7)   | .375" (9.52)  | 4" (102)      | Black   | 100       |  |  |  |
| 161-05071                                      | 4N0C     | 4N     | .750" (19.05) | .032" (.81)    | .750" (19.05) | .50" (12.7)   | 5" (127)      | Black   | 100       |  |  |  |
| 161-05078                                      | 5N0C     | 5N     | 1" (25.4)     | .032" (.81)    | 1" (25.4)     | 1" (25.4)     | 7" (178)      | Black   | 100       |  |  |  |
| Natural Polytetrafluoroethylene -Teflon (PTFE) |          |        |               |                |               |               |               |         |           |  |  |  |
| 161-05015                                      | 1P9C     | 1P     | .125" (3.18)  | .020" (.76)    | .187" (4.75)  | .0625" (1.60) | .50" (12.7)   | Natural | 100       |  |  |  |
| 161-05047                                      | 2P9C     | 2P     | .250" (6.35)  | .030" (.76)    | .375" (9.53)  | .1875" (4.75) | 2" (50.8)     | Natural | 100       |  |  |  |
| 161-05028                                      | 2.5P9C   | 2.5P   | .375" (9.53)  | .030" (.76)    | .438" (11.13) | .3125" (7.92) | 2.5" (63.5)   | Natural | 100       |  |  |  |
| 161-05056                                      | 3P9C     | 3P     | .5" (12.7)    | .030" (.76)    | .5" (12.7)    | .375" (9.52)  | 3" (76.2)     | Natural | 100       |  |  |  |
| 161-05076                                      | 4P9C     | 4P     | .750" (19.05) | .032" (.81)    | .750" (19.05) | .5" (12.7)    | 4" (102)      | Natural | 100       |  |  |  |
| 161-05081                                      | 5P9C     | 5P     | 1" (25.4)     | .040 (1.02)    | 1" (25.4)     | .750" (19.10) | 5" (127)      | Natural | 100       |  |  |  |

Teflon is a registered trademark of the DuPont Corporation. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Spiralwrap (continued)

| Material Data                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                  |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------|-------------------------|--------------------------------------|--------------------|------------------|--------------------|------------------------------------------------------------------------------------------------------------------|
| Material                                           | Operating Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Abrasion Resistance | Specific Gravity D792-66 | Effect of Solvents      | Effect of Acids                      | Effect of Alkalies | Water Absorption | Flammability       | Mil. Spec & Approvals                                                                                            |
| <b>RoHS</b> Polyethylene (PE)                      | Polyethylene is ideal for general applications that are not affected by ordinary solvents. Available in colors. Ultraviolet resistant black polyethylene is for outdoor use. It has the same qualities as clear polyethylene, but also contains an ultraviolet absorber which permits it to be used in direct sunlight for long periods of time. Available by special order in gray.                                                                                               |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                  |
| Natural Polyethylene (PE)                          | -76°F to +190°F<br>(-60°C to +88°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 22                  | 0.92                     | None below 122°F (50°C) | None                                 | None               | 0.014            | Flammable          | MIL I-631D<br>MIL P-21922B<br>Fed. Spec. LP390C<br>A-A-59602 Typel                                               |
| Black Polyethylene (PE)                            | -76°F to +190°F<br>(-60°C to +88°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20                  | 0.93                     | None below 122°F (50°C) | None                                 | None               | 0.03             | Flammable          | MIL I-631D<br>MIL P-21922B<br>Fed. Spec. LP390C<br>A-A-59602 Typel                                               |
| <b>RoHS</b> Polyethylene (PE), flame-retardant     | Suitable for applications requiring a self-extinguishing material. Lower cost than polyamide 6 or teflon materials. Note: Natural color is milky white.                                                                                                                                                                                                                                                                                                                            |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                  |
| Natural Polyethylene (PE), flame-retardant         | -4°F to +176°F<br>(-20°C to + 80°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27                  | 1.29                     | None below 122°F (50°C) | None                                 | None               | 0.02             | 94V-1              |                                                                                                                  |
| Black Polyethylene (PE), flame-retardant           | -4°F to +176°F<br>(-20°C to + 80°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27                  | 1.29                     | None below 122°F (50°C) | None                                 | None               | 0.02             | 94V-1              |                                                                                                                  |
| <b>RoHS</b> Polyamide 6 (PA6)                      | Natural polyamide 6 is recommended for use in enclosed environments where the possibility of fire exists. Self-extinguishing. Does not produce any toxic or irritation, even when exposed to open flame or excessive temperatures. Polyamide 6 is six times as strong as polyethylene. Black polyamide 6 features the same properties as natural polyamide 6 with the added benefit of an ultraviolet absorber so that it can be used in direct sunlight for long periods of time. |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                  |
| Natural Polyamide 6 (PA6)                          | -40°F to +250°F<br>(-40°C to +121°C)                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6-8                 | 1.14                     | None                    | Satisfactory except for strong acids | None               | 1.5              | Self Extinguishing | AS 1294<br>A-A 59602<br>Type II                                                                                  |
| Black Polyamide 6 (PA6)                            | -40°F to +250°F<br>(-40°C to +121°C)                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6-8                 | 1.14                     | None                    | Satisfactory except for strong acids | None               | 1.5              | Self Extinguishing | AS 1294<br>A-A 59602<br>Type II                                                                                  |
| <b>RoHS</b> Polytetrafluoroethylene -Teflon (PTFE) | Polytetrafluoroethylene -Teflon (PTFE) offers the widest operating temperature range of any material. It's chemically inert and non-flammable. Natural color is milky white, available with special order in black and colors.                                                                                                                                                                                                                                                     |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                  |
| Natural Polytetrafluoroethylene -Teflon (PTFE)     | -450°F to +500°F<br>(-268°C to +260°C)                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7                   | 2.1                      | None                    | None                                 | None               | 0.05             | Non-flammable      | AMS 3653C<br>AMS 3654<br>AMS 3655<br>ASTM D3295<br>MIL I-22129C<br>AS 1294<br>ASTMD1710<br>A-A 59602<br>Type III |

Teflon is a registered trademark of the DuPont Corporation.

For product information visit or [www.hellermannntyton.com](http://www.hellermannntyton.com) or call 800-537-1512



## Convolute Tubing

Convolute tubing provides an efficient method of routing and protecting wire harness assemblies, while reducing the chance of installation damage. It also can serve to protect valuable wiring circuits. HellermannTyton's convolute tubing offers excellent protection against automotive fluids, vibration wear, water, snow, ice, and the effects of heat, cold, and sunlight on cables and wires. Available in standard, bulk, and dispenser box packaging.

### Applications

- Wire Harnesses
- Auto, Truck, and Bus Industry Applications
- Trailer & R.V. Manufacturing
- Snowmobiles and Watercraft
- Agricultural and Construction Machinery
- Electronic Equipment Wire Management



| Material Data         |                                             | RoHS |
|-----------------------|---------------------------------------------|------|
| Material              | <b>Polyethylene (PE)</b>                    |      |
| Operating Temperature | <b>-40 °F to +200 °F (-40 °C to +93 °C)</b> |      |
| Flammability          | <b>UL94 V2</b>                              |      |

| Material Data         |                                              | RoHS |
|-----------------------|----------------------------------------------|------|
| Material              | <b>Polyamide 6 (PA6)</b>                     |      |
| Operating Temperature | <b>-40 °F to +300 °F (-40 °C to +149 °C)</b> |      |
| Flammability          | <b>UL94 V2</b>                               |      |

The following materials are available as a special order. Minimums and custom terms apply. Contact HellermannTyton for more information.

| Material                            | Color                | Operating Temperature              |
|-------------------------------------|----------------------|------------------------------------|
| <b>Polypropylene</b>                | Black w/ Blue Stripe | -40 °F (-40 °C) to 275 °F (135 °C) |
| <b>Flame Retardant Polyethylene</b> | Gray                 | -40 °F (-40 °C) to 200 °F (93 °C)  |

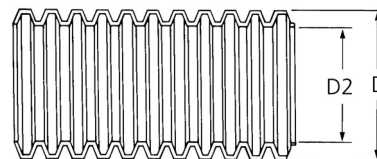
## Convolute Tubing Dispenser Box

The convolute tubing dispenser boxes offer an efficient packaging option. The sturdy and compact dispenser boxes allow for easy storage and moving around in the work area. The reel inside the box allows for tangle free dispensing, making it much easier to work with the product. Convolute tubing in dispenser boxes is available in polyamide 6 material –1/4", 3/8", 1/2", 3/4" and 1" sizes.

| Product Selection |                  |        |                                                  |               |
|-------------------|------------------|--------|--------------------------------------------------|---------------|
| Article No.       | Part No.         | Type   | Description                                      | Pkg. Qty. ft. |
| 169-60022         | <b>169-60022</b> | CTN140 | 1/4" Convolute Tubing, Slit - Polyamide 6, Black | 100 ft        |
| 169-60018         | <b>169-60018</b> | CTN380 | 3/8" Convolute Tubing, Slit - Polyamide 6, Black | 100 ft        |
| 169-60019         | <b>169-60019</b> | CTN120 | 1/2" Convolute Tubing, Slit - Polyamide 6, Black | 100 ft        |
| 169-60020         | <b>169-60020</b> | CTN340 | 3/4" Convolute Tubing, Slit - Polyamide 6, Black | 100 ft        |
| 169-60021         | <b>169-60021</b> | CTN10  | 1" Convolute Tubing, Slit - Polyamide 6, Black   | 50 ft         |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.



Convuluted Tubing (*continued*)

| Product Selection                                |                   |         |                       |                 |                  |                            |                  |
|--------------------------------------------------|-------------------|---------|-----------------------|-----------------|------------------|----------------------------|------------------|
| Article No.                                      | Part No.          | Type    | Nominal Ø<br>in. (mm) | Ø D<br>in. (mm) | Ø D2<br>in. (mm) | Wall Thickness<br>in. (mm) | Pkg. Qty.<br>ft. |
| <b>Polyethylene (PE), Black</b>                  |                   |         |                       |                 |                  |                            |                  |
| 169-60509                                        | <b>CTP140STD</b>  | CTP140  | .250" (6.35)          | .40" (10.16)    | .27" (6.858)     | .004" (.1016)              | 3200 ft          |
| 169-60508                                        | <b>CTP140</b>     | CTP140  | .250" (6.35)          | .40" (10.16)    | .27" (6.858)     | .004" (.1016)              | 25000 ft         |
| 169-60515                                        | <b>CTP380STD</b>  | CTP380  | .380" (9.652)         | .526" (13.36)   | .380" (9.652)    | .005" (.127)               | 1900 ft          |
| 169-60514                                        | <b>CTP380</b>     | CTP380  | .380" (9.652)         | .526" (13.36)   | .380" (9.652)    | .005" (.127)               | 15000 ft         |
| 169-60507                                        | <b>CTP120STD</b>  | CTP120  | .50" (12.7)           | .70" (17.78)    | .516" (13.11)    | .005" (.127)               | 1100 ft          |
| 169-60506                                        | <b>CTP120</b>     | CTP120  | .50" (12.7)           | .70" (17.78)    | .516" (13.11)    | .005" (.127)               | 8500 ft          |
| 169-60517                                        | <b>CTP580STD</b>  | CTP580  | .625" (15.87)         | .837" (21.26)   | .639" (16.23)    | .005" (.127)               | 800 ft           |
| 169-60516                                        | <b>CTP580</b>     | CTP580  | .625" (15.87)         | .837" (21.26)   | .639" (16.23)    | .005" (.127)               | 5500 ft          |
| 169-60513                                        | <b>CTP340STD</b>  | CTP340  | .750" (19.05)         | .989" (25.12)   | .759" (19.28)    | .005" (.127)               | 550 ft           |
| 169-60512                                        | <b>CTP340</b>     | CTP340  | .750" (19.05)         | .989" (25.12)   | .759" (19.28)    | .005" (.127)               | 4200 ft          |
| 169-60501                                        | <b>CTP10STD</b>   | CTP10   | 1" (25.4)             | 1.32" (33.53)   | 1.06" (26.92)    | .005" (.127)               | 300 ft           |
| 169-60500                                        | <b>CTP10</b>      | CTP10   | 1" (25.4)             | 1.32" (33.53)   | 1.06" (26.92)    | .005" (.127)               | 2250 ft          |
| 169-60505                                        | <b>CTP1140STD</b> | CTP1140 | 1.250" (31.75)        | 1.50" (38.1)    | 1.257" (31.93)   | .006" (.1524)              | 250 ft           |
| 169-60504                                        | <b>CTP1140</b>    | CTP1140 | 1.250" (31.75)        | 1.50" (38.1)    | 1.257" (31.93)   | .006" (.1524)              | 1800 ft          |
| 169-60503                                        | <b>CTP1120STD</b> | CTP1120 | 1.5" (38.1)           | 1.947" (49.45)  | 1.65" (41.91)    | .006" (.1524)              | 150 ft           |
| 169-60502                                        | <b>CTP1120</b>    | CTP1120 | 1.5" (38.1)           | 1.947" (49.45)  | 1.65" (41.91)    | .006" (.1524)              | 1000 ft          |
| 169-60511                                        | <b>CTP20STD</b>   | CTP20   | 2" (50.8)             | 2.42" (61.47)   | 2.05" (52.07)    | .011" (.28)                | 100 ft           |
| <b>Polyamide 6 (PA6), Black with Gray Stripe</b> |                   |         |                       |                 |                  |                            |                  |
| 169-60009                                        | <b>CTN140STD</b>  | CTN140  | .250" (6.35)          | .40" (10.16)    | .27" (6.858)     | .004" (.1016)              | 3200 ft          |
| 169-60008                                        | <b>CTN140</b>     | CTN140  | .250" (6.35)          | .40" (10.16)    | .27" (6.858)     | .004" (.1016)              | 28000 ft         |
| 169-60015                                        | <b>CTN380STD</b>  | CTN380  | .380" (9.652)         | .526" (13.36)   | .380" (9.652)    | .005" (.127)               | 1900 ft          |
| 169-60014                                        | <b>CTN380</b>     | CTN380  | .380" (9.652)         | .526" (13.36)   | .380" (9.652)    | .005" (.127)               | 15000 ft         |
| 169-60007                                        | <b>CTN120STD</b>  | CTN120  | .50" (12.7)           | .70" (17.78)    | .516" (13.11)    | .005" (.127)               | 1200 ft          |
| 169-60006                                        | <b>CTN120</b>     | CTN120  | .50" (12.7)           | .70" (17.78)    | .516" (13.11)    | .005" (.127)               | 8500 ft          |
| 169-60017                                        | <b>CTN580STD</b>  | CTN580  | .625" (15.87)         | .837" (21.26)   | .639" (16.23)    | .005" (.127)               | 800 ft           |
| 169-60016                                        | <b>CTN580</b>     | CTN580  | .625" (15.87)         | .837" (21.26)   | .639" (16.23)    | .005" (.127)               | 5500 ft          |
| 169-60013                                        | <b>CTN340STD</b>  | CTN340  | .750" (19.05)         | .989" (25.12)   | .759" (19.28)    | .005" (.127)               | 550 ft           |
| 169-60012                                        | <b>CTN340</b>     | CTN340  | .750" (19.05)         | .989" (25.12)   | .759" (19.28)    | .005" (.127)               | 4200 ft          |
| 169-60001                                        | <b>CTN10STD</b>   | CTN10   | 1" (25.4)             | 1.32" (33.53)   | 1.06" (26.92)    | .005" (.127)               | 300 ft           |
| 169-60000                                        | <b>CTN10</b>      | CTN10   | 1" (25.4)             | 1.32" (33.53)   | 1.06" (26.92)    | .005" (.127)               | 2250 ft          |
| 169-60005                                        | <b>CTN1140STD</b> | CTN1140 | 1.250" (31.75)        | 1.50" (38.1)    | 1.257" (31.93)   | .006" (.1524)              | 250 ft           |
| 169-60004                                        | <b>CTN1140</b>    | CTN1140 | 1.250" (31.75)        | 1.50" (38.1)    | 1.257" (31.93)   | .006" (.1524)              | 1800 ft          |
| 169-60003                                        | <b>CTN1120STD</b> | CTN1120 | 1.5" (38.1)           | 1.947" (49.45)  | 1.65" (41.91)    | .006" (.1524)              | 150 ft           |
| 169-60002                                        | <b>CTN1120</b>    | CTN1120 | 1.5" (38.1)           | 1.947" (49.45)  | 1.65" (41.91)    | .006" (.1524)              | 1000 ft          |
| 169-60011                                        | <b>CTN20STD</b>   | CTN20   | 2" (50.8)             | 2.42" (61.47)   | 2.05" (52.07)    | .011" (.28)                | 100 ft           |

Standard tubing is slit. Unslit is available upon request. Please contact HellermannTyton for pre-cut length requirements. Colors are available dependent upon volume requirements. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Convoluting Tubing Mounts

Designed especially for mounting convoluted tubing, these mounts are available in stud mount and fir tree mount versions and accommodate a range of tube diameters.

### Material Data

|                       |                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| Material              | <b>Polyamide 6.6 high impact modified, Heat Stabilized, UV Resistant (PA66HIRHS)</b> |
| Operating Temperature | <b>-40 °F to +230 °F (-40 °C to +110 °C) continuous</b>                              |
| Flammability          | <b>UL94 HB</b>                                                                       |



### Stud Mount

| Product Selection |           |            |        |       |                       |                          |      |       |           |                                                                                                           |
|-------------------|-----------|------------|--------|-------|-----------------------|--------------------------|------|-------|-----------|-----------------------------------------------------------------------------------------------------------|
| Article No.       | Part No.  | Type       | Tube Ø |       | Recommended Weld Stud | Minimum Weld Stud Height |      | Color | Pkg. Qty. | Drawing                                                                                                   |
|                   |           |            | in.    | (mm)  |                       | in.                      | (mm) |       |           |                                                                                                           |
| 151-00700         | 151-00700 | CTC4.5SBS6 | .175"  | (4.5) | M6                    | .39"                     | (10) | Black | 500       |                        |
| 151-00701         | 151-00701 | CTC7.5SBS6 | .29"   | (7.5) | M6                    | .39"                     | (10) | Black | 500       |                        |
| 151-00702         | 151-00702 | CTC10SBS6  | .39"   | (10)  | M6                    | .39"                     | (10) | Black | 500       |                        |
| 151-00703         | 151-00703 | CTC13SBS6  | .50"   | (13)  | M6                    | .39"                     | (10) | Black | 500       |  slots for cable tie |
| 151-00010         | 151-00010 | CTC17SBS6  | .66"   | (17)  | M6                    | .39"                     | (10) | Black | 500       |                      |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

### Fir Tree Mount

| Product Selection |                  |             |        |       |                 |           |                 |           |       |           |                                                                                       |
|-------------------|------------------|-------------|--------|-------|-----------------|-----------|-----------------|-----------|-------|-----------|---------------------------------------------------------------------------------------|
| Article No.       | Part No.         | Type        | Tube Ø |       | Panel Thickness |           | Mounting Hole Ø |           | Color | Pkg. Qty. | Drawing                                                                               |
|                   |                  |             | in.    | (mm)  | in.             | (mm)      | in.             | (mm)      |       |           |                                                                                       |
| 151-14314         | <b>151-14314</b> | CTC4.5FT6LG | .17"   | (4.5) | .029" - .234"   | (.75 - 6) | .25" - .27"     | (6.5 - 7) | Black | 500       |  |
| 151-14313         | <b>151-14313</b> | CTC7.5FT6LG | .29"   | (7.5) | .029" - .234"   | (.75 - 6) | .25" - .27"     | (6.5 - 7) | Black | 500       |  |
| 151-00018         | <b>151-00018</b> | CTC10FT6LG  | .39"   | (10)  | .029" - .234"   | (.75 - 6) | .25" - .27"     | (6.5 - 7) | Black | 500       |  |
| 151-00019         | <b>151-00019</b> | CTC13FT6LG  | .507"  | (13)  | .029" - .234"   | (.75 - 6) | .25" - .27"     | (6.5 - 7) | Black | 500       |  |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

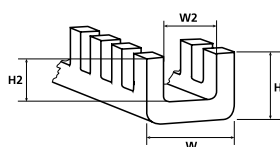
## Flexiform Edge Protection Grommet Strip

HellermannTyton's Flexiform grommet is a unique, continuous wire protection product which fits easily in all shapes and sizes of holes without the aid of tools or adhesives. Since Flexiform can be cut to the right length with scissors, it eliminates waste, helping keep grommet stock to a minimum. HellermannTyton's Flexiform grommet can be used on any type of material including wood, steel, aluminum, plexiglass, and glass. It is available in 9 sizes for thicknesses from .016" to .512".



Optimal protection of cables and wires at panel edges.

## Polyamide 6 Grommet



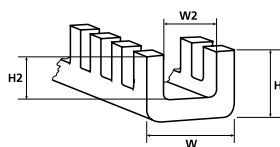
Flexiform grommet strip

| Material Data         |                                             | RoHS |
|-----------------------|---------------------------------------------|------|
| Material              | <b>Polyamide 6 (PA6)</b>                    |      |
| Color                 | <b>Natural</b>                              |      |
| Operating Temperature | <b>-76 °F to +203 °F (-60 °C to +95 °C)</b> |      |

| Product Selection        |          |       | Panel Thickness            | Width (W)    | Width (W2)   | Height (H)  | Height (H2) | Pkg. Qty. |
|--------------------------|----------|-------|----------------------------|--------------|--------------|-------------|-------------|-----------|
| Article No.              | Part No. | Type  | in. (mm)                   | in. (mm)     | in. (mm)     | in. (mm)    | in. (mm)    | ft.       |
| <b>Polyamide 6 (PA6)</b> |          |       |                            |              |              |             |             |           |
| 251-21109                | FHA      | G51NA | .015" - .059" (0.4 - 1.5)  | .154" (3.9)  | .059" (1.5)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-21209                | FHB      | G51NB | .051" - .094" (1.3 - 2.4)  | .181" (4.6)  | .094" (2.4)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-21309                | FHC      | G51NC | .087" - .134" (2.2 - 3.4)  | .224" (5.7)  | .138" (3.5)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-21409                | FHD      | G51ND | .130" - .197" (3.3 - 5.0)  | .331" (8.4)  | .201" (5.1)  | .244" (6.2) | .169" (4.3) | 82 ft     |
| 251-21509                | FHE      | G51NE | .193" - .264" (4.9 - 6.7)  | .390" (9.9)  | .264" (6.7)  | .252" (6.4) | .177" (4.5) | 82 ft     |
| 251-21609                | FHF      | G51NF | .256" - .323" (6.5 - 8.2)  | .449" (11.4) | .327" (8.3)  | .268" (6.8) | .189" (4.8) | 82 ft     |
| 251-21709                | FHG      | G51NG | .315" - .394" (8.0 - 10.0) | .520" (13.2) | .398" (10.1) | .268" (6.8) | .189" (4.8) | 82 ft     |
| 251-21809                | FHH      | G51NH | .382" - .520" (9.7 - 13.2) | .646" (16.4) | .520" (13.2) | .268" (6.8) | .189" (4.8) | 82 ft     |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Polyethylene Grommet



Flexiform grommet strip

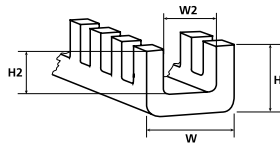
| Material Data         |                                             | RoHS |
|-----------------------|---------------------------------------------|------|
| Material              | <b>Polyethylene (PE)</b>                    |      |
| Color                 | <b>Natural</b>                              |      |
| Operating Temperature | <b>-22 °F to +176 °F (-30 °C to +80 °C)</b> |      |

| Product Selection        |          |        | Panel Thickness            | Width (W)    | Width (W2)   | Height (H)  | Height (H2) | Pkg. Qty. |
|--------------------------|----------|--------|----------------------------|--------------|--------------|-------------|-------------|-----------|
| Article No.              | Part No. | Type   | in. (mm)                   | in. (mm)     | in. (mm)     | in. (mm)    | in. (mm)    | ft.       |
| <b>Polyethylene (PE)</b> |          |        |                            |              |              |             |             |           |
| 251-10009                | FPA      | G51PAA | .016" - .035" (0.4 - 0.9)  | .087" (2.2)  | .037" (0.95) | .094" (2.4) | .063" (1.6) | 82 ft     |
| 251-10109                | FPA      | G51PA  | .016" - .059" (0.4 - 1.5)  | .154" (3.9)  | .059" (1.5)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-10209                | FPB      | G51PB  | .051" - .094" (1.3 - 2.4)  | .181" (4.6)  | .094" (2.4)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-10309                | FPC      | G51PC  | .087" - .134" (2.2 - 3.4)  | .224" (5.7)  | .138" (3.5)  | .169" (4.3) | .106" (2.7) | 82 ft     |
| 251-10409                | FPD      | G51PD  | .130" - .197" (3.3 - 5.0)  | .331" (8.4)  | .201" (5.1)  | .244" (6.2) | .169" (4.3) | 82 ft     |
| 251-10509                | FPE      | G51PE  | .193" - .264" (4.9 - 6.7)  | .390" (9.9)  | .264" (6.7)  | .252" (6.4) | .177" (4.5) | 82 ft     |
| 251-10609                | FPF      | G51PF  | .256" - .323" (6.5 - 8.2)  | .449" (11.4) | .327" (8.3)  | .268" (6.8) | .189" (4.8) | 82 ft     |
| 251-10709                | FPG      | G51PG  | .315" - .394" (8.0 - 10.0) | .520" (13.2) | .398" (10.1) | .268" (6.8) | .189" (4.8) | 82 ft     |
| 251-10809                | FPH      | G51PH  | .382" - .520" (9.7 - 13.2) | .646" (16.4) | .520" (13.2) | .268" (6.8) | .189" (4.8) | 82 ft     |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## Flexiform Edge Protection Grommet Strip (continued)

### Teflon Grommet



Flexiform grommet strip

## Material Data

RoHS

|                       |                                               |
|-----------------------|-----------------------------------------------|
| Material              | <b>Polytetrafluoroethylene -Teflon (PTFE)</b> |
| Color                 | <b>Natural</b>                                |
| Operating Temperature | <b>-76 °F to +500 °F (-60 °C to +260 °C)</b>  |
| Flammability          | <b>non-burning</b>                            |

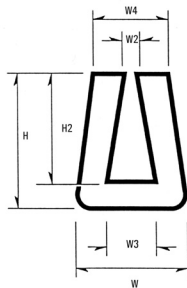
## Product Selection

| Article No.                            | Part No. | Type  | Panel Thickness            | Width (W)    | Width (W2)   | Height (H)  | Height (H2) | Pkg. Qty. |
|----------------------------------------|----------|-------|----------------------------|--------------|--------------|-------------|-------------|-----------|
|                                        |          |       | in. (mm)                   | in. (mm)     | in. (mm)     | in. (mm)    | in. (mm)    | ft.       |
| Polytetrafluoroethylene -Teflon (PTFE) |          |       |                            |              |              |             |             |           |
| 251-30109                              | FTA      | G51TA | .015" - .059" (0.4 - 1.5)  | .153" (3.9)  | .059" (1.5)  | .169" (4.3) | .106" (2.7) | 9.7 ft    |
| 251-30209                              | FTB      | G51TB | .051" - .094" (1.3 - 2.4)  | .181" (4.6)  | .094" (2.4)  | .169" (4.3) | .106" (2.7) | 9.7 ft    |
| 251-30309                              | FTC      | G51TC | .087" - .134" (2.2 - 3.4)  | .224" (5.7)  | .138" (3.5)  | .169" (4.3) | .106" (2.7) | 9.7 ft    |
| 251-30409                              | FTD      | G51TD | .130" - .196" (3.3 - 5.0)  | .331" (8.4)  | .201" (5.1)  | .244" (6.2) | .169" (4.3) | 9.7 ft    |
| 251-30509                              | FTE      | G51TE | .193" - .264" (4.9 - 6.7)  | .390" (9.9)  | .264" (6.7)  | .252" (6.4) | .177" (4.5) | 9.7 ft    |
| 251-30609                              | FTF      | G51TF | .256" - .323" (6.5 - 8.2)  | .449" (11.4) | .327" (8.3)  | .268" (6.8) | .189" (4.8) | 9.7 ft    |
| 251-30709                              | FTG      | G51TG | .315" - .394" (8.0 - 10.0) | .520" (13.2) | .398" (10.1) | .268" (6.8) | .189" (4.8) | 9.7 ft    |
| 251-30809                              | FTH      | G51TH | .382" - .520" (9.7 - 13.2) | .646" (16.4) | .520" (13.2) | .268" (6.8) | .189" (4.8) | 9.7 ft    |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes. Teflon is a registered trademark of the DuPont Corporation.

## Self-Extinguishing Flexiform Grommet

HellermannTyton's Flexiform grommet is also manufactured from a self-extinguishing UL 94 V0 rated flexible PVC compound which ensures flexibility and ease of application.



## Material Data

RoHS

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | <b>Flexible Polyvinyl Chloride, cadmium free (PVC)</b> |
| Color                 | <b>Black</b>                                           |
| Operating Temperature | <b>-85 °F to +221 °F (-65 °C to +105 °C)</b>           |
| Flammability          | <b>UL94 V0</b>                                         |

## Product Selection

| Product Selection                               |           |      |                               |             |              |            |             |             |             |               |
|-------------------------------------------------|-----------|------|-------------------------------|-------------|--------------|------------|-------------|-------------|-------------|---------------|
| Article No.                                     | Part No.  | Type | Panel Thickness               | Width (W)   | Width (W2)   | Width (W3) | Width (W4)  | Height (H)  | Height (H2) | Pkg. Qty.     |
|                                                 |           |      | in. (mm)                      | in. (mm)    | in. (mm)     | in. (mm)   | in. (mm)    | in. (mm)    | in. (mm)    | ft. (Meters)  |
| Flexible Polyvinyl Chloride, cadmium free (PVC) |           |      |                               |             |              |            |             |             |             |               |
| 800-00004                                       | SM1BK75MT | SM1  | .03937" - .07874" (1.0 - 2.0) | .1969"(5.0) | .03937"(1.0) | .07" (1.8) | .165" (4.2) | .248" (6.3) | .192" (4.9) | 246.1 ft (75) |

Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

## General Purpose Expandable Braided Sleeving

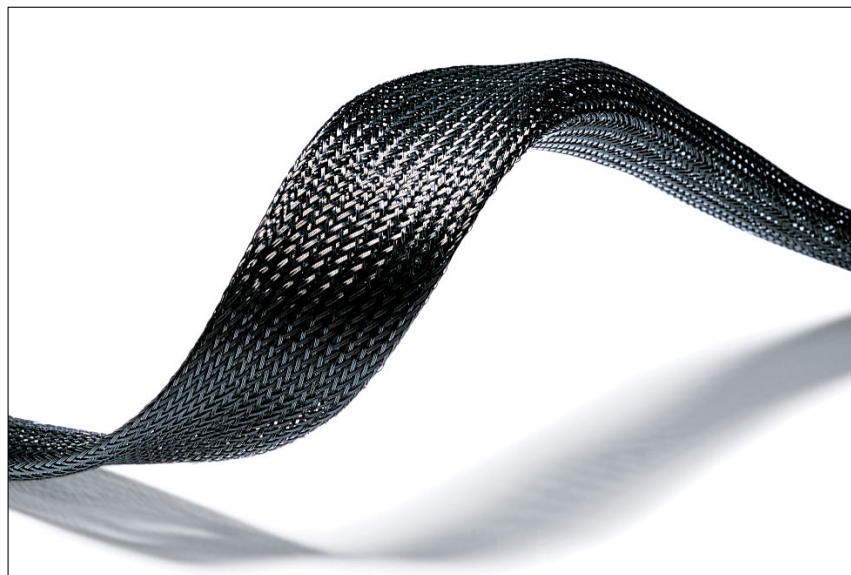
Designed to adjust and expand to irregular shapes, this general purpose sleeving is lightweight and offers a high tensile strength while still maintaining flexibility. This sleeving is an excellent choice for protecting wire and cable bundles from abrasion, chafing, and heat degradation.

### Application

Commonly used in electrical and industrial wire harnessing applications where economy and durability are required for the protection of wires, cables, tubing, bundles and pneumatic hoses.

### Benefits

- Adjusts to twisting and flexing without creating wrinkles, bends or bulges.
- Provides tough, durable protection through a wide range of temperatures.
- Expands up to 150% of flat diameter for easy installation.
- Offers excellent abrasion and cut-through resistance as well as inertness to most chemicals and fungus.



#### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Flammability          | UL 94-V0                         |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



#### Product Selection

| Part No.                | Nominal Size |      | Type     | Expansion Range |               | Expansion Range |               | Color | Reel Length* |       | Weight |      |
|-------------------------|--------------|------|----------|-----------------|---------------|-----------------|---------------|-------|--------------|-------|--------|------|
|                         | in.          | mm.  |          | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.          | m.    | lbs.   | kg.  |
| 170-03000               | 1/4          | 6.4  | BSP140   | .125            | .437          | 3.2             | 11.1          | Black | 200          | 61.0  | .52    | .24  |
| 170-03001               | 1/2          | 12.7 | BSP120   | .25             | .75           | 6.4             | 19.1          | Black | 100          | 30.5  | .77    | .35  |
| 170-03002               | 3/4          | 19.1 | BSP340   | .50             | 1.25          | 12.7            | 31.8          | Black | 75           | 22.9  | .90    | .41  |
| 170-03003               | 1            | 25.4 | BSP100   | .625            | 1.625         | 15.9            | 41.3          | Black | 65           | 19.8  | .87    | .40  |
| 170-03004               | 1-1/4        | 31.8 | BSP1140  | .75             | 1.75          | 19.1            | 44.5          | Black | 50           | 15.2  | .80    | .363 |
| 170-03005               | 1-1/2        | 38.1 | BSP1120  | 1.00            | 2.125         | 25.4            | 54.0          | Black | 40           | 12.2  | .79    | .358 |
| <b>Bulk Sized Reels</b> |              |      |          |                 |               |                 |               |       |              |       |        |      |
| 170-03041               | 1/4          | 6.4  | BSP140B  | .125            | .437          | 3.2             | 11.1          | Black | 1000         | 304.8 | 2.60   | 1.18 |
| 170-03042               | 1/2          | 12.7 | BSP120B  | .25             | .75           | 6.4             | 19.1          | Black | 500          | 152.4 | 3.85   | 1.75 |
| 170-03043               | 3/4          | 19.1 | BSP340B  | .50             | 1.25          | 12.7            | 31.8          | Black | 250          | 76.2  | 3.00   | 1.36 |
| 170-03044               | 1            | 25.4 | BSP100B  | .625            | 1.625         | 15.9            | 41.3          | Black | 250          | 76.2  | 3.35   | 1.52 |
| 170-03045               | 1-1/4        | 31.8 | BSP1140B | .75             | 1.75          | 19.1            | 44.5          | Black | 250          | 76.2  | 4.00   | 1.81 |

Use Part No. for ordering and Type for specification. \*Pre-cut lengths available upon request.





## General Purpose Expandable Braided Sleeving Helagaine Dispenser Packs

This convenient package holds mini spools of expandable braided sleeving. Designed to save space and provide easy access when dispensing, this unit allows for the efficient handling and management of sleeving.

### Application

The perfect solution for use in field-service applications where a large spool of braided sleeving is not feasible or when only a small amount of sleeving is required for a quick-fix project.

### Benefits

- Expands (3:1 ratio) to allow for a wide range of bundle sizes.
- Dispenser box protects sleeving from dirt and keeps it from unraveling.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Operating Temperature | -58°F to 230°F<br>-50°C to 150°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



### Product Selection

| Part No.  | Nominal Size |      | Type  | Expansion Range |            | Expansion Range |            | Color | Reel Length |      | Weight |     |
|-----------|--------------|------|-------|-----------------|------------|-----------------|------------|-------|-------------|------|--------|-----|
|           | in.          | mm.  |       | (Min.) in.      | (Max.) in. | (Min.) mm.      | (Max.) mm. |       | ft.         | m.   | lbs.   | kg. |
| 170-80150 | 1/4          | 6.4  | HLB15 | .20             | .83        | 5.1             | 21.1       | Black | 32.8        | 10.0 | .45    | .20 |
| 170-80250 | 1/2          | 12.7 | HLB25 | .40             | 1.18       | 10.2            | 30.0       | Black | 32.8        | 10.0 | .56    | .25 |
| 170-80350 | 1            | 25.4 | HLB35 | .71             | 2.13       | 18.0            | 54.1       | Black | 32.8        | 10.0 | .67    | .30 |

Use Part No. for ordering and Type for specification.

## General Purpose Expandable Braided Sleeving - Orange

Orange PET braided sleeving is an extremely flexible, general purpose option for bundling and protecting wires and cables in abrasive type applications. Its color makes it ideal for systematic color coding of complex wiring installations.

### Application

Commonly used to shield cable harnesses in battery-powered vehicles, such as hybrid cars, golf carts, and light trucks.

### Benefits

- Provides easy visual and safety identification of critical wiring components.
- Offers high tensile strength while maintaining extreme flexibility.
- Expands up to 150% of flat diameter for easy installation.
- Does not trap heat and humidity.
- Installs quickly and accommodates expansions and varying cable assembly shapes, reducing installation costs.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Flammability          | UL 94-V0                         |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



### Product Selection

| Part No.  | Nominal Size |      | Type     | Expansion Range |               | Expansion Range |               | Color  | Reel Length* |       | Weight |      |
|-----------|--------------|------|----------|-----------------|---------------|-----------------|---------------|--------|--------------|-------|--------|------|
|           | in.          | mm.  |          | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |        | ft.          | m.    | lbs.   | kg.  |
| 170-03076 | 1/4          | 6.4  | BSP143B  | .125            | .437          | 3.2             | 11.1          | Orange | 1000         | 304.8 | 2.6    | 1.18 |
| 170-03077 | 1/2          | 12.7 | BSP123B  | .25             | .75           | 6.4             | 19.1          | Orange | 500          | 152.4 | 3.85   | 1.75 |
| 170-03078 | 3/4          | 19.1 | BSP343B  | .50             | 1.25          | 12.7            | 31.8          | Orange | 250          | 76.2  | 3.0    | 1.36 |
| 170-03079 | 1            | 25.4 | BSP103B  | .625            | 1.625         | 15.9            | 41.3          | Orange | 250          | 76.2  | 3.35   | 1.52 |
| 170-03080 | 1-1/4        | 31.8 | BSP1143B | .75             | 1.75          | 19.1            | 44.5          | Orange | 250          | 76.2  | 4.0    | 1.81 |
| 170-03081 | 1-1/2        | 38.1 | BSP1123B | 1.00            | 2.125         | 25.4            | 54.0          | Orange | 200          | 61.0  | 6.6    | 3.0  |

Use Part No. for ordering and Type for specification. \*Pre-cut lengths available upon request.



## Fray Resistant Expandable Braided Sleeving

A versatile and economical general purpose Sleeving that resists fraying when cut with ordinary scissors.

### Application

For use in automotive, industrial and computer applications where the wires, cables and hoses being covered endure frequent handling.

### Benefits

- Enables field installations without a hot knife thus reducing time and assembly costs.
- Expands up to 150% of flat diameter for easy installation.
- Offers excellent abrasion and cut-through resistance as well as inertness to most chemicals and fungus.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Flammability          | UL 94-V0                         |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Scissors                         |



### Product Selection

| Part No.  | Nominal Size |      | Type      | Expansion Range |               | Expansion Range |               | Color | Reel Length |      | Weight |     |
|-----------|--------------|------|-----------|-----------------|---------------|-----------------|---------------|-------|-------------|------|--------|-----|
|           | in.          | mm.  |           | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.   | lbs.   | kg. |
| 170-03123 | 1/8          | 3.2  | BSPSC180  | .125            | .25           | 3.2             | 6.4           | Black | 100         | 30.5 | .40    | .18 |
| 170-03035 | 1/4          | 6.4  | BSPSC140  | .156            | .437          | 4.0             | 11.1          | Black | 100         | 30.5 | .46    | .21 |
| 170-03012 | 1/2          | 12.7 | BSPSC120  | .25             | .75           | 6.4             | 19.1          | Black | 100         | 30.5 | .82    | .37 |
| 170-03013 | 3/4          | 19.1 | BSPSC340  | .625            | 1.0           | 15.9            | 25.4          | Black | 75          | 22.9 | .83    | .38 |
| 170-03014 | 1            | 25.4 | BSPSC100  | .75             | 1.19          | 19.1            | 30.2          | Black | 50          | 15.2 | .62    | .28 |
| 170-03015 | 1-1/4        | 31.8 | BSPSC1140 | 1.0             | 1.50          | 25.4            | 38.1          | Black | 50          | 15.2 | .78    | .35 |
| 170-03016 | 1-1/2        | 38.1 | BSPSC1120 | 1.25            | 2.0           | 31.8            | 50.8          | Black | 50          | 15.2 | .93    | .42 |

Use Part No. for ordering and Type for specification.



## Flame Retardant Expandable Braided Sleeving

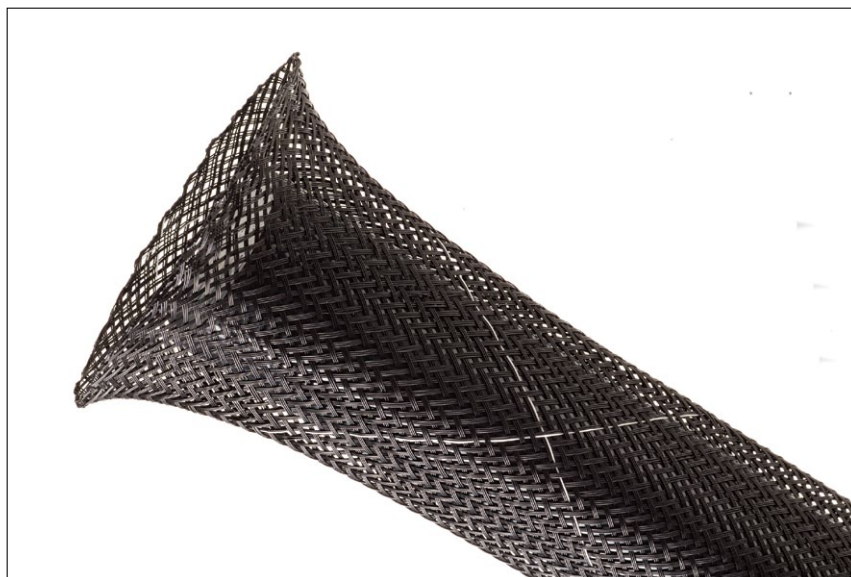
A flame retardant woven (threaded) polyester sleeving that is resistant to cuts and abrasion, and contains a combustion inhibitor allowing it to achieve a UL and CSA flame-resistance rating of VW-1.

### Application

This fire extinguishing braided sleeving is ideal for electronic and high tech applications because of its light weight and durable qualities.

### Benefits

- Resists gasoline, engine fluids, chemicals and cleaning solvents.
- Expands up to 150% of flat diameter for easy installation.
- Enables quick and easy installation over large connectors.



#### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Treated PET (Polyester)          |
| Flammability          | UL VW-1                          |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



#### Product Selection

| Part No.                | Nominal Size |      | Type       | Expansion Range |               | Expansion Range |               | Color | Reel Length |       | Weight |      |
|-------------------------|--------------|------|------------|-----------------|---------------|-----------------|---------------|-------|-------------|-------|--------|------|
|                         | in.          | mm.  |            | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.    | lbs.   | kg.  |
| 170-03006               | 1/4          | 6.4  | BSPFR140   | .125            | .437          | 3.2             | 11.1          | Black | 200         | 61.0  | .48    | .22  |
| 170-03007               | 1/2          | 12.7 | BSPFR120   | .25             | .75           | 6.4             | 19.1          | Black | 100         | 30.5  | .72    | .33  |
| 170-03008               | 3/4          | 19.1 | BSPFR340   | .50             | 1.25          | 12.7            | 31.8          | Black | 75          | 22.9  | .65    | .30  |
| 170-03010               | 1-1/4        | 31.8 | BSPFR1140  | .75             | 1.75          | 19.1            | 44.5          | Black | 50          | 15.2  | .80    | .363 |
| 170-03011               | 1-1/2        | 38.1 | BSPFR1120  | 1.0             | 2.125         | 25.4            | 53.9          | Black | 40          | 12.2  | .79    | .358 |
| 170-03071               | 1/8          | 3.2  | BSPFR188   | .094            | .25           | 2.4             | 6.4           | Gray  | 225         | 68.6  | .40    | .18  |
| 170-03072               | 1/4          | 6.4  | BSPFR148   | .125            | .437          | 3.2             | 11.1          | Gray  | 200         | 61.0  | .48    | .22  |
| 170-03073               | 1/2          | 12.7 | BSPFR128   | .25             | .75           | 6.4             | 19.1          | Gray  | 100         | 30.5  | .72    | .33  |
| 170-03074               | 3/4          | 19.1 | BSPFR348   | .50             | 1.25          | 12.7            | 31.8          | Gray  | 75          | 22.9  | .65    | .30  |
| 170-03066               | 1-1/2        | 38.1 | BSPFR1128  | 1.0             | 2.125         | 25.4            | 53.9          | Gray  | 40          | 12.2  | .79    | .358 |
| <b>Bulk Sized Reels</b> |              |      |            |                 |               |                 |               |       |             |       |        |      |
| 170-03089               | 1/8          | 3.2  | BSPFR180B  | .094            | .25           | 2.4             | 6.4           | Black | 1000        | 304.8 | 1.6    | .73  |
| 170-03090               | 1/4          | 6.4  | BSPFR140B  | .125            | .437          | 3.2             | 11.1          | Black | 1000        | 304.8 | 2.4    | 1.1  |
| 170-03091               | 1/2          | 12.7 | BSPFR120B  | .25             | .75           | 6.4             | 19.1          | Black | 500         | 152.4 | 3.6    | 1.6  |
| 170-03092               | 3/4          | 19.1 | BSPFR340B  | .50             | 1.25          | 12.7            | 31.8          | Black | 250         | 76.2  | 2.2    | 1.0  |
| 170-03093               | 1            | 25.4 | BSPFR100B  | .625            | 1.625         | 15.9            | 41.3          | Black | 250         | 76.2  | 3.4    | 1.5  |
| 170-03094               | 1-1/4        | 31.8 | BSPFR1140B | .75             | 1.75          | 19.1            | 44.5          | Black | 250         | 76.2  | 4.0    | 1.8  |
| 170-03095               | 1-1/2        | 38.1 | BSPFR1120B | 1.0             | 2.125         | 25.4            | 54.0          | Black | 200         | 61.0  | 3.9    | 1.77 |

Use Part No. for ordering and Type for specification.



## Flame Retardant + Fray Resistant Expandable Braided Sleeving

This protective sleeving is self-extinguishing and can be cut with sharp scissors instead of a hot knife for fray-resistant ends.

### Application

Readily used in the automotive, audiovisual, industrial, wire, cable and computer industries where flame retardancy is required to reduce the likelihood of ignition and/or reduce the rate of flame spread. It is suited for situations where access to a hot knife is either impractical or impossible.

### Benefits

- Provides fuller coverage and a medium-to-high abrasion resistance.
- Expands for ease of installation in either the shop or the field.
- Offers increased braid density without loss of flexibility.
- Contains white tracer thread for simple identification of flame retardancy.
- Extinguishes quickly and reduces flame spread to surrounding components.



#### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Treated PET (Polyester)          |
| Flammability          | UL VW-1                          |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Scissors                         |



#### Product Selection

| Part No.                | Nominal Size |      | Type        | Expansion Range |               | Expansion Range |               | Color | Reel Length |       | Weight |     |
|-------------------------|--------------|------|-------------|-----------------|---------------|-----------------|---------------|-------|-------------|-------|--------|-----|
|                         | in.          | mm.  |             | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.    | lbs.   | kg. |
| 170-03036               | 1/4          | 6.4  | BSSCFR140   | .156            | .437          | 4.0             | 11.1          | Black | 100         | 30.5  | .40    | .18 |
| 170-03017               | 1/2          | 12.7 | BSSCFR120   | .25             | .75           | 6.4             | 19.1          | Black | 100         | 30.5  | .82    | .37 |
| 170-03018               | 3/4          | 19.1 | BSSCFR340   | .625            | 1.00          | 15.9            | 25.4          | Black | 75          | 22.9  | .83    | .38 |
| 170-03019               | 1            | 25.4 | BSSCFR100   | .75             | 1.188         | 19.1            | 30.2          | Black | 50          | 15.2  | .62    | .28 |
| 170-03020               | 1-1/4        | 31.8 | BSSCFR1140  | 1.0             | 1.50          | 25.4            | 38.1          | Black | 50          | 15.2  | .78    | .35 |
| 170-03021               | 1-1/2        | 38.1 | BSSCFR1120  | 1.25            | 2.0           | 31.8            | 50.8          | Black | 50          | 15.2  | .93    | .42 |
| <b>Bulk Sized Reels</b> |              |      |             |                 |               |                 |               |       |             |       |        |     |
| 170-03116               | 1/8          | 3.3  | BSSCFR180B  | .125            | .25           | 3.2             | 6.4           | Black | 1000        | 304.8 | 4.0    | 1.8 |
| 170-03117               | 1/4          | 6.4  | BSSCFR140B  | .156            | .437          | 4.0             | 11.1          | Black | 1000        | 304.8 | 4.6    | 2.1 |
| 170-03118               | 1/2          | 12.7 | BSSCFR120B  | .25             | .75           | 6.4             | 19.1          | Black | 500         | 152.4 | 4.1    | 1.9 |
| 170-03119               | 3/4          | 19.1 | BSSCFR340B  | .625            | 1.0           | 15.9            | 25.4          | Black | 250         | 76.2  | 2.78   | 1.3 |
| 170-03120               | 1            | 25.4 | BSSCFR100B  | .75             | 1.9           | 19.1            | 48.3          | Black | 250         | 76.2  | 3.1    | 1.4 |
| 170-03121               | 1-1/4        | 31.8 | BSSCFR1140B | 1.0             | 1.50          | 25.4            | 38.1          | Black | 250         | 76.2  | 3.9    | 1.8 |
| 170-03122               | 1-1/2        | 38.1 | BSSCFR1120B | 1.25            | 2.0           | 31.8            | 50.8          | Black | 250         | 76.2  | 4.63   | 2.1 |

Use Part No. for ordering and Type for specification.





## Hook & Loop Flame Retardant Expandable Braided Sleeving

Hook and loop edging keeps this flame retardant sleeving securely wrapped around cables, but allows for easy access when maintenance is necessary.

### Application

Ideal for high-technology applications, especially operating environments where harsh fluids are present.

### Benefits

- Conforms to irregular shapes and contours.
- Meets military specifications (Mil-202 approved).
- Cuts easily with a bench-mount hot knife.
- Resists chemicals and cleaning solvents.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Treated PET (Polyester)          |
| Flammability          | UL VW-1                          |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



### Product Selection

| Part No.  | Nominal Size |      | Type          | Expansion Range |               | Color | Reel Length |      | Weight |      |
|-----------|--------------|------|---------------|-----------------|---------------|-------|-------------|------|--------|------|
|           | in.          | mm.  |               | (Min.)<br>in.   | (Max.)<br>in. |       | ft.         | m.   | lbs.   | kg.  |
| 170-03153 | 1/2          | 12.7 | BSHKLPFR120B  | .25             | 6.4           | Black | 100         | 30.5 | 1.3    | .60  |
| 170-03154 | 3/4          | 19.1 | BSHKLPFR340B  | .63             | 16            | Black | 100         | 30.5 | 1.8    | .82  |
| 170-03155 | 1-1/4        | 31.8 | BSHKLPFR1140B | .63             | 16            | Black | 100         | 30.5 | 2.3    | 1.04 |
| 170-03156 | 2            | 50.8 | BSHKLPFR200B  | .63             | 16            | Black | 100         | 30.5 | 3.2    | 1.45 |
| 170-03157 | 2-1/2        | 63.5 | BSHKLPFR212B  | .63             | 16            | Black | 100         | 30.5 | 3.75   | 1.70 |

Use Part No. for ordering and Type for specification.





## Split Wrap Flame Retardant Braided Sleeving

Used when flame retardancy is a primary requirement, this protection option incorporates a lateral split which allows the tube to open up to accommodate a variety of bundling requirements and the semi-rigid braid configuration simply closes around the entire installation without the need for any additional fasteners.

### Application

Use this self-extinguishing product that complies with UL VW-1 standards where cables exit a wall and need to be managed for an uncluttered, clean appearance.

### Benefits

- Installs easily, saving assembly time.
- Allows for future accessibility without disassembly.
- Needs no fasteners (i.e., tape, hook and loop, etc.).
- Provides a greater flexibility than spiralwrap or convoluted tubing.
- Retains shape and rigidity throughout operating temperature range.

Installation Tool on page 23.



#### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Treated PET (Polyester)          |
| Flammability          | UL VW-1                          |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 446°F / 230°C                    |
| Abrasion Protection   | High                             |
| Recommended Cutting   | Hot Knife                        |



#### Product Selection

| Part No.  | Nominal Size* |      | Type        | Wall Thickness |     | Color | Reel Length |       | Weight |     |
|-----------|---------------|------|-------------|----------------|-----|-------|-------------|-------|--------|-----|
|           | in.           | mm.  |             | in.            | mm. |       | ft.         | m.    | lbs.   | kg. |
| 170-03140 | 1/8           | 3.2  | BSSWFR180B  | .024           | .61 | Black | 400         | 121.9 | .80    | .36 |
| 170-03141 | 1/4           | 6.4  | BSSWFR140B  | .025           | .64 | Black | 200         | 61.0  | 1.2    | .54 |
| 170-03142 | 1/2           | 12.7 | BSSWFR120B  | .025           | .64 | Black | 150         | 45.7  | 2.1    | .95 |
| 170-03143 | 3/4           | 19.1 | BSSWFR340B  | .025           | .64 | Black | 100         | 30.5  | 1.6    | .73 |
| 170-03144 | 1             | 25.4 | BSSWFR100B  | .038           | .97 | Black | 100         | 30.5  | 20     | .91 |
| 170-03145 | 1-1/4         | 31.8 | BSSWFR1140B | .038           | .97 | Black | 75          | 22.9  | 1.8    | .82 |
| 170-03146 | 1-1/2         | 38.1 | BSSWFR1120B | .038           | .97 | Black | 75          | 22.9  | 2.1    | .95 |
| 170-03147 | 2             | 50.8 | BSSWFR200B  | .038           | .97 | Black | 50          | 15.2  | 1.8    | .82 |

Use Part No. for ordering and Type for specification. \*Nominal size measures internal diameter of sleeving.



## Electromagnetic Flame Retardant Helagaine

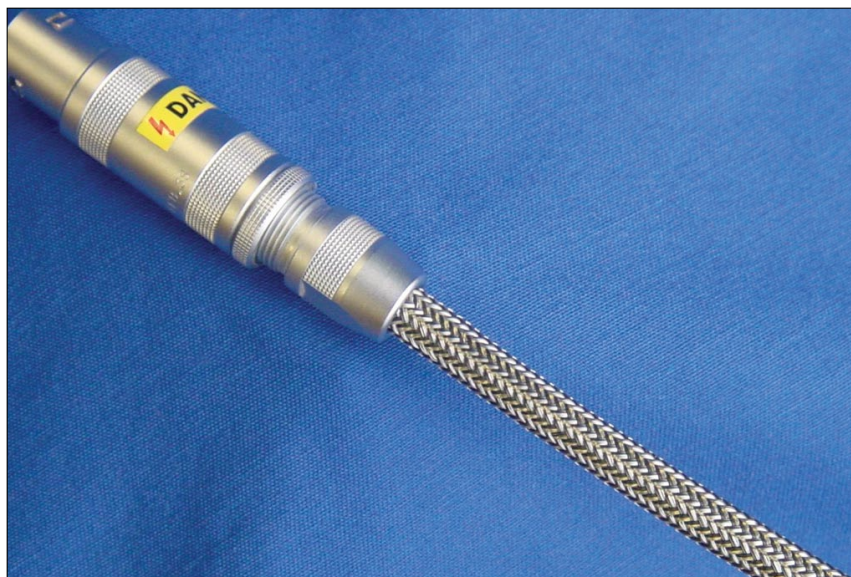
Helagaine VO (HEGEMIPVO) is tubular braided sleeving made from Polyester PBT monofilaments. The raw material is treated with non-burning agents so it has flame retardant and self-extinguishing properties. Rated VO by Underwriters Laboratories.

### Application

Excellent for use where flame can cause damage therefore the protection of highly sensitive wiring is critical, such as in laboratories, computer rooms, satellites, mass transit and airplanes.

### Benefits

- Shields or dissipates wire and cables from electromagnetic interference.
- Resists most chemicals.
- Expands (ratio 2:1) to allow for easy placement over bundles.



| Material Data         |  |                                      |
|-----------------------|--|--------------------------------------|
| Material              |  | PBT / Tin-Plated Copper (TNCU)       |
| Flammability          |  | UL 94-V0                             |
| Operating Temperature |  | -40°F to 347°F<br>-40°C to 175°C     |
| Melt Point            |  | 392°F / 200°C                        |
| Abrasion Protection   |  | High                                 |
| Recommended Cutting   |  | Shears                               |
| EMI Requirements      |  | 10 KHz to 1 GHz according to CISPR25 |



### Product Selection

| Part No.  | Nominal Size |      | Type        | Expansion Range |               | Expansion Range |               | Color     | Reel Length |     | Weight |      |
|-----------|--------------|------|-------------|-----------------|---------------|-----------------|---------------|-----------|-------------|-----|--------|------|
|           | in.          | mm.  |             | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |           | ft.         | m.  | lbs.   | kg.  |
| 173-60400 | 1/8          | 3.2  | HEGEMIPV004 | .16             | .26           | 4.1             | 6.6           | Tin+Black | 328         | 100 | 4.74   | 2.2  |
| 173-60600 | 1/4          | 6.4  | HEGEMIPV006 | .20             | .40           | 5.1             | 10.2          | Tin+Black | 328         | 100 | 6.28   | 2.8  |
| 173-60800 | 5/16         | 7.9  | HEGEMIPV008 | .32             | .45           | 8.1             | 11.4          | Tin+Black | 328         | 100 | 5.84   | 2.6  |
| 173-61000 | 3/8          | 9.5  | HEGEMIPV010 | .32             | .52           | 8.1             | 13.2          | Tin+Black | 164         | 50  | 9.6    | 4.4  |
| 173-61200 | 7/16         | 11.1 | HEGEMIPV012 | .40             | .59           | 10.20           | 15.0          | Tin+Black | 164         | 50  | 10.6   | 4.8  |
| 173-61400 | 1/2          | 12.7 | HEGEMIPV014 | .47             | .71           | 11.9            | 18.0          | Tin+Black | 328         | 100 | 12.8   | 5.8  |
| 173-61600 | 9/16         | 14.3 | HEGEMIPV016 | .55             | .79           | 14.0            | 20.1          | Tin+Black | 328         | 100 | 15.9   | 7.2  |
| 173-61800 | 5/8          | 15.9 | HEGEMIPV018 | .63             | .87           | 16.0            | 22.1          | Tin+Black | 164         | 50  | 17.3   | 7.8  |
| 173-62000 | 3/4          | 19.1 | HEGEMIPV020 | .71             | .98           | 18.0            | 25.0          | Tin+Black | 164         | 50  | 22.1   | 10.0 |

Use Part No. for ordering and Type for specification.

## Electromagnetic Helagaine

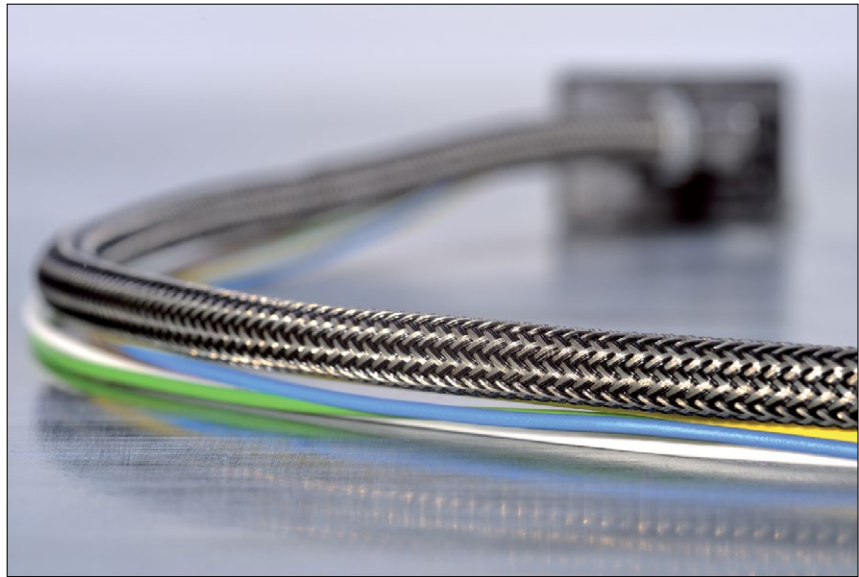
Helagaine (HEGEMIP) is a sleeving created from tin-plated copper and polyester threads that offers not only secure cable bundling but electromagnetic protection as well. The formulated mix of materials offers inside and outside abrasion resistance.

### Application

Particularly suitable for applications with movement and little space; ideal for short-run cables found in electrical appliances and radio equipment.

### Benefits

- Features a supporting inner tube that makes insertion of cable easier and protects the sleeve from deformation during transport.
- Attenuates electrical field interference.
- Provides electromagnetic and electrostatic shielding.
- Delivers added shielding in retrofit applications.
- Retains original form even when bent and twisted, unlike purely copper braids.



| Material Data         |  |                                            |
|-----------------------|--|--------------------------------------------|
| Material              |  | PET (Polyester) / Tin-Plated Copper (TNCU) |
| Flammability          |  | UL 94-V2                                   |
| Operating Temperature |  | -40°F to 347°F<br>-40°C to 175°C           |
| Melt Point            |  | 392°F / 200°C                              |
| Abrasion Protection   |  | High                                       |
| Recommended Cutting   |  | Shears                                     |
| EMI Requirements      |  | 10 KHz to 1 GHz according to CISPR25       |



### Product Selection

| Part No.  | Nominal Size |      | Type      | Expansion Range |            | Expansion Range |            | Color     | Reel Length |     | Weight |      |
|-----------|--------------|------|-----------|-----------------|------------|-----------------|------------|-----------|-------------|-----|--------|------|
|           | in.          | mm.  |           | (Min.) in.      | (Max.) in. | (Min.) mm.      | (Max.) mm. |           | ft.         | m.  | lbs.   | kg.  |
| 173-00400 | 1/8          | 3.2  | HEGEMIP04 | .16             | .26        | 4.1             | 6.6        | Tin+Black | 328         | 100 | 4.74   | 2.2  |
| 173-00600 | 1/4          | 6.4  | HEGEMIP06 | .20             | .40        | 5.1             | 10.2       | Tin+Black | 328         | 100 | 6.28   | 2.8  |
| 173-00800 | 5/16         | 7.9  | HEGEMIP08 | .32             | .45        | 8.1             | 11.4       | Tin+Black | 328         | 100 | 5.84   | 2.6  |
| 173-01000 | 3/8          | 9.5  | HEGEMIP10 | .32             | .52        | 8.1             | 13.2       | Tin+Black | 164         | 50  | 9.6    | 4.4  |
| 173-01200 | 7/16         | 11.1 | HEGEMIP12 | .40             | .59        | 10.2            | 15.0       | Tin+Black | 164         | 50  | 10.6   | 4.8  |
| 173-01400 | 1/2          | 12.7 | HEGEMIP14 | .47             | .71        | 11.9            | 18.0       | Tin+Black | 328         | 100 | 12.8   | 5.8  |
| 173-01600 | 9/16         | 14.3 | HEGEMIP16 | .55             | .79        | 14.0            | 20.1       | Tin+Black | 328         | 100 | 15.9   | 7.2  |
| 173-01800 | 5/8          | 15.9 | HEGEMIP18 | .63             | .87        | 16.0            | 22.1       | Tin+Black | 164         | 50  | 17.3   | 7.8  |
| 173-02000 | 3/4          | 19.1 | HEGEMIP20 | .71             | .98        | 18.0            | 25.0       | Tin+Black | 164         | 50  | 22.1   | 10.0 |

Use Part No. for ordering and Type for specification.

## Polyamide 6.6 Expandable Braided Sleeving - Black

A pliable yet durable nylon sleeve that delivers excellent protection against cuts, abrasions and excessive wear caused by repetitive motion.

### Application

Used on hoses, pipes, wiring harnesses and cables installed in cars, trucks, military vehicles, trains and industrial equipment. Protects delicate wiring in engine compartments and near exhaust systems or used to organize wires and breakouts in electrical harnesses.

### Benefits

- Resists fuels, salts and solvents, gasoline, and other common contaminants.
- Offers a tight, 12 mil braid that provides full coverage but will not rot or retain moisture.
- Performs well in wet applications and where abiding substrate has a smooth surface.
- Expands up to 150% of flat diameter for easy installation.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Polyamide 6.6 (Nylon)            |
| Flammability          | Non-Flammable                    |
| Operating Temperature | -49°F to 302°F<br>-45°C to 150°C |
| Melt Point            | 491°F / 255°C                    |
| Abrasion Protection   | High                             |
| Recommended Cutting   | Hot Knife                        |



### Product Selection

| Part No.                | Nominal Size |      | Type        | Expansion Range |            | Expansion Range |            | Color | Reel Length* |       | Weight |      |
|-------------------------|--------------|------|-------------|-----------------|------------|-----------------|------------|-------|--------------|-------|--------|------|
|                         | in.          | mm.  |             | (Min.) in.      | (Max.) in. | (Min.) mm.      | (Max.) mm. |       | ft.          | m.    | lbs.   | kg.  |
| 170-03069               | 1/4          | 6.4  | BSPA66140B  | .125            | .375       | 3.2             | 9.5        | Black | 200          | 61.0  | .60    | .27  |
| 170-03027               | 1/2          | 12.7 | BSPA66120B  | .375            | .75        | 9.5             | 19.1       | Black | 100          | 30.5  | 1.03   | .47  |
| 170-03028               | 3/4          | 19.1 | BSPA66340B  | .50             | 1.25       | 12.7            | 31.8       | Black | 75           | 22.9  | 1.10   | .50  |
| 170-03029               | 1            | 25.4 | BSPA66100B  | .625            | 1.375      | 15.9            | 35.0       | Black | 50           | 15.2  | .80    | .36  |
| 170-03030               | 1-1/4        | 31.8 | BSPA661140B | .75             | 1.50       | 19.1            | 38.1       | Black | 50           | 15.2  | .89    | .40  |
| <b>Bulk Sized Reels</b> |              |      |             |                 |            |                 |            |       |              |       |        |      |
| 170-03070               | 1/4          | 6.4  | BSPA66140B  | .125            | .375       | 3.2             | 9.5        | Black | 1000         | 304.8 | 3.10   | 1.41 |
| 170-03046               | 1/2          | 12.7 | BSPA66120B  | .375            | .75        | 9.5             | 19.1       | Black | 500          | 152.4 | 5.15   | 2.34 |
| 170-03047               | 3/4          | 19.1 | BSPA66340B  | .50             | 1.25       | 12.7            | 31.8       | Black | 250          | 76.2  | 3.68   | 1.67 |
| 170-03048               | 1            | 25.4 | BSPA66100B  | .625            | 1.375      | 15.9            | 35.0       | Black | 250          | 76.2  | 4.0    | 1.81 |
| 170-03049               | 1-1/4        | 31.8 | BSPA661140B | .75             | 1.50       | 19.1            | 38.1       | Black | 250          | 76.2  | 4.50   | 4    |

Use Part No. for ordering and Type for specification. \*Pre-cut lengths available upon request.

Need gray nylon color sleeving? Please ask about our Helagaine PA66 series.



## Polyamide 6.6 Helagaine Expandable Braided Sleeving - Gray

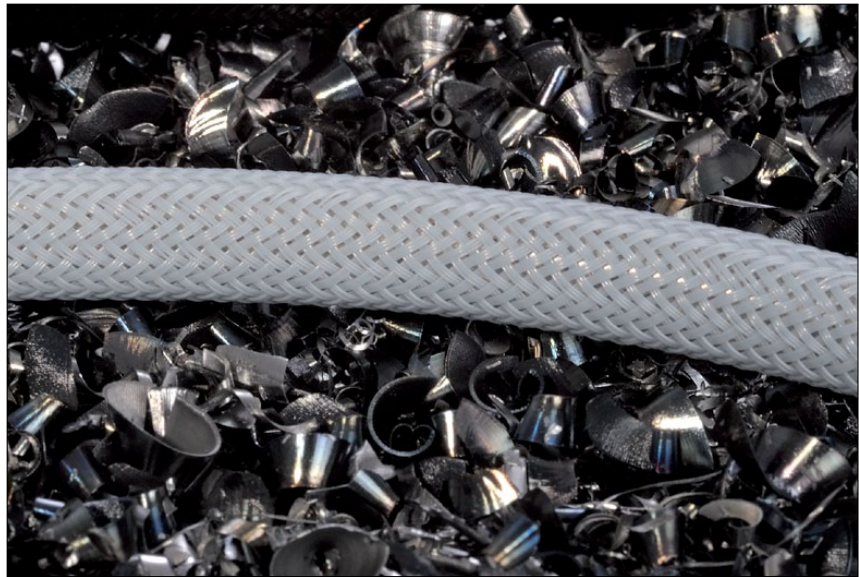
Made from heat-stabilized monofilament strands, this lightweight protection is a tougher sleeving with excellent resistance to abrasion. Despite its sturdy composition, Helagaine is expandable and durable and can easily be applied over irregular surfaces.

### Application

Suitable for automotive and transportation industry applications for the protection of sensitive cables and wires from abrasion.

### Benefits

- Offers a strand diameter that is approximately 10% larger than that of polyester, allowing for greater expandability.
- Resists fuels, salts and solvents, gasoline, and other common contaminants.
- Performs well in wet applications and where abiding substrate has a smooth surface.



| Material Data         |  |                                  |
|-----------------------|--|----------------------------------|
| Material              |  | Polyamide 6.6 (PA66)             |
| Flammability          |  | UL 94-V2                         |
| Operating Temperature |  | -76°F to 302°F<br>-60°C to 150°C |
| Melt Point            |  | 491°F / 255°C                    |
| Abrasion Protection   |  | High                             |
| Recommended Cutting   |  | Hot Knife                        |



### Product Selection

| Part No.  | Nominal Size |     | Type      | Expansion Range |               | Expansion Range |               | Color | Reel Length |       | Weight |      |
|-----------|--------------|-----|-----------|-----------------|---------------|-----------------|---------------|-------|-------------|-------|--------|------|
|           | in.          | mm. |           | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.    | lbs.   | kg.  |
| 170-20400 | 1/8          | 4   | HEGPA6604 | .12             | .24           | 3.0             | 6.1           | Gray  | 656         | 200.0 | 1.1    | .50  |
| 170-20600 | 3/16         | 6   | HEGPA6606 | .16             | .32           | 4.1             | 8.1           | Gray  | 328         | 100.0 | 1.3    | .59  |
| 170-20800 | 1/4          | 8   | HEGPA6608 | .20             | .40           | 5.1             | 10.2          | Gray  | 328         | 100.0 | 1.1    | .50  |
| 170-21200 | 5/16         | 12  | HEGPA6612 | .32             | .55           | 8.1             | 14.0          | Gray  | 328         | 100.0 | 2.4    | 1.1  |
| 170-22000 | 3/4          | 20  | HEGPA6620 | .59             | .91           | 15.0            | 23.1          | Gray  | 164         | 50.3  | 3.1    | 1.41 |
| 170-22500 | 1            | 25  | HEGPA6625 | .71             | 1.10          | 18.0            | 28.0          | Gray  | 164         | 50.3  | 3.9    | 1.77 |
| 170-23000 | 1-1/4        | 30  | HEGPA6630 | .98             | 1.26          | 24.9            | 32.0          | Gray  | 164         | 50.3  | 4.9    | 2.22 |
| 170-25000 | 2            | 50  | HEGPA6650 | 1.58            | 2.17          | 40.1            | 55.1          | Gray  | 164         | 50.3  | 10.4   | 4.72 |

Use Part No. for ordering and Type for specification.



## Split Wrap Braided Sleeving

A bundling and protection option with a lateral split and a semi-rigid braid configuration that is the ideal solution for circumstances where ease of installation is the primary concern. The lateral split allows the sleeving to open up to adjust to the bundling requirement while the 25% edge overlap folds back over the connector or splices.



### Application

More flexible than spiral wraps or convoluted tubing, this product is a fast and easy option for adding protection in post-assembly or post-installation situations.

### Benefits

- Needs no fasteners (i.e., tape, hook and loop, etc.).
- Bends to a tight radius without distortion or splitting open.
- Allows future access without disassembly.
- Withstands cuts, abrasions and tension.

#### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Flammability          | UL 94-V0                         |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |

Installation Tool on page 23.



#### Product Selection

| Part No.                      | Nominal Size |       | Type        | Wall Thickness |     | Color | Reel Length* |         | Weight |     |
|-------------------------------|--------------|-------|-------------|----------------|-----|-------|--------------|---------|--------|-----|
|                               | in.          | mm.   |             | in.            | mm. |       | ft.          | m.      | lbs.   | kg. |
| 170-03037                     | 1/4          | 6.4   | BSPSW140    | .025           | .64 | Black | 100          | 30.5    | .60    | .27 |
| 170-03024                     | 1/2          | 12.7  | BSPSW120    | .025           | .64 | Black | 75           | 22.9    | 1.05   | .48 |
| 170-03038                     | 3/4          | 19.1  | BSPSW340    | .025           | .64 | Black | 50           | 15.2    | .80    | .36 |
| 170-03025                     | 1            | 25.4  | BSPSW100    | .038           | .97 | Black | 50           | 15.2    | 1.0    | .45 |
| <b>Bulk Box</b>               |              |       |             |                |     |       |              |         |        |     |
| 170-03124                     | 1/8          | 3.2   | BSPSW180B   | .024           | .61 | Black | 400          | 121.9   | .80    | .36 |
| 170-03125                     | 1/4          | 6.4   | BSPSW140B   | .025           | .64 | Black | 200          | 61.0    | 1.2    | .54 |
| 170-03126                     | 1/2          | 12.7  | BSPSW120B   | .025           | .64 | Black | 150          | 45.7    | 2.1    | .95 |
| 170-03127                     | 3/4          | 19.1  | BSPSW340B   | .025           | .64 | Black | 100          | 30.5    | 1.6    | .73 |
| 170-03128                     | 1            | 25.4  | BSPSW100B   | .038           | .97 | Black | 100          | 30.5    | 2.0    | .91 |
| 170-03129                     | 1-1/4        | 31.8  | BSPSW1140B  | .038           | .97 | Black | 75           | 22.9    | 1.8    | .82 |
| 170-03130                     | 1-1/2        | 38.1  | BSPSW1120B  | .038           | .97 | Black | 75           | 22.9    | 2.1    | .95 |
| 170-03131                     | 2            | 50.8  | BSPSW200B   | .038           | .97 | Black | 50           | 15.2    | 1.8    | .82 |
| <b>Large Bulk Sized Reels</b> |              |       |             |                |     |       |              |         |        |     |
| 170-03132                     | 1/8          | 3.2   | BSPSW180LB  | .024           | .61 | Black | 10,000       | 3,048.8 | 20.0   | 9.0 |
| 170-03133                     | 1/4          | 6.4   | BSPSW140LB  | .025           | .64 | Black | 3,000        | 914.4   | 18.0   | 8.2 |
| 170-03134                     | 1/2          | 12.7  | BSPSW120LB  | .025           | .64 | Black | 1,200        | 365.8   | 12.0   | 5.4 |
| 170-03135                     | 3/4          | 19.05 | BSPSW340LB  | .025           | .64 | Black | 500          | 152.4   | 16.8   | 7.6 |
| 170-03136                     | 1            | 25.4  | BSPSW100LB  | .038           | .97 | Black | 400          | 121.9   | 8.0    | 3.6 |
| 170-03137                     | 1-1/4        | 31.8  | BSPSW140LB  | .038           | .97 | Black | 300          | 91.4    | 8.0    | 3.6 |
| 170-03138                     | 1-1/2        | 38.1  | BSPSW1120LB | .038           | .97 | Black | 200          | 61.0    | 7.2    | 3.3 |
| 170-03139                     | 2            | 50.8  | BSPSW200LB  | .038           | .97 | Black | 150          | 45.7    | 5.4    | 2.4 |

Use Part No. for ordering and Type for specification. \*Additional sizes available upon request.





## Split Wrap Braided Sleeving - Orange

Used for safety identification, this bundling and protection option also offers a lateral split and a semi-rigid braid configuration that wraps around the bundle assembly without requiring any fasteners, such as hook & loop, cables ties or tape.

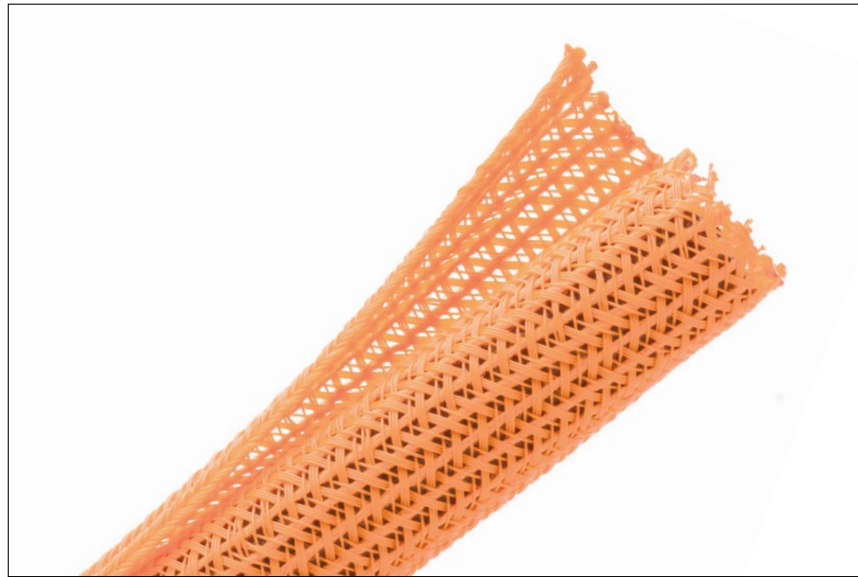
### Application

A non-expandable product that is the uncomplicated option for adding protection and identification in electrical-powered vehicles, aircraft and automotive applications.

### Benefits

- Contains the same physical properties of the General Purpose Black Split Wrap product.
- Needs no fasteners (i.e., tape, hook and loop, etc.).
- Bends to a tight radius without distortion or splitting open.
- Adapts easily and will not impair the flexibility of the harness assembly, nor will it fracture under stress.

Installation Tool on page 23.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | PET (Polyester)                  |
| Flammability          | UL 94-V0                         |
| Operating Temperature | -94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                    |
| Abrasion Protection   | Medium                           |
| Recommended Cutting   | Hot Knife                        |



### Product Selection

| Part No.  | Nominal Size |      | Type       | Wall Thickness |     | Color  | Reel Length |      | Weight |     |
|-----------|--------------|------|------------|----------------|-----|--------|-------------|------|--------|-----|
|           | in.          | mm.  |            | in.            | mm. |        | ft.         | m.   | lbs.   | kg. |
| 170-03082 | 1/4          | 6.4  | BSPSW143B  | .025           | .64 | Orange | 200         | 61.0 | 1.2    | .54 |
| 170-03083 | 1/2          | 12.7 | BSPSW123B  | .025           | .64 | Orange | 150         | 45.7 | 2.1    | .95 |
| 170-03084 | 3/4          | 19.1 | BSPSW343B  | .025           | .64 | Orange | 100         | 30.5 | 1.6    | .73 |
| 170-03085 | 1            | 25.4 | BSPSW103B  | .038           | .97 | Orange | 100         | 30.5 | 2.0    | .91 |
| 170-03086 | 1-1/4        | 31.8 | BSPSW1143B | .038           | .97 | Orange | 75          | 22.9 | 1.8    | .82 |
| 170-03087 | 1-1/2        | 38.1 | BSPSW1123B | .038           | .97 | Orange | 75          | 22.9 | 2.1    | .95 |
| 170-03088 | 2            | 50.8 | BSPSW203B  | .038           | .97 | Orange | 50          | 15.2 | 1.8    | .82 |

Use Part No. for ordering and Type for specification.



## Hook & Loop Expandable Braided Sleeving

Designed for the quick and easy management of wires, this expandable sleeving has an internal hook and loop strap that is able to adhere to its outer PET braid, delivering flexibility that allows it to fit around odd-shaped connectors. Its color-matched hook-and-loop closure provides for an easy on-and-off installation, as well as instant and convenient access for harness break-outs and networks.

### Application

When component disassembly is not an option or when frequent access to bundles wires or cables is essential. The primary application for this sleeving is the wrapping and bunching of cables in a deployed situation (i.e., location recordings).

### Benefits

- Conforms to irregular shapes and contours.
- Wraps effortlessly over a cable bundle and closes; readily reopens.
- Saves time, allows those working on cables to easily splice or combine wires.
- Offers PET yarn construction for excellent protection against cuts and abrasions.



### Material Data

|                       |                                 |
|-----------------------|---------------------------------|
| Material              | PET (Polyester)                 |
| Flammability          | UL 94-VO                        |
| Operating Temperature | 94°F to 257°F<br>-70°C to 125°C |
| Melt Point            | 482°F / 250°C                   |
| Abrasion Protection   | Medium                          |
| Recommended Cutting   | Hot Knife                       |



### Product Selection

| Part No.  | Nominal Size |      | Type        | Wall Thickness |      | Color | Reel Length |      | Weight |      |
|-----------|--------------|------|-------------|----------------|------|-------|-------------|------|--------|------|
|           | in.          | mm.  |             | in.            | mm.  |       | ft.         | m.   | lbs.   | kg.  |
| 170-03148 | 1/2          | 12.7 | BSHKLP120B  | .25            | 6.4  | Black | 100         | 30.5 | 1.3    | .60  |
| 170-03149 | 3/4          | 19.1 | BSHKLP340B  | .63            | 16.0 | Black | 100         | 30.5 | 1.8    | .82  |
| 170-03150 | 1-1/4        | 31.8 | BSHKLP1140B | .63            | 16.0 | Black | 100         | 30.5 | 2.3    | 1.04 |
| 170-03151 | 2            | 50.8 | BSHKLP200B  | .63            | 16.0 | Black | 100         | 30.5 | 3.2    | 1.45 |
| 170-03152 | 2.5          | 63.5 | BSHKLP212B  | .63            | 16.0 | Black | 100         | 30.5 | 3.75   | 1.7  |

Use Part No. for ordering and Type for specification.



## Plenum Rated Halar® Expandable Braided Sleeving

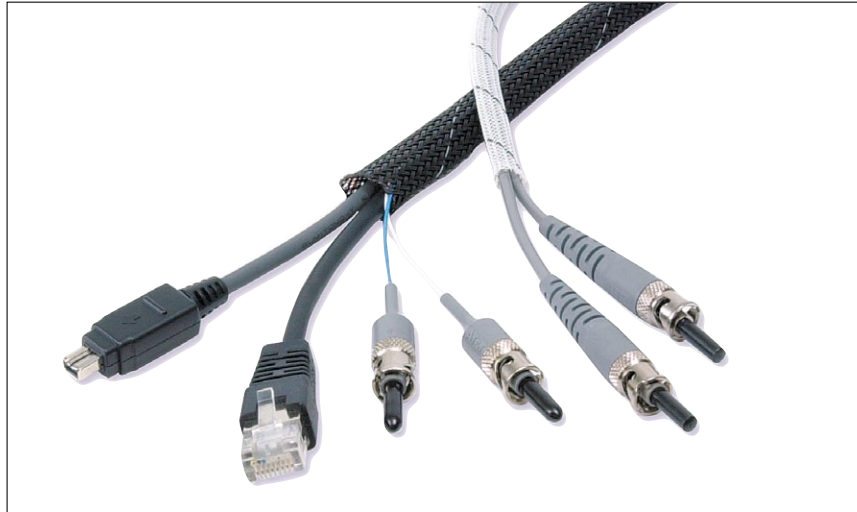
Halar® self-extinguishing sleeving is used where flammability, high temperature endurance and low outgassing are the concern. This sleeving is made from strands of high temperature, flame resistant Halar monofilaments that are able to resist a wide range of corrosive chemicals and organic solvents.

### Application

Its low flame spread and smoke generation properties make it the perfect option for use in technologically-advanced applications, such as those in the automotive, aerospace and vital military markets.

### Benefits

- Resists gasoline and engine chemicals.
- Exceeds automotive industry requirements of FMVSS 302 as well as aviation industry requirements of FAR 25.
- Expands up to 150% for economical and expeditious installation.
- Withstands abrasion and won't degrade when exposed to Cobalt 60 radiation conditions.
- Meets UL 2024 and NFPA 262 specifications for plenum applications.



### Material Data

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Material              | Ethylene Chlorotrifluoroethylene Monofilament (ECTFE) |
| Flammability          | UL VW-1                                               |
| Operating Temperature | -103°F to 302°F<br>-75°C to 150°C                     |
| Melt Point            | 482°F / 250°C                                         |
| Abrasion Protection   | Medium                                                |
| Recommended Cutting   | Hot Knife                                             |



### Product Selection

| Part No.  | Nominal Size |      | Type       | Expansion Range |               | Expansion Range |               | Color | Reel Length |      | Weight |      |
|-----------|--------------|------|------------|-----------------|---------------|-----------------|---------------|-------|-------------|------|--------|------|
|           | in.          | mm.  |            | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.   | lbs.   | kg.  |
| 170-03098 | 1/8          | 3.2  | BSHLR180   | .094            | .25           | 2.4             | 6.4           | Black | 225         | 68.6 | .6     | .27  |
| 170-03100 | 1/4          | 6.4  | BSHLR140   | .125            | .437          | 3.2             | 11.1          | Black | 200         | 61.0 | .8     | .36  |
| 170-03102 | 3/8          | 9.5  | BSHLR380   | .187            | .625          | 4.7             | 15.9          | Black | 125         | 38.1 | 1.1    | .50  |
| 170-03104 | 1/2          | 12.7 | BSHLR120   | .25             | .75           | 6.4             | 19.1          | Black | 100         | 30.5 | 1.1    | .50  |
| 170-03106 | 3/4          | 19.1 | BSHLR340   | .50             | 1.25          | 12.7            | 31.8          | Black | 75          | 22.9 | 1.3    | .60  |
| 170-03108 | 1            | 25.4 | BSHLR100   | .625            | 1.625         | 15.9            | 41.3          | Black | 65          | 19.8 | 1.4    | .64  |
| 170-03110 | 1-1/4        | 31.8 | BSHLR1140  | .75             | 1.75          | 19.1            | 44.5          | Black | 50          | 15.2 | 1.3    | .60  |
| 170-03112 | 1-3/4        | 44.4 | BSHLR1340  | 1.25            | 2.75          | 31.8            | 69.9          | Black | 30          | 9.1  | 1.3    | .60  |
| 170-03114 | 2            | 50.8 | BSHLR200   | 1.50            | 3.50          | 38.1            | 88.9          | Black | 50          | 15.2 | 2.3    | 1.04 |
| 170-03099 | 1/8          | 3.2  | BSHLR1810  | .094            | .25           | 2.4             | 6.4           | White | 225         | 68.6 | .6     | .27  |
| 170-03101 | 1/4          | 6.4  | BSHLR1410  | .125            | .437          | 3.2             | 11.1          | White | 200         | 61.0 | .8     | .36  |
| 170-03103 | 3/8          | 9.5  | BSHLR3810  | .187            | .625          | 4.8             | 15.9          | White | 125         | 38.1 | 1.1    | .50  |
| 170-03105 | 1/2          | 12.7 | BSHLR1210  | .25             | .75           | 6.4             | 19.1          | White | 100         | 30.5 | 1.1    | .50  |
| 170-03107 | 3/4          | 19.1 | BSHLR3410  | .50             | 1.25          | 12.7            | 31.8          | White | 75          | 22.9 | 1.3    | .60  |
| 170-03109 | 1            | 25.4 | BSHLR1010  | .625            | 1.625         | 15.9            | 41.3          | White | 65          | 19.8 | 1.4    | .64  |
| 170-03111 | 1-1/4        | 31.8 | BSHLR11410 | .75             | 1.75          | 19.1            | 44.5          | White | 50          | 15.2 | 1.3    | .60  |
| 170-03113 | 1-3/4        | 44.4 | BSHLR13410 | 1.25            | 2.75          | 31.8            | 69.9          | White | 30          | 9.1  | 1.3    | .60  |
| 170-03115 | 2            | 50.8 | BSHLR2010  | 1.50            | 3.50          | 38.1            | 88.9          | White | 50          | 15.2 | 2.3    | 1.04 |

Use Part No. for ordering and Type for specification.

Halar® is a registered trademark of the Solvey Solexis Corporation.

Halar product is produced on 8" diameter mini spools, which will not fit in merchandising display.



## Extreme High Temperature Resin Saturated Fiberglass Expandable Braided Sleeving

An extremely high-temperature resistant sleeve designed as protection for wires and cables subjected to continuous temperature variations, vibration, abrasion, and mechanical stress.

### Application

Perfect for engine manifolds and exhaust systems or any application where fire and exceeding temperatures create a hazard to workforce and equipment.

### Benefits

- Provides thermal protection up to 1,200°F.
- Maintains its tight structure under extreme shaking, scraping, pressure and varying temperature conditions.
- Cuts cleanly with scissors and installs easily.
- Comes in a wide range of diameters.



### Material Data

|                       |                                    |
|-----------------------|------------------------------------|
| Material              | Resin Saturated Fiberglass         |
| Flammability          | UL VW-1                            |
| Operating Temperature | -94°F to 1,202°F<br>-70°C to 650°C |
| Melt Point            | 2,048°F / 1,120°C                  |
| Abrasion Protection   | Very High                          |
| Recommended Cutting   | Scissors                           |



### Product Selection

| Part No.                | Nominal Size |      | Type       | Wall Thickness |      | Maximum Diameter |      | Color | Reel Length |      | Weight |      |
|-------------------------|--------------|------|------------|----------------|------|------------------|------|-------|-------------|------|--------|------|
|                         | in.          | mm.  |            | in.            | mm.  | in.              | mm.  |       | ft.         | m.   | lbs.   | kg.  |
| 170-03058               | 1/4          | 6.4  | BSHTFG140  | .031           | .79  | .375             | 9.5  | Black | 50          | 15.2 | 1.0    | .45  |
| 170-03059               | 1/2          | 12.7 | BSHTFG120  | .046           | 1.67 | .75              | 19.1 | Black | 50          | 15.2 | 2.4    | 1.1  |
| 170-03060               | 3/4          | 19.1 | BSHTFG340  | .046           | 1.67 | 1.125            | 28.6 | Black | 50          | 15.2 | 3.2    | 1.5  |
| 170-03061               | 1            | 25.4 | BSHTFG100  | .057           | 1.45 | 1.625            | 41.3 | Black | 25          | 7.6  | 2.6    | 1.2  |
| <b>Bulk Sized Reels</b> |              |      |            |                |      |                  |      |       |             |      |        |      |
| 170-03050               | 1/4          | 6.4  | BSHTFG140B | .031           | .79  | .375             | 9.5  | Black | 200         | 61.0 | 4.0    | 1.81 |
| 170-03051               | 1/2          | 12.7 | BSHTFG120B | .046           | 1.17 | .75              | 19.1 | Black | 200         | 61.0 | 9.6    | 4.35 |
| 170-03052               | 3/4          | 19.1 | BSHTFG340B | .046           | 17   | 1.125            | 28.6 | Black | 200         | 61.0 | 12.8   | 5.81 |
| 170-03053               | 1            | 25.4 | BSHTFG100B | .057           | 1.45 | 1.625            | 41.3 | Black | 100         | 30.5 | 10.5   | 4.76 |

Use Part No. for ordering and Type for specification.



## High Temperature Nomex® Expandable Braided Sleeving

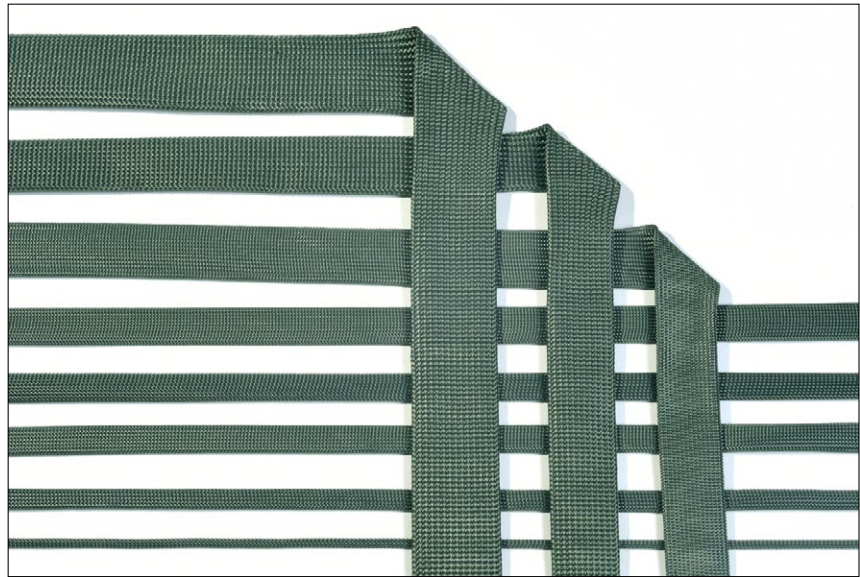
Manufactured with densely woven aramid fibers, this soft and flexible sleeving is self-extinguishing and is able to withstand temperatures reaching up to 662°F.

### Application

Excellent for use in extremely harsh environments including those with exposure to direct flame, high temperatures, as well as Beta, Gamma and X-ray radiation – in particular, military and aerospace wiring and harnessing applications.

### Benefits

- Does not melt and is unaffected by most acids.
- Provides excellent thermal stability against flames.
- Meets FMVSS 302 approval for use in automotive engineering.
- Cuts with ordinary scissors which reduces assembly time.



### Material Data

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Polyaramid Polymetaphenylene Isophthalamide |
| Flammability          | Non-Flammable                               |
| Operating Temperature | -320°F to 662°F<br>-196°C to 350°C          |
| Melt Point            | N/A                                         |
| Abrasion Protection   | Low                                         |
| Recommended Cutting   | Scissors                                    |



### Product Selection

| Part No.  | Nominal Size |      | Type       | Expansion Range |               | Expansion Range |               | Color | Reel Length |      | Weight |      |
|-----------|--------------|------|------------|-----------------|---------------|-----------------|---------------|-------|-------------|------|--------|------|
|           | in.          | mm.  |            | (Min.)<br>in.   | (Max.)<br>in. | (Min.)<br>mm.   | (Max.)<br>mm. |       | ft.         | m.   | lbs.   | kg.  |
| 170-03158 | 1/8          | 3.2  | BSNMX185B  | .062            | .25           | 1.6             | 6.4           | Green | 100         | 30.5 | .12    | .05  |
| 170-03159 | 1/4          | 6.4  | BSNMX145B  | .125            | .312          | 3.2             | 7.9           | Green | 100         | 30.5 | .50    | .23  |
| 170-03160 | 3/8          | 9.5  | BSNMX385B  | .25             | .50           | 6.4             | 12.7          | Green | 100         | 30.5 | .67    | .30  |
| 170-03161 | 1/2          | 12.7 | BSNMX125B  | .312            | .625          | 7.9             | 15.9          | Green | 100         | 30.5 | .91    | .41  |
| 170-03162 | 3/4          | 19.1 | BSNMX345B  | .562            | 1             | 14.3            | 25.4          | Green | 100         | 30.5 | 1.34   | .61  |
| 170-03163 | 1            | 25.4 | BSNMX105B  | .75             | 1.12          | 19.1            | 28.6          | Green | 100         | 30.5 | 2.42   | 1.1  |
| 170-03164 | 1-1/4        | 31.8 | BSNMX1145B | 1               | 1.5           | 25.4            | 38.1          | Green | 100         | 30.5 | 3.49   | 1.58 |
| 170-03165 | 1-1/2        | 38.1 | BSNMX1125B | 1.25            | 1.75          | 31.8            | 44.4          | Green | 100         | 30.5 | 4.03   | 1.83 |
| 170-03166 | 1-3/4        | 44.4 | BSNMX1345B | 1.50            | 2             | 38.1            | 50.9          | Green | 100         | 30.5 | 4.76   | 2.16 |

Use Part No. for ordering and Type for specification.  
Nomex® is a registered trademark of the DuPont Corporation.



## High Temperature Aluminum Laminated Fiberglass Sleeving

A tubular shaped product that combines the protection of bonded aluminum and fiberglass into a single solution that is able to reflect radiant heat away from the sensitive contents inside the tube.

### Application

Terrific for applications when appearance and insulation are important for protecting delicate wire bundles, cables and hoses from damage caused by nearby exhaust pipes, headers or heat-generating components.

### Benefits

- Adds a layer of protection that prevents scraping; cut and abrasion resistant.
- Resists gasoline and engine chemicals.
- Creates an insulation barrier for vulnerable cable and wire materials within high-temperature environments.
- Cuts cleanly with scissors.



### Material Data

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Bonded Aluminum + Fiberglass     |
| Flammability          | Non-Flammable                    |
| Operating Temperature | -76°F to 491°F<br>-60°C to 255°C |
| Melt Point            | 2,048°F / 1,120°C                |
| Abrasion Protection   | N/A                              |
| Recommended Cutting   | Scissors                         |



### Product Selection

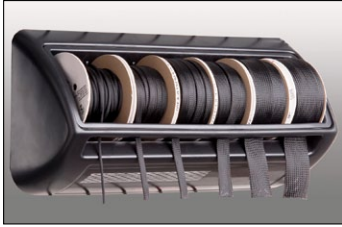
| Part No.                | Nominal Size* |      | Type          | Wall Thickness<br>±.006 in. |     | Maximum Diameter |      | Color  | Reel Length |      | Weight |      |
|-------------------------|---------------|------|---------------|-----------------------------|-----|------------------|------|--------|-------------|------|--------|------|
|                         | in.           | mm.  |               | in.                         | mm. | in.              | mm.  |        | ft.         | m.   | lbs.   | kg.  |
| 170-03062               | 1/2           | 12.7 | BSHTTST12SR   | .025                        | .64 | .437             | 11.1 | Silver | 100         | 30.5 | 2.6    | 1.2  |
| 170-03063               | 3/4           | 19.1 | BSHTTST34SR   | .025                        | .64 | .687             | 17.4 | Silver | 100         | 30.5 | 3.5    | 1.6  |
| 170-03064               | 1             | 25.4 | BSHTTST10SR   | .025                        | .64 | .937             | 23.8 | Silver | 100         | 30.5 | 4.5    | 2.0  |
| 170-03065               | 1-3/4         | 44.5 | BSHTTST134SR  | .025                        | .64 | 1.687            | 42.8 | Silver | 50          | 15.2 | 3.7    | 1.7  |
| 170-03097               | 2-1/2         | 63.5 | BSHTTST212SR  | .025                        | .64 | 2.375            | 60.3 | Silver | 50          | 15.2 | 5.05   | 2.3  |
| <b>Bulk Sized Reels</b> |               |      |               |                             |     |                  |      |        |             |      |        |      |
| 170-03054               | 1/2           | 12.7 | BSHTTST12SRB  | .025                        | .64 | .437             | 11.1 | Silver | 250         | 76.2 | 6.37   | 2.90 |
| 170-03055               | 3/4           | 19.1 | BSHTTST34SRB  | .025                        | .64 | .687             | 17.4 | Silver | 250         | 76.2 | 8.62   | 3.91 |
| 170-03056               | 1             | 25.4 | BSHTTST10SRB  | .025                        | .64 | .937             | 23.8 | Silver | 250         | 76.2 | 11.2   | 5.08 |
| 170-03057               | 1-3/4         | 44.5 | BSHTTST134SRB | .025                        | .64 | 1.687            | 42.8 | Silver | 100         | 30.5 | 7.40   | 3.36 |

Use Part No. for ordering and Type for specification. \*Nominal size measures external diameter of sleeving.



## Merchandising Display Rack

Designed to save space and provide easy access when dispensing braided sleeving, this unit allows for the efficient handling and management of sleeving.



- Simplifies cut-to-length counter sales.
- Dispenses easily from preformed slot.
- Includes mounting hardware.
- Constructed of durable ABS plastic.
- Holds six standard-sized spools; drop-in reels sold separately.
- Dimensions: 23.5" (W) x 10" (D) x 6" (H)

### Product Selection

| Part No.  | Type      | Color |
|-----------|-----------|-------|
| 170-03031 | BSDISPLAY | Black |

Use Part No. for ordering and Type for specification.

## Split Wrap Installation Tool

Use this wire loom tool to guide a cable or insert a cable harness inside the split wrap loom tube. Eases addition and removal of wires quickly and easily while protecting installer hands from cuts.



### Product Selection

| Part No.  | Size | Type      | Description                       |
|-----------|------|-----------|-----------------------------------|
| 170-03067 | 1/4" | BSWTOOL14 | 1/4" Split Wrap Installation Tool |
| 170-03032 | 1/2" | BSWTOOL12 | 1/2" Split Wrap Installation Tool |
| 170-03068 | 3/4" | BSWTOOL34 | 3/4" Split Wrap Installation Tool |
| 170-03033 | 1"   | BSWTOOL1  | 1" Split Wrap Installation Tool   |

Use Part No. for ordering and Type for specification.

## Bench and Handheld Hot Knife Tools

For the best results during sleeving installation, the sleeving should be cut with a hot knife.



Bench Mount Braided Sleeve Hot Knife

- Designed for production Environments
- Uses 2.5" blade
- Lighted power switch
- Heats to 1,112°F in 30 sec.
- 110 volt operation
- Replaceable blades



Handheld Braided Sleeve Hot Knife

- Trigger switch
- Heats quickly
- 110 volt operation
- Replaceable blades

### Product Selection

| Part No.  | Type  | Color | Description                          |
|-----------|-------|-------|--------------------------------------|
| 170-03039 | BSBHK | White | Bench Mount Braided Sleeve Hot Knife |
| 170-03040 | BSPHK | Black | Handheld Braided Sleeve Hot Knife    |

Use Part No. for ordering and Type for specification.

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