

**Ty-Rap®**

# ***Ty-Rap® High-Performance Cable Ties, Tools & Accessories***

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## **Ty-Rap® High-Performance Cable Ties, Tools & Accessories**

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***Thomas&Betts***

[www.tnb.com](http://www.tnb.com)

## Choose Genuine Ty-Rap® High-Performance Cable Ties for Quality, Performance and Innovation.

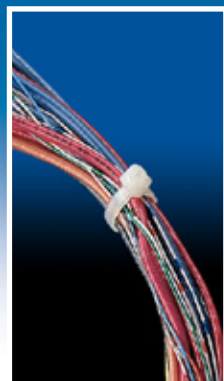
### Oval, Low-Profile Head

gives a professional, quality look to wire bundling projects. The classic-shaped head is designed to prevent snags on uneven surfaces and is easier to pull through bulkheads. There are no sharp edges, so these ties are also easier on the installer's hands.



The **Turned-up Tail** makes the tie easier to pick up off a flat surface and provides the ability to orient the cable tie for easy assembly without looking down — perfect for blind or repetitive applications.

**No-Slip Tail** provides extra grip during tensioning.



For a whole bundle of reasons, trust only Genuine **Ty-Rap® High-Performance Cable Ties** by Thomas & Betts in your next wiring installation.

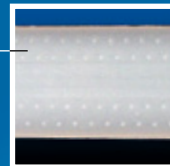
**The Original Cable Tie®**  
Invented in 1958

**"The Grip of Steel®" Non-Hydroscopic Stainless Steel Locking Device** ensures maximum performance, strength and life.

**Versatile Nylon 6.6 Material** provides high strength and a wide temperature range. Ty-Rap® High-Performance Cable Ties are also available in a wide range of other materials for a variety of extreme environments.

**Smooth, Notchless Body** reduces stress concentration points under tension, making the tie stronger and increasing life expectancy, especially in changing environments.

**Ribbed and Stippled Body** grips the bundle and prevents slippage.



## Ty-Rap® High-Performance Nylon Cable Ties



### Ty-Rap® 6.6 Nylon Cable Ties — Natural

- Suitable for air handling (plenum) applications



TY523M — Tie body width .091"



TY524M — Tie body width .140"



TY525M — Tie body width .187"



TY5272M — Tie body width .270"

Select the best material for your application.

See pages C-9–C-11 for a Material Selection Guide.

| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM  | MAX. WIRE BUNDLE DIA. IN./MM | MILITARY STANDARD PART NO. | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-------------------|----------------|------------------------------|----------------------------|-------------------------|----------------|----------------|
| TY523M             | TY23M              | .09/2.29          | 3.62/91.95     | .63/16.00                    | MS3367-4                   | 18/80.07                | 100            | 1,000          |
| TY52315M           | TYB2315M           | .09/2.29          | 7.00/177.80    | 1.50/38.10                   | —                          | 18/80.07                | 100            | 1,000          |
| TY5232M            | TY232M             | .09/2.29          | 8.00/203.20    | 2.00/50.80                   | —                          | 18/80.07                | 100            | 1,000          |
| TY5234M            | TY234M             | .09/2.29          | 14.00/355.60   | 4.00/101.60                  | —                          | 18/80.07                | 100            | 1,000          |
| TY524M             | TY24M              | .14/3.56          | 5.50/139.70    | 1.13/28.70                   | MS3367-5                   | 40/177.90               | 100            | 1,000          |
| TY5242M            | TY242M             | .14/3.56          | 8.19/208.03    | 2.00/50.80                   | —                          | 40/177.90               | 100            | 1,000          |
| TY526M             | TY26M              | .14/3.56          | 11.10/281.94   | 3.00/76.20                   | —                          | 30/133.40               | 100            | 1,000          |
| TY5244M            | TY244M             | .14/3.56          | 14.50/368.30   | 4.00/101.60                  | —                          | 30/133.40               | 100            | 1,000          |
| TY525M             | TY25M              | .19/4.83          | 7.31/185.67    | 1.75/44.45                   | MS3367-1                   | 50/222.40               | 100            | 1,000          |
| TY5253M            | TY253M             | .19/4.83          | 11.60/294.64   | 3.00/76.20                   | MS3367-7                   | 50/222.40               | 100            | 1,000          |
| TY528M             | TY28M              | .19/4.83          | 14.20/360.68   | 4.00/101.60                  | MS3367-2                   | 50/222.40               | 100            | 1,000          |
| TY5272M†           | TY272M†            | .27/6.86          | 8.75/222.250   | 2.00/50.80                   | —                          | 120/533.80              | 50             | 500            |
| TY527M†            | TY27M†             | .27/6.86          | 13.40/340.36   | 3.50/88.90                   | MS3367-3                   | 120/533.80              | 50             | 500            |
| TY5275M            | TY275M             | .27/6.86          | 18.00/457.20   | 5.00/127.00                  | —                          | 120/533.80              | 50             | 500            |
| TY5277M            | TY277M             | .27/6.86          | 24.30/617.22   | 7.00/177.80                  | —                          | 120/533.80              | 50             | 500            |
| TY529M             | TY29M              | .27/6.86          | 30.00/762.00   | 9.00/228.60                  | MS3367-6                   | 120/533.80              | 50             | 500            |
| TY53510M†          | —                  | .32/8.13          | 35.00/889.00   | 10.00/254.00                 | —                          | 175/778.40              | 50             | —              |
| TY54513M†          | —                  | .32/8.13          | 45.00/1,143.00 | 13.00/330.20                 | —                          | 175/778.40              | 50             | —              |

Cable ties made from natural nylon 6.6 are excellent performers in most applications.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

† UL Recognized Models

• UL® Listed Natural 6.6 Nylon Cable Ties are suitable for use in air handling spaces (plenums) in accordance with Section 300.22 (C) & (D) of the National Electrical Code®.

• UL File No. E49405

• Installation tools available on pp. C-46–C-48.

### Air handling (plenum) and UV colors!

### Ty-Rap® UV-Resistant 6.6 Nylon Cable Ties — Color Assortment

- Suitable for air handling (plenum) applications



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | DESCRIPTION                                                          | LENGTH IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|----------------------------------------------------------------------|---------------|-------------------------|----------------|----------------|
| TY525M-35          | TY25M-35           | Air Handling (plenum) Maroon                                         | 7.31/185.67   | 50/222.40               | 100            | 1,000          |
| TY525M-CLRS        | —                  | Multi-Colored, UV-Stabilized Nylon, (10 each of standard 10 colors)* | 7.31/185.67   | 50/222.40               | 100            | —              |
| —                  | TY25M-X            | Black, UV-Stabilized Nylon                                           | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| —                  | TY25M-1            | Brown, UV-Stabilized Nylon                                           | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| TY525M-2           | TY25M-2            | Red, UV-Stabilized Nylon                                             | 7.31/185.67   | 50/222.40               | 100            | 1,000          |
| —                  | TY25M-3            | Orange, UV-Stabilized Nylon                                          | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| —                  | TY25M-4            | Yellow, UV-Stabilized Nylon                                          | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| TY525M-5           | TY25M-5            | Green, UV-Stabilized Nylon                                           | 7.31/185.67   | 50/222.40               | 100            | 1,000          |
| TY525M-6           | TY25M-6            | Blue, UV-Stabilized Nylon                                            | 7.31/185.67   | 50/222.40               | 100            | 1,000          |
| —                  | TY25M-7            | Purple, UV-Stabilized Nylon                                          | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| —                  | TY25M-8            | Gray, UV-Stabilized Nylon                                            | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| —                  | TY25M-9            | White, UV-Stabilized Nylon                                           | 7.31/185.67   | 50/222.40               | —              | 1,000          |
| —                  | TY25M-22           | Beige, UV-Stabilized Nylon                                           | 7.31/185.67   | 50/222.40               | —              | 1,000          |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Suitable for use in air handling spaces in accordance with Section 300.22 (C) & (D) of the National Electrical Code®, except for TY25M-X (black).

\* 100 standard ties in black, brown, red, orange, yellow, green, blue, purple, gray and white (10 each)

Recommended tooling — ERG-50, WT1-TB

#### How to Order Colored Ty-Rap® Cable Ties and Accessories

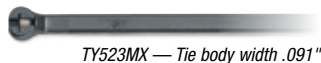
| COLOR | SUFFIX NO. | COLOR  | SUFFIX NO. | COLOR  | SUFFIX NO. | COLOR  | SUFFIX NO. | COLOR         | SUFFIX NO. |
|-------|------------|--------|------------|--------|------------|--------|------------|---------------|------------|
| Black | X          | Orange | 3          | Blue   | 6          | White  | 9          | Fluor. Orange | 53         |
| Brown | 1          | Yellow | 4          | Purple | 7          | Beige  | 22         | Fluor. Yellow | 54         |
| Red   | 2          | Green  | 5          | Gray   | 8          | Maroon | 35         | Fluor. Green  | 55         |
|       |            |        |            |        |            |        |            | Fluor. Pink   | 59         |

**Note:** The base catalog number for Ty-Rap® cable ties is for natural (non-colored) nylon without the UV-stabilizing additive, which is not suitable for outdoor use. For colored UV-stabilized nylon Ty-Rap® cable ties, add the following suffix numbers to the base catalog numbers. For example, TY25M is natural (non-colored) nylon for indoor use only, while TY25M-2 is red UV-stabilized nylon for indoor or outdoor use. Consult customer service for ordering information.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

## Ty-Rap® High-Performance Nylon Cable Ties

### Ty-Rap® 6.6 Nylon Cable Ties — Weather-Resistant Black



TY523MX — Tie body width .091"



TY524MX — Tie body width .140"



TY525MX — Tie body width .187"



TY527MX — Tie body width .270"

| STD. PKG.<br>CAT. NO. | BULK PKG.<br>CAT. NO. | BODY WIDTH<br>IN./MM | LENGTH<br>IN./MM | MAX. WIRE<br>BUNDLE DIA.<br>IN./MM | MILITARY<br>STANDARD<br>PART NO. | TENSILE<br>STRENGTH<br>LBS./N | STD. PKG.<br>QTY. | BULK<br>PKG.<br>QTY. |
|-----------------------|-----------------------|----------------------|------------------|------------------------------------|----------------------------------|-------------------------------|-------------------|----------------------|
| TY523MX               | TY23MX                | .09/2.29             | 3.62/91.95       | .63/16.00                          | MS3367-4                         | 18/80.07                      | 100               | 1,000                |
| TY52315MX             | TYB2315MX             | .09/2.29             | 7.00/177.80      | 1.50/38.10                         | —                                | 18/80.07                      | 100               | 1,000                |
| TY5232MX              | TY232MX               | .09/2.29             | 8.00/203.20      | 2.00/50.80                         | —                                | 18/80.07                      | 100               | 1,000                |
| TY5234MX              | TY234MX               | .09/2.29             | 14.00/355.60     | 4.00/101.60                        | —                                | 18/80.07                      | 100               | 1,000                |
| TY524MX               | TY24MX                | .14/3.56             | 5.50/139.70      | 1.13/28.70                         | MS3367-5                         | 40/177.90                     | 100               | 1,000                |
| TY5242MX              | TY242MX               | .14/3.56             | 8.19/208.03      | 2.00/50.80                         | —                                | 40/177.90                     | 100               | 1,000                |
| TY526MX               | TY26MX                | .14/3.56             | 11.10/281.94     | 3.00/76.20                         | —                                | 30/133.40                     | 100               | 1,000                |
| TY5244MX              | TY244MX               | .14/3.56             | 14.50/368.30     | 4.00/101.60                        | —                                | 30/133.40                     | 100               | 1,000                |
| TY525MX               | TY25MX                | .19/4.83             | 7.31/185.67      | 1.75/44.45                         | MS3367-1                         | 50/222.40                     | 100               | 1,000                |
| TY5253MX              | TY253MX               | .19/4.83             | 11.60/294.64     | 3.00/76.20                         | MS3367-7                         | 50/222.40                     | 100               | 1,000                |
| TY528MX               | TY28MX                | .19/4.83             | 14.20/360.68     | 4.00/101.60                        | MS3367-2                         | 50/222.40                     | 100               | 1,000                |
| TY5272MX†             | TY272MX†              | .27/6.86             | 8.75/222.250     | 2.00/50.80                         | —                                | 120/533.80                    | 50                | 500                  |
| TY527MX†              | TY27MX†               | .27/6.86             | 13.40/340.36     | 3.50/88.90                         | MS3367-3                         | 120/533.80                    | 50                | 500                  |
| TY5275MX              | TY275MX               | .27/6.86             | 18.00/457.20     | 5.00/127.00                        | —                                | 120/533.80                    | 50                | 500                  |
| TY5277MX              | TY277MX               | .27/6.86             | 24.30/617.22     | 7.00/177.80                        | —                                | 120/533.80                    | 50                | 500                  |
| TY529MX*              | TY29MX*               | .27/6.86             | 30.00/762.00     | 9.00/228.60                        | MS3367-6                         | 120/533.80                    | 50                | 500                  |
| TY53510MX†            | —                     | .32/8.13             | 35.00/889.00     | 10.00/254.00                       | —                                | 175/778.40                    | 50                | —                    |
| TY54513MX†            | —                     | .32/8.13             | 45.00/1,143.00   | 13.00/330.20                       | —                                | 175/778.40                    | 50                | —                    |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

\* For military compliance of weather-resistant black 120-lb. ties, replace suffix X with O (i.e., TY27M-O).

† Not Listed or Recognized Models.

• UL® File No. E49405

• Installation tools available on pp. C-46–C-48.

## Increase efficiency!

### Ty-Rap Tote® Cable Tie Dispensers

Attach to your belt or almost any other convenient location via a built-in belt clip and chrome steel loop.

Includes 100 genuine Ty-Rap® cable ties.



Quickly refill your Ty-Rap Tote® through the hook-and-loop-secured flap.

Easily remove the tie you need through the reinforced, diamond-shaped cut-out while the Ty-Rap Tote® securely holds the rest.

Keep cable ties clean and organized inside the durable, lightweight polyester exterior and tough vinyl interior.



| STD. PKG.<br>CAT. NO. | DESCRIPTION                                                       | STD. PKG. QTY. |
|-----------------------|-------------------------------------------------------------------|----------------|
| TY-TOTE-25            | Ty-Rap Tote® 8" Cable Tie Dispenser (includes 1 pkg. TY525M)      | 1              |
| TY-TOTE-23            | Ty-Rap Tote® 4" Cable Tie Dispenser (includes 1 pkg. TY523M)      | 1              |
| TY-TOTE-28            | Ty-Rap Tote® 11"–14" Cable Tie Dispenser (includes 1 pkg. TY528M) | 1              |

Order only genuine Ty-Rap® Cable Ties to refill your dispenser!

## Engineered-Performance Material Cable Ties

Safety and decontamination.

### Ty-Rap® Detectable Ties

Ty-Rap® Detectable Cable Ties are made from standard nylon or polypropylene, and incorporate a unique compound detectable by metal detectors and x-ray equipment. Their bright blue color makes them easy to spot. The polypropylene version is buoyant, making it ideal for use in liquid-processing areas.

With Ty-Rap® Detectable Cable Ties, you have all of the advantages of the original Ty-Rap® Cable Tie, including a smooth body with an infinitely adjustable design, high-performance stainless steel locking device for a perfect fit and superior holding power — plus the peace of mind of knowing the integrity of your product is uncompromised.

Ty-Rap® Detectable Cable Ties are a contamination solution for food and beverage processing plants and may aid companies in meeting the US Food and Drug Administration (FDA) Hazard Analysis of Critical Control Points (HACCP) safety standards and the European Union (EU) hygiene monitoring regulations.



See p. C-46–C-48 for cable tie installation tools.

#### Features

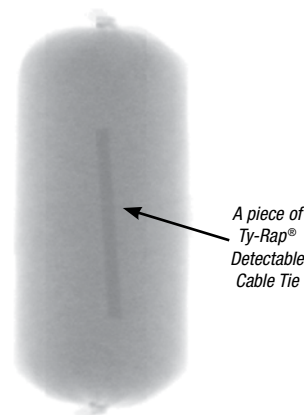
- Detectable by metal detectors set at minimum 1.5mm ferrous sphere
- Detectable by x-ray equipment
- Bright blue color allows easy visual detection, especially on white conveyor systems
- Buoyant Polypropylene version available for use in liquid-processing applications

#### Typical Applications

- Food and beverage processing
- Pharmaceutical production
- Chemical and compounds manufacturing
- Tobacco processing
- Tire and airbag manufacturing
- Any other industry sensitive to contamination and using detection equipment

**Material** — Polyamide (Nylon 6.6) or Polypropylene, for use in temperatures ranging from -40° F to 185° F (-40° C to 85° C)

**Color** — Blue (for easy visual detection)



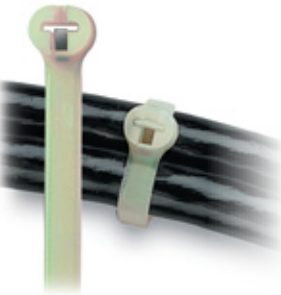
A piece of Ty-Rap® Detectable Cable Tie

| STD. PKG. CAT. NO.   | TIE LENGTH IN./MM | BODY WIDTH IN./MM | MAX. WIRE BUNDLE IN./MM | TENSILE STRENGTH LBS./N | BASE MATERIAL | STD. PKG. QTY. |
|----------------------|-------------------|-------------------|-------------------------|-------------------------|---------------|----------------|
| <b>Nylon 6.6</b>     |                   |                   |                         |                         |               |                |
| TY523M-NDT           | 3.62/91.90        | .09/2.36          | .63/15.90               | 18/80                   | Nylon         | 100            |
| TY524M-NDT           | 5.50/139.70       | .14/3.56          | 1.13/28.70              | 40/178                  | Nylon         | 100            |
| TY525M-NDT           | 7.31/186.00       | .19/4.70          | 1.75/44.40              | 50/220                  | Nylon         | 100            |
| TY527M-NDT           | 13.40/340.00      | .27/6.86          | 3.50/89.00              | 120/540                 | Nylon         | 50             |
| TY528M-NDT           | 14.20/361.00      | .19/4.70          | 4.00/102.00             | 50/220                  | Nylon         | 100            |
| <b>Polypropylene</b> |                   |                   |                         |                         |               |                |
| TY523M-PDT           | 3.62/91.90        | .09/2.36          | .63/15.90               | 18/80                   | Polypropylene | 100            |
| TY525M-PDT           | 7.31/186.00       | .19/4.70          | 1.75/44.40              | 30/135                  | Polypropylene | 100            |
| TY527M-PDT           | 13.40/340.00      | .27/6.86          | 3.50/89.00              | 60/267                  | Polypropylene | 50             |
| TY528M-PDT           | 14.20/361.00      | .19/4.75          | 4.00/102.00             | 30/135                  | Polypropylene | 100            |

## Engineered-Performance Material Cable Ties

### Extra high temperatures!

#### Ty-Rap® Extra High-Temperature 4.6 Nylon Ties



For use in temperatures ranging from -40° F to 302° F (-40° to 150° C).

**Color** — Natural (Olive)

- Non-hydroscopic stainless steel barb will not weaken or wear out after years of environmental stress
- Smooth, notchless body reduces stress, increasing life expectancy over standard notched, one-piece cable ties
- Quicker to install and less expensive than metallic fasteners, lacing cord or tape
- Ideal for Industrial applications including metal processing, paper mills, lighting and commercial construction markets with high temperature environments up to 302° F (150° C)
- Provides a smooth, low-profile look and unlimited tensioning range for a perfect fit
- Features an oval head on every original Ty-Rap® Cable Tie



| BULK PKG. CAT. NO. | LENGTH IN./MM | TENSILE STRENGTH LBS./N | BULK PKG. QTY. |
|--------------------|---------------|-------------------------|----------------|
| TYHT23M            | 3.62/91.95    | 18/80.07                | 1,000          |
| TYHT25M            | 7.31/185.67   | 50/222.40               | 1,000          |
| TYHT27M            | 13.40/340.36  | 120/533.80              | 500            |
| TYHT28M            | 14.20/360.68  | 50/222.40               | 1,000          |

### Engineered to withstand high temperatures!

#### Ty-Rap® Heat-Stabilized Natural 6.6 Nylon Ties



For use in temperatures ranging from -40° F to 221° F (-40° C to 105° C).

Material meets ASTM D4066 PA121.

**Color** — Green Tint

| BULK PKG. CAT. NO. | WIDTH IN./MM | BODY LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | BULK PKG. QTY. |
|--------------------|--------------|--------------------|------------------------------|-------------------------|----------------|
| TYH23M             | .09/2.29     | 3.62/91.95         | .63/16.00                    | 18/80.07                | 1,000          |
| TYH232M            | .09/2.29     | 8.00/203.20        | 2.00/50.80                   | 18/80.07                | 1,000          |
| TYH24M             | .14/3.56     | 5.50/139.70        | 1.13/28.70                   | 40/177.90               | 1,000          |
| TYH242M            | .14/3.56     | 8.19/208.03        | 2.00/50.80                   | 40/177.90               | 1,000          |
| TYH26M             | .14/3.56     | 11.10/281.94       | 3.00/76.20                   | 30/135                  | 1,000          |
| TYH25M             | .18/4.57     | 7.31/185.67        | 1.75/44.45                   | 50/222.40               | 1,000          |
| TYH253M            | .18/4.57     | 11.40/289.56       | 3.00/76.20                   | 50/222.40               | 1,000          |
| TYH28M             | .18/4.57     | 14.20/360.68       | 4.00/101.60                  | 50/222.40               | 1,000          |
| TYH27M             | .27/6.86     | 13.20/335.28       | 3.50/88.90                   | 120/533.80              | 500            |
| TYH272M            | .27/6.86     | 8.75/222.25        | 2.00/50.80                   | 120/533.80              | 500            |
| TYH29M             | .30/7.62     | 30.00/762.00       | 9.00/228.60                  | 120/533.80              | 500            |



### Perfect for outdoor applications!

#### Ty-Rap® Heat-Stabilized/UV-Resistant Black 6.6 Nylon Ties



For use in temperatures ranging from -40° F to 221° F (-40° C to 105° C)

**Color** — Black



- Non-hydroscopic stainless steel barb will not weaken or wear out after years of environmental stress
- Smooth, notchless body reduces stress, increasing life expectancy over standard notched, one-piece cable ties
- Ideal for Industrial applications including lawn/garden/farming equipment, recreation vehicles and heavy equipment
- Can be placed in environments requiring heat stabilization and UV resistance
- Provides a smooth, low-profile look and unlimited tensioning range for a perfect fit
- Features an oval head on every original Ty-Rap® Cable Tie
- Quicker to install and less expensive than metallic fasteners, lacing cord or tape



| BULK PKG. CAT. NO. | LENGTH IN./MM | TENSILE STRENGTH LBS./N | BULK PKG. QTY. |
|--------------------|---------------|-------------------------|----------------|
| TY23MX-A           | 3.62/91.95    | 18/80.07                | 1,000          |
| TY24MX-A           | 5.50/139.70   | 40/177.90               | 1,000          |
| TY25MX-A           | 7.31/185.67   | 50/222.40               | 1,000          |
| TY28MX-A           | 14.20/360.68  | 50/222.40               | 1,000          |
| TY27MX-A           | 13.40/340.36  | 120/533.80              | 500            |

## Engineered-Performance Material Cable Ties

Resists acids, salts and bases.

### Ty-Rap® Weather-Resistant Polypropylene Ties

- Excellent resistance to chemical exposure
- Greater UV resistance
- Buoyant – will float to the surface of most liquids

**Color** — Black

For use in temperatures ranging from  
-40° F to 185° F (-40° C to 85° C)



| BULK PKG.<br>CAT. NO. | WIDTH<br>IN./MM | BODY<br>LENGTH<br>IN./MM | MAX. WIRE<br>BUNDLE DIA.<br>IN./MM | TENSILE<br>STR.<br>LBS./N | BULK<br>PKG.<br>QTY. |
|-----------------------|-----------------|--------------------------|------------------------------------|---------------------------|----------------------|
| TYP23MX               | .09/2.29        | 3.62/91.95               | .63/16.00                          | 18/80.07                  | 1,000                |
| TYP25MX               | .18/4.57        | 7.31/185.67              | 1.75/44.45                         | 30/133.40                 | 1,000                |
| TYP28MX               | .18/4.57        | 14.20/360.68             | 4.00/101.60                        | 30/133.40                 | 1,000                |
| TYP27MX               | .27/6.86        | 13.20/335.28             | 3.50/88.90                         | 60/266.90                 | 500                  |

Long life in UV and chemical environments.

### Ty-Rap® Weather-Resistant Nylon 12 Ties

This material provides very good resistance to ultraviolet light and chemical exposure. Nylon 12 is a lower, moisture-absorbing material than 6.6 nylon, and the effect of water on properties is much less.

For use in temperatures ranging from  
-40° F to 185° F (-40° C to 85° C).

**Color** — Black



| STD.<br>CAT. NO. | BULK<br>CAT. NO. | BODY<br>WIDTH<br>IN./MM | LENGTH<br>IN./MM | MAX. WIRE<br>BUNDLE DIA.<br>IN./MM | TENSILE<br>STRENGTH<br>LBS./N | STD.<br>PKG. QTY. | BULK<br>PKG. QTY. |
|------------------|------------------|-------------------------|------------------|------------------------------------|-------------------------------|-------------------|-------------------|
| TYC525MX         | TYC25MX          | .18/4.57                | 7.31/185.67      | 1.75/44.45                         | 35/155.70                     | 100               | 1,000             |
| —                | TYC28MX          | .18/4.57                | 14.20/360.68     | 4.00/101.60                        | 35/155.70                     | —                 | 1,000             |
| —                | TYC272MX         | .27/6.86                | 8.00/203.20      | 2.00/50.80                         | 85/378.10                     | —                 | 500               |
| TYC527MX         | TYC27MX          | .27/6.86                | 13.20/335.28     | 3.50/88.90                         | 85/378.10                     | 50                | 500               |
| —                | TYC29MX          | .30/7.62                | 30.00/762.00     | 9.00/228.60                        | 85/378.10                     | —                 | 500               |

## Engineered-Performance Material Cable Ties

Perfect for passenger areas!

### Ty-Rap® Flame-Retardant 6.6 Nylon Ties

- Meets the UL94V-0 flammability rating
- Low smoke

**Color** — White

For use in temperatures ranging from -4° F to 149° F (-20° C to 65° C).



| BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX WIRE BUNDLE DIA. IN./MM | MARKING PAD SIZE IN./MM W X H | TENSILE STRENGTH LBS./N | BULK PKG. QTY. |
|---------------|-------------------|---------------|-----------------------------|-------------------------------|-------------------------|----------------|
| TY23MFR       | .09/2.29          | 3.62/91.95    | .63/16.00                   | N/A                           | 18/80.07                | 1,000          |
| TY232MFR      | .09/2.29          | 8.00/203.20   | 2.00/50.80                  | N/A                           | 18/80.07                | 1,000          |
| TY24MFR       | .14/3.56          | 5.50/139.70   | 1.13/28.70                  | N/A                           | 40/177.90               | 1,000          |
| TY25MFR       | .18/4.57          | 7.31/185.67   | 1.75/44.45                  | N/A                           | 50/222.40               | 1,000          |
| TY28MFR       | .18/4.57          | 14.20/360.68  | 4.00/101.60                 | N/A                           | 50/222.40               | 1,000          |
| TY272MFR†     | .27/6.86          | 8.00/203.20   | 2.00/50.80                  | N/A                           | 120/533.80              | 500            |
| TY27MFR       | .27/6.86          | 13.20/335.28  | 3.50/88.90                  | N/A                           | 120/533.80              | 500            |
| TY53MFR       | .09/2.29          | 4.00/101.60   | .63/16.00                   | .81 x .36/20.57 x 9.1         | 18/80.07                | 500            |
| TY153MFR      | .10/2.54          | 4.35/110.49   | .63/16.00                   | .78 x 1/19.81 x 14.00         | 18/80.07                | 500            |

† Not UL® Recognized Model.

Withstand even the *toughest* environments!

### Ty-Rap® Radiation-Resistant Fluoropolymer Ties

- High radiation resistance — 2 x 10<sup>8</sup> Rads
- Extremely chemical resistant
- Meets flammability rating UL94V-0
- Long application life expectancy

**Color** — Aqua

For use in temperatures ranging from -76° F to 338° F (-60° C to 170° C)



| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|-------------------------|----------------|----------------|
| TYZ523M*      | TYZ23M*       | .09/2.29          | 3.62/91.95    | .63/16.00                    | 18/80.07                | 100            | 1,000          |
| TYZ525M       | TYZ25M        | .18/4.57          | 7.31/185.67   | 1.75/44.45                   | 50/222.40               | 100            | 1,000          |
| TYZ528M       | TYZ28M        | .18/4.57          | 14.19/360.43  | 4.00/101.60                  | 50/222.40               | 100            | 1,000          |
| TYZ527M       | TYZ27M        | .27/6.86          | 13.38/339.85  | 3.50/88.90                   | 120/533.80              | 50             | 100            |

\*UL Listed

Perfect for low smoke-generation applications.

### Ty-Rap® Low-Smoke Fluoropolymer Ties

- Made of tough fluoropolymer material
- Use in air-handling spaces
- UL94V-0 flammability rating
- Low-smoke density

**Color** — Maroon

For use in temperatures ranging from -50° F to 284° F (-45° C to 140° C)



| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|-------------------------|----------------|----------------|
| TYV523M       | TYV23M        | .09/2.29          | 3.62/91.95    | .63/16.00                    | 18/80.07                | 100            | 1,000          |
| TYV525M       | TYV25M        | .18/4.57          | 7.31/185.67   | 1.75/44.45                   | 50/222.40               | 100            | 1,000          |

## Engineered-Performance Material Cable Ties

### Select the cable ties you need for special environments!

Thomas & Betts offers Ty-Rap® cable ties and accessories in a wide variety of materials, each suited for specific environments. The purpose of this document is to assist you in choosing the best material for your particular application. The effects of weathering, flame, chemicals, extreme temperatures, and radiation on the different materials are clearly presented in the following tables to simplify this process. Once you have determined the most suitable material, you can choose from the wide variety of Ty-Rap® cable ties, identification ties, mounting bases, lashing ties, etc., offered by Thomas & Betts.

#### General — How to use Table 1:

Table 1 simplifies the material selection process by giving the relative performance ratings of the materials offered by Thomas & Betts. For example, if your application is in an extremely cold environment, four materials will answer your need: 1. Radiation-resistant fluoropolymer, 2. Low-smoke fluoropolymer, 3. Nylon 12, 4. Stainless steel. Then, cost may be your next most important criteria, so out of those four options, nylon 12 would be the most cost effective. However, if tensile strength is important, then stainless steel would be the better choice.

Refer to Tables 2 and 3 for more detailed information regarding physical properties of the materials and chemical resistance of the materials respectively.

It is extremely difficult to provide data on all the possible combinations or conditions that can occur. This information is based on data provided by the manufacturers of the specific materials listed and is provided only as a general guide. No specific recommendation is intended. As each application may differ, cable tie samples should be tested in the intended application by the user to determine suitability.

**Table 1 — Available Materials 5 = Most Suitable 1 = Least Suitable**

|                        | NATURAL<br>6.6<br>NYLON* | WEATHER-<br>RESISTANT 6.6<br>NYLON | HEAT-<br>STABILIZED<br>NATURAL 6.6<br>NYLON | HEAT-<br>STABILIZED<br>UV 6.6 NYLON | EXTRA<br>HIGH TEMP<br>4.6 NYLON | FLAME-<br>RETARDANT<br>6.6 NYLON | WEATHER-<br>RESISTANT<br>NYLON 12 | WEATHER-<br>RESISTANT<br>POLY-<br>PROPYLENE | LOW-<br>SMOKE<br>FLUORO-<br>POLYMER | RADIATION-<br>RESISTANT<br>FLUORO-<br>POLYMER | DELTEC®<br>WEATHERABLE<br>ACETEL | DETECTABLE<br>NYLON* | STAINLESS<br>STEEL |
|------------------------|--------------------------|------------------------------------|---------------------------------------------|-------------------------------------|---------------------------------|----------------------------------|-----------------------------------|---------------------------------------------|-------------------------------------|-----------------------------------------------|----------------------------------|----------------------|--------------------|
| Ultraviolet Resistance | 1                        | 4                                  | 1                                           | 4                                   | 1                               | 1                                | 4                                 | 4                                           | 5                                   | 5                                             | 4                                | 1                    | 5                  |
| Radiation Resistance   | 1                        | 1                                  | 1                                           | 1                                   | 1                               | 1                                | 1                                 | 1                                           | 4                                   | 4                                             | 1                                | 1                    | 5                  |
| Low Temperature        | 3                        | 3                                  | 3                                           | 4                                   | 3                               | 2                                | 4                                 | 3                                           | 4                                   | 4                                             | 4                                | 2                    | 5                  |
| High Temperature       | 3                        | 3                                  | 4                                           | 3                                   | 4                               | 3                                | 2                                 | 2                                           | 4                                   | 4                                             | 2                                | 2                    | 5                  |
| Flammability           | 3                        | 3                                  | 3                                           | 3                                   | 3                               | 4                                | 1                                 | 1                                           | 4                                   | 4                                             | 1                                | 3                    | 5                  |
| Tensile Strength       | 3                        | 3                                  | 3                                           | 3                                   | 3                               | 3                                | 2                                 | 1                                           | 3                                   | 3                                             | 2                                | 3                    | 5                  |
| Relative Cost          | Low                      | Low                                | Low                                         | Low                                 | Med                             | Med                              | Med                               | Low                                         | High                                | High                                          | High                             | Med                  | High               |

SEE TABLE 3 (PAGES C-10-C-11)

\* Fungus inert

#### Flammability ratings for selecting Ty-Rap® cable ties

Flammability ratings of Ty-Rap® cable tie materials are shown in Table 2 on the following page. These tests for flammability of plastic material are intended to serve as a preliminary indication of acceptability with respect to flammability for particular applications.

#### UL 94 vertical burn test procedures

Test specimens of the material, with dimensions 5" x 1/2", with the thickness intended for use in the end product, are tested in both the manufactured condition and in the aged state. The test requires that the specimen be supported in a vertical fixture and a precisely controlled flame applied for a 10-second period.

The flame is removed and the duration of flaming is noted. If the flame extinguishes, a second exposure to flame for 10 seconds is applied and duration of flaming is again noted. It is observed and recorded whether or not test specimens drip flaming particles that ignite a cotton swatch.

#### Materials classed UL94V-0:

A material classed V-0 shall:

- A.** Not have any specimens that burn with flaming combustion for more than 10 seconds after either application of the test flame.
- B.** Not have a total flaming combustion time exceeding 50 seconds for the 10 flame applications for each set of five specimens.
- C.** Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- D.** Not have any specimens that drip flaming particles that ignite the dry absorbent surgical cotton located 12" below the test specimen.
- E.** Not have any specimens with glowing combustion that persists for more than 30 seconds after the second removal of the test flame.

#### Materials classed UL94V-1:

A material classed V-1 shall:

- A.** Not have any specimens that burn with flaming combustion for more than 30 seconds after either application of the test flame.
- B.** Not have a total flaming combustion time exceeding 250 seconds for the 10 flame applications for each set of five specimens.
- C.** Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- D.** Not have any specimens that drip flaming particles that ignite the dry absorbent surgical cotton located 12" below the test specimen.

- E.** Not have any specimens with glowing combustion that persists for more than 60 seconds after the second removal of the test flame.

#### Materials classed UL94V-2:

A material classed V-2 shall:

- A.** Not have any specimens that burn with flaming combustion for more than 30 seconds after either application of the test flame.
- B.** Not have a total flaming combustion time exceeding 250 seconds for the 10 flame applications for each set of five specimens.
- C.** Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- D.** Be permitted to have specimens that drip flaming particles that burn only briefly, some of which ignite the dry absorbent surgical cotton placed 12" below the test specimen.
- E.** Not have any specimens with glowing combustion that persists for more than 60 seconds after the second removal of the test flame.

## Engineered-Performance Material Cable Ties

**Table 2 — Physical Properties of Ty-Rap® Cable Tie Materials**

|                                                            | NATURAL<br>6.6 NYLON | WEATHER-<br>RESISTANT<br>6.6 NYLON | HEAT-<br>STABILIZED<br>NATURAL<br>6.6 NYLON | HEAT-<br>STABILIZED<br>UV 6.6<br>NYLON | EXTRA HIGH<br>TEMP 4.6<br>NYLON | FLAME-<br>RETARDANT<br>6.6 NYLON | WEATHER-<br>RESISTANT<br>NYLON 12 | WEATHER-<br>RESISTANT<br>POLY-<br>PROPYLENE | LOW-SMOKE<br>FLUORO-<br>POLYMER | RADIATION-<br>RESISTANT<br>FLUORO-<br>POLYMER | DELTEC®<br>WEATHERABLE<br>ACETAL | STAINLESS<br>STEEL  |
|------------------------------------------------------------|----------------------|------------------------------------|---------------------------------------------|----------------------------------------|---------------------------------|----------------------------------|-----------------------------------|---------------------------------------------|---------------------------------|-----------------------------------------------|----------------------------------|---------------------|
| Tensile Strength (Yield) @<br>73° F (Dry-As-Molded)¹ [psi] | 12,000               | 12,000                             | 12,000                                      | 11,500                                 | 14,500                          | 11,000                           | 7,500                             | 4,600                                       | 6,600                           | 6,700                                         | 10,000                           | 90,000              |
| Flammability Rating                                        | UL94V-2              | UL94V-2                            | UL94V-2                                     | UL94V-2                                | UL94V-2                         | UL94V-0                          | —                                 | —                                           | UL94V-0                         | UL94V-0                                       | UL94HB                           | —                   |
| Radiation Resistance [rads]                                | 1 x 10 <sup>5</sup>  | 1 x 10 <sup>5</sup>                | 1 x 10 <sup>5</sup>                         | 1 x 10 <sup>5</sup>                    | 1 x 10 <sup>5</sup>             | 1 x 10 <sup>5</sup>              | 1 x 10 <sup>5</sup>               | 1 x 10 <sup>5</sup>                         | 2 x 10 <sup>6</sup>             | 2 x 10 <sup>6</sup>                           | 1 x 10 <sup>6</sup>              | 2 x 10 <sup>6</sup> |
| Ultraviolet Light Resistance                               | Poor                 | Good                               | Poor                                        | Good                                   | Poor                            | Poor                             | Good                              | Good                                        | Excellent                       | Excellent                                     | Very Good                        | Excellent           |
| Water Absorption<br>(24 hrs.) [%]                          | 1.3                  | 1.2                                | 1.4                                         | .25                                    | 2.3                             | 1.4                              | .25                               | .1                                          | <.1                             | <.01                                          | .25                              | None                |
| Oxygen Index                                               | 28                   | 28                                 | 31                                          | 26                                     | 27                              | 34                               | —                                 | —                                           | 52                              | 30                                            | 21                               | —                   |
| Max. Continuous Use<br>Temperature [F°/C°]                 | 185/85               | 185/85                             | 221/105                                     | 221/105                                | 302/150                         | 185/85                           | 176/80                            | 194/90                                      | 284/140                         | 302/150                                       | 194/90                           | 1000/537            |
| Min. Continuous Use<br>Temperature [F°/C°]                 | -40/-40              | -40/-40                            | -40/-40                                     | -40/-40                                | -40/-40                         | -40/-40                          | -40/-40                           | -65/-65                                     | -50/-46                         | -50/-46                                       | -85/-65                          | -112/-80            |
| Color                                                      | Natural              | Black                              | Green Tint                                  | Black                                  | Light Green                     | White                            | Black                             | Black                                       | Maroon                          | Aqua                                          | Black                            | Stainless           |

¹ ASTM D638-87B except stainless steel, which is ASTM E8

### Chemical Resistance

Table 3 shows the resistance of Ty-Rap® cable tie materials to various chemicals. The table is designed to help you determine the cable tie material best suited for a particular chemical environment.

**Table 3 — Resistance of Available Materials to Various Chemicals Temp 70° F**

| REAGENTS              | CONCENTRATION | STANDARD 6.6<br>NYLON AS USED<br>IN TY SERIES | WEATHER-<br>RESISTANT 6.6<br>NYLON<br>AS USED IN<br>TY X SERIES | HEAT-<br>STABILIZED 6.6<br>NYLON AS USED<br>IN TYH SERIES | FLAME-<br>RETARDANT<br>6.6 NYLON<br>AS USED IN<br>TY FR SERIES | WEATHER-<br>RESISTANT<br>NYLON 12<br>AS USED IN<br>X SERIES | WEATHER-<br>RESISTANT POLY-<br>PROPYLENE<br>AS USED IN<br>TYP X SERIES | LOW-SMOKE<br>FLUOROPOLYMER<br>AS USED IN<br>TYV SERIES | RADIATION-<br>RESISTANT<br>FLUOROPOLYMER<br>AS USED IN<br>TYZ SERIES | DELTEC®<br>WEATHERABLE<br>ACETAL<br>AS USED IN<br>TYD SERIES | STAINLESS<br>STEEL<br>AS USED IN<br>TYS SERIES |
|-----------------------|---------------|-----------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------|
| Arsenic Acid          | 40%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | —                                                      | —                                                                    | —                                                            | E                                              |
| Acetaldehyde          | 50%           | S                                             | S                                                               | S                                                         | S                                                              | —                                                           | —                                                                      | —                                                      | —                                                                    | —                                                            | —                                              |
| Acetone               | 100%          | E                                             | E                                                               | E                                                         | E                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | F                                                            | E                                              |
| Aluminum Hydroxide    | AQ            | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ammonia               | All           | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | —                                              |
| Ammonium Carbonate    | 5%            | S                                             | S                                                               | S                                                         | S                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ammonium Hydroxide    | 10%           | E                                             | E                                                               | E                                                         | E                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | F                                                            | E                                              |
| Ammonium Nitrate      | —             | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ammonium Sulfate      | 10%           | —                                             | —                                                               | —                                                         | —                                                              | S                                                           | S                                                                      | E                                                      | S                                                                    | —                                                            | S                                              |
| Barium Carbonate      | All           | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Barium Chloride       | 5%            | NR                                            | NR                                                              | NR                                                        | NR                                                             | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Barium Sulfate        | 10%           | E                                             | E                                                               | E                                                         | E                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Barium Sulfide        | 10%           | S                                             | S                                                               | S                                                         | S                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Benzene               | 100%          | E                                             | E                                                               | E                                                         | E                                                              | E                                                           | S                                                                      | E                                                      | E                                                                    | F                                                            | E                                              |
| Benzoic Acid          | 100%          | NR                                            | NR                                                              | NR                                                        | NR                                                             | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Butyric Acid          | 50%           | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Calcium Carbonate     | AQ            | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Calcium Hydroxide     | 20%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | F                                                      | E                                                                    | E                                                            | E                                              |
| Calcium Hydrochlorite | 2             | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | F                                                                      | —                                                      | F                                                                    | —                                                            | F                                              |
| Calcium Sulfate       | 2%            | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Carbon Tetrachloride  | 100%          | E                                             | E                                                               | E                                                         | E                                                              | E                                                           | F                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Chlorine (WET)        | —             | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | F                                                                      | —                                                      | F                                                                    | —                                                            | F                                              |
| Chlorine (DRY)        | —             | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | NR                                                                     | —                                                      | F                                                                    | —                                                            | F                                              |
| Chloroacetic Acid     | 30%           | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | —                                                                      | —                                                      | F                                                                    | —                                                            | F                                              |
| Chloroform            | 100%          | —                                             | —                                                               | —                                                         | —                                                              | F                                                           | F                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Chromic Acid          | 50%           | NR                                            | NR                                                              | NR                                                        | NR                                                             | —                                                           | F                                                                      | S                                                      | F                                                                    | —                                                            | F                                              |
| Citric Acid           | 50%           | S                                             | S                                                               | S                                                         | S                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Copper Cyanide        | 10%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Copper Nitrate        | 50%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Cider                 | —             | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Dichloroethane        | 100%          | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Diethyl Ether         | 100%          | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Ethyl Alcohol         | 100%          | S                                             | S                                                               | S                                                         | S                                                              | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ethyl Chloride        | 100%          | —                                             | —                                                               | —                                                         | —                                                              | F                                                           | F                                                                      | S                                                      | E                                                                    | E                                                            | E                                              |
| Ethylene Glycol       | 100%          | E                                             | E                                                               | E                                                         | E                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Ferric Hydroxide      | All           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ferric Nitrate        | 10%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Ferrous Sulfate       | 10%           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Fuel Oil              | 100%          | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Furfural              | 100%          | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | F                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Gallic Acid           | AQ            | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Gasoline              | 100%          | E                                             | E                                                               | E                                                         | E                                                              | —                                                           | S                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Glycerine             | 100%          | —                                             | —                                                               | —                                                         | —                                                              | E                                                           | E                                                                      | E                                                      | —                                                                    | —                                                            | E                                              |
| Hydrocyanic Acid      | All           | —                                             | —                                                               | —                                                         | —                                                              | —                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Hydrogen Peroxide     | 30%           | NR                                            | NR                                                              | NR                                                        | NR                                                             | S                                                           | E                                                                      | E                                                      | E                                                                    | F                                                            | E                                              |
| Hydrogen Sulfide      | Dry           | NR                                            | NR                                                              | NR                                                        | NR                                                             | E                                                           | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |

# Engineered-Performance Material Cable Ties

Table 3 (continued)

| REAGENTS               | CONCENTRATION | STANDARD<br>6.6 NYLON<br>AS USED IN<br>TY SERIES | WEATHER-<br>RESISTANT 6.6<br>NYLON<br>AS USED IN<br>TY X SERIES | HEAT-<br>STABILIZED 6.6<br>NYLON AS USED<br>IN TYH SERIES | FLAME-<br>RETARDANT<br>6.6 NYLON<br>AS USED IN<br>TY FR SERIES | WEATHER-<br>RESISTANT<br>NYLON 12<br>AS USED IN<br>TYC X SERIES | WEATHER-<br>RESISTANT POLY-<br>PROPYLENE<br>AS USED IN<br>TYP X SERIES | LOW-SMOKE<br>FLUOROPOLYMER<br>AS USED IN<br>TYV SERIES | RADIATION-<br>RESISTANT<br>FLUOROPOLYMER<br>AS USED IN<br>TYZ SERIES | DELTEC®<br>WEATHERABLE<br>ACETAL<br>AS USED IN<br>TYD SERIES | STAINLESS<br>STEEL<br>AS USED IN<br>TYS SERIES |
|------------------------|---------------|--------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------|
| Iodoform               | 100%          | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Isopropyl Alcohol      | 100%          | S                                                | S                                                               | S                                                         | S                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Jet Fuel               | 100%          | E                                                | E                                                               | E                                                         | E                                                              | —                                                               | S                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Lactic Acid            | 10%           | E                                                | E                                                               | E                                                         | E                                                              | S                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Lanolin                | 10%           | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Lead Acetate           | 5%            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Linseed Oil            | 10%           | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Magnesium Carbonate    | All           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Magnesium Chloride     | 10%           | F                                                | F                                                               | F                                                         | F                                                              | F                                                               | F                                                                      | —                                                      | F                                                                    | —                                                            | F                                              |
| Magnesium Nitrate      | All           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Malic Acid             | AQ            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Mercury                | 100%          | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Methyl Alcohol         | 100%          | S                                                | S                                                               | S                                                         | S                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Methyl Chloride        | 100%          | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | S                                                                      | S                                                      | E                                                                    | —                                                            | E                                              |
| Methyl Ethyl Ketone    | 100%          | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | F                                                            | E                                              |
| Naptha                 | 100%          | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Nitric Acid            | 30%           | NR                                               | NR                                                              | NR                                                        | NR                                                             | —                                                               | E                                                                      | E                                                      | E                                                                    | NR                                                           | E                                              |
| Nitric Acid            | 30–70%        | NR                                               | NR                                                              | NR                                                        | NR                                                             | —                                                               | F                                                                      | S                                                      | S                                                                    | NR                                                           | E                                              |
| Nitrous Acid           | 5%            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | F                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Oleic Acid             | 100%          | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Oxalic Acid            | 10%           | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Paraffin               | 100%          | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Petroleum Ether        | 100%          | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | F                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Phenol                 | 90%           | NR                                               | NR                                                              | NR                                                        | NR                                                             | —                                                               | E                                                                      | E                                                      | E                                                                    | NR                                                           | E                                              |
| Phosphoric Acid        | 10%           | NR                                               | NR                                                              | NR                                                        | NR                                                             | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Picric Acid            | 1%            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Bromide      | AQ            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | S                                                                      | —                                                      | S                                                                    | —                                                            | S                                              |
| Potassium Carbonate 1% | —             | —                                                | —                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | —                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Chlorate     | AQ            | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Dichromate   | 40%           | NR                                               | NR                                                              | NR                                                        | NR                                                             | F                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Ferrocyanide | 25%           | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Hydroxide    | 5%            | S                                                | S                                                               | S                                                         | S                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Iodide       | All           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Nitrate      | 50%           | F                                                | F                                                               | F                                                         | F                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Permanganate | 5%            | NR                                               | NR                                                              | NR                                                        | NR                                                             | NR                                                              | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Potassium Sulfate      | 5%            | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Potassium Sulfide      | AQ            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Propyl Alcohol         | 100%          | E                                                | E                                                               | E                                                         | E                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Silver Nitrate         | 10%           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Acetate         | 60%           | E                                                | E                                                               | E                                                         | E                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Bicarbonate     | All           | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Bisulfate       | 10%           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Sodium Borate          | All           | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Carbonate       | 5%            | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Sodium Chlorate        | 25%           | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | E                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Sodium Chloride        | 2%            | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Sodium Fluoride        | 5%            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | F                                                                      | —                                                      | F                                                                    | —                                                            | F                                              |
| Sodium Hydroxide       | 10%           | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | S                                                            | E                                              |
| Sodium Hyposulfite     | AQ            | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Nitrate         | 5%            | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Nitrite         | AQ            | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Perchlorate     | 10%           | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | —                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Phosphate       | 5%            | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Sulfate         | 5%            | S                                                | E                                                               | S                                                         | E                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sodium Thiosulfate     | 5%            | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | S                                                                      | —                                                      | S                                                                    | S                                                            | S                                              |
| Stearic Acid           | 100%          | —                                                | —                                                               | —                                                         | —                                                              | F                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sulfur                 | 100%          | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sulfur Dioxide         | All           | NR                                               | NR                                                              | NR                                                        | NR                                                             | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Sulfuric Acid          | Conc.         | NR                                               | NR                                                              | NR                                                        | NR                                                             | —                                                               | S                                                                      | E                                                      | E                                                                    | NR                                                           | E                                              |
| Sulfuric Acid          | 5%            | NR                                               | NR                                                              | NR                                                        | NR                                                             | F                                                               | F                                                                      | F                                                      | F                                                                    | F                                                            | F                                              |
| Tannic Acid            | 10%           | —                                                | —                                                               | —                                                         | —                                                              | —                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Tartaric Acid          | 50%           | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | E                                                            | E                                              |
| Tetrahydrofuran        | 100%          | —                                                | —                                                               | —                                                         | —                                                              | S                                                               | F                                                                      | F                                                      | E                                                                    | E                                                            | E                                              |
| Toluene                | 100%          | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | F                                                                      | E                                                      | E                                                                    | F                                                            | F                                              |
| Xylene                 | 100%          | E                                                | E                                                               | E                                                         | E                                                              | E                                                               | F                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Zinc Chloride          | 70%           | F                                                | F                                                               | F                                                         | F                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | NR                                                           | E                                              |
| Zinc Nitrate           | AQ            | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |
| Zinc Sulfate           | AQ            | —                                                | —                                                               | —                                                         | —                                                              | E                                                               | E                                                                      | E                                                      | E                                                                    | —                                                            | E                                              |

Ratings: E=Excellent S=Satisfactory F=Fair NR=Not Recommended (AQ=Aqueous)

## Color Coding Cable Ties

### Ty-Rap® Striped-Colored Cable Ties for Identification Telephone Cable Binder

Designed primarily for P.I.C. and station cable binder marking, these self-locking ties install without tools in less than 10 seconds. Compared to an installation time of 30–60 seconds using the twisted-wire method, the time saving is substantial. High-contrast color stripes extend to end of tail for instant, permanent identification of binder.



| STD. PKG.<br>CAT. NO. | BULK. PKG.<br>CAT. NO. | TIE<br>COLOR | COLOR<br>STRIPE | BODY<br>WIDTH IN./MM | LENGTH<br>IN./MM | TENSILE<br>STRENGTH LBS./N | STD.<br>PKG. QTY. | BULK<br>PKG. QTY. |
|-----------------------|------------------------|--------------|-----------------|----------------------|------------------|----------------------------|-------------------|-------------------|
| 696-40527-0C          | 696-40527-0            | Black        | —               | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-1-0C        | 696-40527-1-0          | Brown        | Black           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-1-2C        | 696-40527-1-2          | Brown        | Red             | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-1-4C        | 696-40527-1-4          | Brown        | Yellow          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-1-7C        | 696-40527-1-7          | Brown        | Violet          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-1-9C        | 696-40527-1-9          | Brown        | White           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-2C          | 696-40527-2            | Red          | —               | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-3-0C        | 696-40527-3-0          | Orange       | Black           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-3-2C        | 696-40527-3-2          | Orange       | Red             | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-3-4C        | 696-40527-3-4          | Orange       | Yellow          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-3-7C        | 696-40527-3-7          | Orange       | Violet          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-3-9C        | 696-40527-3-9          | Orange       | White           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-4C          | 696-40527-4            | Yellow       | —               | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-5-0C        | 696-40527-5-0          | Green        | Black           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-5-2C        | 696-40527-5-2          | Green        | Red             | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-5-4C        | 696-40527-5-4          | Green        | Yellow          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-5-7C        | 696-40527-5-7          | Green        | Violet          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-5-9C        | 696-40527-5-9          | Green        | White           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-6-0C        | 696-40527-6-0          | Blue         | Black           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-6-2C        | 696-40527-6-2          | Blue         | Red             | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-6-4C        | 696-40527-6-4          | Blue         | Yellow          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-6-7C        | 696-40527-6-7          | Blue         | Violet          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-6-9C        | 696-40527-6-9          | Blue         | White           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-8-0C        | 696-40527-8-0          | Slate        | Black           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-8-2C        | 696-40527-8-2          | Slate        | Red             | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-8-4C        | 696-40527-8-4          | Slate        | Yellow          | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |
| 696-40527-8-9C        | 696-40527-8-9          | Slate        | White           | .09/2.29             | 3.62/91.95       | 18/80.07                   | 50                | 1,000             |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

### Ty-Rap® Striped-Colored Cable Tie Kits



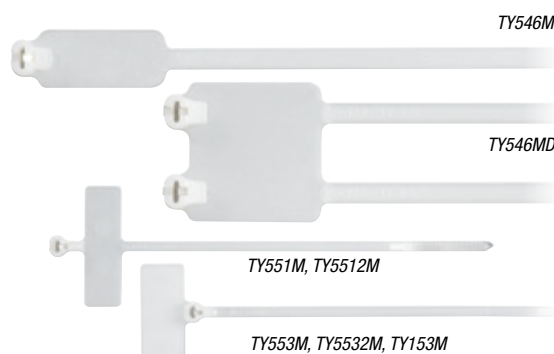
| STD. PKG.<br>CAT. NO. | DESCRIPTION                                                                 | STD.<br>PKG. |
|-----------------------|-----------------------------------------------------------------------------|--------------|
| 650-40587             | Pouch only                                                                  | 1            |
| 650-40587-1           | Pouch with Ty-Rap® cable tie assortment 1 bag each of 50 each (1,250 total) | 1            |
| 650-40587C            | Cloth pouch only                                                            | 1            |
| 650-40587CF           | Cloth pouch with 1 bag of 50 each Ty-Rap® cable ties (1,250 total)          | 1            |
| 650-40587M            | Mini pouch only                                                             | 1            |
| 650-40587MF           | Mini pouch filled with assortment of Ty-Rap® cable ties (50 each)           | 1            |

## Identification Tags, Cable Ties and Accessories

### Keep your cables clearly identified!

#### Ty-Rap® 6.6 Nylon Identification Ties

Self-locking Ty-Rap® identification ties are available in both single and multiple configurations. They can be marked with the special Thomas & Betts marking pen (see **page C-14**) that immediately produces a permanent legend, or they can be heat stamped. Because the ties serve the dual purpose of tying and identifying, you will achieve extra economies. They can be applied with the standard Ty-Rap® tying tools used for regular ties.



| STD CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | TOTAL LENGTH IN./MM | MAX. WIRE BUNDLE IN./MM | MILITARY STANDARD PART NO. | MARKING PAD SIZE IN./MM. W X H | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------|---------------|-------------------|---------------------|-------------------------|----------------------------|--------------------------------|-------------------------|----------------|----------------|
| TY551M       | TY51M         | .09/2.29          | 3.60/91.44          | .63/16.00               | MS3368-5                   | 1 x .313                       | 18/80.07                | 100            | 500            |
| TY5512M      | TY512M*       | .09/2.29          | 8.30/210.82         | 2.00/50.80              | —                          | 1 x .313                       | 18/80.07                | 100            | 1,000          |
| TY553M       | TY53M         | .09/2.29          | 4.00/101.6          | .63/16.00               | —                          | .813 x .359                    | 18/80.07                | 100            | 500            |
| TY5532M      | TY532M        | .09/2.29          | 8.40/213.36         | 2.00/50.80              | —                          | .813 x .359                    | 18/80.07                | 100            | 1,000          |
| —            | TY153M        | .10/2.54          | 4.35/110.49         | .63/16.00               | —                          | .781 x 1                       | 18/80.07                | —              | 500            |
| TY546M       | TY46M         | .18/4.57          | 7.10/180.34         | 1.75/44.45              | MS3368-1                   | .5 x .875                      | 50/222.40               | 100            | 1,000          |
| TY548M       | TY48M*        | .19/4.83          | 14.20/360.68        | 4.00/101.6              | MS3368-2                   | .5 x 2.125                     | 50/222.40               | 100            | 1,000          |
| TY546MD      | TY46MD*       | .19/4.83          | 7.25/184.15         | 1.75/44.45              | MS3368-3                   | 1.172 x 1                      | 50/222.40               | 50             | 500            |
| TY546MT      | TY46MT*       | .19/4.83          | 7.25/184.15         | 1.75/44.45              | MS3368-4                   | 1.210 x 1                      | 50/222.40               | 100            | 500            |
| TY546MF      | TY46MF        | .19/4.83          | 7.25/184.15         | 1.75/44.45              | —                          | 2.48 x 1                       | 50/222.40               | 50             | 250            |

\*Nylon 6.6 UV weather-resistant version available (add suffix X).

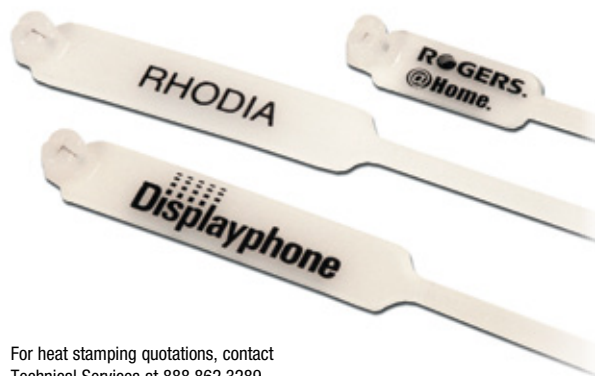
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

• Natural nylon color

### Custom Heat Stamping

Thomas & Betts Custom Heat Stamping provides an economical way to fasten and identify cable bundles. Mark nylon cable ties, identification cable ties, and identification plates to suit your application.

- 1/16", 1/8", 3/16" characters available
- Standard type — Gothic Capitol
- Character sizes can be mixed from line to line on Identification cable ties
- Alphanumeric and sequential numbering available
- Six-digit sequential numbering available in 1/8" characters
- Eight-digit sequential numbering available in 1/16" and 3/16" characters
- Special logos and different type styles can be accommodated when camera-ready artwork is provided



For heat stamping quotations, contact Technical Services at 888.862.3289.

- Minimum order quantity is 3,000 pieces per part number and message
- Lead time is 8–10 weeks

## Identification Tags, Cable Ties and Accessories

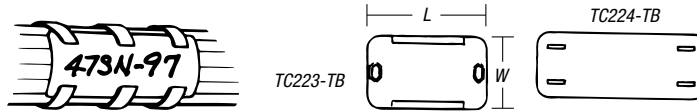
### Stay organized!

#### Identification Tags

Ranging in length from 1.25" to 2.5", the identification plates are secured to the cable with Ty-Rap® ties. They are composed of .010"- and .015"-thick nylon 6.6, and have a surface that can be marked easily. Thomas & Betts offers custom heat stamping of your plates at the factory.



TC123-TB



| BULK CAT. NO. | WIDTH IN./MM | LENGTH IN./MM | THICKNESS IN./MM | MAX. CABLE BUNDLE DIA. IN./MM | # TIE SLOTS | BULK PKG. QTY. |
|---------------|--------------|---------------|------------------|-------------------------------|-------------|----------------|
| TC123-TB      | .75/19.05    | 1.25/31.75    | .01/.25          | .19/4.83                      | 3           | 1,000          |
| TC124-TB      | .75/19.05    | 1.50/38.10    | .01/.25          | .19/4.83                      | 3           | 1,000          |
| TC125-TB      | .75/19.05    | 1.75/44.45    | .01/.25          | .19/4.83                      | 3           | 1,000          |
| TC126-TB      | .75/19.05    | 2.00/50.80    | .01/.25          | .19/4.83                      | 3           | 1,000          |
| TC128-TB      | .75/19.05    | 2.50/63.50    | .01/.25          | .19/4.83                      | 3           | 1,000          |
| TC223-TB      | .75/19.05    | 1.28/32.51    | .02/.51          | .19/4.83                      | 2           | 1,000          |
| TC224-TB      | .75/19.05    | 1.50/38.10    | .02/.51          | .19/4.83                      | 2           | 1,000          |
| TC225-TB      | .75/19.05    | 1.75/44.45    | .02/.51          | .19/4.83                      | 2           | 1,000          |
| TC226-TB      | .75/19.05    | 2.00/50.80    | .02/.51          | .19/4.83                      | 2           | 1,000          |
| TC228-TB      | .75/19.05    | 2.50/63.50    | .02/.51          | .19/4.83                      | 2           | 1,000          |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

- Natural nylon color

### Mark and bundle simultaneously!

#### Snap-On Identification Marker Tag



Snaps onto the head of a conventional cable tie to convert it to an identification tie.

- When snapped onto the tie head, the tag is conveniently held in place until it is permanently fastened
- Offers maximized inventory control because the I.D. tag will accommodate different tie lengths and materials

- Enables marking and bundling to be done in one operation
- The marking can be made with a Thomas & Betts permanent marking pen, Cat. No. WT163M-1
- The identification tags are sold separately and can be conveniently snapped on the cable ties at the assembly location just before being installed on the bundle
- Made of natural nylon 6.6

| STD. CAT. NO. | BULK CAT. NO. | DESCRIPTION                                                                                 | MARKING PAD SIZE W X H (IN./MM) | PKG. QTY. | PKG. QTY. |
|---------------|---------------|---------------------------------------------------------------------------------------------|---------------------------------|-----------|-----------|
| TC523         | TC23          | Snaps onto the heads of all miniature 18 lbs. (80.07 N) series cable ties                   | 1 x .35/25.40 x 889.00          | 100       | 1,000     |
| TC524         | TC24          | Snaps onto the heads of all intermediate 30 (133.40N) & 40 (177.90N) lbs. series cable ties | 1 x .50/25.40 x 500.00          | 100       | 1,000     |
| TC525         | TC25          | Snaps onto the heads of all standard 50 lbs. series cable ties                              | 1 x .50/25.40 x 500.00          | 100       | 1,000     |

- Natural nylon color

#### Ty-Rap® Marking Pen



- Permanent ink for long life on nylon cable ties and tags
- Fine-point tip for easy cable tie and tag marking

| CAT. NO. | COLOR INK | STD. PKG. QTY. |
|----------|-----------|----------------|
| WT163M-1 | Black     | 1              |

## Mounting Bases, Cable Ties and Accessories

Great for use with screws, nuts and bolts for secure fastening to surfaces.

### Ty-Rap® 6.6 Nylon Mounting Head Ties — Natural



TY533M



TYF535M

| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | MOUNTING HOLE | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|---------------|-------------------------|----------------|----------------|
| TY533M        | TY33M         | .09/2.29          | 4.00/101.60   | .63/16.00                    | #4            | 18/80.07                | 100            | 1,000          |
| TY534M        | TY34M         | .14/3.56          | 6.00/152.40   | 1.13/28.70                   | #8            | 40/177.90               | 100            | 1,000          |
| TY535M        | TY35M         | .18/4.57          | 7.80/198.12   | 1.75/44.45                   | #10           | 50/222.40               | 100            | 1,000          |
| TY5354M       | TY354M        | .18/4.57          | 14.60/370.84  | 4.00/101.60                  | #10           | 50/222.40               | 100            | 1,000          |
| —             | TY635M        | .19/4.83          | 7.80/198.12   | 1.77/44.96                   | #6            | 50/222.40               | —              | 1,000          |
| TYF535M       | TYF35M        | .19/4.83          | 7.24/183.90   | 1.77/44.96                   | #6            | 50/222.40               | 100            | 1,000          |
| TY537M        | TY37M         | .30/7.62          | 13.90/353.06  | 3.50/88.90                   | ¼"            | 120/533.80              | 50             | 500            |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

• Natural nylon color

### Ty-Rap® 6.6 Nylon Mounting Head Ties — Weather Resistant

The MX series cable ties are recommended for outdoor use. The addition of carbon black provides good ultraviolet resistance and prolongs the useful life of the cable tie.



| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | MOUNTING HOLE | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|---------------|-------------------------|----------------|----------------|
| TY533MX       | TY33MX        | .09/2.29          | 4.00/101.60   | .63/16.00                    | #4            | 18/80.07                | 100            | 1,000          |
| TY534MX       | TY34MX        | .14/3.56          | 6.00/152.40   | 1.13/28.70                   | #8            | 40/177.90               | 100            | 1,000          |
| TY535MX       | TY35MX        | .18/4.57          | 7.80/198.12   | 1.75/44.45                   | #10           | 50/222.40               | 100            | 1,000          |
| TY5354MX      | TY354MX       | .18/4.57          | 14.60/370.84  | 4.00/101.60                  | #10           | 50/222.40               | 100            | 1,000          |
| TY537MX       | TY37MX        | .30/7.62          | 13.90/353.06  | 3.50/88.90                   | ¼"            | 120/533.80              | 50             | 500            |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

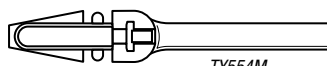
• Black color

### Ty-Rap® 6.6 Nylon Push-Mount Ties

For use in ⅜" and ¼" pre-drilled holes. Panel thickness .09" max. (TY554M)  
Range .04–.156" (TY538M)



TY538M



TY554M

| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | MOUNTING HOLE | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|---------------|-------------------------|----------------|----------------|
| TY554M        | TY33MX        | .14/3.56          | 5.96/151.38   | 1.13/28.70                   | ⅜"            | 40/177.90               | 100            | 1,000          |
| TY538M        | TY38M*        | .18/4.57          | 7.80/198.12   | 1.75/44.45                   | ¼"            | 50/222.40               | 100            | 1,000          |

\*Nylon 6.6 UV weather-resistant version available (TY38MX).

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

• Natural nylon color

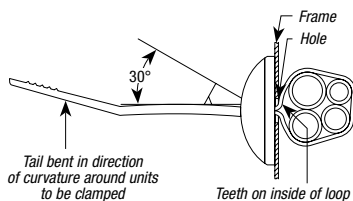
## Mounting Bases, Cable Ties and Accessories

Convenient one-piece design!

### Ty-Rap® Tie for Panel and Chassis Mounting



- One-piece design, fast and convenient to use
- Clamping range of 1/16 to 2 3/8 inches reduces your inventory — one clamp replaces many
- Visually attractive — head resembles rivet
- Locking grooves maintain tight grip
- Lowers your installed cost



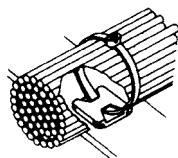
| STD. CAT. NO. | BULK CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | HOLE SIZE IN./MM   | STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|---------------|---------------|-------------------|---------------|------------------------------|--------------------|-----------------|----------------|----------------|
| TY541M        | TY41M         | .23/5.84          | 9.60/243.84   | 2.37/60.20                   | .32-.68/8.13-17.27 | 65/289.10       | 50             | 1,000          |
| 650-41600     | —             | .23/5.84          | 10.25/260.35  | 2.50/63.50                   | .32-.68/8.13-17.27 | 65/289.10       | 500            | 1,000          |
| 696-41848     | —             | .23/5.84          | 12.50/317.50  | 3.00/76.20                   | .32-.68/8.13-17.27 | 65/289.10       | 500            | 1,000          |

**Note:** Loop tie through hole in frame, around electrical, hydraulic, or air hoses to be clamped, and through head. Tighten and cut off with Ty-Rap tool. Visually looks like a rivet.  
 • For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).  
 • Black color

## Choose from adhesive-backed, epoxy or screw mounting bases!

### Two-Way Adhesive Mounting Bases

- Available in a variety of materials for both indoor and outdoor use
- One-piece molding — no lost parts
- Adhesive-backed with pressure-sensitive adhesive tape (where applicable)



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD    | MAX. TIE WIDTH ACCOM. IN./MM | LENGTH IN./MM | WIDTH IN./MM | MATERIAL                              | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|--------------------|------------------------------|---------------|--------------|---------------------------------------|----------------|----------------|
| TC5342A            | TC342A             | SRA* Adhesive      | .19                          | 1.13/28.58    | 1.13/28.58   | Nylon 6.6                             | 100            | 1,000          |
| —                  | TC342A-X           | SRA* Adhesive      | .19                          | 1.13/28.58    | 1.13/28.58   | UV Black                              | —              | 1,000          |
| —                  | TC342              | TC2PA <sup>†</sup> | .19                          | 1.13/28.58    | 1.13/28.58   | Nylon 6.6                             | —              | 1,000          |
| —                  | TC342X             | TC2PA <sup>†</sup> | .19                          | 1.13/28.58    | 1.13/28.58   | UV Black                              | —              | 1,000          |
| —                  | TC342A-FR          | SRA* Adhesive      | .19                          | 1.13/28.58    | 1.13/28.58   | Flame-Retardant Nylon                 | —              | 1,000          |
| —                  | TC342AH-TFR        | Acrylic Adhesive   | .19                          | 1.13/28.58    | 1.13/28.58   | Black High-Temp Flame-Retardant Nylon | —              | 1,000          |

Temperature Rating: 32° F to 120° F (0° C to 48° C)

\*Synthetic Rubber Adhesive

<sup>†</sup>TC2PA Adhesive sold separately

**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed.

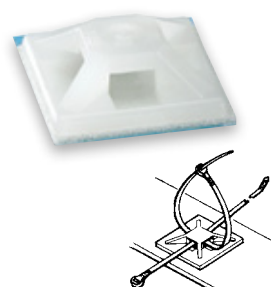
Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

## Mounting Bases, Cable Ties and Accessories

### Select the four-way configuration you need!

#### Four-Way Adhesive Mounting Base

- Eliminates errors in premounting the base with respect to its orientation to wire bundle direction
- For synthetic rubber adhesive (SRA), allow 15-minute setting time for maximum adhesion performance
- For acrylic adhesive, allow 24- to 72-hour setting time for maximum adhesion performance (acrylic-adhesive mounting bases may be re-positioned initially before the adhesive has set)



| STD. PKG. CAT. NO.                  | BULK PKG. CAT. NO. | MOUNTING METHOD  | MAX. TIE WIDTH ACCOM. | LENGTH IN./MM | WIDTH IN./MM | MATERIAL                              | STD. PKG. QTY. | BULK PKG. QTY. |
|-------------------------------------|--------------------|------------------|-----------------------|---------------|--------------|---------------------------------------|----------------|----------------|
| <b>4-Way Adhesive Mounting Base</b> |                    |                  |                       |               |              |                                       |                |                |
| TC5345A                             | TC345A             | SRA* Adhesive    | .19                   | 1.13/28.58    | 1.13/28.58   | Nylon 6.6                             | 100            | 1,000          |
| —                                   | TC345AFR           | SRA* Adhesive    | .19                   | 1.13/28.58    | 1.13/28.58   | Flame-Retardant Nylon                 | —              | 1,000          |
| TC5345AX                            | TC345AX            | SRA* Adhesive    | .19                   | 1.13/28.58    | 1.13/28.58   | UV Black                              | 100            | 1,000          |
| TC5345AHTFR                         | —                  | Acrylic Adhesive | .19                   | 1.13/28.58    | 1.13/28.58   | Black High-Temp Flame-Retardant Nylon | 100            | 1,000          |
| —                                   | TC345              | TC2PA/Screws     | .19                   | 1.13/28.58    | 1.13/28.58   | Nylon 6.6                             | —              | 1,000          |
| <b>4-Way Mini Base</b>              |                    |                  |                       |               |              |                                       |                |                |
| TC050X050A-C                        | TC050X050A         | SRA* Adhesive    | .10                   | .5/12.70      | .5/12.70     | Nylon 6.6                             | 100            | 1,000          |
| TC5344A                             | TC344A             | SRA* Adhesive    | .14                   | .75/19.05     | .75/19.05    | Nylon 6.6                             | 100            | 1,000          |
| TC5344AX                            | TC344AX            | SRA* Adhesive    | .14                   | .75/19.05     | .75/19.05    | UV Black                              | 100            | 1,000          |
| TC5344                              | TC344              | Screw Mount      | .14                   | .75/19.05     | .75/19.05    | Nylon 6.6                             | 100            | 1,000          |
| <b>Large 4-Way Base</b>             |                    |                  |                       |               |              |                                       |                |                |
| TC150X150A-L                        | TC150150A          | SRA* Adhesive    | .19                   | 1.5/38.10     | .50/38.10    | Nylon 6.6                             | 50             | 500            |
| TC150X150AX-L                       | TC150X150AX        | SRA* Adhesive    | .19                   | 1.5/38.10     | .50/38.10    | UV Black                              | 50             | 500            |
| —                                   | TC200X200          | Screw Mount      | .30                   | 2.0/50.80     | 2.0/50.80    | Nylon 6.6                             | 50             | 500            |
| TC200X200A-L                        | TC200X200A         | SRA* Adhesive    | .30                   | 2.0/50.80     | 2.0/50.80    | Nylon 6.6                             | 50             | 500            |
| —                                   | TC368              | Screw Mount      | .75                   | 2.0/50.80     | 2.0/50.80    | Nylon 6.6                             | —              | 500            |
| —                                   | TC368A             | SRA* Adhesive    | .75                   | 2.0/50.80     | 2.0/50.80    | Nylon 6.6                             | —              | 500            |

• Storage/Service Temperature: 32° F to 120° F (0° C to 48° C)

• Application Temperature: 65° F to 100° F (18° C to 37° C)

• Surface Preparation: Surface should be cleaned with alcohol-based (IPA) cleaner before application

\*Synthetic Rubber Adhesive

**Note:** See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

#### Two-and Four-Way Adhesive Mounting Base



- 4-way base for cable ties up to .184" maximum width and a two-way base for ties up to .301" maximum width
- May also be mounted with #8 size screw (2 holes)

| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD | MAX. TIE WIDTH ACCOM. | LENGTH IN./MM | WIDTH IN./MM | MATERIAL        | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-----------------|-----------------------|---------------|--------------|-----------------|----------------|----------------|
| TC5347A            | TC347A             | SRA* Adhesive   | .30                   | 1.13/28.58    | 1.13/28.58   | Nylon 6.6       | 100            | 1,000          |
| TC5347AX           | —                  | SRA* Adhesive   | .30                   | 1.13/28.58    | 1.13/28.58   | UV Black        | 100            | —              |
| —                  | TC347              | TC2PA/Screws    | .30                   | 1.13/28.58    | 1.13/28.58   | Nylon 6.6       | —              | 1,000          |
| —                  | TC347FR            | TC2PA/Screws    | .30                   | 1.13/28.58    | 1.13/28.58   | Flame-Retardant | —              | 1,000          |
| —                  | TC347X             | TC2PA/Screws    | .30                   | 1.13/28.58    | 1.13/28.58   | UV Black        | —              | 1,000          |

Temperature Rating: 32° F to 120° F (0° C to 48° C) \*Synthetic Rubber Adhesive

**Note:** See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

## Mounting Bases, Cable Ties and Accessories

### Great for securing cables!

#### One-Piece Mounting Clamp



- Provides a fast and convenient method of securing bundles
- Single-piece design offers reduced installation time and maximized inventory control
- Integral top cover incorporates a unique ratchet design that is fully adjustable and releasable
- Available in a pressure-sensitive adhesive or screw mount design

| STD. PKG.<br>CAT. NO. | BULK PKG.<br>CAT. NO. | BASE STYLE       | MAXIMUM<br>HEIGHT (IN.) | CLAMPING AREA          |                         | STD.<br>PKG. QTY. | BULK<br>PKG. QTY. |
|-----------------------|-----------------------|------------------|-------------------------|------------------------|-------------------------|-------------------|-------------------|
|                       |                       |                  |                         | MINIMUM<br>IN./MM      | MAXIMUM<br>IN./MM       |                   |                   |
| TC5349A-TB            | TC349A-TB             | SRA* Adhesive    | .57                     | .18 x .24/4.57 x 6.10  | .035 x .24/.89 x 6.10   | 100               | 1,000             |
| TC5350A-TB            | TC350A-TB             | SRA* Adhesive    | .89                     | .20 x .59/5.08 x 14.99 | .45 x .59/11.43 x 14.99 | 100               | 1,000             |
| TC5350-TB             | —                     | Screw Mount (#8) | .89                     | .20 x .59/5.08 x 14.99 | .45 x .59/11.43 x 14.99 | 100               | 1,000             |

• Natural nylon color.

\*Synthetic Rubber Adhesive

Product Base is .94" x .94"  
(23.88 x 23.88 mm)

For adhesive-back bases, temperature rating is 32° F to 120° F (0° C to 48° C)

For non-adhesive-back bases, temperature rating is -40° F to 185° F (-40° C to 85° C)

**Note:** See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

### Simple to install!

#### Snap-In Mounting Base for Preassembled Ties



| STD. PKG.<br>CAT. NO. | BULK PKG.<br>CAT. NO. | MOUNTING<br>METHOD | MAX. TIE<br>WIDTH ACCOM. | LENGTH<br>IN./MM | WIDTH<br>IN./MM | MATERIAL  | STD.<br>PKG. QTY. | BULK<br>PKG. QTY. |
|-----------------------|-----------------------|--------------------|--------------------------|------------------|-----------------|-----------|-------------------|-------------------|
| TC5353A               | TC353A                | SRA* Adhesive      | .190                     | 2.00/50.80       | 1.00/25.40      | Nylon 6/6 | 25                | 500               |

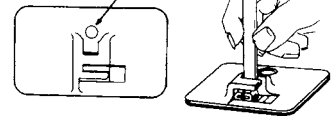
• Natural nylon color.

Temperature Rating: 32° F to 120° F (0° C to 48° C).

\*Synthetic Rubber Adhesive.

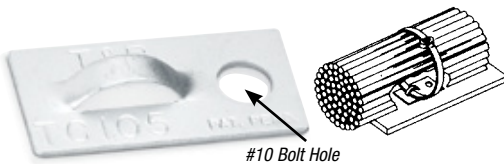
**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Hole for #6 screw



### Great for securing cables!

#### Aluminum Mounting Plates



#10 Bolt Hole

| STD. PKG.<br>CAT. NO. | MOUNTING<br>METHOD | WIDTH<br>ACCOM. | MAX. TIE<br>LENGTH ACCOM. | WIDTH<br>IN./MM | MATERIAL | BULK<br>PKG. QTY. |
|-----------------------|--------------------|-----------------|---------------------------|-----------------|----------|-------------------|
| TC105                 | TC2PA/Screws       | .190            | 1.00/25.40                | .50/12.70       | Aluminum | 1,000             |
| TC824-TB              | TC2PA              | .190            | 1.38/34.93                | .38/.38         | Aluminum | 1,000             |
| 650-41349*            | TC2PA/Screws       | .190            | 1.38/34.93                | .38/.38         | Aluminum | 1,000             |
| 650-41863             | Adhesive           | .190            | 1.38/34.93                | .38/.38         | Aluminum | 1,000             |

Temperature Rating: 32° F to 150° F (0° C to 66° C).

\*650-41349 has two holes for mounting.

**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

### Super strong adhesive!

#### Mounting Base Adhesive



| STD. PKG<br>CAT. NO. | DESCRIPTION                                    | STD.<br>PKG. QTY |
|----------------------|------------------------------------------------|------------------|
| TC2PA                | Consists of one tube of adhesive and activator | 1                |

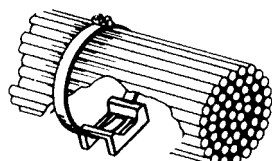
**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

## Mounting Bases, Cable Ties and Accessories

### Saddle Support Base

This mounting base provides a saddle for the wire run. Ty-Rap® tie is threaded under bundle and tied in usual manner.

**Note:** For additional materials, see Technical Services.



TC5141



TC5142



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD | MAXIMUM TIE WIDTH ACCOM. | WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-----------------|--------------------------|--------------|---------------|----------------|----------------|
| —                  | TC140              | #4 Pan Head     | .091                     | .344/8.74    | .563/14.30    | —              | 500            |
| TC5141             | TC141*†            | #6 Pan Head     | .190                     | .439/11.15   | .672/17.07    | 100            | 500            |
| TC5142             | TC142†             | #10 Pan Head    | .301                     | .563/14.30   | .922/23.42    | 100            | 500            |

\* Add suffix FR for flame-retardant material (TC141 only).

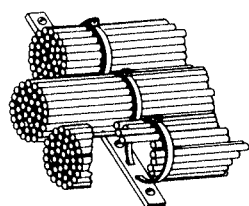
† Add suffix X for UV Black material.

• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

### Multiple-Bundle Mounting Strips

These nylon mounting strips for parallel installation of wire bundles can accommodate up to six closely spaced bundles.



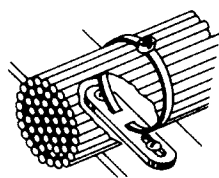
| STD. PKG. CAT. NO. | MAXIMUM MOUNTING METHOD | TIE WIDTH ACCOM. | WIDTH IN./MM | LENGTH IN./MM | CAPACITY (BUNDLES) | MIL. STD. PART NO. | BULK PKG. QTY. |
|--------------------|-------------------------|------------------|--------------|---------------|--------------------|--------------------|----------------|
| TC1101             | #6 Screws               | .190             | .50/12.70    | 1.75/44.45    | 1                  | MS3339-1           | 100            |
| TC1102             | #6 Screws               | .190             | .50/12.70    | 3.00/76.20    | 2                  | MS3339-2           | 100            |
| TC1103             | #6 Screws               | .190             | .50/12.70    | 4.25/107.95   | 3                  | MS3339-3           | 100            |
| TC1104             | #6 Screws               | .190             | .50/12.70    | 5.50/139.70   | 4                  | MS3339-4           | 100            |
| TC1105             | #6 Screws               | .190             | .50/12.70    | 6.75/171.45   | 5                  | MS3339-5           | 100            |
| TC1112             | #6 Screws               | .301             | .63/15.88    | 9.60/243.84   | 6                  | MS3339-11          | 100            |
| TC1113             | #6 Screws               | .301             | .63/15.88    | 2.10/53.34    | 1                  | MS3339-6           | 100            |
| TC1114             | #6 Screws               | .301             | .63/15.88    | 3.60/91.44    | 2                  | MS3339-7           | 100            |
| TC1115             | #6 Screws               | .301             | .63/15.88    | 5.10/129.54   | 3                  | MS3339-8           | 100            |
| TC1116             | #6 Screws               | .301             | .63/15.88    | 6.60/167.64   | 4                  | MS3339-9           | 100            |
| TC1117             | #6 Screws               | .301             | .63/15.88    | 8.10/205.74   | 5                  | MS3339-10          | 100            |

• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Provides a mounting range for bundles from ¼" through 4" in diameter!

### Single-Bundle Mounting Base



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD | MAXIMUM TIE WIDTH ACCOM. IN./MM | WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-----------------|---------------------------------|--------------|---------------|----------------|----------------|
| —                  | TC101              | #10 Screws      | .190/4.83                       | .500/12.7    | 2.00/50.80    | —              | 1,000          |
| TC503              | TC103              | ¼" Screws       | .301/7.65                       | .625/15.88   | 3.08/78.23    | 100            | 500            |

The TC101 and TC103 nylon bases provide a mounting range for bundles from ¼" through 4" in diameter.

One mounting hole is slotted to permit adjustment of the bundle position up to the time of actual bundle installation.

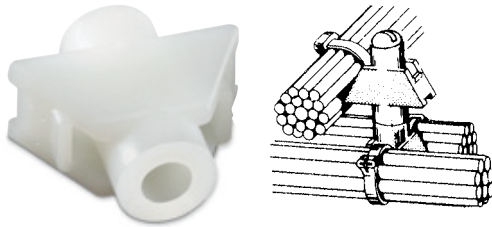
• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Mounting Bases, Cable Ties and Accessories

Permits vertical stacking!

### Ty-Rap® Mounting Blocks



| BULK PKG. CAT. NO. | MOUNTING HOLE SIZE | TIE WIDTH ACCOM. | MAXIMUM WIDTH IN./MM | LENGTH IN./MM | BULK PKG. QTY. |
|--------------------|--------------------|------------------|----------------------|---------------|----------------|
| TC115-TB           | #10                | .190/4.83        | .47/11.91            | 1.00/25.40    | 1,000          |

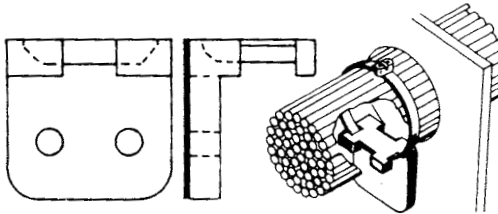
Mounting blocks permit vertical stacking and can be used in any direction.

- Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Meets military specs as a support in bulkheads and walls!

### Right-Angle Bundle Support



| BULK PKG. CAT. NO. | TIE WIDTH ACCOM. | MAXIMUM WIDTH IN./MM | LENGTH IN./MM | BULK PKG. QTY. |
|--------------------|------------------|----------------------|---------------|----------------|
| TC109              | .19/4.83         | .56/14.30            | .44/11.13     | 200            |
| TC106              | .30/7.62         | 1.00/25.40           | 1.00/25.40    | 1,000          |

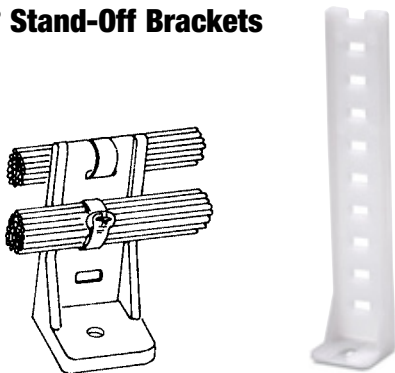
This style meets Military Specification requirements as a support at holes in bulkheads and walls. (MS3341)

- Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Mount bundles on either side!

### Ty-Rap® Stand-Off Brackets



| STD. PKG. CAT. NO.   | MAXIMUM TIE WIDTH ACCOM. | WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. |
|----------------------|--------------------------|--------------|---------------|----------------|
| TC375                | .19/4.83                 | .75/19.05    | 3.65/92.71    | 100            |
| TC375X (WEATHERABLE) | .19/4.83                 | .75/19.05    | 3.65/92.71    | 100            |
| TC376                | .19/4.83                 | .67/17.01    | 1.75/44.45    | 100            |

These brackets permit bundles to be mounted on either side. They also serve as means to raise bundles off the surface.

- Natural nylon color.

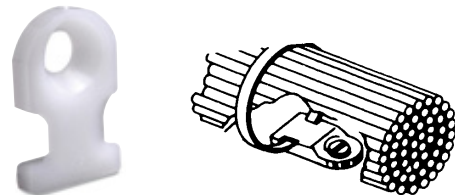
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Weatherable nylon is black.

Ideal for high-density packaging!

### Low-Profile Two-Way Miniature Mounting Bases

- Simply slip Ty-Rap® cable tie under slot in fastened mount, and attach bundle



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD | MAXIMUM TIE WIDTH ACCOM. | WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-----------------|--------------------------|--------------|---------------|----------------|----------------|
| TC502              | TC102              | #8 screw        | .19                      | .50/12.70    | .75/19.05     | 100            | 1,000          |
| —                  | TC104              | #5 screw        | .09                      | .32/8.03     | .41/10.31     | —              | 1,000          |
| —                  | TC804-TB           | #2 screw        | .09                      | .32/8.03     | .40/10.31     | —              | 1,000          |
| —                  | TC112-TB           | #8 screw        | .19                      | .38/9.53     | .75/19.05     | —              | 1,000          |
| —                  | TC812-TB           | #10 screw       | .19                      | .38/9.53     | .75/19.05     | —              | 1,000          |
| —                  | TC814-TB           | #5 screw        | .19                      | .38/9.53     | .75/19.05     | —              | 1,000          |

Threaded insert permits screw to come from outside of mounting surface.

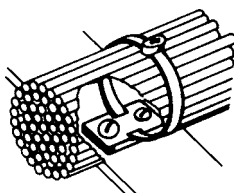
- Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Mounting Bases, Cable Ties and Accessories

Installs in-line with the wire bundle!

### In-Line Mounting Base



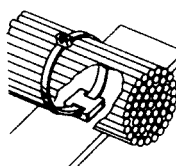
| BULK CAT. NO. | MOUNTING METHOD | WIDTH ACCOM. IN./MM | MAX. TIE WIDTH IN./MM | LENGTH IN./MM | BULK PKG. QTY. |
|---------------|-----------------|---------------------|-----------------------|---------------|----------------|
| TC815-TB      | #10 screws      | .30/7.62            | .75/19.05             | 1.13/28.58    | 500            |

A standard 2-hole base that installs in-line with the wire bundle that conceals it.

• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

### Miniature Base



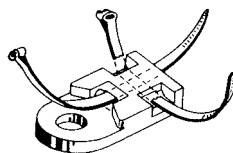
| BULK PKG. CAT. NO. | MOUNTING METHOD | MAX. TIE WIDTH ACCOM. IN./MM | LENGTH IN./MM | WIDTH IN./MM | MATERIAL  | BULK PKG. QTY. |
|--------------------|-----------------|------------------------------|---------------|--------------|-----------|----------------|
| TC817-TB           | TC2PA           | .19                          | .44/11.10     | .44/11.10    | Nylon 6/6 | 1,000          |

• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Handles ties installed in either direction!

### Low-Profile Four-Way Mounting Base



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MOUNTING METHOD | MAXIMUM TIE WIDTH ACCOM. IN./MM | WIDTH IN./MM | LENGTH IN. | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-----------------|---------------------------------|--------------|------------|----------------|----------------|
| —                  | TC826-TB*          | #8 screw        | .19                             | .50/12.70    | 1/25.40    | —              | 1,000          |
| TC5828             | TC828-TB*          | #8 screw        | .19                             | .39/9.91     | .88/22.23  | 100            | 1,000          |

The TC826-TB mounting base can be used to tie bundles running parallel or perpendicular to length of base.

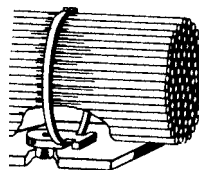
The TC828-TB mounting plate also handles ties installed in either direction and is somewhat smaller than TC826.

\*Natural nylon color is standard. Replace TB with O suffix for black color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Firmly locks into position when projecting pin is pushed into the mounting hole.

### Self-Riveting Base



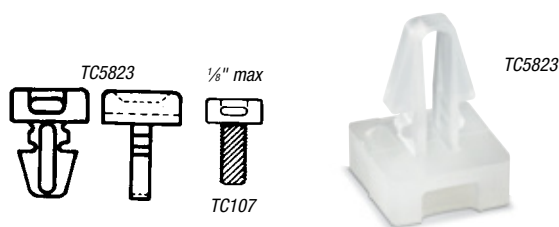
| BULK PKG. CAT. NO. | MOUNTING HOLE PKG. SIZE | MAX. TIE WIDTH ACCOM. IN./MM | WIDTH IN./MM | LENGTH IN./MM | MATERIAL           | BULK PKG. QTY. |
|--------------------|-------------------------|------------------------------|--------------|---------------|--------------------|----------------|
| TC116-TB           | .146                    | .190                         | .5/12.7      | .75/19.05     | Nylon 6.6 (Red)    | 1,000          |
| TC116-O            | .146                    | .190                         | .5/12.7      | .75/19.05     | Nylon 6.6 (Black)  | 1,000          |
| TC118-TB           | .169                    | .190                         | .5/12.7      | .75/19.05     | Nylon 6.6 (Blue)   | 1,000          |
| TC120              | .196                    | .190                         | .5/12.7      | .75/19.05     | Nylon 6.6 (Yellow) | 1,000          |

Slip tie under base to attach bundle.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Mounting Bases, Cable Ties and Accessories

### Push-In and Bolted Bases



| STD. PKG.<br>CAT. NO. | STD. PKG.<br>CAT. NO. | MOUNTING<br>HOLE SIZE | MAXIMUM<br>TIE WIDTH<br>ACCOM. | WIDTH<br>IN./MM | LENGTH<br>IN./MM | STD.<br>PKG.<br>QTY. | BULK<br>PKG.<br>QTY. |
|-----------------------|-----------------------|-----------------------|--------------------------------|-----------------|------------------|----------------------|----------------------|
| TC5823                | TC823-TB              | 1/4                   | .190                           | .44/11.13       | .63/15.88        | 100                  | 1,000                |
| —                     | TC107†                | #10-32 thd            | .190                           | .44/11.13       | .69/15.88        | —                    | 1,000                |

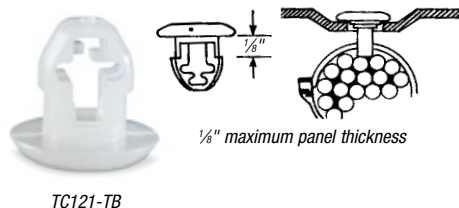
† Not UL Recognized.

• Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

### Snap-In Mounting Base Cap

Snap-in, premountable base for securing wire bundles in cabinets maintains the attractive external appearance of the equipment housing — TC121 Snap-Cap.



| BULK PKG.<br>CAT. NO. | MOUNTING<br>HOLE PKG.<br>SIZE | MAX. TIE<br>WIDTH<br>ACCOM. | WIDTH<br>IN./MM | LENGTH<br>IN./MM | MATERIAL                           | BULK<br>PKG.QTY. |
|-----------------------|-------------------------------|-----------------------------|-----------------|------------------|------------------------------------|------------------|
| TC121-TB              | .250                          | .190                        | .445/11.30      | .415/10.54       | Nylon 6.6                          | 1,000            |
| TCH121†               | .250                          | .190                        | .445/11.30      | .415/10.54       | Nylon 6.6                          | 1,000            |
| TCH121-0†             | .250                          | .190                        | .445/11.30      | .415/10.54       | Heat Stabilized<br>Nylon 6.6 Black | 1,000            |

† Not UL Recognized.

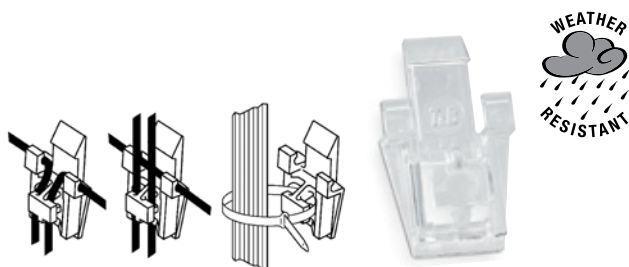
• Natural nylon color.

Nylon 6.6 for use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Heat stabilized for use in temperatures ranging from -40° F to 221° F (-40° C to 105° C).

### Weather resistant and transparent!

### Aluminum Siding Clip



| STD. PKG.<br>CAT. NO. | WIRE<br>ACCOMMODATION                    | STD.<br>PKG. QTY. |
|-----------------------|------------------------------------------|-------------------|
| TC201                 | 1/8" Diameter Wire (2-pair station wire) | 50                |

Material:

- Transparent — Color and texture of siding shows through.
- Material — Weather-resistant grade polycarbonate.
- Designed to accommodate PITTSBURG INTERLOCK metal siding.
- Accommodates wires both vertically and/or horizontally.
- Provision for utilizing Ty-Rap® cable ties to secure large diameter bundles.

## Mounting Bases, Cable Ties and Accessories

Designed for indoor or outdoor use and heavy-duty applications.

### Framing Channel Clamp

- Quick and easy to install on existing metal framing channel
- Installs with a push and twist
- Smooth design protects cable insulation
- Takes range of cable diameters

When fastening wire bundles, cables or hoses to framing channels, you can cut costs considerably by using the Ty-Rap® cable clamp. It's made of smooth, weather-resistant nylon and designed to protect cable insulation and hoses from wear or damage, which can occur with metal clamps. The clamp may be used for both indoor or outdoor applications. It quickly installs in the framing channel with a simple push and twist. It requires no screws, nuts or tools. The clamp fits all 1½" and 1¾" channels regardless of channel depth.



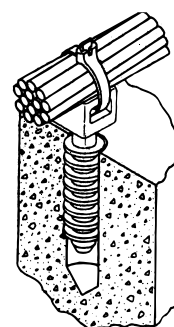
| STD. PKG. CAT. NO. | CHANNEL SIZE (IN.) | MAXIMUM TIE WIDTH ACCOM. | STD. PKG. QTY. |
|--------------------|--------------------|--------------------------|----------------|
| TC5363X            | 1½ & 1¾            | .301/7.65                | 50             |

• Made from high-impact weather-resistant black nylon  
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Specially designed head is range-taking.

### Ty-Rap® Mounting Base for Masonry and Brick Surfaces

- Quick, easy installation without cumbersome adhesives or epoxies
- Provides a quick, easy and dependable means of attaching cable and wires to masonry surfaces
- Installs by tapping it into a drilled hole
- It's immediately ready to accept a cable tie and wire bundle — no tedious surface preparation; no waiting for adhesives to set
- Replaces a variety of anchors, clamps, screws and adhesives
- Designed for both indoor and outdoor applications
- Only two sizes to stock — reduces inventory



| STD. PKG. CAT. NO. | HOLE SIZE IN MASONARY | MAXIMUM TIE WIDTH ACCOM. | STD. PKG. QTY. |
|--------------------|-----------------------|--------------------------|----------------|
| TC5358             | ¼                     | .190/4.83                | 100            |
| TC5359             | ¾                     | .500/12.70               | 50             |

• Made of a special impact and ultraviolet-resistant black nylon  
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Weather resistant!

### Ty-Rap® Mounting Base for Lashing Tie



- For use with lashing ties up to .500" width (i.e. TY5409)
- High impact

| STD. PKG. CAT. NO. | MOUNTING METHOD | TIE WIDTH ACCOM. | MAXIMUM WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. |
|--------------------|-----------------|------------------|----------------------|---------------|----------------|
| TC5355             | #8 screw        | .500/12.70       | .750/19.05           | 1.750/44.45   | 25             |
| TC5356             | #10 screw       | .500/12.70       | .750/19.05           | 1.750/44.45   | 25             |
| TC5357             | ¼" screw        | .500/12.70       | .750/19.05           | 1.750/44.45   | 25             |

• Black nylon construction  
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Mounting Bases, Cable Ties and Accessories

A fast and simple harnessing method for neat, versatile wire management.

### Stud Mounting System

- Great for harnessing wires, cables and hoses to truck and trailer chassis
- Fast, easy installation, using standard  $\frac{3}{8}$ " power drill and application tool or simply hammer on
- Unlimited harnessing flexibility using conventional T&B cable ties
- Custom drill bit quickly installs base to proper torque — won't crack or break mounting base due to being overtightened
- Unique 4-way multi-directional design
- 10-position harness capability
- Available for  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ", and  $\frac{3}{4}$ " stud/bolt sizes
- Self-tapping thread design for reliable installation onto stud
- High pull-out strength of 500+ lbs.

**Thomas & Betts Stud Mount Fastening System** is a fast and simple harnessing method for neat, versatile, cord, cable, hose, and wire management. Using a custom drill bit for your  $\frac{3}{8}$ " power drill, the Stud Mount base is quickly attached onto a threaded stud or bolt to the proper torque—every time. The innovative "X" design of the base reliably supports many types of cable or hose assemblies using a wide range of conventional T&B cable ties. Designed with 10 separate lashing positions, the Stud Mount offers unlimited wire harnessing arrangements. T&B's Stud Mount is available in four convenient stud bolt sizes.



The Stud Mount Cable Fastening System includes a range of bases and the custom drill bit that mounts all sizes.



During installation, the custom Stud Mount drill bit application tool ejects itself from mounting base, ensuring proper torque and preventing cracking or breaking of the mount from being overtightened.



Virtually unlimited harnessing flexibility is provided in the unique 10-position harness design of the Stud Mount base.

| BULK PKG.<br>CAT. NO. | DESCRIPTION      | STUD SIZE     | MATERIAL             | COLOR | BULK<br>PKG. |
|-----------------------|------------------|---------------|----------------------|-------|--------------|
| XMNY-375-0-D          | Mount Fastener   | $\frac{3}{8}$ | Nylon, UV Stabilized | Black | 500          |
| XMNY-500-0-D          | Mount Fastener   | $\frac{1}{2}$ | Nylon, UV Stabilized | Black | 500          |
| XMNY-625-0-D          | Mount Fastener   | $\frac{5}{8}$ | Nylon, UV Stabilized | Black | 500          |
| XMNY-750-0-D          | Mount Fastener   | $\frac{3}{4}$ | Nylon, UV Stabilized | Black | 500          |
| WTXM                  | Application Tool | —             | Tool Steel           | —     | 1            |

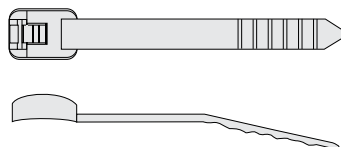
• Material: Impact-resistant weatherable black nylon  
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Safety, Reusable and Double-Loop Cable Ties

### Ideal for precision bundling!

#### Low-Profile All-Nylon 6.6 Ties

This fastener design from Thomas & Betts is ideal for use where clearance is a necessity and allows for easy pull-through in bulkheads and other tight spaces. Our contoured head eliminates snagging, and sharp edges are reduced by our safeguard walls.



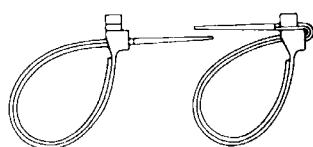
Low-profile contoured head compared with the profile of a common cable tie.

- Low-profile, contoured head reduces clearance required for the bundle and enhances the appearance of your harness
- The saddleback fits snug against the contour of the wiring harness
- Sizes and colors available to accommodate varying requirements
- The safeguard wall eliminates exposure to sharp edges

| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MATERIAL        | BUNDLE RANGE DIA. IN./MM | TENSILE STRENGTH LBS./N | TIE LENGTH IN./MM | STRAP WIDTH IN./MM | STRAP THICK IN./MM | STD. PKG. QTY. | BULK. PKG. QTY. |
|--------------------|--------------------|-----------------|--------------------------|-------------------------|-------------------|--------------------|--------------------|----------------|-----------------|
| —                  | SF100-18           | Natural         | .13/3.3–1.00/25.4        | 18/80.07                | 4.65/118.11       | .095/2.41          | .04/1.09           | —              | 1,000           |
| SF100-18X-100      | SF100-18X          | UV Black        | .13/3.3–1.00/25.4        | 18/80.07                | 4.65/118.11       | .095/2.41          | .04/1.09           | 100            | 1,000           |
| —                  | SF200-18           | Natural         | .13/3.3–2.00/50.8        | 18/80.07                | 8.10/205.74       | .1/2.41            | .04/1.09           | —              | 1,000           |
| —                  | SF200-18X          | UV Black        | .13/3.3–2.00/50.8        | 18/80.07                | 8.10/205.74       | .1/2.41            | .04/1.09           | —              | 1,000           |
| —                  | SF175-50           | Natural         | .19/4.8–1.75/44.45       | 50/222.4                | 7.70/195.58       | .19/4.75           | .05/1.22           | —              | 1,000           |
| —                  | SF175-50X          | UV Black        | .19/4.8–1.75/44.45       | 50/222.4                | 7.70/195.58       | .19/4.75           | .05/1.22           | —              | 1,000           |
| —                  | SF175-50FR         | Flame Retardant | .19/4.8–1.75/44.45       | 50/222.4                | 7.70/195.58       | .19/4.75           | .05/1.22           | —              | 1,000           |
| —                  | SF300-50X          | UV Black        | .19/4.8–3.00/76.2        | 50/222.4                | 11.33/287.78      | .19/4.75           | .05/1.22           | —              | 1,000           |
| —                  | SF400-50           | Natural         | .19/4.8–4.00/101.6       | 50/222.4                | 14.53/369.06      | .19/4.75           | .05/1.22           | —              | 1,000           |
| —                  | SF400-120X         | UV Black        | .38/9.6–4.00/101.6       | 120/533.8               | 14.58/370.33      | .30/7.62           | .07/1.78           | —              | 500             |

### Use these ties again and again!

#### Ty-Rap® Reusable Ties



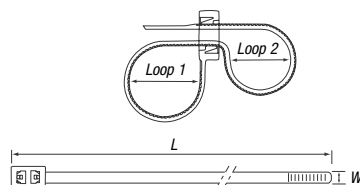
| STD. PKG. CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. |
|--------------------|-------------------|---------------|--------------------|-------------------------|----------------|
| TYR505             | .18/4.57          | 7.50/190.50   | 1.75/1.75          | 50/222.40               | 100            |
| TYR508             | .18/4.57          | 14.30/363.22  | 4.00/101.60        | 50/222.40               | 100            |

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).  
• Natural nylon color

#### Double Loop 6.6 Nylon Tie

##### Advantages:

- Enables parallel routing of two cable bundles with one single cable tie!
- Halogen- and silicone-free to meet your application needs
- Quick and easy pull-through increases productivity, reduces operator fatigue



| BULK PKG. CAT. NO. | LENGTH IN./MM | WIDTH IN./MM | BUNDLE DIAMETER RANGE |                   | TENSILE STRENGTH (LB/N) | INSTALLATION TOOLING FOR ALL SIZES | BULK PKG. |
|--------------------|---------------|--------------|-----------------------|-------------------|-------------------------|------------------------------------|-----------|
|                    |               |              | LOOP 1 IN./MM         | LOOP 2 IN./MM     |                         |                                    |           |
| TB-12-50RLDH       | 11.8/299.72   | .19/4.83     | .1/2.54–2.8/71.12     | .1/2.54–2.7/68.58 | 50/222.4                | ERG50                              | 1,000     |

• Natural nylon color

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Messenger and Lashing Ties and Straps

Resistant to UV light, chemicals, and lower in moisture absorption.

### Weather-Resistant Nylon 12 Messenger Hanger and Hanger Straps (Releasable)

Nylon 12 is a lower moisture-absorbing material than 6.6 nylon — making the effect of water on properties much less.



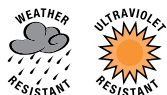
| STD. PKG. CAT. NO.                                                     | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | HOOK MATERIAL       | TENSILE STRENGTH LBS./N | STD. PKG. QTY. |
|------------------------------------------------------------------------|-------------------|---------------|------------------------------|---------------------|-------------------------|----------------|
| <b>Weather-Resistant Nylon 12 Messenger Hanger Straps (Releasable)</b> |                   |               |                              |                     |                         |                |
| TYM5412X                                                               | .5/12.7           | 12/304.8      | 3/76.2                       | Bronze              | 200/889.6               | 50             |
| TYM5418X                                                               | .5/12.7           | 18/457.2      | 5/127                        | Bronze              | 200/889.6               | 25             |
| TYM5423X                                                               | .5/12.7           | 24/609.6      | 7/177.8                      | Bronze              | 200/889.6               | 25             |
| TYM5430X                                                               | .5/12.7           | 30/762.0      | 9/228.6                      | Bronze              | 200/889.6               | 25             |
| TYM5412X-S                                                             | .5/12.7           | 12/304.8      | 3/76.2                       | 304 Stainless Steel | 200/889.6               | 50             |
| TYM5418X-S                                                             | .5/12.7           | 18/457.2      | 5/127                        | 304 Stainless Steel | 200/889.6               | 25             |
| TYM5423X-S                                                             | .5/12.7           | 24/609.6      | 7/177.8                      | 304 Stainless Steel | 200/889.6               | 25             |
| TYM5430X-S                                                             | .5/12.7           | 30/762.0      | 9/228.6                      | 304 Stainless Steel | 200/889.6               | 25             |
| TYM5436X-S                                                             | .5/12.7           | 36/914.4      | 11/279                       | 304 Stainless Steel | 200/889.6               | 25             |

|                                                             |         |              |         |       |           |    |
|-------------------------------------------------------------|---------|--------------|---------|-------|-----------|----|
| <b>Weather-Resistant Nylon 12 Hanger Strap (Releasable)</b> |         |              |         |       |           |    |
| TY54407X                                                    | .5/12.7 | 6.36/151.54  | 2/50.8  | Steel | 200/889.6 | 50 |
| TY54413X                                                    | .5/12.7 | 13.75/349.25 | 4/101.6 | Steel | 200/889.6 | 25 |

The recommended maximum continuous static loading for the nylon 12 straps is 25 lbs. per strap. For best results, suggested spacing is 15". It's the responsibility of the user to determine whether or not their application meets our recommendation. Hook will accommodate 1/2" dia. messenger wire.

• Color — Black For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C).

### Heavy-Duty Lashing Tie (Releasable)



- Heavy-duty and made of weather-resistant nylon
- For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C)

| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|-------------------|---------------|------------------------------|-------------------------|----------------|----------------|
| TY5409             | TY409              | .5/12.7           | 19/482.6      | 4.75/120.65                  | 200/889.6               | 25             | 100            |

## Messenger and Lashing Ties and Straps

An absolute in chemical environments — and it floats!

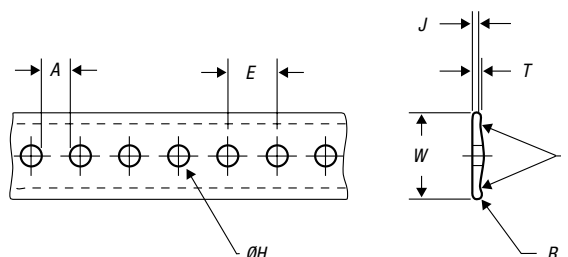
### Weather-Resistant Polypropylene Lashing Ties with Releasable Heads

- Excellent chemical resistance
- Buoyant — will float on most surfaces
- Made of black weather-resistant polypropylene for outdoor use
- Locking heads made of UV-resistant nylon
- For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C)



| STD. PKG. CAT. NO.                                                     | BODY WIDTH IN./MM | LENGTH IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. |
|------------------------------------------------------------------------|-------------------|---------------|------------------------------|-------------------------|----------------|
| <b>Weather-Resistant Polypropylene Lashing Tie (Releasable)</b>        |                   |               |                              |                         |                |
| TY5418PX                                                               | .5/12.7           | 18/457.2      | 5/127.0                      | 150/667.2               | 25             |
| TY5424PX                                                               | .5/12.7           | 24/609.6      | 7/177.8                      | 150/667.2               | 25             |
| TY5442PX                                                               | .5/12.7           | 42/1066.8     | 12/304.8                     | 150/667.2               | 10             |
| TY5460PX                                                               | .5/12.7           | 60/1524       | 18/457.2                     | 150/667.2               | 10             |
| <b>Weather-Resistant Polypropylene Hanger Lashing Tie (Releasable)</b> |                   |               |                              |                         |                |
| TY53418PX                                                              | .5/12.7           | 18/457.2      |                              | 5                       | 25             |

### Weather-Resistant Polypropylene Strapping and Accessories



| STRAPPING CAT. NO. | MATERIAL    | DIMENSIONS (IN.) |      |      |             |             |      |             |             | STRAP-TITE BUCKLE | MOUNTING TAB | MACHINE SCREW |
|--------------------|-------------|------------------|------|------|-------------|-------------|------|-------------|-------------|-------------------|--------------|---------------|
|                    |             | A                | B    | E    | H           | J           | R    | T           | W           |                   |              |               |
| S2NY-096-0-C       | Black Nylon | .091 ± .010      | .189 | .187 | .096 ± .003 | .023 ± .003 | .016 | .031 ± .003 | .284 ± .012 | —                 | —            | #2            |
| S4NY-167-0-C       | Black Nylon | .145 ± .020      | .189 | .312 | .167 ± .005 | .033 ± .003 | .022 | .045 ± .003 | .375 ± .010 | —                 | —            | #8            |
| S6NY-203-0-C       | Black Nylon | .187 ± .020      | .189 | .390 | .203 ± .005 | .045 ± .005 | .030 | .060 ± .005 | .490 ± .015 | B6NY-203-0-D      | M6NY-265-0-D | #10           |

## Deltec® Cable Tie and Support System

Designed to perform a minimum of 20 years outdoors down to -65° C.

### The Deltec® Cable Tie and Support System

Lost-time accidents and downtime are often the result of using traditional metal bundling and support systems for high strength and harsh environment applications. Metal support systems can be both difficult and dangerous to install. They can also nick or cut through cable insulation. Insulation failures lead to dangerous and costly situations. There are few options outside of traditional metal for bundling and supporting cable that will withstand the harshest of environments and offer extended outdoor life.

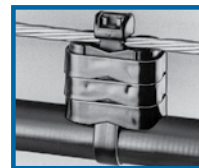
In response to the demand for a better solution, Thomas & Betts engineers developed the Deltec® Cable Support System. The Deltec® System is safe and easy to install with a guaranteed weatherable life, even at temperatures as low as -85° F.

A three-piece, three-material engineered design provides the ideal solution for bundling in harsh outdoor environments. The Deltec® System combines the strength and rigidity of an injection-molded head with marine-grade copper barbs and a soft and pliable, stress-resistant, extruded body. The unique multi-piece design with separate head and strapping also allows installers to select and customize the strap length for any application. The Deltec® System provides the ultimate in cable support and management for your most demanding applications.



#### Advantages of the Deltec® System Include:

- Designed to perform a minimum of 20 years outdoors
- Continuous use temperature: -85° F to 194° F (-65° C to 90° C)
- No sharp edges
- Perfect for coaxial, fiber optic and all other communication and electrical conducting cables
- Total flexibility in length when using reel
- Extruded body provides total flexibility in length from 10" to 5,000 feet
- Made in the USA
- Rodents and other pests won't eat it
- Strap and Body: Weatherable acetal; offers superior resistance to sunlight, moisture and salt environments
- Locking Device: Marine-grade corrosion-resistant copper alloy
- Installation Temperature Range: -30° F to 150° F (-34° C to 66° C)
- Minimum Tensile Strength: 250 lbs. (1,211 N)
- Continuous Load: 20 lbs. (9.07 kg)



### Extra security!

#### Deltec® Cable Tie with Double-Locking Head

The recommended maximum continuous static loading for the Deltec® straps is 20 lbs. per strap. For best results, suggested spacing is 15". It's the responsibility of the user to determine whether or not their application meets our recommendation.

**Note:** Use WT3D Tool for tensioning and cutoff.

#### Specifications .....

- Strap and Body: Weatherable acetal; offers superior resistance to sunlight, moisture and salt environments
- Locking Device: Marine-grade corrosion-resistant copper alloy
- Installation Temperature Range: -30° F to 150° F (-34° C to 66° C)
- Continuous Use Temperature: -85° F to 194° F (-65° C to 90° C)
- Minimum Tensile Strength: 250 lbs. minimum (1,211 N)
- Service Life: Designed to last a minimum of 20 years outdoors
- Continuous Load: 20 lbs. (9.07 kg)
- Color: Black



| STD. PKG. CAT. NO. | BODY WIDTH IN./MM | LENGTH IN./MM | MAX BUNDLE DIA. IN./MM | TENSILE STRENGTH LBS./N | STD. PKG. QTY. |
|--------------------|-------------------|---------------|------------------------|-------------------------|----------------|
| CSS-100            | .5/12.70          | 10/254.00     | 3/76.20                | 250/1,112               | 50             |
| CSS-135            | .5/12.70          | 13.5/342.90   | 3.5/88.90              | 250/1,112               | 50             |
| CSS-160            | .5/12.70          | 16/406.40     | 4/101.60               | 250/1,112               | 50             |
| CSS-270            | .5/12.70          | 27/685.80     | 8/203.20               | 250/1,112               | 25             |

## Deltec® Cable Tie and Support System

Cut to the length you need!

### Deltec® Strap Dispenser on Reels

| STD PKG.<br>CAT. NO. | DESCRIPTION          | TENSILE STRENGTH<br>LBS./N | BODY WIDTH<br>IN./MM | STD.<br>PKG. QTY. |
|----------------------|----------------------|----------------------------|----------------------|-------------------|
| CSS-50R              | 50' Reel of Strap    | 250/1,112                  | .50/12.70            | 1                 |
| 696-41794            | 1,000' Reel of Strap | 250/1,112                  | .50/12.70            | 1                 |
| 696-41952            | 3,500' Reel of Strap | 250/1,112                  | .50/12.70            | 1                 |



One spacer for any cable size!

### Modular Stackable Cable Spacers

- Stackable for any desired spacing
- Less inventory — one catalog number
- ½" high



| STD PKG.<br>CAT. NO. | DESCRIPTION                                 | STD.<br>PKG. QTY. |
|----------------------|---------------------------------------------|-------------------|
| TCP5255              | Modular Stackable Spacer for Deltec® Straps | 25                |
| TCP360               | For Coaxial Cable                           | 100               |

- Made of weather-resistant polypropylene
- Color — Black

Heads for Deltec® strap!

### Locking Heads



| STD PKG.<br>CAT. NO. | DESCRIPTION                  | STD.<br>PKG. QTY. |
|----------------------|------------------------------|-------------------|
| CSS-LH               | Heads only for Deltec® Strap | 25                |
| 696-41795            | Heads only for Deltec® Strap | 1,000             |

- Made of weatherable acetal
- Color — Black

Secures cables to all types of surfaces.

### Deltec® Base and Hanger



| STD PKG.<br>CAT. NO. | DESCRIPTION              | STD.<br>PKG. QTY. |
|----------------------|--------------------------|-------------------|
| CSS-B                | Base for Deltec® Strap   | 50                |
| CSS-H                | Hanger for Deltec® Strap | 50                |

- Made of zinc-plated steel

Install ties easily!

### Installation/Cutting Tool

| STD PKG.<br>CAT. NO. | DESCRIPTION                                                               | RANGE          | WT.<br>EACH | STD.<br>PKG. QTY. |
|----------------------|---------------------------------------------------------------------------|----------------|-------------|-------------------|
| WT3D                 | Installs self-locking Ty-Rap® cable ties, lashing ties and Deltec® System | .184 thru .500 | 8 oz.       | 1                 |

Twist tool handle one-half turn to cut strapping.



## Ty-Rap® High-Performance Stainless Steel Cable Ties

Engineered Ty-Rap® Tough to Withstand  
the World's Harshest Environments!

# Ty-Rap®

### Stainless Steel Cable Ties

#### Ball-Lock Ties

- Polyester-coated 316 grade (marine-grade) stainless steel
- Uncoated 302/304 grade stainless steel
- Uncoated 316 grade (marine-grade) stainless steel

#### Roller-Locking Ties

- Uncoated 302/304 grade stainless steel
- Uncoated 316 grade (marine-grade) stainless steel

#### Dual-Lock Ties

- Uncoated 304 grade stainless steel
- Also available in uncoated 316 grade stainless steel

#### Re-Usable Ties

- Nylon 11-coated 200/300 series stainless steel
- Also available in nylon 11-coated 316 grade stainless steel

#### Free-End Clamps

- Uncoated 201 grade stainless steel

#### Multi-Lok Stainless Steel Self-Locking Ties

- Nylon-coated 316 grade stainless steel
- Uncoated 316 grade stainless steel

#### Stainless Steel Strap Ties

- Uncoated 316 grade stainless steel

## Ty-Rap® High-Performance Stainless Steel Cable Ties

Safe and easy to install! Designed for continuous exposure to salt spray, sunlight, petroleum and chemicals!

### Ty-Rap® Polyester-Coated Stainless Steel Ball-Lock Cable Ties

Stainless steel offers excellent strength, durability and corrosion-resistance properties. But to stand up to the harshest environments in the world, such as those found on offshore drilling rigs, petroleum refineries, shipyards and chemical processing plants, even stainless steel needs an added layer of protection. That's why Ty-Rap® has added coated ties to its line of stainless steel cable ties. These new ties offer the same easy-to-install, low-profile, secure ball-lock mechanism as standard Ty-Rap® stainless steel ball-lock ties, but they're fully coated with a layer of rugged polyester to seal out salt, moisture, chemicals and UV radiation. Put these Ty-Rap® tough ties to the test against the elements in your harshest applications!

- 316 grade (marine-grade) stainless steel construction for strength and durability
- Fully coated with polyester to resist corrosion, UV radiation, temperature extremes, chemicals, impact, abrasion and cracking
- Rolled wire versus traditional slot steel to ensure no sharp edges
- Low-smoke, halogen-free polyester coating offers added personnel safety
- Pointed tail enables fast, easy insertion
- Low-profile ball in wedge-shaped head locks tie securely in place
- Wide operating temperature range of -40° F to 302° F (-40° C to 150° C)
- Certifications/Standards: Lloyds Register, DNV, GL, CE, RoHS

| CAT. NO.                                                  | LENTH<br>(IN/MM) | WIDTH<br>(IN/MM) | MAX. BUNDLE DIA.<br>(IN/MM) | TENSILE STRENGTH<br>(IN/MM) | STD. PKG.<br>QTY. |
|-----------------------------------------------------------|------------------|------------------|-----------------------------|-----------------------------|-------------------|
| <b>316 Grade Stainless Steel — Fully Polyester Coated</b> |                  |                  |                             |                             |                   |
| LS-4.6-200-C                                              | 7.9/201          | .18/4.6          | 2/51                        | 100/444.8                   | 100               |
| LS-4.6-260-C                                              | 10.2/259         | .18/4.6          | 27/69                       | 100/444.8                   | 100               |
| LS-4.6-360-C                                              | 14.3/362         | .18/4.6          | 4/102                       | 100/444.8                   | 100               |
| LS-4.6-520-C                                              | 20.5/521         | .18/4.6          | 6/152                       | 100/444.8                   | 100               |
| LS-4.6-680-C                                              | 26.8/679         | .18/4.6          | 8/203                       | 100/444.8                   | 100               |
| LS-7.9-200-C                                              | 7.9/201          | .31/7.9          | 2/51                        | 250/1112                    | 50                |
| LS-7.9-360-C                                              | 14.3/362         | .31/7.9          | 4/102                       | 250/1112                    | 50                |
| LS-7.9-520-C                                              | 20.5/521         | .31/7.9          | 6/152                       | 250/1112                    | 50                |
| LS-7.9-680-C                                              | 26.8/679         | .31/7.9          | 8/203                       | 250/1112                    | 50                |

## Ty-Rap® High-Performance Stainless Steel Cable Ties

Safe and easy to install!

### Ty-Rap® Ball-Lock Stainless Steel Ties

These one-piece, self-locking stainless steel cable ties offer quick and easy installation — no crimping or folding required — and a strong, reliable lock. Choose among a variety of sizes and materials to meet all of your wire and cable bundling needs, even in the most extreme environments.

#### Fast, easy installation

- Self-locking — no time-consuming crimping or folding
- Stainless steel ball in low-profile, wedge-shaped head locks tie securely in place
- Angled tail enables fast, easy insertion
- Rounded edges and smooth surfaces protect installer's hands

#### Two materials suit a variety of environments

- 302/304 grade stainless steel for standard applications
- 316 grade (marine-grade) stainless steel for extra corrosion resistance

#### Typical Applications

- Offshore drilling
- Petrochemical processing
- Shipbuilding
- Food and beverage processing
- Pharmaceutical processing

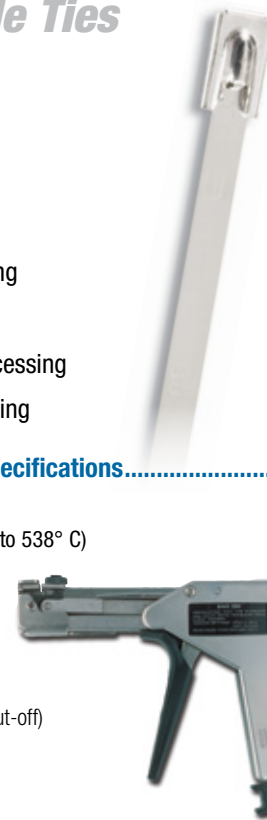
#### Specifications

- Operating Temp. Range:  
-112° F to 1,000° F (-80° C to 538° C)

#### Application Tool

##### DAS250 HAND TOOL

(Adjustable tension, automatic cut-off)



| CAT. NO.                                        | LENTH<br>(IN/MM) | WIDTH<br>(IN/MM) | MAX. BUNDLE DIA.<br>(IN/MM) | TENSILE STRENGTH<br>(IN/MM) | STD. PKG.<br>QTY. |
|-------------------------------------------------|------------------|------------------|-----------------------------|-----------------------------|-------------------|
| <b>302/304 Grade Stainless Steel — Uncoated</b> |                  |                  |                             |                             |                   |
| LS-4.6-200A                                     | 7.9/201          | .18/4.6          | 2/51                        | 100/444.8                   | 100               |
| LS-4.6-260A                                     | 10.2/259         | .18/4.6          | 2.9/69                      | 100/444.8                   | 100               |
| LS-4.6-360A                                     | 14.2/360         | .18/4.6          | 4 /102                      | 100/444.8                   | 100               |
| LS-4.6-520A                                     | 20.5/520         | .18/4.6          | 6/152                       | 100/444.8                   | 100               |
| LS-4.6-680A                                     | 26.7/679         | .18/4.6          | 8/203                       | 100/444.8                   | 100               |
| LS-4.6-840A                                     | 33.0/838         | .18/4.6          | 10/254                      | 100/444.8                   | 100               |
| LS-7.9-200A                                     | 7.9/201          | .31/7.9          | 2/51                        | 250/1112                    | 50                |
| LS-7.9-360A                                     | 14.2/360         | .31/7.9          | 4/102                       | 250/1112                    | 50                |
| LS-7.9-520A                                     | 20.5/520         | .31/7.9          | 6/152                       | 250/1112                    | 50                |
| LS-7.9-680A                                     | 26.7/679         | .31/7.9          | 8/203                       | 250/1112                    | 50                |
| LS-7.9-840A                                     | 33.0/838         | .31/7.9          | 10/254                      | 250/1112                    | 50                |
| LS-7.9-1010A                                    | 41.3/1050        | .31/7.9          | 12.5/318                    | 250/1112                    | 50                |
| <b>316 Grade Stainless Steel — Uncoated</b>     |                  |                  |                             |                             |                   |
| LS-4.6-200B                                     | 7.9/201          | .18/4.6          | 2/51                        | 100/444.8                   | 100               |
| LS-4.6-260B                                     | 10.2/259         | .18/4.6          | 2.7/69                      | 100/444.8                   | 100               |
| LS-4.6-360B                                     | 14.2/360         | .18/4.6          | 4 /102                      | 100/444.8                   | 100               |
| LS-4.6-520B                                     | 20.5/520         | .18/4.6          | 6/152                       | 100/444.8                   | 100               |
| LS-4.6-680B                                     | 26.7/679         | .18/4.6          | 8/203                       | 100/444.8                   | 100               |
| LS-4.6-840B                                     | 33.0/838         | .18/4.6          | 10/254                      | 100/444.8                   | 100               |
| LS-7.9-200B                                     | 7.9/201          | .31/7.9          | 2/51                        | 250/1112                    | 50                |
| LS-7.9-360B                                     | 14.2/360         | .31/7.9          | 4/102                       | 250/1112                    | 50                |
| LS-7.9-520B                                     | 20.5/520         | .31/7.9          | 6/152                       | 250/1112                    | 50                |
| LS-7.9-680B                                     | 26.7/679         | .31/7.9          | 8/203                       | 250/1112                    | 50                |
| LS-7.9-840B                                     | 33.0/838         | .31/7.9          | 10/254                      | 250/1112                    | 50                |
| LS-7.9-1010B                                    | 41.3/1050        | .31/7.9          | 12.5/318                    | 250/1112                    | 50                |

## Ty-Rap® High-Performance Stainless Steel Cable Ties

### Multiple barb lock design!

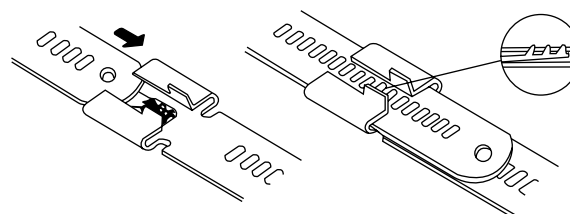
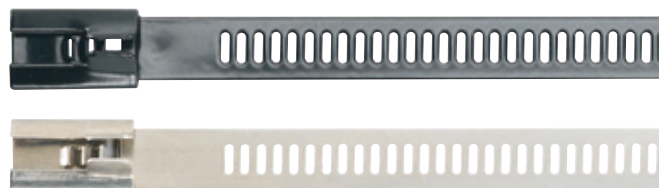
### Ty-Rap® Multi-Lok Stainless Steel Self-Locking Cable Ties

Fire hazards — corrosive environments — temperature extremes — for many cable bundling applications, plastic ties are simply inadequate—or even dangerous.

That's why we developed stainless steel Multi-Lok Ties. Unaffected by fire, UV or extreme temperatures, corrosion-resistant Multi-Lok Ties provide a safe, strong, worry-free hold.

Quickly and easily applied by hand or with the Thomas & Betts Cable Tie Tensioner or Tensioning Hook, Multi-Lok Ties feature a unique, self-locking, multiple-locking system that holds in excess of 200 lbs.

Nylon II coating is halogen-free and non-toxic black. This weather-resistant coating is unaffected by UV sunlight. This adds resistance to corrosion, chemicals and weathering. Preferred stainless steel strap eliminates sharp edges.



As the free end of the Multi-Lok tie passes through the buckle, three separate teeth (four teeth in the 12mm Multi-Lok) mesh with corresponding slots in the band automatically locking the tie as it is being tensioned. Self-locking Multi-Lok Ties feature an extremely strong, unique multiple locking system.



#### Type 316 Stainless Steel — Nylon 11 Halogen-Free Coated

| CAT. NO.   | TENSILE STRENGTH<br>LBS | WIDTH |    | LENGTH |     | WEIGHT |      |
|------------|-------------------------|-------|----|--------|-----|--------|------|
|            |                         | IN    | MM | IN     | MM  | LBS    | KG   |
| TYS6-280C  | 250                     | .276  | 7  | 6      | 150 | .66    | .30  |
| TYS9-280C  | 250                     | .276  | 7  | 9      | 225 | .99    | .45  |
| TYS12-280C | 250                     | .276  | 7  | 12     | 300 | 1.32   | .60  |
| TYS18-280C | 250                     | .276  | 7  | 18     | 450 | 1.76   | .80  |
| TYS24-280C | 250                     | .276  | 7  | 24     | 610 | 2.64   | 1.20 |
| TYS6-470C  | 250                     | .472  | 12 | 6      | 150 | 1.10   | .50  |
| TYS9-470C  | 250                     | .472  | 12 | 9      | 225 | 1.65   | .75  |
| TYS12-470C | 250                     | .472  | 12 | 12     | 300 | 2.20   | 1.00 |
| TYS18-470C | 250                     | .472  | 12 | 18     | 450 | 2.97   | 1.35 |
| TYS24-470C | 250                     | .472  | 12 | 24     | 610 | 4.29   | 1.95 |

Packaging Quantity: 100/bag  
.010" (.245mm) Thickness

#### Type 316 Stainless Steel — Uncoated

| CAT. NO.  | TENSILE STRENGTH<br>LBS | WIDTH |    | LENGTH |     | WEIGHT |      |
|-----------|-------------------------|-------|----|--------|-----|--------|------|
|           |                         | IN    | MM | IN     | MM  | LBS    | KG   |
| TYS6-280  | 250                     | .276  | 7  | 6      | 150 | .66    | .30  |
| TYS9-280  | 250                     | .276  | 7  | 9      | 225 | .88    | .40  |
| TYS12-280 | 250                     | .276  | 7  | 12     | 300 | 1.21   | .55  |
| TYS18-280 | 250                     | .276  | 7  | 18     | 450 | 1.98   | .90  |
| TYS24-280 | 250                     | .276  | 7  | 24     | 610 | 2.64   | 1.20 |
| TYS6-470  | 250                     | .472  | 12 | 6      | 150 | 1.10   | .50  |
| TYS9-470  | 250                     | .472  | 12 | 9      | 225 | 1.65   | .75  |
| TYS12-470 | 250                     | .472  | 12 | 12     | 300 | 2.20   | 1.00 |
| TYS18-470 | 250                     | .472  | 12 | 18     | 450 | 3.19   | 1.45 |
| TYS24-470 | 250                     | .472  | 12 | 24     | 610 | 4.29   | 1.95 |

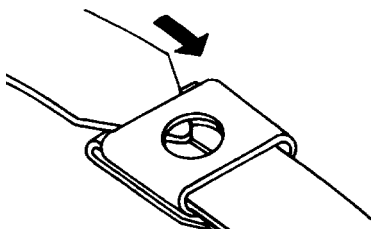
Packaging Quantity: 100/bag  
.010" (.245mm) Thickness

## Ty-Rap® High-Performance Stainless Steel Cable Ties

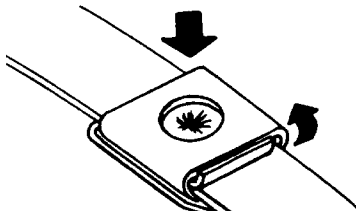
Strong and slip-free with a unique dual lock.

### Ty-Rap® Dual-Lock Stainless Steel Cable Ties

- 304 grade stainless steel construction
- Two-piece design
- Fast, easy installation
- Mini ties (.18" wide) offer 100 lbs. tensile strength
- Standard ties (.25" wide) offer 200 lbs. tensile strength
- Also available in 316 grade stainless steel (to order, add -316 suffix to catalog number)



After wrapping the object to be tied, insert the free end of the tie through the buckle and into the tool.



Squeeze the handle of the tool to create the dual lock and cut off the tail. The cable tie forms a low-profile dual lock.



The tail is formed into a fold lock behind the buckle. The tool forces a dimple in the band into a hole in the buckle.

| CAT. NO.                                   | FOR BUNDLE<br>DIAMETER OF IN/MM | TENSILE<br>STRENGTH LBS/N | WIDTH<br>IN/MM | LENGTH<br>IN/MM | WEIGHT<br>LBS/KG | STD.<br>PKG. QTY. |
|--------------------------------------------|---------------------------------|---------------------------|----------------|-----------------|------------------|-------------------|
| <b>Mini Stainless Steel Cable Ties</b>     |                                 |                           |                |                 |                  |                   |
| SS7-180                                    | 1/25                            | 100/444.8                 | .18/4.5        | 6.5/165         | .70/.32          | 100               |
| SS10-180                                   | 2/51                            | 100/444.8                 | .18/4.5        | 10.0/254        | .90/.41          | 100               |
| SS16-180                                   | 4/102                           | 100/444.8                 | .18/4.5        | 16.0/406        | 1.40/.64         | 100               |
| SS23-180                                   | 6/152                           | 100/444.8                 | .18/4.5        | 22.5/572        | 1.85/.84         | 100               |
| SS29-180                                   | 8/203                           | 100/444.8                 | .18/4.5        | 29.0/737        | 2.35/1.07        | 100               |
| <b>Standard Stainless Steel Cable Ties</b> |                                 |                           |                |                 |                  |                   |
| SS10-250                                   | 2/51                            | 200/890                   | .25/6.35       | 10.0/254        | 1.10/.50         | 100               |
| SS17-250                                   | 4/101                           | 200/890                   | .25/6.35       | 16.5/419        | 1.80/.82         | 100               |
| SS23-250                                   | 6/152                           | 200/890                   | .25/6.35       | 22.5/572        | 2.50/1.13        | 100               |
| SS29-250                                   | 8/203                           | 200/890                   | .25/6.35       | 29.0/737        | 3.20/1.45        | 100               |
| SS35-250                                   | 10/254                          | 200/890                   | .25/6.35       | 35.0/ 889       | 3.80/1.72        | 100               |

304 Stainless Steel

.015" (.38mm) Thickness

**Note:** Other lengths available on special request.

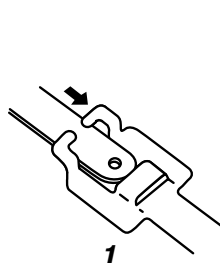
Add suffix -316 for 316 Stainless Steel.

## Ty-Rap® High-Performance Stainless Steel Cable Ties

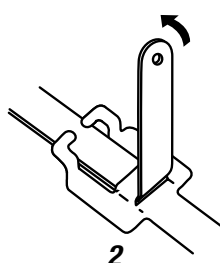
Ties to use and re-use with quickness and ease!

### Ty-Rap® Re-Usable Stainless Steel Cable Ties

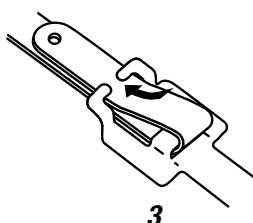
- 200/300 series stainless steel construction
- Fully coated in non-toxic, halogen-free low-smoke Nylon 11 for extra corrosion resistance
- Unique buckle design for easy application and re-use
- May be double-wrapped for additional tensile strength
- Also available in 316 grade stainless steel (to order, add -316 suffix to catalog number)



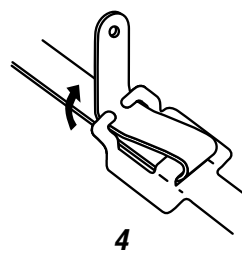
1  
Insert cable tie tail through holding tabs and locking emboss



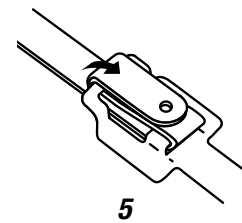
2  
Bend cable tie tail up



3  
Insert cable tie tail back through holding tabs, creating as tight a bend as possible



4  
Bend cable tie tail up



5  
Fold cable tie tail over holding tabs

For increased tensile strength follow steps #4 and #5

\*Patent Pending

| CAT. NO.   | TENSILE STRENGTH (LBS/N) | WIDTH (IN/MM) | LENGTH (IN/MM) | WEIGHT (LBS/KG) | STD. PKG. QTY. |
|------------|--------------------------|---------------|----------------|-----------------|----------------|
| SSR6-250C  | 75/333.60                | .25/6.35      | 6/152          | 1.4/.64         | 100            |
| SSR9-250C  | 75/333.60                | .25/6.35      | 9/229          | 1.8/.82         | 100            |
| SSR12-250C | 75/333.60                | .25/6.35      | 12/305         | 2.1/.95         | 100            |
| SSR18-250C | 75/333.60                | .25/6.35      | 18/457         | 3.0/1.36        | 100            |
| SSR24-250C | 75/333.60                | .25/6.35      | 24/610         | 3.7/1.68        | 100            |
| SSR6-375C  | 100/444.80               | .38/9.53      | 6/152          | 1.8/.82         | 100            |
| SSR9-375C  | 100/444.80               | .38/9.53      | 9/229          | 2.0/.91         | 100            |
| SSR12-375C | 100/444.80               | .38/9.53      | 12/305         | 3.1/1.41        | 100            |
| SSR18-375C | 100/444.80               | .38/9.53      | 18/457         | 4.4/2.00        | 100            |
| SSR24-375C | 100/444.80               | .38/9.53      | 24/610         | 6.6/2.99        | 100            |
| SSR30-375C | 100/444.80               | .38/9.53      | 30/762         | 7.0/3.18        | 100            |
| SSR36-375C | 100/444.80               | .38/9.53      | 36/914         | 8.3/3.76        | 100            |

Material: 200/300 Series Stainless Steel

.015" (.38mm) metal thickness; .045" (1.1mm) coated thickness

**Note:** This product may be double-wrapped for additional tensile strength.

For additional colors and uncoated ties, consult Thomas & Betts Customer Service for pricing and availability.

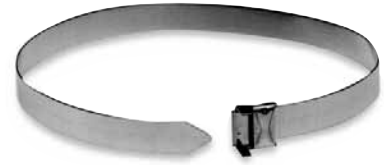
For 316 Stainless Steel, add suffix -316 after catalog number. Consult Customer Service for availability.

## Ty-Rap® High-Performance Stainless Steel Cable Ties

Pre-assembled for single or double wrapping.

### Ty-Rap® Free-End Stainless Steel Clamps

- 201 grade stainless steel construction
- Double-wrapped clamps provide extra strength
- Available in various lengths, widths and thicknesses



| CAT. NO.  | MAX. DIA. ONCE<br>AROUND IN/MM | MAX. DIA. TWICE<br>AROUND IN/MM | LENGTH IN/MM | TENSILE STRENGTH<br>SINGLE WRAP LBS/N | BAND WIDTH<br>IN/MM | BAND THICKNESS<br>IN/MM | WEIGHT LBS/KG | STD. PKG.<br>QTY. |
|-----------|--------------------------------|---------------------------------|--------------|---------------------------------------|---------------------|-------------------------|---------------|-------------------|
| SSH10-250 | 2/50                           | —                               | 10/25        | 450/2002                              | .25/6.35            | .02/.51                 | 2.2/1.00      | 100               |
| SSH16-250 | 3.5/88                         | 1.5/38                          | 16/40        | 450/2002                              | .25/6.35            | .02/.51                 | 3.1/1.41      | 100               |
| SSH16-375 | 3.5/88                         | 1.5/38                          | 16/40        | 900/4003                              | .38/9.53            | .03/.63                 | 6.2/2.81      | 100               |
| SSH18-500 | 4/101                          | 2/50                            | 18/45        | 1,400/6228                            | .5/12.70            | .03/.76                 | 10.5/4.76     | 100               |
| SSH19-250 | 5/127                          | 2.5/63                          | 19/48        | 450/2002                              | .25/6.35            | .02/.51                 | 3.5/1.59      | 100               |
| SSH21-625 | 5/127                          | 2.5/63                          | 21/53        | 1,700/7562                            | .63/15.88           | .03/.76                 | 15.1/6.85     | 100               |
| SSH24-750 | 6/152                          | 3/76                            | 24/60        | 2,000/8896                            | .75/19.05           | .03/.76                 | 10.9/4.94     | 50                |
| SSH27-250 | 7/177                          | 3.5/88                          | 27/68        | 450/2002                              | .25/6.35            | .02/.51                 | 4.6/2.09      | 100               |
| SSH31-500 | 8/203                          | 4/101                           | 31/78        | 1,400/6228                            | .5/12.70            | .03/.76                 | 4.7/2.13      | 25                |
| SSH34-250 | 9/228                          | 4.5/114                         | 34/86        | 450/2002                              | .25/6.35            | .02/.51                 | 5.6/2.54      | 100               |
| SSH37-750 | 10/254                         | 5/127                           | 37/93        | 2,000/8896                            | .75/19.05           | .03/.76                 | 7.6/3.45      | 25                |
| SSH44-375 | 12/304                         | 6/152                           | 44/112       | 900/4003                              | .38/9.53            | .03/.76                 | 3.6/1.69      | 25                |
| SSH50-750 | 14/355                         | 7/177                           | 50/127       | 2,000/8896                            | .75/19.05           | .03/.76                 | 9.7/4.40      | 25                |
| SSH56-625 | 16/406                         | 8/203                           | 56/142       | 1,700/7562                            | .63/15.88           | .03/.76                 | 9.0/4.08      | 25                |
| SSH62-750 | 18/457                         | 9/228                           | 62/157       | 2,000/8896                            | .75/19.05           | .03/.76                 | 11.6/5.26     | 25                |
| SSH69-625 | 20/508                         | 10/254                          | 69/175       | 1,700/7562                            | .63/15.88           | .00/.76                 | 10.7/4.86     | 25                |

Type 201 Stainless Steel

Other Free-End Clamp sizes and metals are available on special order.

Boiler rooms, shipyards, or off-shore oil platforms —  
a match for any severe environment!

### Ty-Rap® Stainless Steel Strap Cable Ties

- Stainless steel strap cable ties have been designed for high-temperature applications and for use in areas of harsh, corrosive environments
- Rated at 200-lb. tensile strength
- Smooth edges protect both the cable insulation and the installer



| CAT. NO. | BODY WIDTH<br>IN/MM | LENGTH<br>IN/MM | MAX. WIRE BUNDLE DIA.<br>IN/MM | TENSILE STRENGTH<br>LBS/N | STD.<br>PKG. QTY. |
|----------|---------------------|-----------------|--------------------------------|---------------------------|-------------------|
| TYS8     | .31/7.87            | 10.65/270.51    | 2/50.80                        | 200/889.60                | 100               |
| TYS14    | .31/7.87            | 14.65/372.11    | 4/101.60                       | 200/889.60                | 50                |
| TYS22    | .31/7.87            | 22.65/575.31    | 6/152.40                       | 200/889.60                | 50                |
| TYS28    | .31/7.87            | 28.65/727.71    | 8/203.20                       | 200/889.60                | 50                |

Note: Use WT3S Tool for tensioning

Cannot be coated with any covering material

Made of 316 stainless steel

## Ty-Rap® High-Performance Stainless Steel Cable Ties

1,000-ft. reel to cut your desired length!

### Stainless Steel Strapping on a Reel



| CAT. NO. | DESCRIPTION                                 | WIDTH IN/MM | STRENGTH LBS/N | STD. PKG. QTY. |
|----------|---------------------------------------------|-------------|----------------|----------------|
| TYS1000  | 1,000 ft. of strap, 2 reels of 500 ft. each | .31/7.87    | 200/889.60     | 1              |

*Stainless steel ties of virtually any length can be produced from the 1,000-ft. reel in combination with the matching head.*

**Note:** Use WT3S tool for tensioning

Lockable heads for stainless steel strapping.

### Stainless Steel Strapping Locking Heads



| CAT. NO. | DESCRIPTION                        | STD. PKG. QTY. |
|----------|------------------------------------|----------------|
| TYS5200H | Heads only for stainless strapping | 50             |

Long-lasting anchor hold.

### Stainless Steel Mounting Base



| CAT. NO. | DESCRIPTION                            | STD. PKG. QTY. |
|----------|----------------------------------------|----------------|
| TCS25    | Mounting base for stainless steel ties | 50             |

## Ty-Rap® High-Performance Stainless Steel Cable Ties

Identify cable bundles with permanent, stainless steel imprintable tags.

### ID Tagging System

- Apply Type 304 stainless steel tags with stainless steel cable ties
- Easy-to-use — slip a tie through the slots in the tag and fasten with the installation tool
- Works with ¼" wide ties
- .015" thickness



| CAT. NO. | WIDTH<br>IN/MM | LENGTH<br>IN/MM | WEIGHT PER<br>100 LBS/N | STD.<br>PKG. QTY. |
|----------|----------------|-----------------|-------------------------|-------------------|
| SSID100  | .75/<br>19.05  | 2.0/<br>50.80   | .5/<br>2.22             | 100               |
| SSID101  | 1.50/<br>38.10 | 2.5/<br>63.50   | 1.2/<br>5.34            | 100               |
| SSID102  | .75/<br>19.05  | 3.5/<br>88.90   | .8/<br>3.56             | 100               |

Packaging Quantity: 100/box

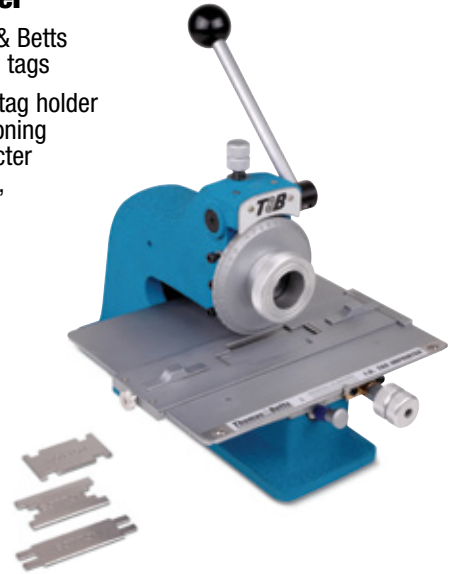
**Note:** Customized pre-embossed tags are available. Please consult Technical Service for details.

Add suffix (316) for 316 Stainless Steel.

No second guessing — quickly and accurately position ID tags!

### ID Tag Imprinter

- Imprint Thomas & Betts stainless steel ID tags
- Includes special tag holder for secure positioning and a ⅜" character imprinting wheel, standard (no substitutions allowed)



| CAT. NO. | DESCRIPTION                      | WEIGHT<br>LBS/N |
|----------|----------------------------------|-----------------|
| WTID200  | I.D. Tag Imprinter               | 29.5/131.2      |
| WTID290  | ⅜" Character<br>Imprinting Wheel | —               |
| WTID281  | ⅜" Character<br>Imprinting Wheel | —               |
| WTID283  | ⅜" Character<br>Imprinting Wheel | —               |
| WTID204  | (Kit) WTID200<br>and WTID 283    | —               |

Packaging Quantity: 1/box

## Stainless Steel ID Tag Strips/Carriers



| CAT. NO. | DESCRIPTION          | LENGTH IN/MM | WIDTH IN/MM | WT. PER 100 LBS | STD. PKG. QTY. |
|----------|----------------------|--------------|-------------|-----------------|----------------|
| ER043    | 6-Character Carrier  | 3.64/92.46   | .38/9.65    | .73             | 100            |
| ER044    | 10-Character Carrier | 5.14/130.56  | .38/9.65    | 1.25            | 100            |
| ER045    | 16-Character Carrier | 7.39/187.71  | .38/9.65    | 1.47            | 100            |
| ER050    | Short Strip          | 4.25/107.95  | .38/9.65    | .98             | 100            |
| ER051    | Medium Strip         | 5.75/146.05  | .38/9.65    | 1.33            | 100            |
| ER052    | Long Strip           | 8.00/203.20  | .38/9.65    | 1.85            | 100            |
| ER060    | I.D. Tag Kit         | —            | —           | —               | 1              |

ID Tag Kit contains 50 of each letter, number, symbol, carrier, and strip in a handy carrying case.

**Thomas & Betts**

United States  
Tel: 901.252.8000  
800.816.7809  
Fax: 901.252.1354

Technical Services  
Tel: 888.862.3289

[www.tnb.com](http://www.tnb.com)

## Ty-Rap® High-Performance Stainless Steel Cable Ties

Letters, numbers, and symbols — create easy-to-use custom identifications!

### Stainless Steel ID Tags

- Slip tags over carriers or strips (see **previous page**) and attach to your cable or hose with a variety of Thomas & Betts Stainless Steel Cable Ties



| CAT. NO. | DESCRIPTION      | LENGTH IN/MM | WIDTH IN/MM | WT. PER 100 | STD. PKG. QTY. |
|----------|------------------|--------------|-------------|-------------|----------------|
| ER010    | A                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER011    | B                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER012    | C                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER013    | D                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER014    | E                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER015    | F                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER016    | G                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER017    | H                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER018    | I                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER019    | J                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER020    | K                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER021    | L                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER022    | M+W              | .45/2.00     | .38/1.69    | .31         | 100            |
| ER023    | N                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER024    | O                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER025    | P                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER026    | Q                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER027    | R                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER028    | S                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER029    | T                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER030    | U                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER031    | V                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER032    | X                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER033    | Y                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER034    | Z                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER018    | 1                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER037    | 2                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER038    | 3                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER039    | 4                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER040    | 5                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER041    | 6                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER021    | 7                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER042    | 8                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER041    | 9                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER024    | 0                | .45/2.00     | .38/1.69    | .31         | 100            |
| ER035    | Minus/Hyphen (-) | .45/2.00     | .38/1.69    | .31         | 100            |
| ER036    | Blank ( )        | .45/2.00     | .38/1.69    | .31         | 100            |
| ER046    | Plus (+)         | .45/2.00     | .38/1.69    | .31         | 100            |
| ER047    | Earth (≈)        | .45/2.00     | .38/1.69    | .31         | 100            |
| ER048    | Sine (~)         | .45/2.00     | .38/1.69    | .31         | 100            |
| ER049    | Slash (/)        | .45/2.00     | .38/1.69    | .31         | 100            |

Character size: .218"

Material: .025" 316 stainless steel

## Ty-Rap® High-Performance Stainless Steel Cable Ties

### Stainless Steel Cable Tie Specifications



Type LS  
Heavy-Duty Stainless Steel  
Ball-Lock Cable Ties — Uncoated



Type LS  
Heavy-Duty Stainless Steel  
Ball-Lock Cable Ties — Coated



Type TYS  
Multi-Lok Stainless Steel Ties — Uncoated



Type TYS  
Multi-Lok Stainless Steel Ties — Coated



Type SS  
Mini Stainless Steel Cable Ties



Type SS  
Standard Stainless Steel Cable Ties

| CAT. NO.                                                       | WIDTH<br>IN./MM | LENGTH<br>IN./MM | THICKNESS<br>IN./MM | MAX. DIA.<br>SINGLE WRAP<br>IN./MM | MAX. DIA.<br>DOUBLE WRAP<br>IN./MM |
|----------------------------------------------------------------|-----------------|------------------|---------------------|------------------------------------|------------------------------------|
| <b>Type LS Heavy-Duty Stainless Steel Ball-Lock Cable Ties</b> |                 |                  |                     |                                    |                                    |
| <b>Uncoated</b>                                                |                 |                  |                     |                                    |                                    |
| LS-4.6-200A                                                    | .18/4.6         | 7.9/201          | —                   | 2/51                               | (single                            |
| LS-4.6-360A                                                    | .18/4.6         | 14.2/360         | —                   | 4/102                              | wrap                               |
| LS-4.6-520A                                                    | .18/4.6         | 20.5/520         | —                   | 6/152                              | only)                              |
| LS-4.6-680A                                                    | .18/4.6         | 26.7/679         | —                   | 8/203                              |                                    |
| LS-4.6-840A                                                    | .18/4.6         | 33.0/838         | —                   | 10/254                             |                                    |
| LS-7.9-200A                                                    | .31/7.9         | 7.9/201          | —                   | 2/51                               | (single                            |
| LS-7.9-360A                                                    | .31/7.9         | 14.2/360         | —                   | 4/102                              | wrap                               |
| LS-7.9-520A                                                    | .31/7.9         | 20.5/520         | —                   | 6/152                              | only)                              |
| LS-7.9-680A                                                    | .31/7.9         | 26.7/679         | —                   | 8/203                              |                                    |
| LS-7.9-840A                                                    | .31/7.9         | 33.0/838         | —                   | 10/254                             |                                    |
| LS-7.9-1010A                                                   | .31/7.9         | 41.3/1050        | —                   | 12.5/318                           |                                    |
| <b>Fully Polyester</b>                                         |                 |                  |                     |                                    |                                    |
| <b>Uncoated</b>                                                |                 |                  |                     |                                    |                                    |
| LS-4.6-200B                                                    | .18/4.6         | 7.9/201          | —                   | 2/51                               | (single                            |
| LS-4.6-360B                                                    | .18/4.6         | 14.2/360         | —                   | 4/102                              | wrap                               |
| LS-4.6-520B                                                    | .18/4.6         | 20.5/520         | —                   | 6/152                              | only)                              |
| LS-4.6-680B                                                    | .18/4.6         | 26.7/679         | —                   | 8/203                              |                                    |
| LS-4.6-840B                                                    | .18/4.6         | 33.0/838         | —                   | 10/254                             |                                    |
| LS-7.9-200B                                                    | .31/7.9         | 7.9/201          | —                   | 2/51                               | (single                            |
| LS-7.9-360B                                                    | .31/7.9         | 14.2/360         | —                   | 4/102                              | wrap                               |
| LS-7.9-520B                                                    | .31/7.9         | 20.5/520         | —                   | 6/152                              | only)                              |
| LS-7.9-680B                                                    | .31/7.9         | 26.7/679         | —                   | 8/203                              |                                    |
| LS-7.9-840B                                                    | .31/7.9         | 33.0/838         | —                   | 10/254                             |                                    |
| LS-7.9-1010B                                                   | .31/7.9         | 41.3/1050        | —                   | 12.5/318                           |                                    |
| <b>Type TYS Multi-Lok Stainless Steel Cable Ties</b>           |                 |                  |                     |                                    |                                    |
| <b>Uncoated</b>                                                |                 |                  |                     |                                    |                                    |
| TYS6-280                                                       | .28/7.00        | 6/152            | .01/.25             | 1.9/48                             | (single                            |
| TYS9-280                                                       | .28/7.00        | 9/229            | .01/.25             | 2.8/71                             | wrap                               |
| TYS12-280                                                      | .28/7.00        | 12/305           | .01/.25             | 3.8/96                             | only)                              |
| TYS18-280                                                      | .28/7.00        | 18/457           | .01/.25             | 5.7/144                            |                                    |
| TYS24-280                                                      | .28/7.00        | 24/610           | .01/.25             | 7.6/193                            |                                    |
| TYS6-470                                                       | .47/12.00       | 6/152            | .01/.25             | 1.9/48                             |                                    |
| TYS9-470                                                       | .47/12.00       | 9/229            | .01/.25             | 2.8/71                             |                                    |
| TYS12-470                                                      | .47/12.00       | 12/305           | .01/.25             | 3.8/96                             |                                    |
| TYS18-470                                                      | .47/12.00       | 18/457           | .01/.25             | 5.7/144                            |                                    |
| TYS24-470                                                      | .47/12.00       | 24/610           | .01/.25             | 7.6/193                            |                                    |
| <b>Type SS Mini Stainless Steel Cable Ties</b>                 |                 |                  |                     |                                    |                                    |
| SS7-180                                                        | .18/4.50        | 6.5/165          | .02/.51             | 1.7/43                             | (single                            |
| SS10-180                                                       | .18/4.50        | 10/254           | .02/.51             | 2.8/71                             | wrap                               |
| SS16-180                                                       | .18/4.50        | 16/406           | .02/.51             | 4.7/119                            | only)                              |
| SS23-180                                                       | .18/4.50        | 22.5/572         | .02/.51             | 6/152                              |                                    |
| SS29-180                                                       | .18/4.50        | 29.0/737         | .02/.51             | 8/203                              |                                    |
| <b>Type SS Standard Stainless Steel Cable Ties</b>             |                 |                  |                     |                                    |                                    |
| SS10-250                                                       | .25/6.35        | 10/254           | .02/.51             | 2.1/53                             |                                    |
| SS17-250                                                       | .25/6.35        | 16.5/419         | .02/.51             | 4.3/109                            | (single                            |
| SS23-250                                                       | .25/6.35        | 22.5/572         | .02/.51             | 6.5/165                            | wrap                               |
| SS29-250                                                       | .25/6.35        | 29/737           | .02/.51             | 8.5/215                            | only)                              |
| SS35-250                                                       | .25/6.35        | 35/889           | .02/.51             | 10.5/265                           |                                    |

## Ty-Rap® High-Performance Stainless Steel Cable Ties

| STAINLESS STEEL TYPE | COATING OR FINISH    | MIN. LOOP TENSILE STRENGTH SINGLE WRAP LBS./N | MIN. LOOP TENSILE STRENGTH DOUBLE WRAP LBS./N | APPLICATION TOOLS USED | GENERAL APPLICATION                                                                                                                                                                                    |
|----------------------|----------------------|-----------------------------------------------|-----------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 302/304              | Dull                 | 100/445                                       | (single wrap only)                            | DAS250                 | <ul style="list-style-type: none"> <li>Offshore drilling</li> <li>Petrochemical processing</li> <li>Shipbuilding</li> <li>Food &amp; Beverage processing</li> <li>Pharmaceutical processing</li> </ul> |
| 302/304              |                      | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 302/304              |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  | Uncoated             | 100/445                                       | (single wrap only)                            | DAS250                 |                                                                                                                                                                                                        |
| 316                  | or Fully             | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  | Polyester            | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  | Coated Black         | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 100/445                                       |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | DAS250                 |                                                                                                                                                                                                        |
| 316                  | Uncoated or Nylon 11 | 250/1,112                                     | (single wrap only)                            | WTAE200                | <ul style="list-style-type: none"> <li>Self-locking</li> <li>Cable bundling</li> <li>Hazardous and corrosive environments</li> </ul>                                                                   |
| 316                  | Coated Black         | 250/1,112                                     |                                               | WTAE200                |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | WTAE200                |                                                                                                                                                                                                        |
| 316                  |                      | 250/1,112                                     |                                               | WTAE201                |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 316                  |                      | 400/1,779                                     |                                               | WTC075                 |                                                                                                                                                                                                        |
| 304*                 | Dull to Bright       | 100/445                                       | (single wrap only)                            | WTA290                 | <ul style="list-style-type: none"> <li>Wire/cable bundling</li> <li>I.D. tagging</li> </ul>                                                                                                            |
| 304*                 |                      | 100/445                                       |                                               | WTA290                 |                                                                                                                                                                                                        |
| 304*                 |                      | 100/445                                       |                                               | WTA290                 |                                                                                                                                                                                                        |
| 304*                 |                      | 100/445                                       |                                               | WTA290                 |                                                                                                                                                                                                        |
| 304*                 |                      | 100/445                                       |                                               | WTA290                 |                                                                                                                                                                                                        |
| 304*                 | Dull to Bright       | 200/890                                       | (single wrap only)                            | WTA250                 | <ul style="list-style-type: none"> <li>Wire/cable bundling</li> <li>I.D. tagging</li> </ul>                                                                                                            |
| 304*                 |                      | 200/890                                       |                                               | WTA250                 |                                                                                                                                                                                                        |
| 304*                 |                      | 200/890                                       |                                               | WTA250                 |                                                                                                                                                                                                        |
| 304*                 |                      | 200/890                                       |                                               | WTA250                 |                                                                                                                                                                                                        |
| 304*                 |                      | 200/890                                       |                                               | WTA250                 |                                                                                                                                                                                                        |

\* SS series also available in Type 316 stainless.

## Ty-Rap® High-Performance Stainless Steel Cable Ties

### Stainless Steel Cable Tie Specifications (continued)



Type SSR  
Reusable Stainless Steel Cable Ties



Type SSH  
Free-End Clamps

| CAT. NO.                                            | WIDTH<br>IN./MM | LENGTH<br>IN./MM | THICKNESS<br>IN./MM | MAX. DIA. SINGLE<br>WRAP<br>IN./MM | MAX. DIA. DOUBLE<br>WRAP<br>IN./MM |
|-----------------------------------------------------|-----------------|------------------|---------------------|------------------------------------|------------------------------------|
| <b>Type SSR Reusable Stainless Steel Cable Ties</b> |                 |                  |                     |                                    |                                    |
| SSR6-250C                                           | .25/6.35        | 6/152            | .02/.51             | 1.5/38                             | N/A                                |
| SSR9-250C                                           | .25/6.35        | 9/229            | .02/.51             | 2.5/63                             | 1.1/28                             |
| SSR12-250C                                          | .25/6.35        | 12/305           | .02/.51             | 3.4/86                             | 1.5/38                             |
| SSR18-250C                                          | .25/6.35        | 18/457           | .02/.51             | 5.4/137                            | 2.5/64                             |
| SSR24-250C                                          | .25/6.35        | 24/610           | .02/.51             | 7.3/185                            | 3.5/89                             |
| SSR6-375C                                           | .38/9.53        | 6/152            | .02/.51             | 1.5/38                             | N/A                                |
| SSR9-375C                                           | .38/9.53        | 9/229            | .02/.51             | 2.5/63                             | 1.1/28                             |
| SSR12-375C                                          | .38/9.53        | 12/305           | .02/.51             | 3.4/86                             | 1.5/38                             |
| SSR18-375C                                          | .38/9.53        | 18/457           | .02/.51             | 5.4/137                            | 2.5/64                             |
| SSR24-375C                                          | .38/9.53        | 24/610           | .02/.51             | 7.3/185                            | 3.5/89                             |
| SSR30-375C                                          | .38/9.53        | 30/762           | .02/.51             | 9.1/231                            | 4.4/112                            |
| SSR36-375C                                          | .38/9.53        | 36/914           | .02/.51             | 11.0/280                           | 5.3/135                            |
| <b>Type SSH Free-End Clamps</b>                     |                 |                  |                     |                                    |                                    |
| SSH10-250                                           | .25/6.35        | 10/250           | .02/.51             | 2.0/50                             | —                                  |
| SSH16-250                                           | .25/6.35        | 16/400           | .02/.51             | 3.5/88                             | 1.5/38                             |
| SSH19-250                                           | .25/6.35        | 19/480           | .02/.51             | 5.0/127                            | 2.5/63                             |
| SSH27-250                                           | .25/6.35        | 27/680           | .02/.51             | 7.0/177                            | 3.5/88                             |
| SSH34-250                                           | .25/6.35        | 34/860           | .02/.51             | 9.0/228                            | 4.5/114                            |
| SSH16-375                                           | .38/9.53        | 16/400           | .03/.76             | 3.5/88                             | 1.5/38                             |
| SSH44-375                                           | .38/9.53        | 44/1,120         | .03/.76             | 12.0/304                           | 6.0/152                            |
| SSH18-500                                           | .5/12.70        | 18/460           | .03/.76             | 4.0/101                            | 2.0/50                             |
| SSH31-500                                           | .5/12.70        | 31/780           | .03/.76             | 8.0/203                            | 4.0/101                            |
| SSH21-625                                           | .63/15.88       | 21/530           | .03/.76             | 5.0/127                            | 2.5/63                             |
| SSH56-625                                           | .63/15.88       | 56/1,420         | .03/.76             | 16.0/406                           | 8.0/203                            |
| SSH69-625                                           | .63/15.88       | 69/1,750         | .03/.76             | 20.0/508                           | 10.0/254                           |
| SSH24-750                                           | .75/19.05       | 24/600           | .03/.76             | 6.0/152                            | 3.0/76                             |
| SSH37-750                                           | .75/19.05       | 37/940           | .03/.76             | 10.0/254                           | 5.0/127                            |
| SSH50-750                                           | .75/19.05       | 50/1,270         | .03/.76             | 14.0/355                           | 7.0/177                            |
| SSH62-750                                           | .75/19.05       | 62/1,570         | .03/.76             | 18.0/457                           | 9.0/228                            |

## Ty-Rap® High-Performance Stainless Steel Cable Ties

| STAINLESS STEEL TYPE | COATING OR FINISH   | MIN. LOOP TENSILE<br>STRENGTH SINGLE WRAP<br>LBS./N | MIN. LOOP TENSILE<br>STRENGTH DOUBLE WRAP<br>LBS./N | APPLICATION TOOL USED | GENERAL<br>APPLICATION                                                                                                                                                                                                 |
|----------------------|---------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 200/300              | Nylon 11 Coated     | 75/334                                              | 300/1,334                                           | WTAE200               | <ul style="list-style-type: none"> <li>• Reusable</li> <li>• Cable bundling</li> <li>• Oil rigs</li> <li>• Telecommunications towers</li> <li>• Hazardous and corrosive environments</li> <li>• Cable trays</li> </ul> |
| 200/300              | (Uncoated or other  | 75/334                                              | 300/1,334                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              | colors available on | 75/334                                              | 300/1,334                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              | special order)      | 75/334                                              | 300/1,334                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              |                     | 75/334                                              | 300/1,334                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTAE200               |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 200/300              |                     | 100/445                                             | 500/2,224                                           | WTC075                |                                                                                                                                                                                                                        |
| 201                  | Bright              | 450/2,002                                           | 1,200/5,338                                         | WTJ020/WTC075/WTC001  | <ul style="list-style-type: none"> <li>• Industrial hoses</li> <li>• Cable bundling</li> <li>• High strength</li> </ul>                                                                                                |
| 201                  |                     | 450/2,002                                           | 1,200/5,338                                         | WTJ020/WTC075/WTC001  |                                                                                                                                                                                                                        |
| 201                  |                     | 450/2,002                                           | 1,200/5,338                                         | WTJ020/WTC075/WTC001  |                                                                                                                                                                                                                        |
| 201                  |                     | 450/2,002                                           | 1,200/5,338                                         | WTJ020/WTC075/WTC001  |                                                                                                                                                                                                                        |
| 201                  |                     | 450/2,002                                           | 1,200/5,338                                         | WTJ020/WTC075/WTC001  |                                                                                                                                                                                                                        |
| 201                  |                     | 900/4,003                                           | 2,400/10,675                                        | WTJ020/WTC075/WTC001  |                                                                                                                                                                                                                        |
| 201                  |                     | 900/4,003                                           | 2,400/10,675                                        | WTJ075/WTC001         |                                                                                                                                                                                                                        |
| 201                  |                     | 1,400/6,227                                         | 3,300/14,678                                        | WTJ075/WTC001         |                                                                                                                                                                                                                        |
| 201                  |                     | 1,400/6,227                                         | 3,300/14,678                                        | WTJ075/WTC001         |                                                                                                                                                                                                                        |
| 201                  |                     | 1,700/7,562                                         | 4,000/17,792                                        | WTJ075/WTC001         |                                                                                                                                                                                                                        |
| 201                  |                     | 1,700/7,562                                         | 4,000/17,792                                        | WTJ075/WTC001         |                                                                                                                                                                                                                        |
| 201                  |                     | 1,700/7,562                                         | 4,000/17,792                                        | WTC001                |                                                                                                                                                                                                                        |
| 201                  |                     | 2,000/8,896                                         | 5,000/22,240                                        | WTC001                |                                                                                                                                                                                                                        |
| 201                  |                     | 2,000/8,896                                         | 5,000/22,240                                        | WTC001                |                                                                                                                                                                                                                        |
| 201                  |                     | 2,000/8,896                                         | 5,000/22,240                                        | WTC001                |                                                                                                                                                                                                                        |

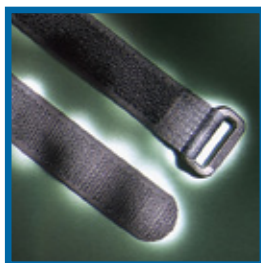
Ty-Rap® Stainless Steel Cable Ties have passed a variety of mechanical, environmental, and electrical tests. Other data can be made available upon request.

## Hook-and-Loop Fasteners



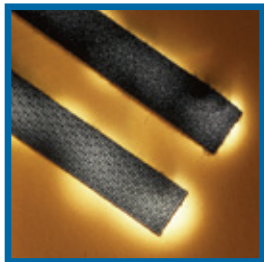
*Slotted Loop Ties  
(FO Series)*

... Never lose your strap. Use the slotted head hook-and-loop tie to install on one wire while using the body of the strap to bundle.



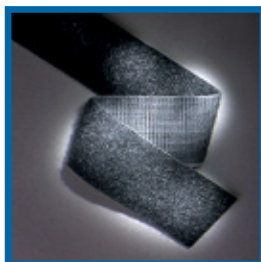
*Buckle Ties (FOL Series)*

... Polymer buckles provide added strength and stability.



*Strip Ties (FOS Series)*

... Pre-cut lengths make bundling a cinch!



*Rolls (FOR Series)*

... Rolled hook-and-loop material enables custom cut lengths, avoiding waste.

**Fasteners available in these colors:** Black, Brown, Red, Orange, Yellow, Green, Blue, Gray, and White.  
Please consult Customer Service for pricing and availability.

## Hook-and-Loop Fasteners

Available in UL94V-2 rated material.

### F0, FOL, FOS and FOR Series Hook-and-Loop Fasteners

- High-quality Hook-and-Loop Fasteners
- Reusable — great for frequently changed bundles
- Wide bearing surface — ideal for data and fiber optic cable
- Sizes available to accommodate varying bundle diameters
- Flame-retardant and colored material available

| STD. PKG.<br>CAT. NO.                  | MIN. TENSILE<br>STRENGTH LBS./N | MAX.<br>BUNDLE DIA.<br>IN./MM | LENGTH<br>IN./MM | WIDTH<br>IN./MM | STD.<br>PKG. QTY. |
|----------------------------------------|---------------------------------|-------------------------------|------------------|-----------------|-------------------|
| <b>F0 Series Slotted Loop Ties*</b>    |                                 |                               |                  |                 |                   |
| F0200-40-0                             | 40/177.9                        | 2.0/50.80                     | 9/228.6          | .50/12.7        | 10                |
| F0200-50-0                             | 50/222.4                        | 2.0/50.80                     | 9/228.6          | .75/19.05       | 10                |
| F0350-40-0                             | 50/222.4                        | 3.5/88.90                     | 13/330.2         | .50/12.7        | 10                |
| F0350-50-0                             | 50/222.4                        | 3.5/88.90                     | 13/330.2         | .75/19.05       | 10                |
| <b>FOL Series Buckle Ties</b>          |                                 |                               |                  |                 |                   |
| FOL300-50-0                            | 50/222.4                        | 3.0/76.20                     | 12/304.8         | .75             | 10                |
| FOL500-50-0                            | 50/222.4                        | 5.0/127.0                     | 18/457.2         | .75             | 10                |
| <b>FOS Series Strip Ties</b>           |                                 |                               |                  |                 |                   |
| FOS150-50-0                            | 50/222.4                        | 1.5/38.10                     | 6/152.4          | .75             | 10                |
| FOS320-50-0                            | 50/222.4                        | 3.2/81.28                     | 12/304.8         | .75             | 10                |
| FOS500-50-0                            | 50/222.4                        | 5.0/127.00                    | 18/457.2         | .75             | 10                |
| <b>FOR Series Rolled Hook and Loop</b> |                                 |                               |                  |                 |                   |
| FOR180-50-0                            | 50/222.4                        | Various                       | 180/4572         | .75             | 1                 |

• 1/16" strap thickness

• Black is standard color.

• Multiple colors available for identifying specific bundles

\*Add suffix "FR" for UL94V-2 rated flame-retardant material, after color choice.

Contact Customer Service for availability and delivery.

## Mounting bases for use with hook-and-loop fasteners.

### Nylon 6.6 Mounting Bases



| BULK PKG.<br>CAT. NO. | DESCRIPTION              | SCREW<br>SIZE | MAXIMUM<br>TIE WIDTH<br>ACCOM. | BULK<br>PKG. QTY. |
|-----------------------|--------------------------|---------------|--------------------------------|-------------------|
| TC368                 | 2" x 2" Screw Mounted    | #8            | .75/19.05                      | 500               |
| TC368A                | 2" x 2" Adhesive Mounted | #8            | .75/19.05                      | 500               |

-40° F to 176° F (-40° C to 80° C)

• Natural nylon color.

**Note:** See expiration date on TC368A package. Periodically check product for adhesion and replace as needed.

Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

## Ty-Rap® Installation Tools

**Boost productivity and reduce user fatigue in demanding, high-volume cable tie installations!**

### Ty-Rap® Pneumatic Cable Tie Installation Tool

For fast, consistent installation of cable ties in high-volume applications, you can't beat the new Ty-Rap® Pneumatic Cable Tie Installation Tool. Pneumatic power combined with a balanced, ergonomic design enables you to tension and trim large quantities of Ty-Rap® cable ties in rapid succession with accuracy and one-button ease.

- Easy, one-step tensioning and cut-off of cable ties
- Narrow nose rotates 360° to maneuver in tight spaces
- Easy-access tension-adjustment wheel at nose with locking mechanism for repetitive-tension work
- Spare cutting blade storage in handle
- Cuts tail off flush — no sharp ends to injure installers or damage cables
- Holds tails captive until ejected by operator — no mess to clean up
- Soft, over-molded grip with over-sized trigger
- Wide cable-tie insertion gap — no fumbling to insert tie

#### Specifications

- Dimensions: 10"L x 6¼"H x 1½"D
- Weight: 14 oz.
- Operating Pressure: 85–100 psi (non-lubricated air)
- Cable Tie Tensile-Strength Range: 18–50 lbs.

| CAT. NO. | DESCRIPTION                                                                        | STD. PKG. QTY. |
|----------|------------------------------------------------------------------------------------|----------------|
| ERG50P   | Pneumatic Cable Tie Installation Tool for 18–50 lb. Ties (includes 9-ft. air hose) | 1              |



Tightens cable tie and cuts flush in one step



360° rotating nose for maximum flexibility



Narrow-shaped nose for easy reach in tight spaces

## Ty-Rap® Installation Tools

The most comfortable and efficient hand tool available for installing cable ties!

### Ty-Rap® Cable Tie Installation Tool

Thomas & Betts set out to develop a reliable, high-performance hand-operated cable tie installation tool. It's ergonomic with more features than any competing tool on the market. This new and improved Ty-Rap® Cable Tie Installation Tool is the result, and it fits the bill in every aspect.

Our engineers carefully considered user comfort and designed this rugged yet lightweight, well-balanced tool to reduce stress, fatigue and the risk of cumulative trauma injury to the hand and wrist. They didn't stop with ergonomics, however. This new tool offers a flush cable tie tail-to-head trim, a longer handle stroke requiring less handle force, higher tension capabilities and much, much more!



Eliminate sharp cable tie ends with flush tail-to-head cut-off

#### Specifications

- Dimensions: 7" (177mm) L x 5" (127mm) H x 1 1/4" (41.3mm) W
- Weight: 9 oz. (255g)

| STD. PKG |                                           | STD. PKG. QTY. |
|----------|-------------------------------------------|----------------|
| CAT. NO. | DESCRIPTION                               |                |
| ERG50    | Tool for 18–50 lb. (80–222N) Cable Ties   | 1              |
| ERG120   | Tool for 50–120 lb. (222–534N) Cable Ties | 1              |



Most flexible with a 360° rotating nose for use at any angle and in tight spaces



Adjustable grip perfectly fits any hand size



Tension-adjustment wheel on nose for easy access and setting

## Ty-Rap® Installation Tools

Lightweight. Economical. Durable.  
Perfect for spot-tying!

### Ty-Rap® Cable Tie Installation Tool — Light Duty

- Installs Ty-Rap cable ties up to .301" wide by .080" thick
- Designed for use by both left- and right-handed operators
- Lightweight, high-impact polymer and steel components

They cinch up the tie with a squeeze action, and cut away the excess tail when twisted 180°. A specially designed pawl cuts away the tail if the tension limit is exceeded, thereby preventing the cable tie from being over-tightened.



| STD. PKG. CAT. NO. | DESCRIPTION                                             | TIE BODY WIDTH IN./MM | STD. PKG. QTY. |
|--------------------|---------------------------------------------------------|-----------------------|----------------|
| WT1-TB             | Cable Tie Installation Tool, 18–50 lbs. (80–222.4N)     | .09–.18/2.39–4.67     | 1              |
| WT2-TB             | Cable Tie Installation Tool, 50–120 lbs. (222.4–533.8N) | .18–.30/4.67–7.65     | 1              |

Cuts tail off — flush.

### Ty-Rap® Cable Ties Installation Tool — Metallic

- Installs Ty-Rap® cable ties
- Rugged metallic construction
- Pistol-grip installation tool
- Easy tension adjustment
- Tensions and cuts tie tail off flush



| STD. PKG. CAT. NO. | DESCRIPTION                                         | TIE BODY WIDTH IN./MM | STD. PKG. QTY. |
|--------------------|-----------------------------------------------------|-----------------------|----------------|
| WT193A             | Cable Tie Installation Tool, 18–50 lbs. (80–222.4N) | .09–.18/2.39–4.67     | 1              |

Easy tension adjustment!

### Ty-Rap® Heavy-Duty Installation Tool — Mil Spec Approved

- Installs Ty-Rap® cable ties
- Rugged metallic construction
- Pistol-grip installation tool
- Tensions and cut cable tie tail off flush



| STD. PKG. CAT. NO. | DESCRIPTION                                   | TIE BODY WIDTH IN./MM | STD. PKG. QTY. |
|--------------------|-----------------------------------------------|-----------------------|----------------|
| WT199              | Installation Tool, 18–50 lbs. (80–222.4N)     | .09–.18/2.39–4.67     | 1              |
| WT197              | Installation Tool, 50–120 lbs. (222.4–533.8N) | .18–.30/4.67–7.65     | 1              |

\* Mil Spec Approved (WT199 — MS90387-1, WT197 — MS90387-2)

Makes tie installation easy!

### Ty-Rap® Installation Tool — Deltec® & Stainless Steel

#### WT3D

- Installs both self-locking Ty-Rap® cable ties and lashing ties

#### WT3S

- Installs stainless steel ties



WT3D

| STD. PKG. CAT. NO. | DESCRIPTION                       | TIE BODY WIDTH IN./MM | STD. PKG. QTY. |
|--------------------|-----------------------------------|-----------------------|----------------|
| WT3D               | Deltec Installation Tool          | .18–.50/4.67–12.70    | 1              |
| WT3S               | Stainless Steel Installation Tool | Up to .50/12.70       | 1              |

## Ty-Rap® Installation Tools

Get the job done right!

### Ty-Rap® Heavy-Duty Installation Tool — Stainless Steel

- Installs Ty-Rap® Ball-Lock and Multi-Lok Stainless Steel Cable Ties
- Rugged stainless steel construction
- Pistol-type installation tool
- Adjustable tension settings



| STD. PKG.<br>CAT. NO. | DESCRIPTION                       | TIE BODY<br>WIDTH IN./MM | STD.<br>PKG. QTY. |
|-----------------------|-----------------------------------|--------------------------|-------------------|
| DAS250                | Stainless Steel Installation Tool | Up to .31/7.87           | 1                 |

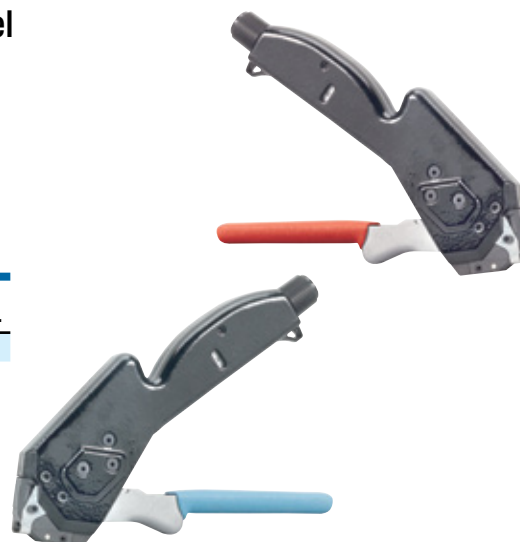


The right tools make installing Ty-Rap® Stainless Steel Cable Ties a cinch!

### Installation Tools for Dual-Lock Stainless Steel Ties

- Lightweight
- Easy-to-use tool applies tension, locks tie with the dual lock, and cuts off band flush with top surface of buckle

| CAT. NO. | DESCRIPTION                                            | WEIGHT<br>LBS/KG | STD.<br>PKG. QTY. |
|----------|--------------------------------------------------------|------------------|-------------------|
| WTA290   | Hand tool to apply mini stainless steel cable ties     | 1.17/.53         | 1                 |
| WTA250   | Hand tool to apply standard stainless steel cable ties | 1.17/.53         | 1                 |



Quality tools for tensioning.

### Tensioning Tools



WTAE200  
Cable Tie Tensioner



WTAE201  
Tensioning Hook

| CAT. NO. | DESCRIPTION                                                           | WEIGHT<br>LBS/KG | STD.<br>PKG. QTY. |
|----------|-----------------------------------------------------------------------|------------------|-------------------|
| WTAE200  | Cable Tie Tensioner, for tensioning Re-Usable Ties and Multi-Lok Ties | .6/.27           | 1                 |
| WTAE201  | Tensioning Hook, for tensioning Re-Usable Ties and Multi-Lok Ties     | .1/.05           | 1                 |

## Ty-Rap® Installation Tools

Apply tension, cut and secure with confidence!

### Installation Tools for Free-End Stainless Steel Ties



**WTC001**

A drop-forged tool with tensioning capability to do all ¼" to ¾" Free-End Clamp sizes.



**WTC075**

Designed to install ¼" to ¾" wide Free-End Clamps. The lightweight, ratchet-action tool tension cuts and secures the buckle tab.



**WTJ020**

Lightweight pocket-sized tool to install ¼" and ¾" wide Free-End Clamps. This tool also applies tension and has a built-in cutter.

| CAT. NO. | DESCRIPTION                                                                         | WEIGHT<br>LBS/KG | STD.<br>PKG. QTY. |
|----------|-------------------------------------------------------------------------------------|------------------|-------------------|
| WTJ020   | Compact Free-End Stainless Steel Cable Tie Installation Tool for ¼" to ¾" sizes     | 1.1/1.50         | 1                 |
| WTC075   | Pistol-Grip Free-End Stainless Steel Cable Tie Installation Tool for ¼" to ¾" sizes | 2.6/1.18         | 1                 |
| WTC001   | Free-End Stainless Steel Cable Tie Installation Tool for All Sizes                  | 4.4/2.00         | 1                 |

Makes tie installation easy!

### Ty-Rap® Installation Tool

- Installs stainless steel ties



| CAT. NO. | DESCRIPTION                                | TIE BODY<br>WIDTH IN./MM. | STD.<br>PKG. QTY. |
|----------|--------------------------------------------|---------------------------|-------------------|
| WT3S     | Installation Tool for Stainless Steel Ties | Up to .50/12.70           | 1                 |

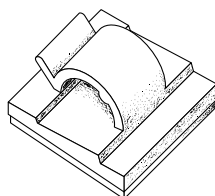
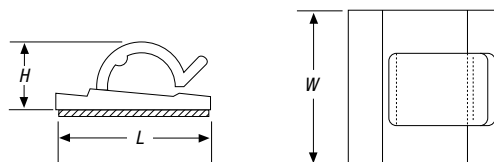
*Note: Tensions only*

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Versatile adhesive clips keep cable paths organized.

### Round Adhesive Clips

- Diverse cable clamps for bundle diameters from .160" to .620"
- Mounted on a rubber-based closed cell foam adhesive
- Flexible center tang for removal or addition of cables



| BULK PKG.<br>CAT. NO. | MATERIAL | HEIGHT<br>IN./MM | H<br>LENGTH<br>IN./MM | L<br>WIDTH<br>IN./MM | W<br>MAXIMUM<br>BUNDLE | MOUNTING<br>METHOD    | BULK<br>PKG. QTY. |
|-----------------------|----------|------------------|-----------------------|----------------------|------------------------|-----------------------|-------------------|
| RANY-280-9-D          | Nylon    | .410/10.41       | 1.000/25.40           | 1.000/25.40          | .280/7.11              | Rubber-based adhesive | 500               |
| RANY-530-9-D          | Nylon    | 15.75/.620       | 1.000/25.40           | 1.000/25.40          | .530/13.46             | Rubber-based adhesive | 500               |
| RANY-620-9-D          | Nylon    | 14.22/.560       | 1.250/31.75           | 28.45                | .620/15.75             | Rubber-based adhesive | 500               |

Natural nylon color.

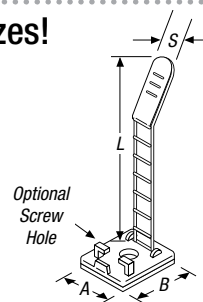
Adhesive for use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed.  
Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Release and refasten with ease — in three adjustable sizes!

### Adjustable Cable Clamps

- Three sizes for bundles from .118" to .984"
- Ladder-style fastener is easily released and refastened
- Supplied on a rubber-based closed cell foam adhesive
- Optional screw hole for #4 or #5 flat head screw



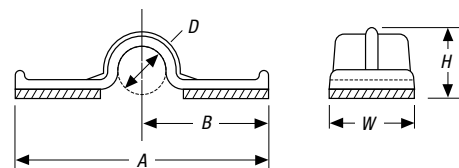
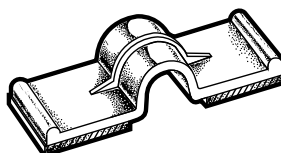
| STD. PKG.<br>CAT. NO. | MATERIAL   | A<br>HEIGHT<br>IN./MM | B<br>LENGTH<br>IN./MM | S<br>WIDTH<br>IN./MM | L<br>MAXIMUM BUNDLE<br>IN./MM | APPLIED WIRE RANGE<br>IN./MM | SCREW HOLE<br>DIAMETER<br>IN./MM | STD.<br>PKG. QTY. |
|-----------------------|------------|-----------------------|-----------------------|----------------------|-------------------------------|------------------------------|----------------------------------|-------------------|
| ULNY-013-8-C          | Gray Nylon | .709/18.00            | .984/24.99            | .314/7.98            | 2.340/59.44                   | .118 – .500/3.0 – 12.7       | .110/2.79                        | 100               |
| ULNY-018-8-C          | Gray Nylon | .827/21.00            | 1.180/29.97           | .472/11.99           | 3.120/79.25                   | .197 – .827/5.0 – 21.0       | .110/2.79                        | 100               |
| ULNY-023-8-C          | Gray Nylon | .984/24.99            | 1.380/35.05           | .551/14.00           | 3.370/79.25                   | .275 – .984/7.0 – 25.0       | .135/3.43                        | 100               |

Adhesive for use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Choose from four sizes to accommodate bundles up to 1/2".

### Press Clips

- Clips are provided on a rubber-based closed cell foam adhesive
- Stocked in 6.6 natural nylon color. Contact factory for availability in special materials



| BULK PKG.<br>CAT. NO. | MATERIAL | D<br>DIAMETER<br>IN./MM | A<br>IN./MM | B<br>IN./MM | H<br>IN./MM | W<br>IN./MM | PKG. QTY. |
|-----------------------|----------|-------------------------|-------------|-------------|-------------|-------------|-----------|
| PCNY-125-9-D          | Nylon    | .13/3.30                | .76/19.30   | .38/9.65    | .21/5.33    | .38/9.65    | 500       |
| PCNY-250-9-D          | Nylon    | .25/6.35                | 1.38/35.05  | .69/17.53   | .32/8.13    | .50/12.70   | 500       |
| PCNY-375-9-D          | Nylon    | .38/9.65                | 1.47/37.34  | .74/18.80   | .44/11.176  | .63/16.00   | 500       |
| PCNY-500-9-D          | Nylon    | .50/12.70               | 1.59/40.39  | .80/20.32   | .59/15.00   | .75/19.05   | 500       |

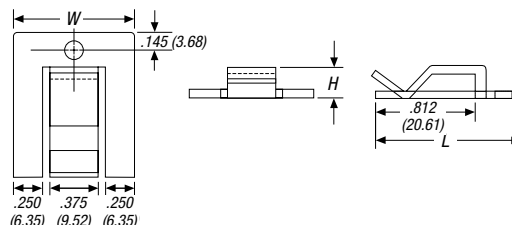
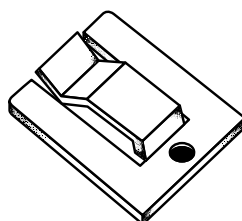
For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Flat design provides an attractive, yet discreet look.

### Flat Cable Screw Clip

- Flat ribbon cable clamp with mounting hole for #8 screw
- Stocked in 6.6 natural nylon color
- Flexible center tang enables easy removal and replacement of desired cable



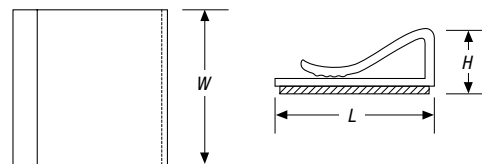
| STD. PKG. CAT. NO. | MATERIAL | HEIGHT IN./MM | H LENGTH IN./MM | L WIDTH IN./MM | W MOUNTING METHOD | STD. PKG. |
|--------------------|----------|---------------|-----------------|----------------|-------------------|-----------|
| FSNY-812-9-C       | Nylon    | .25/6.35      | 1.19/30.23      | 1.00/25.40     | #8 Screw          | 100       |

For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Adhesive eliminates need for tools when mounting clips.

### Flat PVC Clips

- Low-profile clip for single or multiple layers of flat ribbon cable.
- “Single-Cut” on a rubber-based closed cell foam adhesive
- Gray PVC
- UL Flammability 94 V-0 (clip)



| STD. PKG. CAT. NO. | BULK PKG. CAT. NO. | MATERIAL | H HEIGHT IN./MM | L LENGTH IN./MM | W WIDTH IN./MM | MOUNTING METHOD | STD. PKG. QTY. | BULK PKG. QTY. |
|--------------------|--------------------|----------|-----------------|-----------------|----------------|-----------------|----------------|----------------|
| FRPV-1000-8-C      | FRPV-1000-8-D      | Gray PVC | .42/10.67       | 1.06/26.92      | 1.00/25.40     | Adhesive        | 100            | 500            |

For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

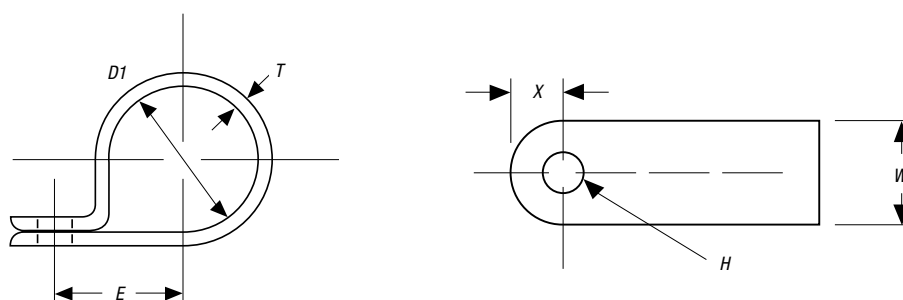
**Note:** See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

# Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Choose the diameter you need to clamp a specific-sized cable.

## Plain Edge Cable Clamps

- Fully radiused inside edges with size markings in inches and millimeters for easy identification
- Stocked in natural and black nylon 6.6
- Plain edge cable clamps are designed to perform to NAS-1397P
- 18 diameters and 2 widths with mounting holes for #8 and #10 screws
- Replace “-M” or “-D” with “-C” for 100 pack



For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

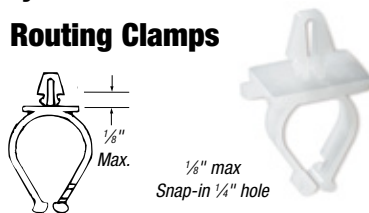
| WHITE<br>CAT. NO. | BLACK<br>CAT. NO. | D1<br>CLOSED DIA.<br>IN./MM | E<br>IN./MM | T<br>THICKNESS<br>IN./MM | W<br>WIDTH<br>IN./MM | H<br>MOUNTING<br>HOLE SIZE | X<br>IN./MM | BULK<br>PKG.<br>QTY. |
|-------------------|-------------------|-----------------------------|-------------|--------------------------|----------------------|----------------------------|-------------|----------------------|
| N4NY-002-9-M      | N4NY-002-0-M      | .13/3.18                    | .34/8.71    | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-003-9-M      | N4NY-003-0-M      | .19/4.475                   | .38/9.60    | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-004-9-M      | N4NY-004-0-M      | .25/6.35                    | .42/10.70   | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-005-9-M      | N4NY-005-0-M      | .31/7.92                    | .44/11.20   | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-006-9-M      | N4NY-006-0-M      | .38/9.53                    | .46/11.79   | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-007-9-M      | N4NY-007-0-M      | .44/11.10                   | .50/12.70   | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N4NY-008-9-M      | N4NY-008-0-M      | .50/12.70                   | .53/13.46   | .05/1.27                 | .38/9.53             | #8                         | .22/5.54    | 1,000                |
| N6NY-004C-9-M     | N6NY-004C-0-M     | .25/6.35                    | .44/11.10   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-005C-9-M     | N6NY-005C-0-M     | .31/7.92                    | .47/12.04   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-006C-9-M     | N6NY-006C-0-M     | .38/9.53                    | .50/12.70   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-007C-9-M     | N6NY-007C-0-M     | .44/11.10                   | .53/13.54   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-008C-9-M     | N6NY-008C-0-M     | .50/12.70                   | .55/14.05   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-009-9-M      | N6NY-009-0-M      | .56/14.27                   | .60/15.32   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-010-9-M      | N6NY-010-0-M      | .63/15.88                   | .63/15.88   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-011-9-M      | N6NY-011-0-M      | .69/17.45                   | .67/16.89   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-012-9-M      | N6NY-012-0-M      | .75/19.05                   | .67/17.75   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-013-9-M      | N6NY-013-0-M      | .81/20.62                   | .77/19.43   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-014-9-M      | N6NY-014-0-M      | .88/22.23                   | .80/20.19   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-016-9-M      | N6NY-016-0-M      | 1.00/25.40                  | .83/21.00   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 1,000                |
| N6NY-018-9-D      | N6NY-018-0-D      | 1.13/28.58                  | .94/23.88   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 500                  |
| N6NY-019-9-D      | N6NY-019-0-D      | 1.19/30.15                  | .96/24.46   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 500                  |
| N6NY-020-9-D      | N6NY-020-0-D      | 1.25/31.75                  | .98/24.90   | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 500                  |
| N6NY-022-9-D      | N6NY-022-0-D      | 1.38/34.93                  | 1.05/26.54  | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 500                  |
| N6NY-024-9-D      | N6NY-024-0-D      | 1.50/38.10                  | 1.11/28.30  | .06/1.52                 | .50/12.70            | #10                        | .22/5.54    | 500                  |

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Several mounting styles available.

### Mechanical-Locking Routing Clamps

- Clamp acts as a retainer during wire routing, and as a permanent clamp when desired



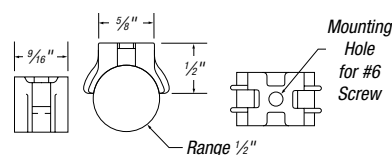
| STD. CAT. NO. | MOUNTING HOLE SIZE IN./MM | BUNDLE DIA. IN./MM | MAX. WIRE BUNDLE DIA. IN./MM | LENGTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. |
|---------------|---------------------------|--------------------|------------------------------|---------------|---------------|----------------|
| TC88          | .250/6.35                 | .500/12.7          | .250/6.35                    | .891/22.63    | 100           | 1,000          |
| TC95          | .250/6.35                 | 1.000/25.4         | .500/12.7                    | 1.590/40.39   | 100           | 1,000          |

- Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

### Ty-Rap® Saddle Mounting Plate

- For use with round bundles



| STD. PKG. CAT. NO. | MAX TIE WIDTH IN./MM | SIZE IN./MM          | BUNDLE HOLE SIZE IN./MM | MOUNTING STD. PKG. QTY. |
|--------------------|----------------------|----------------------|-------------------------|-------------------------|
| TC92               | .190/4.83            | 1/2-1 1/4/12.7-31.75 | #6 Screw                | 100                     |

- Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Wires are held 1/2" above work surface for easy tying.

### Wire-Bundle Retainers

- Consist of a spring-loaded clip and an elastic bundle support
- Wires are inserted by snapping them through spring-loaded clips



| STD. PKG. CAT. NO. | FASTENER  | MAX. WIRE BUNDLE DIA. IN./MM | WIDTH IN./MM | LENGTH IN./MM | HEIGHT IN./MM | STD. PKG. QTY. |
|--------------------|-----------|------------------------------|--------------|---------------|---------------|----------------|
| TC86               | #6 screws | .750/19.05                   | 1.750/44.45  | 1.813/46.05   | 25            | 1,000          |
| TC87               | #6 screws | 1.250/31.75                  | 2.469/62.71  | 2.281/57.94   | 10            | 1,000          |

Hardened, nickel-plated, steel construction.

### Harness-Board Nails

- For wire harness board manufacturing



| STD. PKG. CAT. NO. | DIMENSIONS  |            |           | STD. PKG. QTY. |
|--------------------|-------------|------------|-----------|----------------|
|                    | A           | B          | C         |                |
| HBP112             | 1.500/38.10 | .625/15.88 | .082/2.08 | 100            |
| HBP2               | 2.000/50.80 | .625/15.88 | .092/2.34 | 100            |
| HBP212             | 2.500/63.50 | .625/15.88 | .105/2.67 | 100            |
| HBP3               | 3.000/76.20 | .625/15.88 | .120/3.05 | 100            |

Keep wire bundles apart.

### Wire-Bundle Spacer



| STD. PKG. CAT. NO. | MAXIMUM TIE WIDTH ACCOM. IN./MM | WIDTH IN./MM | LENGTH IN./MM | STD. PKG. QTY. |
|--------------------|---------------------------------|--------------|---------------|----------------|
| TC5339             | .190/4.83                       | .266/6.76    | .500/12.70    | 100            |

- Natural nylon color.

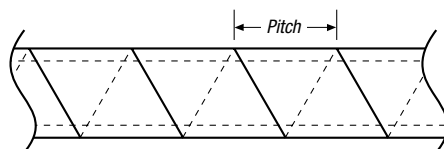
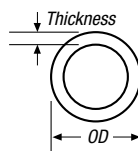
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Install with gaps for greater flexibility  
or butted together for maximum abrasion  
resistance, insulation and rigidity!

### Spiral Wrap

- Packaged in 100 foot reels
- Protects bundles from .063" to 7" (1.6 mm to 177.8 mm) diameters
- Available in three material types
- Also commonly known as reverse cut, left-handed cut or counter-clockwise cut
- Use cutting tool CC120B (see **page C-57**)
- UL94HB Flammability Rating



| STD. PKG.<br>CAT. NO. | MATERIAL                       | OUTSIDE DIAMETER<br>IN./MM | PITCH<br>IN./MM | NOMINAL WALL THICKNESS<br>IN./MM | MINIMUM/MAXIMUM BUNDLE RANGE |             | REEL<br>QTY. |
|-----------------------|--------------------------------|----------------------------|-----------------|----------------------------------|------------------------------|-------------|--------------|
|                       |                                |                            |                 |                                  | IN./MM                       | IN./MM      |              |
| SRPE-125-9-C          | Natural Polyethylene           | .13/3.18                   | .21/5.33        | .04/.89                          | .06/1.60                     | .50/12.70   | 1 (100 ft.)  |
| SRPE-187-9-C          | Natural Polyethylene           | .19/4.75                   | .24/6.10        | .04/1.02                         | .13/3.18                     | 1.50/38.10  | 1 (100 ft.)  |
| SRPE-250-9-C          | Natural Polyethylene           | .25/6.35                   | .38/9.53        | .05/1.14                         | .19/4.78                     | 2.00/50.80  | 1 (100 ft.)  |
| SRPE-375-9-C          | Natural Polyethylene           | .38/9.53                   | .44/11.13       | .05/1.32                         | .31/7.95                     | 3.00/76.20  | 1 (100 ft.)  |
| SRPE-500-9-C          | Natural Polyethylene           | .50/12.70                  | .56/14.30       | .06/1.57                         | .38/9.53                     | 4.00/101.60 | 1 (100 ft.)  |
| SRPE-625-9-C          | Natural Polyethylene           | .63/15.88                  | .63/15.88       | .06/1.57                         | .63/15.88                    | 4.50/114.30 | 1 (100 ft.)  |
| SRPE-750-9-C          | Natural Polyethylene           | .63/15.88                  | .75/19.05       | .07/1.65                         | .75/19.05                    | 5.00/127.00 | 1 (100 ft.)  |
| SRPE-1000-9-C         | Natural Polyethylene           | 1.00/25.40                 | 1.11/28.19      | .70/17.78                        | 1.0/25.40                    | 7.00/177.80 | 1 (100 ft.)  |
| SRPE-125-0-C          | Weatherable Black Polyethylene | .13/3.18                   | .21/5.33        | .04/.89                          | .06/1.60                     | .50/12.70   | 1 (100 ft.)  |
| SRPE-187-0-C          | Weatherable Black Polyethylene | .19/4.75                   | .24/6.10        | .04/1.02                         | .13/3.18                     | 1.50/38.10  | 1 (100 ft.)  |
| SRPE-250-0-C          | Weatherable Black Polyethylene | .25/6.35                   | .38/9.53        | .05/1.14                         | .19/4.78                     | 2.00/50.80  | 1 (100 ft.)  |
| SRPE-375-0-C          | Weatherable Black Polyethylene | .38/9.53                   | .44/11.13       | .05/1.32                         | .31/7.95                     | 3.00/76.20  | 1 (100 ft.)  |
| SRPE-500-0-C          | Weatherable Black Polyethylene | .50/12.70                  | .56/14.30       | .06/1.57                         | .38/9.53                     | 4.00/101.60 | 1 (100 ft.)  |
| SRPE-625-0-C          | Weatherable Black Polyethylene | .63/15.88                  | .63/15.88       | .06/1.57                         | .63/15.88                    | 4.50/114.30 | 1 (100 ft.)  |
| SRPE-750-0-C          | Weatherable Black Polyethylene | .63/15.88                  | .75/19.05       | .07/1.65                         | .75/19.05                    | 5.00/127.00 | 1 (100 ft.)  |
| SRPE-1000-0-C         | Weatherable Black Polyethylene | 1.00/25.40                 | 1.11/28.19      | .70/17.78                        | 1.0/25.40                    | 7.00/177.80 | 1 (100 ft.)  |
| SRNY-187-9-C          | Natural Nylon 6.6              | .19/4.75                   | .24/6.10        | .03/.64                          | .13/3.18                     | 1.50/38.10  | 1 (100 ft.)  |

Sold in 100-ft. rolls.

#### Polyethylene

Available in natural and weatherable black.

For general indoor use to 122° F (50° C).  
Material is flexible and easy to work with.

#### Weatherable Polyethylene

Available in black only. Designed to resist ultraviolet light in outdoor applications.

#### Nylon 6.6

Available in natural only.

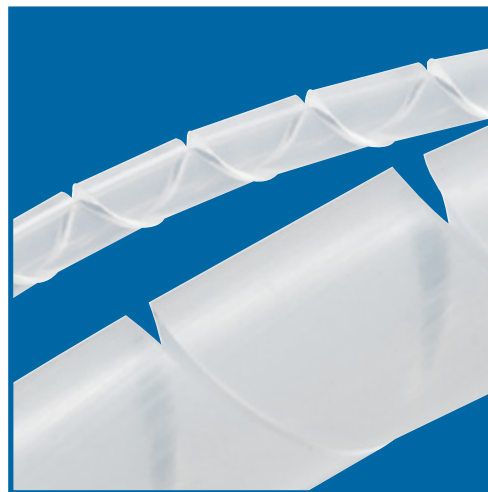
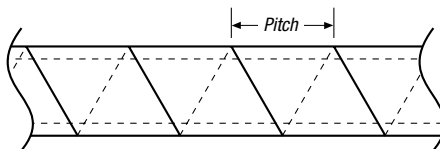
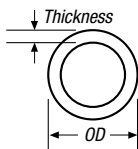
Offers highest abrasion resistance and rigidity.  
Self-extinguishing to UL94HB  
and a UL® Recognized Component.

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Perfect for protection of bundles from .063" to 7" diameters.

### Forward Cut Spiral Wrap

- Install with gaps for greater flexibility or butted together for maximum abrasion resistance, insulation, and rigidity
- Available in three materials
- Also known as right-hand cut or clockwise cut
- Use cutting tool CC120B (page C-57)



| STD. PKG. CAT. NO. | MATERIAL                       | OUTSIDE DIAMETER IN./MM | PITCH IN./MM | NOMINAL WALL THICKNESS IN./MM | MIN./MAX. BUNDLE RANGE IN./MM | UL FLAMMABILITY | REEL QTY.   |
|--------------------|--------------------------------|-------------------------|--------------|-------------------------------|-------------------------------|-----------------|-------------|
| SRPE-125F-9-C      | Natural Polyethylene           | .19/4.75                | .24/6.10     | .04/1.02                      | .13-1.50/3.18-80.77           | 94 HB           | 1 (100 ft.) |
| SRPE-187F-9-C      | Natural Polyethylene           | .19/4.75                | .24/6.10     | .04/1.02                      | .13-1.50/3.18-80.77           | 94 HB           | 1 (100 ft.) |
| SRPE-250F-9-C      | Natural Polyethylene           | .25/6.35                | .38/9.53     | .05/1.14                      | .19-2.0/4.78-50.80            | 94 HB           | 1 (100 ft.) |
| SRPE-375F-9-C      | Natural Polyethylene           | .38/9.53                | .44/11.13    | .05/1.32                      | .31-3.0/7.95-76.20            | 94 HB           | 1 (100 ft.) |
| SRPE-500F-9-C      | Natural Polyethylene           | .50/12.70               | .56/14.30    | .06/1.57                      | .38-4.0/9.53-101.60           | 94 HB           | 1 (100 ft.) |
| SRPE-625F-9-C      | Natural Polyethylene           | .63/15.88               | .63/15.88    | .06/1.57                      | .63-4.5/15.88-114.30          | 94 HB           | 1 (100 ft.) |
| SRPE-750F-9-C      | Natural Polyethylene           | .75/19.05               | .75/19.05    | .07/1.65                      | .75-5.0/19.05-127.00          | 94 HB           | 1 (100 ft.) |
| SRPE-1000F-9-C     | Natural Polyethylene           | 1.0/25.40               | 1.11/28.19   | .07/1.78                      | 1.0-7.0/25.40-177.80          | 94 HB           | 1 (100 ft.) |
| SRPE-125F-0-C      | Weatherable Black Polyethylene | .19/4.75                | .24/6.10     | .04/1.02                      | .13-1.50/3.18-80.77           | 94 HB           | 1 (100 ft.) |
| SRPE-187F-0-C      | Weatherable Black Polyethylene | .19/4.75                | .24/6.10     | .04/1.02                      | .13-1.50/3.18-80.77           | 94 HB           | 1 (100 ft.) |
| SRPE-250F-0-C      | Weatherable Black Polyethylene | .25/6.35                | .38/9.53     | .05/1.14                      | .19-2.0/4.78-50.80            | 94 HB           | 1 (100 ft.) |
| SRPE-375F-0-C      | Weatherable Black Polyethylene | .38/9.53                | .44/11.13    | .05/1.32                      | .31-3.0/7.95-76.20            | 94 HB           | 1 (100 ft.) |
| SRPE-500F-0-C      | Weatherable Black Polyethylene | .50/12.70               | .56/14.30    | .06/1.57                      | .38-4.0/9.53-101.60           | 94 HB           | 1 (100 ft.) |
| SRPE-625F-0-C      | Weatherable Black Polyethylene | .63/15.88               | .63/15.88    | .06/1.57                      | .63-4.5/15.88-114.30          | 94 HB           | 1 (100 ft.) |
| SRPE-750F-0-C      | Weatherable Black Polyethylene | .75/19.05               | .75/19.05    | .07/1.65                      | .75-5.0/19.05-127.00          | 94 HB           | 1 (100 ft.) |
| SRPE-1000F-0-C     | Weatherable Black Polyethylene | 1.0/25.40               | 1.11/28.19   | .07/1.78                      | 1.0-7.0/25.40-177.80          | 94 HB           | 1 (100 ft.) |

Sold in 100-ft. rolls.

#### Polyethylene

Available in natural and weatherable black.

For general indoor use to 122° F (50° C). Material is flexible and easy to work with.

#### Weatherable Polyethylene

Available in black only. Designed to resist ultraviolet light in outdoor applications.

#### Nylon 6.6

Available in natural only.

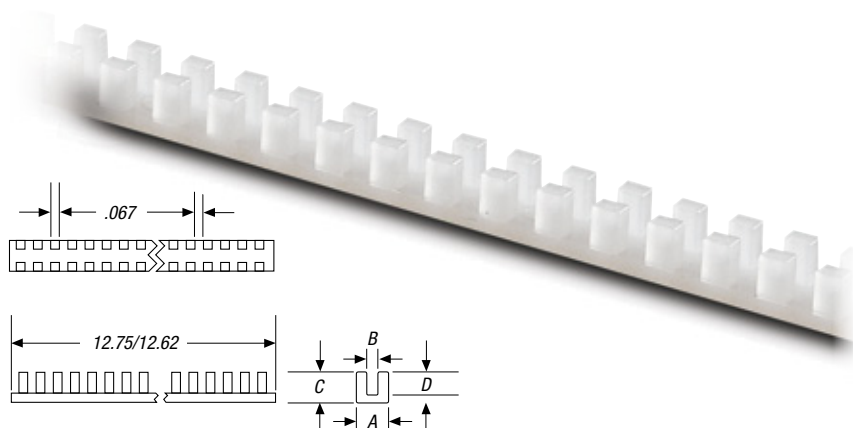
Offers highest abrasion resistance and rigidity. Self-extinguishing to UL94HB and a UL® Recognized Component.

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Suitable for round hole or odd-shape applications!

### Molded Grommeting

- Used to protect panel edges and knockouts where the chafing of passing wires is a concern
- Strip length — 12¾"



| STD. PKG.<br>CAT. NO. | MATERIAL          | A<br>IN./MM | B<br>IN./MM | C<br>IN./MM | D<br>IN./MM | FOR PANEL<br>THICKNESS<br>IN./MM | STD.<br>PKG. |
|-----------------------|-------------------|-------------|-------------|-------------|-------------|----------------------------------|--------------|
| GSNY-052-9-C          | Natural Nylon 6.6 | .15/3.81    | .06/1.42    | .16/3.94    | .10/2.54    | .02-.052/38-1.32                 | 100          |
| GSNY-085-9-C          | Natural Nylon 6.6 | .18/4.45    | .09/2.29    | .16/3.94    | .10/2.54    | .05-.085/1.35-2.16               | 100          |
| GSNY-128-9-C          | Natural Nylon 6.6 | .22/5.59    | .13/3.33    | .16/3.94    | .10/2.54    | .09-.128/2.18-3.25               | 100          |
| GSNY-192-9-C          | Natural Nylon 6.6 | .36/8.26    | .20/4.95    | .23/5.84    | .16/4.06    | .19-.192/3.25-4.88               | 100          |

## High-carbon, Teflon® coated steel blade!

### Cutting Tool

Use our cutting tool for all your spiral wrap, plastic pipe, raceway, PVC conduit and tubing cutting needs up to 1¼" I.D.

- Contoured handle resists tube crushing
- Produces no "sawdust" — no need to debur
- Lightweight, low-profile and no exposed blade when stored
- Can be used to cut Carlon® Electrical Non-Metallic Tubing (ENT)



| CAT. NO. | DESCRIPTION  |
|----------|--------------|
| CC120B   | Cutting Tool |

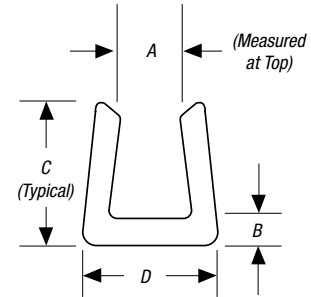
*Teflon® is a trademark of the DuPont Corporation.*

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

### Line panel edges and knockouts!

### Extruded Grommets

- Used to line panel edges and knockouts where the chafing of passing wires is a concern
- Available in 8 stock sizes in 100-ft. lengths for panels from .040" (1.02mm) to .250" (6.35mm) thick
- A variety of stocked materials to cover a wide range of applications



Note: Min. bend radius is 1¼".

| STD. PKG.<br>CAT. NO. | MATERIAL             | A<br>MAX. PANEL<br>THICKNESS<br>IN./MM | B<br>GROMMETING<br>THICKNESS<br>IN./MM | C<br>GROMMETING<br>HEIGHT<br>IN./MM | D<br>GROMMETING<br>WIDTH<br>IN./MM | UL<br>FLAMMABILITY | REEL<br>QTY. |
|-----------------------|----------------------|----------------------------------------|----------------------------------------|-------------------------------------|------------------------------------|--------------------|--------------|
| GRNY-040-9-C          | Natural Nylon        | .04/1.02                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-052-9-C          | Natural Nylon        | .05/1.32                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-062-9-C          | Natural Nylon        | .06/1.57                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-085-9-C          | Natural Nylon        | .09/2.16                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-100-9-C          | Natural Nylon        | .10/2.54                               | .05/1.14                               | .22/5.89                            | .21/5.33                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-125-9-C          | Natural Nylon        | .13/3.18                               | .05/1.27                               | .22/5.89                            | .21/5.21                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-187-9-C          | Natural Nylon        | .19/4.75                               | .05/1.27                               | .27/6.86                            | .28/6.99                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-250-9-C          | Natural Nylon        | .25/6.35                               | .05/1.27                               | .28/7.11                            | .379/4.0                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-040-0-C          | Black Nylon          | .04/1.02                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-052-0-C          | Black Nylon          | .05/1.32                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-062-0-C          | Black Nylon          | .06/1.57                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-085-0-C          | Black Nylon          | .09/2.16                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-100-0-C          | Black Nylon          | .10/2.54                               | .05/1.14                               | .22/5.89                            | .21/5.33                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-125-0-C          | Black Nylon          | .13/3.18                               | .05/1.27                               | .22/5.89                            | .21/5.21                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-187-0-C          | Black Nylon          | .19/4.75                               | .05/1.27                               | .27/6.86                            | .28/6.99                           | 94 V-2             | 1 (100 ft.)  |
| GRNY-250-0-C          | Black Nylon          | .25/6.35                               | .05/1.27                               | .28/7.11                            | .379/4.0                           | 94 V-2             | 1 (100 ft.)  |
| GRPE-040-9-C          | Natural Polyethylene | .04/1.02                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 HB              | 1 (100 ft.)  |
| GRPE-052-9-C          | Natural Polyethylene | .05/1.32                               | .04/1.02                               | .19/4.83                            | .13/3.18                           | 94 HB              | 1 (100 ft.)  |
| GRPE-062-9-C          | Natural Polyethylene | .06/1.57                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 HB              | 1 (100 ft.)  |
| GRPE-085-9-C          | Natural Polyethylene | .09/2.16                               | .05/1.14                               | .20/5.08                            | .17/4.32                           | 94 HB              | 1 (100 ft.)  |
| GRPE-100-9-C          | Natural Polyethylene | .10/2.54                               | .05/1.14                               | .22/5.89                            | .21/5.33                           | 94 HB              | 1 (100 ft.)  |
| GRPE-125-9-C          | Natural Polyethylene | .13/3.18                               | .05/1.27                               | .22/5.89                            | .21/5.21                           | 94 HB              | 1 (100 ft.)  |
| GRPE-187-9-C          | Natural Polyethylene | .19/4.75                               | .05/1.27                               | .27/6.86                            | .28/6.99                           | 94 HB              | 1 (100 ft.)  |
| GRPE-250-9-C          | Natural Polyethylene | .25/6.35                               | .05/1.27                               | .28/7.11                            | .379/4.0                           | 94 HB              | 1 (100 ft.)  |

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

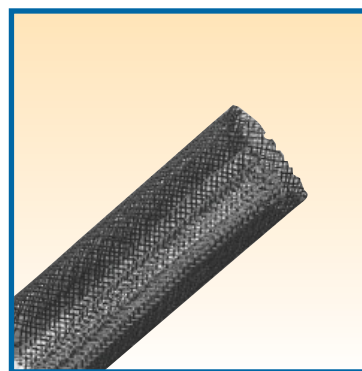
Available in handy mini spools or bulk reels!

### Braided Expandable Wire Protection Sleeving

Thomas & Betts braided wire protection sleeving is used to bundle and protect wires and cables from abrasion and excessive wear. Its flexible, lightweight, open weave construction installs easily over a variety of bundle diameters and shapes. The sleeving is resistant to chemicals, fungus, fuels, UV sunlight, and has an indefinite shelf life. It's easily cut with a hot knife, which seals the end, preventing fraying. Ends can be secured using Ty-Rap® cable ties.

#### Available in:

- Handy mini spools or bulk reels
- Eight sizes from 1/8" (3.18mm) to 2 1/2" (63.5mm) nominal I.D. size
- Solid or wraparound hook and loop braided expandable wire sleeving
- Meets UL94V-1
- Meets Federal Motor Vehicle Standard No. FMV SS 302



#### Polyethylene Terephthalate (P.E.T.)

A black 0.010" (.25mm) polyester monofilament material designed for indoor and outdoor applications. It's rated for continuous operating temp. -103° F to 257° F (-75° C to 125° C).

### Catalog Number System

|          |                       | Color | Nominal Diameter Range          | Reel Size      |                |
|----------|-----------------------|-------|---------------------------------|----------------|----------------|
| CAT. NO. | NOMINAL I.D. (IN./MM) | COLOR | NOMINAL DIAMETER RANGE (IN./MM) | REEL QUANTITY  | STD. PKG. QTY. |
| S250PT-0 | .250/6.35             | Black | .125 to .375/3.18 to 9.53       | 200 ft./60.96m | 1              |
| S375PC-0 | .375/9.53             | Black | .187 to .625/4.75 to 15.88      | 125 ft./38.10m | 1              |

**S** = Braided Expandable Wire Sleeving

**Materials**  
**P** = P.E.T. (Polyethylene Terephthalate)  
**PW** = P.E.T. hook & loop wraparound sleeving

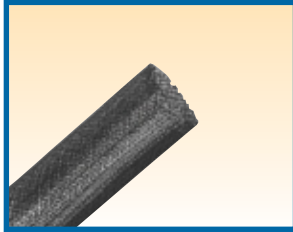
| Nominal I.D. Equivalents |                |
|--------------------------|----------------|
| .125 = 1/8"              | .750 = 3/4"    |
| .250 = 1/4"              | 1.250 = 1 1/4" |
| .375 = 3/8"              | 1.500 = 1 1/2" |
| .500 = 1/2"              | 1.750 = 1 3/4" |
|                          | 2.000 = 2"     |
|                          | 2.500 = 2 1/2" |

Package Quantity

## Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More

Portable convenience!

### PET Braided Expandable Wire Sleeve — Mini Spool

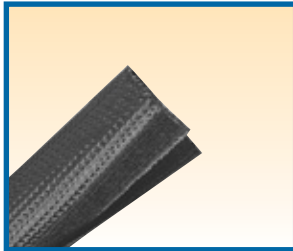


| STD PKG.<br>CAT. NO. | NOMINAL I.D.<br>IN./MM | COLOR | NOMINAL DIAMETER<br>RANGE IN./MM | SPOOL<br>QUANTITY | STD.<br>PKG. QTY. |
|----------------------|------------------------|-------|----------------------------------|-------------------|-------------------|
| S250PT-0             | .25/6.35               | Black | .13 to .38/3.18 to 9.53          | 200 ft./60.96m    | 1                 |
| S375PC-0             | .38/9.53               | Black | .19 to .63/4.75 to 15.88         | 125 ft./38.10m    | 1                 |
| S500PC-0             | .50/12.70              | Black | .25 to .75/6.35 to 19.05         | 100 ft./30.48m    | 1                 |
| S750PC-0             | .75/19.05              | Black | .50 to 1.25/12.70 to 31.75       | 100 ft./30.48m    | 1                 |
| S1250PL-0            | 1.25/31.75             | Black | .75 to 1.75/19.05 to 44.45       | 50 ft./15.24m     | 1                 |

*Note: Order by spool, not per foot.*

Enables for easy wrapping of existing wire harnesses and cables!

### PET Hook and Loop, Wraparound Sleeve — Mini Spool



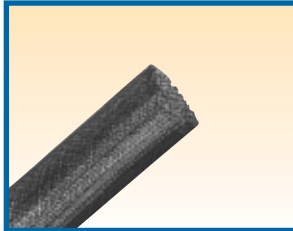
- No tools required to close the sleeving
- Hook and loop material is made of 100% nylon

| STD PKG.<br>CAT. NO. | NOMINAL I.D.<br>IN./MM | COLOR | NOMINAL DIAMETER<br>RANGE IN./MM | SPOOL<br>QUANTITY | STD.<br>PKG. QTY. |
|----------------------|------------------------|-------|----------------------------------|-------------------|-------------------|
| S500PWL-0            | .50/12.70              | Black | .25 to .75/6.35 to 19.05         | 50 ft./15.24m     | 1                 |
| S750PWL-0            | .75/19.05              | Black | .50 to 1.25/12.70 to 31.75       | 50 ft./15.24m     | 1                 |
| S1250PWL-0           | 1.25/31.75             | Black | .75 to 1.75/19.05 to 44.45       | 50 ft./15.24m     | 1                 |
| S2000PWL-0           | 2.00/50.80             | Black | 1.50 to 3.50/38.10 to 88.90      | 50 ft./15.24m     | 1                 |

*Note: Order by spool, not per foot.*

Buy in bulk and save!

### PET Braided Expandable Wire Sleeve — Bulk Reel



| BULK PKG.<br>CAT. NO. | NOMINAL I.D.<br>IN./MM | COLOR | NOMINAL DIAMETER<br>RANGE IN./MM | REEL<br>QUANTITY  | BULK<br>PKG. QTY. |
|-----------------------|------------------------|-------|----------------------------------|-------------------|-------------------|
| S125PM-0              | .125/3.18              | Black | .09 to .250/2.39 to 6.35         | 1,000 ft./304.80m | 1                 |
| S250PM-0              | .25/6.35               | Black | .125 to .375/3.18 to 9.53        | 1,000 ft./304.80m | 1                 |
| S500PD-0              | .50/12.70              | Black | .25 to .75/6.35 to 19.05         | 500 ft./152.40m   | 1                 |
| S750PK-0              | .75/19.05              | Black | .50 to 1.25/12.70 to 31.75       | 250 ft./76.20m    | 1                 |
| S1250PK-0             | 1.25/31.75             | Black | .75 to 1.75/19.05 to 44.45       | 250 ft./76.20m    | 1                 |
| S1500PT-0             | 1.50/38.10             | Black | 1.00 to 2.50/25.40 to 63.50      | 200 ft./60.96m    | 1                 |
| S1750PT-0             | 1.75/44.45             | Black | 1.25 to 2.75/31.75 to 59.85      | 200 ft./60.96m    | 1                 |
| S2000PT-0             | 2.00/50.80             | Black | 1.50 to 3.50/38.10 to 88.90      | 200 ft./60.96m    | 1                 |
| S2500PT-0             | 2.50/63.50             | Black | 1.75 to 4.50/44.45 to 114.30     | 200 ft./60.96m    | 1                 |

*Note: Order by reel, not per foot.*

The right tool for the job!

### Sleeving End Cutter/Sealer Tool

It's recommended that the sleeving be cut with a hot knife for a straight cut and to seal the ends, which prevents fraying.



| STD. PKG.<br>CAT. NO. | DESCRIPTION                                | STD PKG. |
|-----------------------|--------------------------------------------|----------|
| WTBM                  | Benchmount End Cutter/Sealer Tool, 110 VAC | 1        |