

## In This Section...

# *Ty-Rap Cable Fastening Systems*

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# Thomas®Betts

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976

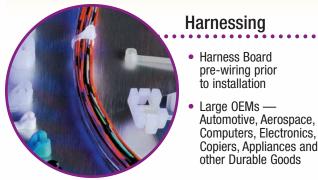


**Overview** 

# Trust Ty-Rap<sup>®</sup> to securely fasten your cables!

#### Installers Know and Trust Ty-Rap High-Performance Fastening Products from Thomas & Betts

Wire and cable bundling is an integral part of modern electrical and electronic installations. To finish your harnessing and bundling project as reliably, professionally looking and economically as possible, choose genuine Ty-Rap cable ties. These fastening systems include a full range of cable ties, identification ties, clamps, bases, harnessing aids and installing tools. Using Ty-Rap fastening systems for all fastening jobs, large and small, will speed and improve the reliability of harnessing and wire bundling while saving you money.



T&B fastening systems for large volume cable tying combine high-speed ergonomically designed tools, along with a wide selection of ties and harnessing aids to meet your application requirements. Accessories include various mounting bases, harnessing aids, retainers, clips, clamps, supports, posts, pins and guides that allow the wire to be quickly routed with or without the use of harness nails.

### **Other Applications**

- HVAC
- Recreational
- Telecom & Utility
- Packaging

Ty-Rap cable ties are remarkably well suited for a variety of other nonelectrical applications. Ty-Rap cable ties exceed UL 1565 requirements for smoke developed and heat release for use in air handling spaces. Ty-Rap cable ties meet international standards such as CSA and CE as well as UL,  $\mathbf{N}$ , Belcor, ADC and military specifications in North America. T&B also offers a complete stainless steel and Deltec<sup>®</sup> cable fastening system for demanding and weather-resistant applications. Choose genuine Ty-Rap cable ties for the rugged "Grip of Steel." Look for the oval head.



#### Point-to-Point and Long Distance Wiring

- · Bundling & fastening cables between equipment
- Panel & Machine Tool Builders
- Industrial & Commercial Applications, Refineries, Office Buildings

Installers prefer the ease of use and exceptional durability of genuine Ty-Rap cable ties. Engineered for labor savings and high performance, Ty-Rap cable ties are commonly used in a variety of applications. Standoffs, bulkhead mounting bases, adhesive mounting bases and a wide variety of clamping devices will meet or exceed any requirements. Weatherable and special material Ty-Rap cable ties are exceptionally suited for years of service in extreme environments.

## **Cable Fastening Accessories**

Choose from one of the largest assortments of mounting bases, clips and clamps, spacers, lashing straps, harness board accessories, braided wire protection sleeving, and accessories for your fastening needs. Use Thomas & Betts cable fastening accessories for the finishing touch on your next wiring project.

#### Tools

Ty-Rap installing tools properly complete the installation of the cable tie. Ties are cinched to the proper tension and the excess tail is cut off precisely flush with the head, leaving no sharp corners or ragged edges. Ty-Rap installing tools are lightweight with narrow noses and slim profiles for work in tight spaces or between harness board nails. The operation is quick, reliable and cost effective.

Thomas Betts

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## **Overview**

# Why Choose Genuine Ty-Rap® Cable Ties?

#### **Oval, Low Profile Head**

gives a professional, quality look to wire bundling projects. The classicshaped head is designed to prevent snags on uneven surfaces and 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** orients the tie for easy assembly, making the ties easier to pick up on a flat surface.

**No-Slip Tail** provides easy grip during tensioning. Ty-Rap cable ties feature a unique friction surface designed to reduce slippage during installation.



For a whole bundle of reasons, trust only Genuine **Ty-Rap Cable Ties** by Thomas & Betts in your next wiring installation. When you choose a cable tie from T&B, you can count on quality, performance and innovation to make your work easier. Depending on your application, choose genuine Ty-Rap Cable ties, along with our wide assortment of quality accessories and installing tools to make installation hassle-free.

#### "The Grip of Steel®" Non-Magnetic Stainless Steel Locking Device insures

both maximum strength and the right tightness every time. Because there are no notches, Ty-Rap Cable Ties provide an infinite number of locking positions while fastening the tie at the precise bundle diameter needed.

Versatile Nylon 6.6 Material provides high strength, a wide temperature range and prevents toxic or irritating emissions.

Ty-Rap Cable Ties are also available in weather-resistant versions, heat-stabilized, flame-retardant, polypropylene, nylon 12, hook and loop, fluoropolymer, and stainless steel materials for a variety of extreme environments.

**Smooth, Notchless Body** reduces stress concentration points under tension, making the tie stronger and lower profile than notched body ties.

**Ribbed and Stippled Body** "grips" the bundle and prevents – slippage. Rounded edges protect insulation, preventing sharp edges from damaging cables.



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Canada Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# **Cable Ties**

## Ty-Rap<sup>®</sup> Nylon 6.6 Cable Ties

TY523M — Tie body	width .091"
TY524M — Tie body	width .140"
The second	11 A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A
TY525M — Tie body	width .187"
	B TY-RE
TY5272M — Tie body	v width .270"
	)

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	<b>TYB2315M</b>	.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	<b>TY242M</b>	.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 <sup>+</sup>	TY272M <sup>†</sup>	.27/6.86	8.75/222.250	2.00/50.80	_	120/533.80	50	500
TY527M <sup>†</sup>	TY27M <sup>†</sup>	.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	<b>TY29M</b>	.27/6.86	30.00/762.00	9.00/228.60	MS3367-6	120/533.80	50	500
TY53510M <sup>+</sup>	<u> </u>	.32/8.13	35.00/889.00	10.00/254.00	—	175/778.40	50	—
TY54513M <sup>†</sup>		.32/8.13	45.00/1143.00	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).

† Я 🌒 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.

• Natural nylon color

#### The colors you need in convenient packs! Ty-Rap<sup>®</sup> Nylon 6.6 Cable Ties — Color Assortment

Construction — nylon 6.6, 316 stainless steel locking device

					23
STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	DESCRIPTION	LENGTH IN./MM	TENSILE STRENGTH LBS./N.	STD. BULK QTY.
_	TY525M-CLRS	Multi-Colored, Natural Nylon, (10 each of standard ten colors)	7.31/185.67	50/222.40	100 Ties
_	TY25M-0	Black, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
	TY25M-1	Brown, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
_	TY25M-2	Red, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
_	TY25M-3	Orange, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
_	TY25M-4	Yellow, Natural Nylon	7.31/85.67	50/222.40	1,000 Ties
	TY25M-5	Green, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
_	TY25M-6	Blue, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
	TY25M-7	Purple, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
_	TY25M-8	Gray, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties
	TY25M-9	White, Natural Nylon	7.31/185.67	50/222.40	1,000 Ties

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

- 100 standard ties in black, brown, red, orange, yellow, green, blue, purple, gray, and white (10 each)
- 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.
   Becommended tooling ERG-50, WT1-TB
  - Natural nylon is standard. For colored Ty-Rap<sup>®</sup> ties, add the following suffix numbers to catalog numbers. **Example:** TY25M-2 would be red TY25M. (Consult customer service for ordering information.)

	Enampion	Loin L nouid	0010011201			i ordornig into	mationity	
How to Order Colored	COLOR	SUFFIX NO.	COLOR	SUFFIX NO.	COLOR	SUFFIX NO.	COLOR	SUFFIX NO.
Ty-Rap <sup>®</sup> Cable Ties	Black	Х	Red	2	Green	5	Gray	8
and Accessories	(outdoor)		Orange	3	Blue	6	White	9
allu Accessories	Brown	1	Yellow	4	Purple	7		
Thomas Betts	<b>United Sta</b> Tel: 901.2 800.8 Fax: 901.2	52.8000 16.7809	<b>Canada</b> Tel: 450.3 Fax: 450.3		<b>Technical Se</b> Tel: 888.862			

## **Cable Ties**

#### Cable ties at your fingertips!

#### Ty-Rap Tote<sup>®</sup> 4", 8" and 11"–14" Combination Length Cable Tie Dispensers

- Durable, lightweight polyester exterior and tough vinyl interior construction
- Rugged diamond-shaped cutout for easy access to cable ties (up to 8", 11"–14" lengths) and rectangular-shaped (for 4" length)
- · Handy belt clip and chrome steel loop for easy attachment
- · Resealable hook-and-loop flap for easy refill
- Includes 100 genuine Ty-Rap® cable ties



STD PKG.		
CAT. NO.	DESCRIPTION	STD. PKG. QTY.
TY-TOTE-25	Ty-Rap Tote <sup>®</sup> 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!

## Ty-Rap<sup>®</sup> Nylon 6.6 Cable Ties — Weather Resistant



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TY5272MX — Tie body width .270"

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.
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	<b>TY234MX</b>	.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	<b>TY253MX</b>	.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 <sup>†</sup>	TY272MX <sup>†</sup>	.27/6.86	8.75/222.250	2.00/50.80	—	120/533.80	50	500
TY527MX <sup>†</sup>	TY27MX <sup>†</sup>	.27/6.86	13.40/340.36	3.50/88.90	MS3367-3	120/533.80	50	500
TY5275MX	<b>TY275MX</b>	.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 <sup>†</sup>	_	.32/8.13	45.00/1143.00	13.00/330.20	_	175/778.40	50	—

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

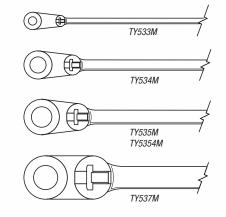
\* For military compliance of weather-resistant black 120-lb. ties, replace suffix X with O (i.e., TY27M-0).

† Not 🔍 Listed or Recognized Models.

Black color

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## **Cable Ties**

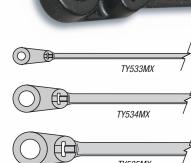


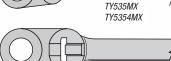
Great for use with screws, nuts, and bolts for secure fastening to surfaces.

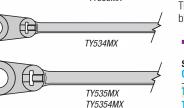
#### Ty-Rap<sup>®</sup> Nylon 6.6 Mounting Head Cable Ties

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	.19	50/222.40	—	1,000
TYF535M	TYF35M	.19/4.83	7.24/183.90	1.77/44.96	.19	50/222.40	100	1,000
TY537M	TY37M	.30/7.62	13.90/353.06	3.50/88.90	1/2	120/533.80	50	500
For use in ter	nperatures rand	ning from -40°	F to 185° F (-40°	C to 85° C).				

• Natural nylon color









TY537MX

TY538M



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	<b>TY354MX</b>	.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	1/4	120/533.80	50	500

Black color

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

## Ty-Rap<sup>®</sup> Nylon 6.6 Push Mount Cable Ties

For use in 3/6" and 1/4" pre-drilled holes. Thickness panel .09 max. (TY554M) Range .04-156 (TY538M)



	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 1	Y54M	.14/3.56	5.96/151.38	1.13/28.70	3/16	40/177.90	100	1,000
TY538M 1	Y38M*	.18/4.57	7.80/198.12	1.75/44.45	1/4	50/222.40	100	1,000

\*Nylon 6.6 UV weather resis ant version available (TY38MX)

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

• Natural nylon color



TY554M

Thomas®Betts

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**Cable Ties** 

# Keep your cables clearly identified!

## Ty-Rap<sup>®</sup> Nylon 6.6 Identification Cable Ties

Self-locking Ty-Rap<sup>®</sup> identification ties are available in both single and multiple configurations. They can be marked with the special Thomas & Betts black or red marking pen (see **page D-8**) 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<sup>®</sup> tying tools used for regular ties.



MARKING MAX. WIRE TENSILE BODY TOTAL MILITARY PAD SIZE BULK STD. BULK WIDTH LENGTH **BUNDLE DIA** STANDARD IN./MM. STRENGTH CAT. NO. IN./MM. IN./MM. IN./MM. PART NO. WХΗ LBS./N. PKG. QTY. PKG. QTY. TY51M .09/2.29 3.60/91.44 MS3368-5 50 500 .63/16.00 1 x .313 18/80.07 **TY512M\*** .09/2.29 8.30/210.82 2.00/50.80 100 1 x .313 18/80.07 1,000 TY53M .09/2.29 4.00/101.6 .63/16.00 .813 x .359 18/80.07 50 500 **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 18/80.07 .781 x 1 500 **TY46M** .18/4.57 7.10/180.34 1.75/44.45 MS3368-1 .5 x .875 50/222.40 100 1,000 **TY48M\*** .19/4.83 14.20/360.68 4.00/101.6 MS3368-2 .5 x 2.125 50/222.40 100 1,000 TY46MD\* .19/4.83 7.25/184.15 1.75/44.45 MS3368-3 1.172 x 1 50/222.40 50 500 **TY46MT\*** .19/4.83 7.25/184.15 1.75/44.45 MS3368-4 1.210 x 1 50/222.40 100 500 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").

• Natural nylon color

STD.

CAT. NO.

TY551M

**TY5512M** 

TY553M

TY5532M

**TY546M** 

**TY548M** 

TY546MD

TY546MT

**TY546MF** 

## **Custom Heat Stamping**

Thomas & Bett's 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 ½" characters
- Eight-digit sequential numbering available in 1/16" and 3/16" characters

- The following colors of heat stamping are available black, blue, green, red, yellow, orange, and white
- Special logos and different type styles can be accommodated when camera-ready artwork is provided
- Minimum order quantity is 3,000 pieces per part number and message



See E-Z-Code section H for all of your labeling needs.

EZL-100 Thermal label printer, see pages H-4 & 5.

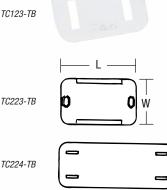


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For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C)

## **Cable Ties**

*Ty-Rap*° Cable Fastening Systems





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

#### Stay organized!

## **Identification Tags**

Ranging in length from 1.25" to 2.5", the identification plates are secured to the cable with Ty-Rap<sup>®</sup> 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.

BULK PKG. CAT. NO.	WIDTH IN./MM	LENGTH IN./MM	THICKNESS IN./MM	MAX. CABLE TIE WIDTH 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	1.28/32.51	.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 upp in tomp	araturaa ranaina fram	100 E to 1050 E ( 10	O to DEO OL			

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**

- · Enables marking and bundling to be done in one operation
- The marking can be made with a Thomas & Betts permanent marking pen (black or red); catalog numbers: WT163M-1 (black), WT163M-3 (red)
- 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)	STD. PKG. QTY.	BULK 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 (133.40 N.) & 40 (177.90 N.) 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 Pens**

- · Permanent ink
- · Fine point tip

CAT. NO.	COLOR INK	STD. PKG. QTY.
WT163M-1	Black	1
WT163M-3	Red	1



Thomas Betts

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**Cable Ties** 

#### Striped-Colored TY-RAP® 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 twistedwire method, the time saving is substantial. High-contrast color stripes extend to end of tail for instant, permanent identification of binder.

STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	TIE COLOR	COLOR STRIPE	BODY WIDTH IN./MM	LENGTH IN./MM	TENSILE Strength LBS./N.	STD. PKG. QTY.	BULK PKG. QTY.
696-40527-0C	696-40527-0	Black	_	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-1-0C	696-40527-1-0	Brown	Black	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-1-2C	696-40527-1-2	Brown	Red	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-1-4C	696-40527-1-4	Brown	Yellow	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-1-7C	696-40527-1-7	Brown	Violet	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-1-9C	696-40527-1-9	Brown	White	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-2C	696-40527-2	Red	—	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-3-0C	696-40527-3-0	Orange	Black	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-3-2C	696-40527-3-2	Orange	Red	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-3-4C	696-40527-3-4	Orange	Yellow	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-3-7C	696-40527-3-7	Orange	Violet	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-3-9C	696-40527-3-9	Orange	White	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-4C	696-40527-4	Yellow	—	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-5-0C	696-40527-5-0	Green	Black	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-5-2C	696-40527-5-2	Green	Red	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-5-4C	696-40527-5-4	Green	Yellow	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-5-7C	696-40527-5-7	Green	Violet	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-5-9C	696-40527-5-9	Green	White	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-6-0C	696-40527-6-0	Blue	Black	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-6-2C	696-40527-6-2	Blue	Red	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-6-4C	696-40527-6-4	Blue	Yellow	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-6-7C	696-40527-6-7	Blue	Violet	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-6-9C	696-40527-6-9	Blue	White	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-8-0C	696-40527-8-0	Slate	Black	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-8-2C	696-40527-8-2	Slate	Red	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-8-4C	696-40527-8-4	Slate	Yellow	.09/2.29	3.62/91.95	18/80.07	100	1,000
696-40527-8-9C	696-40527-8-9	Slate	White	.09/2.29	3.62/91.95	18/80.07	100	1,000

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

## Striped-Colored TY-RAP® Cable Tie Kits

STD. PKG. Cat. No.	DESCRIPTION	STD. 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

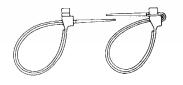


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# **Cable Ties**

Use these ties again and again!

## **Ty-Rap® Reusable Cable 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

Fast and safe!

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

# Secure wire bundles to masonary surfaces!

#### Ty-Rap<sup>®</sup> Cable Tie for Masonry Surfaces



- Quickly secures wire bundles up to 1¼ inches in diameter to all masonry surfaces
- Equipped with a masonry plug that is driven into the drilled hole
- Once installed, the tail is looped through the head to provide a neat, safe, low-profile installation
- Constructed weather-resistant nylon

std. PKG. Cat. No.	Body Width In./Mm.	MAX. WIRE Bundle Dia. In./MM.	Masonry Hole Size	PULLOUT Force LBS./N	STD. PKG. QTY.
TY544MX	.18/4.57	1.75/44.45	1/4	25	50

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

Black color

#### Convenient one-piece design! Ty-Rap<sup>®</sup> Cable Tie for Panel and Chassis Mounting

- One-piece design, fast and convenient to use
- Clamping range of <sup>1</sup>/<sub>16</sub> to 2<sup>%</sup> 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.	TENSILE Strength LBS./N.	STD. PKG. QTY.	BULK PKG. QTY.
TY541M	TY41M	.23/5.84	9.60/243.84	2.37/60.20	.3268/8.13-17.27	65/289.10	50	1,000
650-41600	_	.23/5.84	10.25/260.35	2.50/63.50	.3268/8.13-17.27	65/289.10	500	1,000
<b>696-41848</b>	—	.23/5.84	12.50/317.50	3.00/76.20	.3268/8.13-17.27	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



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- Ty-Rap<sup>®</sup> Cable Tie for Wooden Surfaces
- The Drive-Ty<sup>®</sup> cable tie gives you a fast, safe means of securing cables to wood surfaces

STD. PKG. CAT. NO.	BODY WIDTH IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	PULLOUT Force LBS./N	STD. PKG. QTY.
TY545MX	.18/4.57	1.5/38.10	50/222	50
<ul> <li>For use in t</li> <li>Black color</li> </ul>		g from -40° F to 185	° F (-40° C to 85°	C).

# **Cable Ties — Material Selection Ordering Guide**

# Select the cable ties you need for special environments!

Thomas & Betts offers Ty-Rap<sup>®</sup> 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<sup>®</sup> 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

	EXTRA High temp 4.6 Nylon	NATURAL 6.6 Nylon	WEATHER- Resistant 6.6 Nylon	HEAT- Stabilized U.V. 6.6 Nylon	HEAT- Stabilized Natural 6.6 Nylon	FLAME- Retardant 6.6 Nylon	WEATHER Resistant Nylon 12	WEATHER- RESISTANT POLY- PROPYLENE	RADIATION RESISTANT FLUORO- POLYMER	LOW- SMOKE Fluoro- Polymer	STAIN- Less Steel	DELTEC® Weatherable Acetal
Ultraviolet Resistance	1	1	4	4	1	1	4	4	5	5	5	4
Radiation Resistance	1	1	1	1	1	1	1	1	4	4	5	1
Low Temperature	3	3	3	4	3	2	4	3	4	4	5	4
High Temperature	4	3	3	3	4	3	2	2	4	4	5	2
Flammablity	3	3	3	3	3	4	1	1	4	4	5	1
Tensile Strength	3	3	3	3	3	3	2	1	3	3	5	2
Relative Cost	Med	Low	Low	Low	Low	Med	Med	Low	High	High	High	High
Tensile Strength	3	3	3	3	3	-	Z	1 1 Low	3	3	5	

Chemical Resistance

# Flammability ratings for selecting Ty-Rap<sup>®</sup> cable ties

**NOTE:** Flammability ratings of Ty-Rap<sup>®</sup> cable tie materials are shown in Table 2. These tests for flammability of plastic material are intended to serve as a preliminary indication of acceptability with respect to flammability for particular applications.

#### See Table 3 (Page D-12)

#### UL 94 vertical burn test procedures

Test specimens of the material, with dimensions 5" x  $\chi$ ", 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.

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

	NATURAL 6.6 Nylon	WEATHER- Resistant 6.6 Nylon	EXTRA HIGH TEMP 4.6 NYLON	HEAT- Stabilized U.V. 6.6 Nylon	HEAT- Stabilized Natural 6.6 Nylon	FLAME- Retardant 6.6 Nylon	WEATHER- Resistant Nylon 12	WEATHER- RESISTANT POLY- PROPYLENE	Fluoro- Polymer Radiation Resistance	low- Smoke Density	stain- Less Steel	Deltec® Weatherable Acetal
Tensile Strength (Yield) @ 73° F (Dry-As-Molded) <sup>1</sup> [psi]	12,000	12,000	14,500	11,500	12,000	11,000	7,500	4,600	6,700	6,600	90,000	10,000
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 10⁵	1 x 10 <sup>5</sup>	1 x 10⁵	1 x 10⁵	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>6</sup>	2 x 10 <sup>8</sup>	1 x 10 <sup>6</sup>
Ultraviolet Light Resistance	Poor	Good	Poor	Good	Poor	Poor	Good	Good	Excellent	Excellent	Excellent	Very Good
Water Absorption (24 hrs.)	[%] 1.3	1.2	2.3	.25	1.4	1.4	0.25	0.1	<.01	<0.1	None	0.25
Oxygen Index	28	28	27	26	31	34	—	—	30	52	_	21
Max. Continuous Use Temperature [F°/C°]	185/85	185/85	302/150	221/105	221/105	185/85	176/80	194/90	302/150	284/140	1000 / 537	194/90
Min. Continuous Use Temperature [F°/C°]88	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/ -40	-40/-40	-65/-65	-50/-46	-50/-46	-112 /-80	-85/-65
Color	Natural	Black	Light Green	Black	Green Tint	White	Black	Black	Aqua	Maroon	Stainless	Black

<sup>1</sup> ASTM D638-878 except stainless steel, which is ASTME8



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# Thomas®Betts

D-11

# **Material Selection Ordering Guide**

#### Materials classed UL 94V-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.

#### **Chemical Resistance**

Table 3 shows the resistance of Ty-Rap<sup>®</sup> 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

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REAGENTS	CONCENTRATION	HEAT- Stabilized 6.6 Nylon As Used In Tyh Series	FLUOROPOLYMER Low-Smoke Halar As Used In Tyv Series	DELTEC® WEATHERABLE ACETAL AS USED IN TYD SERIES	STANDARD 6.6 Nylon As used in Ty series	6.6 WEATHER- RESISTANT Nylon As Used In Ty X series	6.6 FIRE- Retardant Nylon As Used In Ty Fr Series	WEATHER- RESISTANT Nylon 12 As used in Tyc X series	POLY- Propylene As used in Typ series	WEATHER- Resistant Poly- Propylene As used in Typ X series	FLUOROPOLYMER RADIATION- RESISTANT AS USED IN TYZ SERIES	STAINLESS Steel As used in Tys series
Arsenic Acid	40%	—	—	—	—	—	—	—	E	E	—	E
Acetaldehyde	50%	S	_	_	S	S	S	_	_	_	_	_
Acetone	100%	E	E	F	E	E	E	E	E	E	E	E
Aluminum Hydroxide	AQ	_	E	_	_	_	_	_	E	E	E	E
Ammonia	All	—	E	—	—	—	—	E	E	E	E	
Ammonium Carbonate	5%	S	E	_	S	S	S	E	E	E	E	E
Ammonium Hydroxide	10%	E	E	F	E	E	E	—	E	E	E	E
Ammonium Nitrate		_	E	_	_	_	_	E	E	E	E	E
Ammonium Sulfate	10%	—	E	—	—	—	—	S	S	S	S	S
Barium Carbonate	All		E	—				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	F	E	E	E	E	S	S	E	E
Benzoic Acid	100%	NR	E	—	NR	NR	NR	E	E	E	E	E
Butyric Acid	50%	NR	E	_	NR	NR	NR	_	E	E	E	E
Calcium Carbonate	AQ	—	E	—	—	—		—	E	E	E	E
Calcium Hydroxide	20%	—	F	E	—	—	—	—	E	E	E	E
Calcium Hydrochlorite	2	NR	—	—	NR	NR	NR	—	F	F	F	F
Calcium Sulfate	2%	_	E	_	_	_		_	E	E	E	E
Carbon Tetrachloride	100%	E	E	E	E	E	E	E	F	F	E	E
Chlorine (WET)	_	NR	_	_	NR	NR	NR	_	F	F	F	F
Chlorine (DRY)	—	NR	—	—	NR	NR	NR	—	NR	NR	F	F
Chloroacetic Acid	30%	NR	_	—	NR	NR	NR	—	—	—	F	F
Chloroform	100%	—	E	—	—	—	_	F	F	F	E	E
Chromic Acid	50%	NR	S		NR	NR	NR		F	F	F	F
Citric Acid	50%	S	E	E	S	S	S	E	E	E	E	E
Copper Cyanide	10%	—	E	—	—	—	—	—	E	E	E	E
Copper Nitrate	50%	—	E	—	—	—	—	—	E	E	E	E
Cider	_	_	E	_	_	_	_	_	E	E	E	E
Dichloroethane	100%	—	E	_	—	—	—	_	—	_	E	E
Diethyl Ether	100%		E	S		_		E	E	E	E	E
Ethyl Alcohol	100%	S	E	—	S	S	S	E	E	E	E	E
Ethyl Chloride	100%		S	E				F	F	F	E	E
Ethylene Glycol	100%	E	E	S	E	E	E	—	E	E	E	E
Ferric Hydroxide	All	_	E	_	_	_	_	_	E	E	E	E
Ferric Nitrate	10%	—	E	—	—	—	—	—	E	E	E	E
Ferrous Sulfate	10%	_	E	_	_	_	_	_	E	E	E	E
Fuel Oil	100%	—	E	—	—	—	—	E	_	—	E	E
Furfural	100%	_	E	_	_	_	_	_	F	F	E	E
Gallic Acid	AQ	_	E	—	_	_	_	—	_	_	E	E
Gasoline	100%	E	E	_	E	E	E		S	S	E	E
Glycerine	100%	—	E	—	—	—	—	E	E	E	_	E
Hydrocyanic Acid	All		E					_	E	E	E	E
Hydrogen Peroxide	30%	NR	E	F	NR	NR	NR	S	E	E	E	E
Hydrogen Sulfide	Dry	NR	E	—	NR	NR	NR	E	E	E	E	E
lodoform	100%	_	E	—	_	_	—	E	E	—	E	E
sopropyl Alcohol	100%	S	E	_	S	S	S	E		E	E	E
Jet Fuel	100%	E	E	_	E	E	E	—	S	S	E	E
Lactic Acid	10%	E	E	_	E	E	E	S	E	E	E	E
Lanolin	10%	E	E	—	E	E	E	E	E	E	E	E
Lead Acetate	5%	—	E	—	—		_		E	E	E	E
Linseed Oil	10%	E	E	E	E	E	E	E	E	E	E	E
Magnesium Carbonate		—	E	_	_	_	_	E	E	E	E	E
Magnesium Chloride	10%	F			F	F	F	F	F	F	F	F

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# **Material Selection Ordering Guide**

- **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.

#### Table 3 (continued)

Magnesium Nitrate         All           Maic Acid         AQ           Mercury         100%           Methyl Alcohol         100%           Methyl Chloride         100%           Methyl Chloride         100%           Methyl Chloride         100%           Methyl Chloride         100%           Methyl Ethyl Ketone         100%           Nitric Acid         30—70%           Nitric Acid         30—70%           Nitrous Acid         5%           Oleic Acid         100%           Paraffin         100%           Petroleum Ether         100%           Phosphoric Acid         10%           Potassium Calonate 1%         —           Potassium Chlorate         AQ           Potassium Chlorate         AQ           Potassium Chlorate         AQ           Potassium Sulfide         AQ           Potassium Hydroxide         5%           Potassium Sulfide         AQ           Potassium Sulfide         AQ <th>STABILIZED 6.6 NYLON AS USED IN TYH SERIES</th> <th>LOW-SMOKE Fluoropolymer As used in Tyv series</th> <th>DELTEC® Weatherable Acetal As Used In Tyd Series</th> <th>STANDARD 6.6 Nylon As used in Ty series</th> <th>6.6 WEATHER- Resistant Nylon As used in Ty X series</th> <th>6.6 FIRE- Retardant Nylon As used in Ty FR series</th> <th>WEATHER- Resistant Nylon 12 As used in Tyc X series</th> <th>POLY- Propylene As used in Typ series</th> <th>WEATHER- RESISTANT POLY- PROPYLENE AS USED IN TYP X SERIES</th> <th>RADIATION- RESISTANT FLUOROPOLYMER AS USED IN TYZ SERIES</th> <th>STAINLESS Steel As used in Tys series</th>	STABILIZED 6.6 NYLON AS USED IN TYH SERIES	LOW-SMOKE Fluoropolymer As used in Tyv series	DELTEC® Weatherable Acetal As Used In Tyd Series	STANDARD 6.6 Nylon As used in Ty series	6.6 WEATHER- Resistant Nylon As used in Ty X series	6.6 FIRE- Retardant Nylon As used in Ty FR series	WEATHER- Resistant Nylon 12 As used in Tyc X series	POLY- Propylene As used in Typ series	WEATHER- RESISTANT POLY- PROPYLENE AS USED IN TYP X SERIES	RADIATION- RESISTANT FLUOROPOLYMER AS USED IN TYZ SERIES	STAINLESS Steel As used in Tys series
Mercury         100%           Methyl Alcohol         100%           Methyl Chloride         100%           Methyl Chloride         100%           Naptha         100%           Nitric Acid         30%           Nitric Acid         10%           Paraffin         100%           Paraffin         100%           Petroleum Ether         100%           Phosphoric Acid         10%           Picric Acid         10%           Potassium Bromide         AQ           Potassium Carbonate 1%         —           Potassium Chlorate         AQ           Potassium Mitrate         5%           Potassium Nitrate         5%           Potassium Nitrate         5%           Potassium Permanganate         5%           Potassium Nitrate         10%           Sodium Acetate         60%           Sodium Ricatonate         All           Sodium Chlorate         All           Sodium Chlorate         25%           Sodium Chlo		E		_		_	E	E	E	E	E
Methyl Alcohol         100%           Methyl Chloride         100%           Methyl Chloride         100%           Naptha         100%           Naptha         100%           Nitric Acid         30—70%           Nitric Acid         30—70%           Nitrous Acid         5%           Oleic Acid         100%           Paraffin         100%           Paraffin         100%           Petroleum Ether         100%           Phesphoric Acid         10%           Picric Acid         10%           Picric Acid         10%           Potassium Bromide         AQ           Potassium Chlorate         AQ           Potassium Chlorate         AQ           Potassium Fornozyanide         25%           Potassium Hydroxide         5%           Potassium Mitrate         50%           Potassium Mitrate         5%           Potassium Sulfide         AQ           Sodium Acetate         60%	_	E	_	_	_	_	_	E	E	E	E
Methyl Chloride         100%           Methyl Ethyl Ketone         100%           Maptha         100%           Nitric Acid         30%           Nitrous Acid         5%           Dieic Acid         100%           Paraffin         100%           Paraffin         100%           Petroleum Ether         100%           Phosphoric Acid         1%           Potassium Bromide         AQ           Potassium Carbonate 1%         —           Potassium Dichromate         40%           Potassium Dichromate         40%           Potassium Dichromate         40%           Potassium Mydroxide         5%           Potassium Nitrate         50%           Potassium Sulfide         AQ           Sodium Borate         All	—	E	—	—	—		E	E	E	E	E
Methyl Ethyl Ketone         100%           Naptha         100%           Nitric Acid         30%           Nitric Acid         30%           Nitric Acid         30%           Nitric Acid         30%           Nitrous Acid         5%           Oleic Acid         100%           Ovalic Acid         10%           Paraffin         100%           Petroleum Ether         100%           Phenol         90%           Phosphoric Acid         10%           Potassium Bromide         AQ           Potassium Carbonate 1%         —           Potassium Chorate         AQ           Potassium Chorate         AQ           Potassium Dichromate         40%           Potassium Nitrate         50%           Potassium Nitrate         50%           Potassium Sulfiate         5%           Potassium Sulfiate         5%           Potassium Sulfiate         60%           Sodium Bicarbonate         All           Sodium Borate         All           Sodium Chlorate         25%           Sodium Chlorate         25%           Sodium Chlorate         25% <td< td=""><td>S</td><td>E</td><td>_</td><td>S</td><td>S</td><td>S</td><td>E</td><td>E</td><td>E</td><td>E</td><td>E</td></td<>	S	E	_	S	S	S	E	E	E	E	E
Naptha     100%       Nitric Acid     30%       Nitric Acid     30—70%       Nitrous Acid     5%       Oieic Acid     100%       Paraffin     100%       Paraffin     100%       Petroleum Ether     100%       Piconoric Acid     10%       Picric Acid     10%       Potassium Carbonate 1%     —       Potassium Chorate     AQ       Potassium Forrocyanide     25%       Potassium Nitrate     5%       Potassium Nitrate     5%       Potassium Sulfide     AQ       Potassium Sulfide     AQ       Potassium Nitrate     5%       Potassium Sulfide     AQ       Potassium Sulfide     AQ       Potassium Sulfide     AQ       Potassium Sulfide     AQ       Sodium Rotohol     100%       Sodium Rotohol     100%       Sodium Chlorate     AII       Sodium Chlorate     5%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Chlorate     5% <t< td=""><td>—</td><td>S</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>S</td><td>S</td><td>E</td><td>E</td></t<>	—	S	—	—	—	—	—	S	S	E	E
Nitric Acid         30%           Nitric Acid         30—70%           Nitros Acid         5%           Oieic Acid         100%           Paraffin         100%           Paraffin         100%           Petroleum Ether         100%           Phosphoric Acid         10%           Phosphoric Acid         10%           Potassium Bromide         AQ           Potassium Carbonate 1%         —           Potassium Carbonate 1%         —           Potassium Dichromate         40%           Potassium Dichromate         40%           Potassium Mydroxide         5%           Potassium Nitrate         50%           Potassium Sulfide         AQ           Sodium Borate         All           Sodium Chorate         5%           Sodium Chorate         5%           Sodium Chorate         25%           Sodium Chorate         5%           Sodium Propolatite         AQ	_	E	F	_	_	_	E	E	E	E	E
Nitric Acid         30—70%           Nitrous Acid         5%           Oleic Acid         100%           Ovalic Acid         10%           Paraffin         100%           Petroleum Ether         100%           Phenol         90%           Phosphoric Acid         10%           Pictasium Bromide         AQ           Potassium Bromide         AQ           Potassium Bromide         AQ           Potassium Bromoide         AQ           Potassium Ferrocyanide         25%           Potassium Ferrocyanide         5%           Potassium Nitrate         50%           Potassium Sulfiate         5%           Potassium Sulfiate         5%           Potassium Sulfiate         5%           Potassium Sulfiate         10%           Sodium Bicarbonate         All           Sodium Bicarbonate         All           Sodium Chorate         25%           Sodium Chorate         5%           Sodium Chorate         5%      <	—	E	—	—	—	—	—	E	E	E	E
Nitrous Acid     5%       Dieic Acid     100%       Oxalic Acid     10%       Paraffin     100%       Petroleum Ether     100%       Phenol     90%       Phosphoric Acid     10%       Picric Acid     10%       Potassium Bromide     AQ       Potassium Carbonate 1%     —       Potassium Fornoziate     AQ       Potassium Forrocyanide     25%       Potassium Hydroxide     5%       Potassium Nitrate     50%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Nitrate     5%       Sodium Propolate     5%       Sodium Phosphate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Prophosphate     5%	NR	E	NR	NR	NR	NR	_	E	E	E	E
Oleic Acid         100%           Oxalic Acid         10%           Paraffin         100%           Petroleum Ether         100%           Phosphoric Acid         10%           Phosphoric Acid         10%           Phosphoric Acid         10%           Picric Acid         1%           Potassium Bromide         AQ           Potassium Chorate         AQ           Potassium Mydroxide         5%           Potassium Nitrate         50%           Potassium Sulfide         AQ           Potassium Sulfide         AQ           Potassium Sulfide         AQ           Propyl Alcohol         100%           Sodium Acetate         60%           Sodium Chorate         5%           Sodium Propophate         5%	NR	S	NR	NR	NR	NR	—	F	F	S	E
Oxalic Acid         10%           Parafin         100%           Petroleum Ether         100%           Phenol         90%           Phosphoric Acid         10%           Picric Acid         1%           Potassium Bromide         AQ           Potassium Bromide         AQ           Potassium Bromide         AQ           Potassium Bromote         40%           Potassium Dichromate         40%           Potassium Ferrocyanide         25%           Potassium Nitrate         50%           Potassium Nitrate         50%           Potassium Nitrate         50%           Potassium Sulfate         5%           Potassium Sulfate         5%           Potassium Sulfate         10%           Sodium Acetate         60%           Sodium Brathonate         All           Sodium Chorate         25%           Sodium Chorate         5%           Sodium Chorate         5%           Sodium Chorate         5%           Sodium Phytroxide         10%           Sodium Phytroxide         10%           Sodium Phytroxide         10%           Sodium Phytroxide         5% </td <td>_</td> <td>E</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>F</td> <td>F</td> <td>E</td> <td>E</td>	_	E	_	_	_	_	_	F	F	E	E
Paraffin     100%       Petroleum Ether     100%       Phenol     90%       Phosphoric Acid     10%       Picoric Acid     10%       Potassium Bromide     AQ       Potassium Carbonate 1%     —       Potassium Chorate     AQ       Potassium Chorate     AQ       Potassium Chorate     AQ       Potassium Perrocyanide     25%       Potassium Nitrate     50%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     10%       Sodium Brachonate     AII       Sodium Brachonate     AII       Sodium Brachonate     AII       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Prochorate     10%       Sodium Protorate     10%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Prosphate     5%       Sodium Prosphate     5% <t< td=""><td>—</td><td>E</td><td>S</td><td>—</td><td>—</td><td>—</td><td>—</td><td>E</td><td>E</td><td>E</td><td>E</td></t<>	—	E	S	—	—	—	—	E	E	E	E
Petroleum Ether     100%       Phenol     90%       Phosphoric Acid     10%       Picric Acid     1%       Picric Acid     1%       Potassium Bromide     AQ       Potassium Cabonate 1%     —       Potassium Chorate     AQ       Potassium Chorate     40%       Potassium Fidroxide     5%       Potassium Hydroxide     5%       Potassium Nitrate     50%       Potassium Sulfide     AQ       Propyl Alcohol     100%       Sodium Acetate     60%       Sodium Bicarbonate     AII       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Nitrate     5%       Sodium Procphate     5%       Sodium Procphate     5%       Sodium Procphate     5%       Sodium Procphate     5%       Sodium Nitrate     5%       Sodium Procphate     5%       Sodium Procphate <td></td> <td>E</td> <td>_</td> <td>_</td> <td></td> <td>_</td> <td>S</td> <td>E</td> <td>E</td> <td>E</td> <td>E</td>		E	_	_		_	S	E	E	E	E
Phenol         90%           Phosphoric Acid         10%           Pioric Acid         10%           Pioric Acid         10%           Pioric Acid         11%           Potassium Bromide         AQ           Potassium Carbonate 1%         —           Potassium Dichromate         AQ           Potassium Dichromate         40%           Potassium Nitrate         50%           Potassium Sulfide         AQ           Sodium Rotate         All           Sodium Bisulfate         10%           Sodium Chorate         25%           Sodium Chorate         25%           Sodium Chorate         5%           Sodium Chorate         5%           Sodium Chorate         5%           Sodium Nitrate         AQ	E	E	_	E	E	E	E	E	E	E	E
Phosphoric Acid     10%       Picric Acid     1%       Picric Acid     1%       Potassium Bromide     AQ       Potassium Carbonate 1%     —       Potassium Chorate     AQ       Potassium Dichorate     40%       Potassium Ferrocyanide     25%       Potassium Ferrocyanide     5%       Potassium Nitrate     50%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     60%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Propyl Alcohol     10%       Sodium Brate     All       Sodium Chlorate     2%       Sodium Chlorate     5%       Sodium Propylate     5%       Sodium Prophate     5%		E	—	—		—	E	F	F	E	E
Picric Acid     1%       Potassium Bromide     AQ       Potassium Carbonate 1%     —       Potassium Chlorate     AQ       Potassium Chlorate     AQ       Potassium Forrocyanide     25%       Potassium Hydroxide     5%       Potassium Nitrate     50%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Sulfide     AQ       Propyl Alcohol     100%       Sodium Acetate     60%       Sodium Bicufate     10%       Sodium Carbonate     All       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Nitrate     5%       <	NR	E	NR	NR	NR	NR	—	E	E	E	E
Picric Acid     1%       Potassium Bromide     AQ       Potassium Carbonate 1%     —       Potassium Chlorate     AQ       Potassium Chlorate     AQ       Potassium Forrocyanide     25%       Potassium Hydroxide     5%       Potassium Nitrate     50%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Sulfide     AQ       Propyl Alcohol     100%       Sodium Acetate     60%       Sodium Bicufate     10%       Sodium Carbonate     All       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Chlorate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate     5%       Sodium Propolate     5%       Sodium Nitrate     5%       <	NR	E	_	NR	NR	NR	_	E	E	E	E
Potassium Carbonate 1%     —       Potassium Chlorate     AQ       Potassium Dichromate     40%       Potassium Errocyanide     25%       Potassium Berrocyanide     5%       Potassium Nitrate     50%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Nitrate     5%       Potassium Sulfate     5%       Potassium Sulfate     60%       Sodium Rectate     60%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Chlorate     25%       Sodium Ploposulfite     AQ       Sodium Ploposulfite     AQ       Sodium Proposulfite     AQ       Sodium Proposulfite     AQ       Sodium Ploposulfite     AQ       Sodium Ploposulfite     S%       Sodium Ploposulfite     S%       Sodium Ploposulfite     5%       Sodium Ploposulfite     5%       Sodium Ploposulfate     5%       Sodium Ploposulfate     5%       Sodium Ploposulfate     5%       Sodium	—	E	—	—	—	—	—	E	E	E	E
Potassium Chlorate     AQ       Potassium Perrocyanide     25%       Potassium Perrocyanide     5%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Sulfate     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicatenate     AII       Sodium Bicatenate     AII       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Propolate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate	_	_	_	_	_	_	_	S	S	S	S
Potassium Chlorate     AQ       Potassium Perrocyanide     25%       Potassium Perrocyanide     5%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Nitrate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Permanganate     5%       Potassium Sulfate     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicatenate     AII       Sodium Bicatenate     AII       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Propolate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Propolate	E	_	_	_	—	E	E	Ē	E	E	
Potassium Dichromate     40%       Potassium Herrocyanide     25%       Potassium Hydroxide     5%       Potassium Nufrate     50%       Potassium Permanganate     5%       Potassium Sulfide     All       Potassium Sulfide     AQ       Propyl Alcohol     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Bicarbonate     5%       Sodium Chlorate     2%       Sodium Fluoride     5%       Sodium Proposplate     5%       Sodium Nitrate     5%       Sodium Proclorate	_	E	_	_	_	_	S	E	E	E	E
Potassium Ferrocyanide     25%       Potassium Hydroxide     5%       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Sulfiate     5%       Potassium Sulfiate     5%       Potassium Sulfiate     AI       Potassium Sulfiate     10%       Sodium Sulfiate     10%       Sodium Roteate     60%       Sodium Bisulfate     10%       Sodium Bisulfate     10%       Sodium Bisulfate     10%       Sodium Chorate     2%       Sodium Chorate     2%       Sodium Chorate     5%       Sodium Chorate     5%       Sodium Chorate     5%       Sodium Pictorate     10%       Sodium Pictorate     5%       Sodium Prosplate     5%       S	NR	E	_	NR	NR	NR	F	F	F	F	E
Potassium Hydroxide     5%       Potassium Iodide     All       Potassium Nitrate     50%       Potassium Nitrate     5%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     60%       Sodium Acetate     60%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Hydroxide     10%       Sodium Phorate     5%       Sodium Phorate     5%       Sodium Phosphate     5%       Sodium Chlorate     10%       Sulfur     100%       Sulfur     100%       Sulfur Choide     5%       Sodium Thicsulfate     5%       Sodium Chlorate		F	_	_		_		F	F	F	F
Potassium Iodide     All       Potassium Permanganate     5%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     10%       Soliver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Fluoride     5%       Sodium Hydroxidte     10%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Prosphate     5%       S	S	E	_	S	S	S	_	E	E	E	E
Potassium Nitrate     50%       Potassium Permanganate     5%       Potassium Sulfiate     5%       Potassium Sulfiate     5%       Potassium Sulfiate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Chlorate     2%       Sodium Chlorate     2%       Sodium Chlorate     5%       Sodium Phyposulfite     AQ       Sodium Phyposulfite     AQ       Sodium Phyposulfite     S%       Sodium Intrate     5%       Sodium Phyposulfite     S%       Sodium Phyposulfite     S%       Sodium Phyposulfite     S%       Sodium Intrate     5%       Sodium Phyposulfite     5%       Sodium Threat	_	E	_	_	_	_	E	F	F	F	F
Potassium Permanganate     5%       Potassium Sulfate     5%       Potassium Sulfate     5%       Potassium Sulfate     AQ       Propyl Alcohol     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Borate     All       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     5%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Phopsulfite     AQ       Sodium Phopsulfite     AQ       Sodium Phopsulfite     SM       Sodium Phopsulfite     SM       Sodium Phopsulfite     SM       Sodium Phopsulfite     SM       Sodium Phopsulfate     5%       Sodium Phopsulfate     5%       Sodium Phopsulfate     5%       Sodium Iniculfate     5%       Sodium Chlorate     100%       Sulfur Dioxide     All       Sulfur Choixide     All       Sulfuric Acid     Conc.       Sulfuric Acid     50%       Tannic Acid     10%	F	Ē	_	F	F	F	Ē	F	F	Ē	Ē
Potassium Sulfate     5%       Potassium Sulfate     AQ       Progyl Alcohol     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bisulfate     10%       Sodium Borate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     2%       Sodium Chlorate     5%       Sodium Hydroide     10%       Sodium Hydroide     10%       Sodium Nitrate     5%       Sodium Phosphate     5%       Sodium Photorate     5%       Sodium Photosphate     5%       Sodium Chlorate     2%       Sodium Photosphate     5%       Sodium Chlorate     5%       Sodium Chlorate<	ŃR	Ē	S	ŃR	NR	NR	NR	Ē	F	F	Ē
Potassium Sulfide     AQ       Propyl Alcohol     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Chlorate     5%       Sodium Chlorate     2%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Prochlorate     5%       Sodium Prochlorate     5%       Sodium Prochlorate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sulfur Dioxide     All       Sulfur Cacid     Conc.       Sulfuric Acid     10%       Sulfuric Acid     50%		Ē	_	_	_	_	E	F	F	F	F
Propyl Alcohol     100%       Silver Nitrate     10%       Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bisulfate     10%       Sodium Bisulfate     10%       Sodium Borate     All       Sodium Chorate     5%       Sodium Chlorate     25%       Sodium Chlorate     2%       Sodium Chlorate     5%       Sodium Hyposulfite     AQ       Sodium Hyposulfite     AQ       Sodium Prosphate     5%       Sodium Prosphate     5%       Sodium Prosphate     5%       Sodium Prosphate     5%       Sodium Inicate     5%       Sodium Nitrite     AQ       Sodium Nitrite     AU       Sodium Prosphate     5%       Sodium Inicatifate     5%       Sodium Chlorate     10%       Sulfur     100%       Sulfur     100%       Sulfur Choixide     All       Sulfuric Acid     5%       Tannic Acid     10%       Tannic Acid     10%       Tannic Acid     50%	_	Ē	_	_	_	_	_	F	F	F	F
Silver Nitrate         10%           Sodium Acetate         60%           Sodium Acetate         60%           Sodium Bisufate         10%           Sodium Bisulfate         10%           Sodium Borate         All           Sodium Borate         All           Sodium Carbonate         5%           Sodium Chlorate         25%           Sodium Chlorate         2%           Sodium Hydroide         10%           Sodium Hydroide         10%           Sodium Hydroide         2%           Sodium Hydroide         5%           Sodium Phosphate         5%           Sodium Prosphate         5%           Sodium Phosphate         5%           Sodium Sulfate         5%           Sodium Sulfate         5%           Sodium Unicate         5%           Sodium Sulfate         5%           Sulfur         100%           Sulfur         00%           Sulfur Choixide         All           Sulfur Choixide         All           Sulfur Choixide         5%           Tannic Acid         50%           Tannic Acid         50%	E	Ē	_	E	E	E	_	F	F	F	Ē
Sodium Acetate     60%       Sodium Bicarbonate     All       Sodium Bicarbonate     All       Sodium Borate     10%       Sodium Carbonate     5%       Sodium Carbonate     25%       Sodium Chlorate     25%       Sodium Chlorate     2%       Sodium Chlorate     2%       Sodium Chlorate     10%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Prochlorate     10%       Sodium Prochlorate     5%       Sulfur     100%       Sulfur     100%       Sulfur     00%       Sulfur Coxid     5%       Tannic Acid     5%       Tannic Acid     10%	_	Ē	_	_	_	_	E	F	F	F	F
Sodium Bicarbonate     All       Sodium Bisulfate     10%       Sodium Borate     All       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Chlorate     25%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Perchlorate     10%       Sodium Throsphate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sulfur Doxide     All       Sulfur Acid     100%       Sulfur Acid     5%       Sulfur Acid     5%       Sodium Thiosulfate     5%       Sodium Chlorate     10%       Sulfur Coxide     All       Sulfur Acid     10%       Sulfur Acid     5%       Sodium Sulface     5%	E	F	_	E	E	E	_	F	F	F	F
Sodium Bisulfate     10%       Sodium Borate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     2%       Sodium Chlorate     2%       Sodium Chlorate     2%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Prosphate     5%       Sodium Phosphate     5%       Sodium Nitrate     5%       Sodium Phosphate     5%       Sodium Ulate     5%       Sodium Ulate     5%       Sulfur     100%       Sulfur     00%       Sulfur Coxid     All       Sulfuric Acid     5%       Tannic Acid     10%       Tannic Acid     10%	E	Ē	_	E	Ē	Ē	E	F	F	F	F
Sodium Borate     All       Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chlorate     2%       Sodium Fluoride     2%       Sodium Fluoride     5%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Prosplate     5%       Sodium Prosplate     5%       Sodium Sulfate     5%       Sodium Sulfate     5%       Sodium Sulfate     5%       Sulfur     100%       Sulfur     00%       Sulfur Coxid     All       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	_	F	E	_	_	_	E	F	F	F	F
Sodium Carbonate     5%       Sodium Chlorate     25%       Sodium Chloride     2%       Sodium Huoride     5%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrite     AQ       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sulfur Dioxide     All       Sulfuric Acid     Conc.       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	_	Ē	_	_	_	_	_	E	F	F	F
Sodium Chlorate     25%       Sodium Chloride     2%       Sodium Fluoride     5%       Sodium Hydroxide     10%       Sodium Hydroxide     10%       Sodium Hydroxide     4Q       Sodium Nitrate     5%       Sodium Perchlorate     10%       Sodium Posphate     5%       Sodium Nitrate     5%       Sodium Posphate     5%       Sodium Ufate     5%       Sodium Ufate     5%       Sodium Ufate     5%       Sulfur     100%       Sulfur     100%       Sulfur Cacid     Conc.       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	E	F	S	E	E	E	E	F	F	F	F
Sodium Chloride     2%       Sodium Fluoride     5%       Sodium Hydroxide     10%       Sodium Nitrate     5%       Sodium Nitrate     10%       Sodium Prosblate     5%       Sodium Prosphate     5%       Sodium Prosphate     5%       Sodium Plosphate     5%       Sodium Prosphate     5%       Sodium Plosphate     5%       Sodium Viris     100%       Sulfur     100%       Sulfur     00%       Sulfur Coxid     Conc.       Sulfuric Acid     5%       Tantic Acid     10%       Tartaric Acid     50%		E	E		_	_	S	F	F	F	F
Sodium Fluoride     5%       Sodium Hydroxide     10%       Sodium Hydroxilfite     AQ       Sodium Nitrate     5%       Sodium Nitrate     5%       Sodium Nitrate     10%       Sodium Nitrate     5%       Sodium Perchlorate     10%       Sodium Nitrate     5%       Sodium Phosphate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sulfur     100%       Sulfur     100%       Sulfur Dioxide     All       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	E	E	S	E	E	E	E	F	F	F	F
Sodium Hydroxide     10%       Sodium Hyposulfite     AQ       Sodium Nitrate     5%       Sodium Perchlorate     10%       Sodium Phosphate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sodium Thiosulfate     5%       Sulfur Thiosulfate     5%       Sulfur Dioxide     All       Sulfur Cacid     Conc.       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%								F	F	F	F
Sodium Hýposulfite     AQ       Sodium Nitrate     5%       Sodium Nitrite     AQ       Sodium Perchlorate     10%       Sodium Phosphate     5%       Sodium Ulfate     5%       Sodium Ulfate     5%       Sodium Viris     40%       Sulfur     100%       Sulfur     00%       Sulfuric Acid     Conc.       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	E	E	S	E	E	E	Е	E	E	F	F
Sodium Nifrate     5%       Sodium Nitrite     AQ       Sodium Perchlorate     10%       Sodium Phosphate     5%       Sodium Thiosulfate     5%       Stearic Acid     100%       Sulfur     100%       Sulfur     100%       Sulfur Dioxide     All       Sulfur Acid     5%       Sulfur Acid     5%       Tannic Acid     10%       Tartaric Acid     50%		E								F	F
Sodium Nitrite         AQ           Sodium Perchlorate         10%           Sodium Phosphate         5%           Sodium Ulitate         5%           Sodium Thiosulfate         5%           Sulfur Thiosulfate         5%           Sulfur         100%           Sulfur         100%           Sulfur Dioxide         All           Sulfuric Acid         5%           Tannic Acid         10%           Tartaric Acid         50%	E	E	_	E	E	E	E	E	E	F	F
Sodium Perchlorate     10%       Sodium Phosphate     5%       Sodium Sulfate     5%       Sodium Thiosulfate     5%       Sulfur Cacid     100%       Sulfur Cacid     Conc.       Sulfuric Acid     5%       Tannic Acid     10%       Tartaric Acid     50%	L	E		L		L	S	E	E	F	F
Sodium Phosphate     5%       Sodium Sulfate     5%       Stearic Acid     100%       Sulfur     100%       Sulfur Dioxide     All       Sulfur Acid     Conc.       Sulfur Acid     5%       Tannic Acid     10%       Tantic Acid     50%	_	E	_	_	_	_	3	L	L	E	E
Sodium Sulfate         5%           Sodium Thiosulfate         5%           Stearic Acid         100%           Sulfur         100%           Sulfur Dioxide         All           Sulfur Acid         Conc.           Sulfur Acid         5%           Tannic Acid         10%           Tartaric Acid         50%		E	_	_	_		E	E	E	F	F
Sodium Thiosulfate         5%           Stearic Acid         100%           Sulfur         100%           Sulfur Dioxide         All           Sulfuric Acid         Conc.           Sulfuric Acid         5%           Tannic Acid         10%           Tartaric Acid         50%	S	E	_	S	E	E	E	E	E	F	F
Stearic Acid         100%           Sulfur         100%           Sulfur Dioxide         All           Sulfuric Acid         Conc.           Sulfuric Acid         5%           Tannic Acid         10%           Tartaric Acid         50%	0	L	S			L	S	S	S	S	S
Sulfur         100%           Sulfur Dioxide         All           Sulfuric Acid         Conc.           Sulfuric Acid         5%           Tannic Acid         10%           Tartaric Acid         50%	_	E		_	_	_	F	F	F	F	E
Sulfur Dioxide         All           Sulfuric Acid         Conc.           Sulfuric Acid         5%           Tannic Acid         10%           Tartaric Acid         50%	_	E	_	_		_	F	F	F	F	F
Sulfuric AcidConc.Sulfuric Acid5%Tannic Acid10%Tartaric Acid50%	NR	E	_	NR	NR	NR	E	F	F	F	F
Sulfuric Acid5%Tannic Acid10%Tartaric Acid50%	NR	E	NR	NR	NR	NR	E	S	S	F	F
Tannic Acid10%Tartaric Acid50%		F					F	S F	S F	E	E
Tartaric Acid 50%	NR		F	NR	NR	NR	Г	F	F	F	F
		E	E	_	_	_	E	-	-		-
Totrobudrofuron 1000/			E		_	_		E	E	E	E
Tetrahydrofuran 100%		F	E				S	F	F	E	E
Toluene 100%	E	E	F	E	E	E	E	F	F	E F	F
Xylene 100%	E	-		E	E	E	E	F	F	E	E
Zinc Chloride 70%	F	E	NR	F	F	F	E	E	E	E E	E
Zinc Nitrate AQ Zinc Sulfate AQ	_	E	_	_	_	_	E	E	E	E	E

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

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

**Ty-Rap<sup>®</sup>** Cable Fastening Systems

**Technical Services** Tel: 450.347.5318 Tel: 888.862.3289 Fax: 450.347.1976

Canada

#### Thomas®Betts www.tnb.com

#### D-13

# **Cable Ties for Special Environments**

FLAME

NEATHER

BULK

CAT. NO.

TY23MFR

TY232MFR

TY24MFR

TY25MFR

TY28MFR

TY27MFR

TY53MFR

TY272MFR<sup>+</sup> .27/6.86

#### **Ty-Rap® Detectable Cable Ties**

TBB WAN	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.
	TY523M-NDT	3.62/91.90	.09/2.36	.63/15.90	18/80	Nylon	100
Detectable using metal detection and X-ray	TY525M-NDT	7.31/186.00	.19/4.70	1.75/44.40	50/220	Nylon	100
detection systems and visions systems.	TY527M-NDT	13.40/340.00	.27/6.86	3.50/89.00	120/540	Nylon	50
Polypropylene parts are also bouyant in liquid application.	TY528M-NDT	14.20/361.00	.19/4.70	4.00/102.00	50/220	Nylon	100
<b>Material</b> — Polyamide (Nylon 6.6) or Polypropylene For use in temperatures ranging from -40° F to 185° F	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
(-40° C to 85° C).	TY527M-PDT	13.40/340.00	.27/6.86	3.50/89.00	60/267	Polypropylene	50
Color — Blue	TY528M-PDT	14.20/361.00	.19/4.75	4.00/102.00	30/135	Polypropylene	100

BODY

WIDTH

IN./MM.

.09/2.29

.09/2.29

.14/3.56

.18/4.57

.18/4.57

27/6.86

.09/2.29

### Make safety a priority!

#### Ty-Rap<sup>®</sup> Cable Ties — Flame **Retardant Nylon 6.6** FTARDAN



This material meets UL 94V-0 flammability rating. Color — White

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

#### Ty-Rap<sup>®</sup> Nylon 12 Cable Ties



ULTRA 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 PESI is much less.

#### Color — Black

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

#### Engineered to withstand high temperate

#### **Ty-Rap® Heat-Stabilized 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

Thomas&Betts

www.tnb.com



Fax: 901.252.1354

	TYH272M	.2	27/6.86
	TYH29M	.3	30/7.62
nited States		Canad	da
el: 901.252.8	3000	Tel: 4	50.347
800.816.7	7809	Fax: 4	50.347

.5318 .1976 **Technical Services** Tel: 888.862.3289

TY153MFR .10/2.54 4.35/110.49 .63/16.00 .78 x 1/19.81 x 14.00 † Not 🖲 Recognized Model.

LENGTH

IN./MM.

3.62/91.95

8.00/203.20

5.50/139.70

7.31/185.67

14.20/360.68

8.00/203.20

13.20/335.28

4.00/101.60

#### Ultraviolet and weather resistant!

111,								
PESISTANI ULTRAVIOLES	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.
ST. W.C.	TYC525MX	TYC25MX	.18/4.57	7.31/185.67	1.75/44.45	35/155.70	100	1,000
Z Z	_	TYC28MX	.18/4.57	14.20/360.68	4.00/101.60	35/155.70	—	1,000
Two		TYC272MX	.27/6.86	8.00/203.20	2.00/50.80	85/378.10	—	500
SISTAN'	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

MAX. WIRE

BUNDLE DIA.

IN./MM.

.63/16.00

2.00/50.80

1.13/28.70

1.75/44.45

4.00/101.60

2.00/50.80

3.50/88.90

.63/16.00

MARKING PAD

SIZE IN./MM.

WXH

N/A

N/A

N/A

N/A

N/A

N/A

N/A

.81 x .36/20.57 x 9.1

TENSILE

STRENGTH

LBS./N.

18/80.07

18/80.07

40/177.90

50/222.40

50/222.40

120/533.80

120/533.80

18/80.07

18/80.07

BULK

PKG. QTY.

1.000

1,000

1,000

1,000

1,000

500

500

500

500

!	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
	TYH23M TYH232M TYH24M	.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

D-14

# **Cable Ties for Special Environments**

#### Perfect for outdoor applications!

#### **Ty-Rap® Heat Stabilized/ Ultraviolet Resistant Cable Ties**

- Ideal for Industrial OEM and MRO (includes, but not limited to industrial, lawn/garden/farming equipment, recreation vehicles, heavy equipment)
- Can be placed in environments requiring heat stabilization and UV resistance
- Provides a smooth, low-profile look and offers 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
- · Made of UV resistant, heat-stabilized nylon





Color — Black

For use in temperatures ranging from -40° -40° C to 105° C

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000	
000	THE REAL PROPERTY AND ADDRESS OF

MPERA

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
TY27MX-A	13.40/340.36	120/533.80	500

#### Beat the heat! NEW! **Ty-Rap® Extra High-Temperature Cable Ties**

- · Ideal for Industrial OEM and MRO (includes, but not limited to 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 offers unlimited tensioning range for a perfect fit
- Features an oval head on every original Ty-Rap<sup>®</sup> Cable Tie

**United States** 

- Quicker to install and less expensive than metallic fasteners, lacing cord or tape
- Made of extra high-temperature resistant nylon

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
*UR Pendina			

Color — Light Green For use in temperatures ranging from -40° F to 302° (-40° to 150° C) *ly-Rap*<sup>.</sup> Cable Fastening Systems

Canada Tel: 901.252.8000 Tel: 450.347.5318 800.816.7809 Fax: 450.347.1976 Fax: 901.252.1354

**Technical Services** Tel: 888.862.3289

## Thomas®Betts www.tnb.com



# **Cable Ties for Special Environments**

Bundle cable up to 4" in diameter.

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

Especially resistant to chemical exposure



— Black e in temperatures ranging from	BULK PKG. CAT. NO.	WIDTH IN./MM.	BODY LENGTH IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	TENSILE Str. LBS./N.	BULK PKG. QTY.
0° F to 185° F (-40° C to 85° C)	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
	TYP28MY	.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	60266.90	500

## Perfect for low smoke-generation applications.

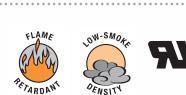
## **Ty-Rap Fluoropolymer Cable Ties**

- · Made of tough fluoropolymer material
- Use in air-handling spaces

- UL 94V-0 flammability rating
- Low-smoke density

#### Color — Maroon

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





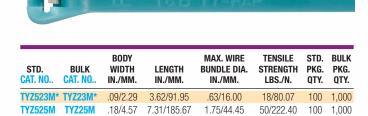


STD. Cat. No.	BULK Cat. No.	BODY WIDTH IN./MM.	LENGTH IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	TENSILE Strength LBS./N.	STD. PKG. QTY.	
TYV523M	TYV23M	.09/2.29	3.62/91.95	.63/16.00	18/80.07	100	1,000
TYV525M	TYV25M	.18/4.57	7.31/185.67	1.75/44.45	50/222.40	100	1,000

# Withstand even the *toughest* environments! **Ty-Rap Fluoropolymer Cable Ties**

- High-radiation resistance
- Made of tough fluorpolymer material
- Meets UL flammability rating 94V-0





1.75/44.45

4.00/101.60

3.50/88.90

100

100 1.000

50 500

50/222.40

120/533.80

Color — Aqua

For use in temperatures ranging from -50° F to 302° F (-45° C to 150° C)

1	TYZ527M					
	*UL	Listed				

TYZ525M

**TYZ528M TYZ28M** 

TYZ25M

TYZ27M

Thomas®Betts **United States** Tel: 901.252.8000 www.tnb.com Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976

800.816.7809

**Technical Services** Tel: 888.862.3289

7.31/185.67

.18/4.57 14.19/360.43

.27/6.86 13.38/339.85

**Ty-Rap**<sup>®</sup> Cable Fastening Systems

D-16

# Stainless Steel Cable Ties and Accessories

# Strong, fire proof and easy to apply for safe cable bundling.

#### **Dual Lock**

Thomas & Betts has a complete package of stainless steel cable ties and accessories that are easy to apply and superior in quality. These products have been designed for tying, lashing, and identification applications in demanding environments such as food processing, boiler rooms, chemical plants, refineries, pulp/paper mills, shipyards and offshore oil platforms. They are made of a variety of high-quality stainless steel materials that offer excellent corrosion resistance, high temperature, and durability characteristics. There is also a variety of high-performance installation and identification tools to complete your cable tie accessory needs.

For cable bundling, identification tags and other general bundling applications — especially in hazardous environments — Thomas & Betts Stainless Steel Cable Ties provide a strong, safe, permanent installation with a unique, dual locking mechanism.

The Type 304 stainless steel ties are completely fireproof - no toxic fumes, no sagging cables. They are extremely resistant to corrosion and UV light, with the ability to withstand the harshest temperature extremes. Yet they are surprisingly economical.

These low-profile ties are fast and easy to apply. A quick squeeze of the installation tool forms two strong locks - a dimple lock and a fold lock for maximum holding strength.

Their two-piece configuration adds to its versatility. Available in standard lengths to wrap bundle diameters from 1-10", Thomas & Betts Stainless Steel Cable Ties can be supplied in other lengths on special order.

Low-profile Thomas & Betts Stainless Steel Ties are fireproof and resist corrosion, UV light, and extreme weather conditions for safe, permanent cable bundling, yet they are cost effective for your demanding applications.

## **Installation Hand Tool**

The installation hand tool is a lightweight, pocket-size hand tool that quickly and easily applies the stainless steel cable ties.

To use, simply separate the pull-up handle from the body, and insert the cable tie tail as far as possible. Squeeze the pull-up handle until the band is tight. Finally, move the pull-up handle to the locking/cut-off position by moving it away from the body as far as it will go. Then squeeze to form the dual lock and cut off the excess tail.

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

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.

**Technical Services** 

Tel: 888.862.3289

## **Catalog Number System**

	_ [	Bundle Diameter				
CABLE TIE TYPE	'		Tensile Strenath	Width	Length	Weight
SS = Two-piece solid stainless steel cable tie, Type 304			Tenane Strength	Widun	Lengur	Weight
TYS = Multi-lock stainless steel cable tie, Type 316		FOR BUNDLE	TENSILE			
SSR = Reusable stainless steel cable tie, Type 200/300		DIAMETER OF	STRENGTH	WIDTH	LENGTH	WEIGHT
SSH = Heavy-duty stainless steel clamp, Type 201	CAT. NO.	IN./MM	LBS./N.	IN./MM	IN./MM	LBS./N.
	SS10-250	2/51	200/890	.25/6.35	10.0/254	1.1/4.89
<b>TS</b> = Roller bar locking stainless steel cable tie, Type 302/304	3310-230	2/31	200/030	.20/0.00	10.0/204	1.1/ 4.00

Canada

Tel: 450.347.5318

Fax: 450.347.1976

www.tnb.com

# **Stainless Steel Cable Ties and Accessories**

Strong, slip-free ties with a unique dual lock. **Stainless Steel Cable Ties** 



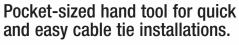
<ul> <li>Low-profile, single wrap ties</li> </ul>		ties • Dual	Dual locking mechanism		<ul> <li>No slipping</li> </ul>	
STD. PKG. <mark>CAT. NO</mark> .	FOR BUNDLE DIAMETER OF IN./MM.	TENSILE Strength LBS./N.	WIDTH IN./MM.	LENGTH IN./MM.	WEIGHT LBS./KG.	STD. PKG. QTY.
Mini Stainle	ess Steel Cable Ties					
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
Standard S	tainless Steel Cable	Ties				
SS10-250	2/51	250/1,112	.25/6.35	10.0/254	1.10/.50	100
SS17-250	4/101	250/1,112	.25/6.35	16.5/419	1.80/.82	100
SS23-250	6/152	250/1,112	.25/6.35	22.5/572	2.50/1.13	100
SS29-250	8/203	250/1,112	.25/6.35	29.0/737	3.20/1.45	100
SS35-250	10/254	250/1,112	.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.

# Perfect for mini-sized stainless steel ties. **Mini Tie Installation Tool**

- · Pocket-sized, lightweight
- Applies mini-size stainless steel ties



### **Standard Tie Installation Tool**

- Lightweight
- · Applies standard-size stainless steel ties



STD. PKG. Cat. No.	DESCRIPTION	WEIGHT LBS./KG.	STD. PKG. QTY.
WTA250	Hand tool to apply standard stainless steel cable ties;	1.17/.53	1
	easy-to-use tool applies tension, locks tie with the dual lock, and cuts off band flush with top surface of buckle		

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DESCRIPTION

Hand tool to apply mini stainless steel cable ties;

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

STD. PKG.

CAT. NO.

WTA290

**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

WEIGHT

LBS./KG.

1.17/.53

STD.

PKG. QTY.

Canada Tel: 450.347.5318 Fax: 450.347.1976

# Multi-Lok Stainless Steel Self-Locking Cable Ties

Strong — holds in excess of 200 lbs. — and self locking.

# Type 316 Stainless Steel — Uncoated



tie passes through the buckle,

three separate teeth (four teeth in the 12mm Multi-Lok) mesh

with corresponding slots in the

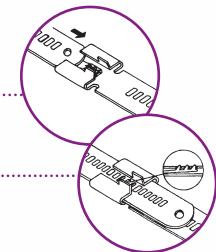
band, automatically locking the

tie as it is being tensioned.

- Corrosion-resistant, providing a safe, strong, worry-free hold
- Unique, self-locking, multiplelocking system holds in excess of 200 lbs.
- Manufactured from Type 316 stainless steel
- Available in two widths and various lengths

STD. PKG. CAT. NO.	TENSILE STR. LBS./N.	WIDTH IN./MM	LENGTH IN./MM	WEIGHT LBS./KG.	STD. PKG. QTY.
TYS6-280	250/1,112	.28/7	6/150	.66/.30	100
TYS9-280	250/1,112	.28/7	9/225	.99/.45	100
TYS12-280	250/1,112	.28/7	12/300	1.32/.60	100
TYS18-280	250/1,112	.28/7	18/450	1.76/.80	100
TYS24-280	250/1,112	.28/7	24/610	2.64/1.20	100
TYS6-470	250/1,112	.47/12	6/150	1.10/.50	100
TYS9-470	250/1,112	.47/12	9/225	1.65/.75	100
TYS12-470	250/1,112	.47/12	12/300	2.20/1.00	100
TYS18-470	250/1,112	.47/12	18/450	2.97/1.35	100
TYS24-470	250/1,112	.47//12	24/610	4.29/1.95	100

.010" (.245mm) Thickness



## How It Works: As the free end of the Multi-Lok Type 316 Stainless Steel — Nylon 11 Coated

- · Nvlon 11 weather-resistant coating is unaffected by UV sunlight, resistant to corrosion, chemicals, weathering and protects cable insulation
- · Coated with halogen-free, non-toxic black nylon 11



STD. PKG. <mark>CAT. NO.</mark>	TENSILE STR. LBS./N.	WIDTH IN./MM	LENGTH IN./MM	WEIGHT LBS./KG.	STD. PKG. QTY.
TYS6-280C	250/1,112	.28/7	6/150	.66/.30	100
TYS9-280C	250/1,112	.28/7	9/225	.99/.45	100
TYS12-280C	250/1,112	.28/7	12/300	1.32/.60	100
TYS18-280C	250/1,112	.28/7	18/450	1.76/.80	100
TYS24-280C	250/1,112	.28/7	24/610	2.64/1.20	100
TYS6-470C	250/1,112	.47/12	6/150	1.10/.50	100
TYS9-470C	250/1,112	.47/12	9/225	1.65/.75	100
TYS12-470C	250/1,112	.47/12	12/300	2.20/1.00	100
TYS18-470C	250/1,112	.47/12	18/450	2.97/1.35	100
TYS24-470C	250/1,112	.47/12	24/610	4.29/1.95	100

**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976

**Technical Services** Tel: 888.862.3289

## Thomas®Betts www.tnb.com

*Ty-Rap*<sup>.</sup> Cable Fastening Systems

# **Reusable Stainless Steel Cable Ties**

## Ties to use and reuse with quickness and ease! **Reusable Stainless Steel Cable Ties — Coated**

- Made of high-strength, corrosion-resistant 200/300 series stainless steel
- Coated with a non-toxic, halogen-free, low-smoke Nylon 11, protecting cables from damage or interference due to direct contact with the stainless steel
- Nylon 11 is also chemical and weather-resistant, UV-protective, extremely flexible at low temperature, user-friendly on installer's hands and easy on bundles
- · Unique buckle design for quick, easy application and re-use
- 1. Insert cable tie tail through holding tabs and locking emboss
- 2. Bend cable tie tail up

**Ty-Rap**<sup>®</sup> Cable Fastening Systems

- 3. Insert cable tie tail back through holding tabs, creating
- as tight a bend as possible. For increased tensile strength follow steps #4 and #5
- 4. Bend cable tie tail up
- **5.** Fold cable tie tail over holding tabs \*Patent Pending



STD. PKG. 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.

#### Quality stainless steel tools for tensioning and installing.

#### **Tensioning Tools**



STD. PKG.		WEIGHT	STD.
CAT. NO.	DESCRIPTION	LBS./KG.	PKG. QTY.
WTAE200	Cable Tie Tensioner: For tensioning Reusuable Ties and Multi-Lok Ties	.6/.27	1
WTAE201	Tensioning Hook: For tensioning Reusuable Ties and Multi-Lok Ties	.1/.05	1
DAS250	Pistol Grip Tensioning Tool: For installing Multi-Lok , Ball Lock, & Roller Bar Lock SSTies	1.0/.45	1



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976

# Stainless Steel Ties — Free-End

## Pre-assembled for single or double wrapping!

## Heavy-Duty Free-End Stainless Steel Clamps — Type 201

- Double-wrapped clamps provide extra strength
- · Available in various lengths, widths, and thicknesses



STD. PKG. CAT. NO.	MAX. DIA. ONCE AROUND IN./MM	MAX. DIA TWICE AROUND IN./MM	TOTAL Length In./MM	TENSILE STRENGTH SINGLE WRAP LBS/N.	Band Width In./MM	BAND Thickness In./MM	WEIGHT LBS./KG.	STD. PKG. 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.

## Apply tension, cut and secure with confidence!

## **Installation Tools**



WTJ020 Lightweight pocket-sized toll to install ¼" and ¾" wide Free-End Clamps. This tool also applies tension and has a built-in cutter.



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



**WTC001** A drop-forged tool with tensioning capability to do all ¼" to ¾" Free-End Clamp sizes.

STD. PKG. Cat. No.	DESCRIPTION	WEIGHT LBS./KG.	STD. PKG. QTY.
WTJ020	Compact Free End Stainless Steel Cable Tie Intallion Tool for ¼" to %" sizes	1.1/.50	1
WTC075	Pistol Grip Free End Stainless Steel Cable Tie Installation Tool for $\ensuremath{\mathscr{U}}$ to $\ensuremath{\mathscr{U}}$ sizes	2.6/1.18	1
WTC001	Free End Stainless Steel Cable Tie Installation Tool for all sizes	4.4/2.00	1

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# Stainless Steel Ties — Specifications



### **Specifications for Stainless Steel Ties**

Mini Stainless Steel Cable Ties



Steel Cable Ties



Reusable Stainless Steel Cable Ties



Multi-Lok Ties — Uncoated



Multi-Lok Ties — Coated



CAT. NO.         IN./MM.         IN./MM.         IN./MM.         IN./MM.         IN./MM.         IN./MM.           SST-180         .18/4.50         10/254         .02/.51         1.7/43         (single           SSI0-180         .18/4.50         10/254         .02/.51         4.7/119         wrap           SSI0-180         .18/4.50         22.5/572         .02/.51         4.7/119         only           SSI0-250         .25/6.35         10/254         .02/.51         4.3/109         (single           SSI0-250         .25/6.35         22.5/572         .02/.51         4.3/109         (single           SS22-250         .25/6.35         22.5/77         .02/.51         8.5/215         only           SSR0-250         .25/6.35         6/152         .02/.51         1.5/38         N/A           SSR0-250         .25/6.35         9/229         .02/.51         1.5/38         N/A           SSR0-250         .25/6.35         12/305         .02/.51         3.4/86         1.5/38           SSR12-250         .25/6.35         12/305         .02/.51         7.3/185         3.5/89           SSR0-376C         .38/9.53         9/29         .02/.51         7.3/185         3.5/89	SS7-180         .18/4.50         6.5/165         .02/.           SS10-180         .18/4.50         10/254         .02/.           SS16-180         .18/4.50         10/254         .02/.           SS23-180         .18/4.50         16/406         .02/.           SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         29.0/737         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS35-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR6-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.	51         1.7/43         (single           51         2.8/71         wrap
SS10-180         .18/4.50         10/254         .02/51         2.8/71         wrap ss12           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         22.5/635         16.5/419         .02/51         4.3/109         (single           SS17-250         .25/6.35         16.5/419         .02/51         4.3/109         (single           SS29-250         .25/6.35         6/152         .02/51         6.5/165         wrap           SS36-250         .25/6.35         6/152         .02/51         1.5/38         N/A           SSR6-250C         .25/6.35         16/152         .02/51         1.5/38         N/A           SSR12-250C         .25/6.35         12/305         .02/51         3.4/66         1.5/38           SSR12-250C         .25/6.35         18/457         .02/51         3.4/137         2.5/64           SSR12-250C         .25/6.35         12/305         .02/51         3.4/86         1.5/38           SSR12-375C         .38/9.53         18/457         .02/51         3.4/86         1.5/38 <tr< td=""><td>SS10-180         .18/4.50         10/254         .02/.           SS16-180         .18/4.50         16/406         .02/.           SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         22.5/572         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         22.5/572         .02/.           SS36-250         .25/6.35         29/737         .02/.           SS86-250C         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/4610         .02/.</td><td>.51 2.8/71 wrap</td></tr<>	SS10-180         .18/4.50         10/254         .02/.           SS16-180         .18/4.50         16/406         .02/.           SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         22.5/572         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         22.5/572         .02/.           SS36-250         .25/6.35         29/737         .02/.           SS86-250C         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/4610         .02/.	.51 2.8/71 wrap
SSI6-180         .18/450         16/406         .02/51         4.7/119         onlý           SS23-180         .18/450         22.5/572         .02/51         6/152            SS10-250         .25/6.35         10/254         .02/51         8/203            SS10-250         .25/6.35         10/254         .02/51         4.3/109         (single           SS23-260         .25/6.35         22.5/572         .02/51         8.5/215         only)           SS36-250         .25/6.35         29/737         .02/51         8.5/215         only)           SS86-250C         .25/6.35         29/737         .02/51         1.5/38         N/A           SSR9-250C         .25/6.35         12/305         .02/51         1.5/38         N/A           SSR12-250C         .25/6.35         12/305         .02/51         3.4/66         1.5/38           SSR12-375C         .38/9.53         6/152         .02/51         1.5/38         N/A           SSR6-375C         .38/9.53         12/305         .02/51         1.5/38         N/A           SSR13-375C         .38/9.53         36/914         .02/51         7.3/185         3.5/89           SSR14-375C         .	SS16-180         .18/4.50         16/406         .02/.           SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         29.0/737         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS35-250         .25/6.35         22.5/572         .02/.           SS86-250C         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR6-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR42-250C         .25/6.35         12/305         .02/.           SSR12-350C         .38/9.53         12/305         .02/.           SSR24-250C         .38/9.53         12/305         .02/.	
SS23-180         .18/4.50         22.5/572         .02/51         .6/152            SS10-250         .25/6.35         10/254         .02/51         8/203            SS10-250         .25/6.35         10/254         .02/51         2.1/53         SS17-200         .25/6.35         16.5/419         .02/51         4.3/109         (single           SS2-250         .25/6.35         22.5/572         .02/51         8.5/215         only)         SS36-250         .25/6.35         22.5/572         .02/51         1.5/38         N/A           SSR-250         .25/6.35         29/737         .02/51         1.5/38         N/A           SSR-250         .25/6.35         9/229         .02/51         1.5/38         N/A           SSR-250C         .25/6.35         12/305         .02/51         3.4/86         1.5/38           SSR12-250C         .25/6.35         12/305         .02/51         3.4/86         1.5/38           SSR12-375C         .38/9.53         12/305         .02/51         3.4/86         1.5/38           SSR2-375C         .38/9.53         12/305         .02/51         3.4/86         1.5/38           SSR2-375C         .38/9.53         3.0/762         .02/51 </td <td>SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         29.0/737         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS29-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR6-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR8-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.</td> <td>51 / 7/110 only)</td>	SS23-180         .18/4.50         22.5/572         .02/.           SS29-180         .18/4.50         29.0/737         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS29-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR6-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         12/305         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR8-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.	51 / 7/110 only)
SS29-180         .18/4.50         29.0/737         .02/.51         8/203         —           SS10-250         .25/6.35         10/254         .02/.51         2.1/53         single           SS17-250         .25/6.35         16.5/419         .02/.51         4.3/109         (single           SS23-250         .25/6.35         22.5/6.35         25/572         .02/.51         8.5/215         only)           SS82-250         .25/6.35         35/889         .02/.51         1.5/38         N/A           SSR-250C         .25/6.35         12/305         .02/.51         1.5/38         N/A           SSR-250C         .25/6.35         12/305         .02/.51         3.4/61         1.5/38           SSR-250C         .25/6.35         24/610         .02/.51         3.4/137         2.5/64           SSR-250C         .25/6.35         24/610         .02/.51         1.5/38         N/A           SSR-375C         .38/9.53         12/305         .02/.51         3.5/89         S.7/83           SSR-375C         .38/9.53         24/610         .02/.51         3.4/86         1.5/38           SSR-375C         .38/9.53         3.0/762         .02/.51         3.4/86         1.5/38	SS29-180         .18/4.50         29.0/737         .02/.           SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS76-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR24-250C         .38/9.53         12/305         .02/.	51
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         8.5/215         only           SS35-250         .25/6.35         35/889         .02/.51         10.5/265         strap           SSR6-2500         .25/6.35         9/229         .02/.51         1.5/38         N/A           SSR12-250C         .25/6.35         12/305         .02/.51         3.4/86         1.5/38           SSR14-250C         .25/6.35         12/305         .02/.51         5.4/137         2.5/64           SSR24-250C         .25/6.35         14/457         .02/.51         5.4/137         2.5/64           SSR4-375C         .38/9.53         9/229         .02/.51         2.4/64         1.5/38           SSR4-375C         .38/9.53         12/305         .02/.51         2.4/64         1.5/38           SSR14-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR24-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR36-375C <td>SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         35/889         .02/.           SSR9-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR6-375C         .38/9.53         12/305         .02/.           SSR34-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         30/762         .02/.</td> <td></td>	SS10-250         .25/6.35         10/254         .02/.           SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         35/889         .02/.           SSR9-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR6-375C         .38/9.53         12/305         .02/.           SSR34-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         30/762         .02/.	
SS17-250         25/6.35         16.5/419         .02/.51         4.3/109         (single           SS23-250         .25/6.35         22.5/72         .02/.51         6.5/165         wrap           SS23-250         .25/6.35         35/889         .02/.51         10.5/265         only)           SS35-250         .25/6.35         3/229         .02/.51         1.5/38         N/A           SSR0-250C         .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           SSR12-250C         .25/6.35         12/305         .02/.51         5.4/137         2.5/64           SSR24-250C         .25/6.35         24/610         .02/.51         7.3/185         3.5/89           SSR12-375C         .38/9.53         16/457         .02/.51         1.5/38         N/A           SSR14-375C         .38/9.53         18/457         .02/.51         5.4/137         2.5/64           SSR14-375C         .38/9.53         36/914         .02/.51         5.4/137         2.5/64           SSR36-375C         .38/9.53         36/914         .02/.51         1.1/28         3.5/89	SS17-250         .25/6.35         16.5/419         .02/.           SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         29/737         .02/.           SSR6-250C         .25/6.35         35/889         .02/.           SSR9-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         14/457         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR6-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR3-375C         .38/9.53         30/762         .02/.           SSR3-375C         .38/9.53         30/762         .02/.           <	
SS2-250         25/6.35         22.5/572         .02/.51         6.5/165         wrap           SS2-250         .25/6.35         29/737         .02/.51         8.5/215         only)           SS3-520         .25/6.35         35/889         .02/.51         1.5/38         N/A           SSR-2500         .25/6.35         9/229         .02/.51         1.5/38         N/A           SSR-2500         .25/6.35         1/200         0.2/.51         1.5/38         N/A           SSR-2500         .25/6.35         1/200         0.2/.51         3.4/86         1.5/38           SSR-2500         .25/6.35         12/305         0.2/.51         3.4/86         1.5/38           SSR-2500         .25/6.35         24/610         .02/.51         7.3/185         3.5/89           SSR-2500         .25/6.35         24/610         .02/.51         1.5/38         N/A           SSR-2750         .38/9.53         19/229         .02/.51         2.5/43         1.5/28           SSR-23750         .38/9.53         18/457         .02/.51         5.4/137         2.5/64           SSR-24-2750         .38/9.53         30/762         .01/.25         1.9/28         1.4/271           SSR-24-2750	SS23-250         .25/6.35         22.5/572         .02/.           SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR9-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR14-250C         .25/6.35         12/305         .02/.           SSR24-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR24-250C         .38/9.53         12/305         .02/.           SSR3-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.	
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           SSR6-250C         .25/6.35         6/152         .02/.51         1.5/38         N/A           SSR9-250C         .25/6.35         9/229         .02/.51         3.4/86         1.5/38           SSR12-250C         .25/6.35         12/305         .02/.51         3.4/86         1.5/38           SSR4-250C         .25/6.35         14/457         .02/.51         7.3/185         3.5/89           SSR4-375C         .38/9.53         6/152         .02/.51         2.5/63         1.1/28           SSR12-375C         .38/9.53         12/305         .02/.51         2.4/61         1.5/38           SSR12-375C         .38/9.53         12/305         .02/.51         2.4/61         1.5/38           SSR13-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR36-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR36-375C         .38/9.53         30/762         .01/.25         5.7/144         (single           TYS6-280C <td>SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR34-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .28/7.00         6/152         .01/.</td> <td></td>	SS29-250         .25/6.35         29/737         .02/.           SS35-250         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR34-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .28/7.00         6/152         .01/.	
S35-250         .25/6.35         35/889         .02/.51         10.5/265           SR6-250C         .25/6.35         6/152         .02/.51         1.5/38         N/A           SSR6-250C         .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           SSR12-250C         .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           SSR24-250C         .25/6.35         24/610         .02/.51         3.4/86         1.5/38           SSR12-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR12-375C         .38/9.53         30/762         .02/.51         7.3/185         3.5/89           SSR30-375C         .38/9.53         30/762         .01/.25         1.0/280         5.3/135           Uncoated         Nylon 11 Coated         110/280         5.3/135         11.0/280         5.3/135           VTS8-280         TYS8-280C         .28/7.00         6/152         .01/.25         3.8/96           TY	SS35-250         .25/6.35         35/889         .02/.           SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/29         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR36-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           SSR36-375C         .28/7.00         6/152         .01/.	
SR6-250C         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           SSR12-250C         .25/6.35         12/305         .02/.51         5.4/137         2.5/64           SSR24-250C         .25/6.35         24/610         .02/.51         7.3/185         3.5/89           SSR24-250C         .25/6.35         24/610         .02/.51         1.5/38         N/A           SSR24-375C         .38/9.53         9/229         .02/.51         2.4/63         1.1/28           SSR12-375C         .38/9.53         12/305         .02/.51         5.4/137         2.5/64           SSR24-375C         .38/9.53         36/914         .02/.51         7.3/185         3.5/89           SSR36-375C         .38/9.53         36/914         .02/.51         1.1/.28         5./135           Uncoated         Nylon 11 Coated         TYS6-280         TYS6-280         28/7.00         1/255         3.8/96           TYS12-280         TYS12-280         .28/7.00         1/205         3.8/96         01	SSR6-250C         .25/6.35         6/152         .02/.           SSR9-250C         .25/6.35         9/29         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR12-250C         .25/6.35         12/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR24-250C         .38/9.53         6/152         .02/.           SSR36-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR34-375C         .38/9.53         12/457         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           SSR36-375C         .28/7.00         6/152         .01/.           TYS9-280         TYS6-280C         .28/7.00         9/229         .01/. <td></td>	
SSR9-250C         .25/6.35         9/229         .02/.51         2.5/6.33         1.1/28           SSR12-250C         .25/6.35         12/305         .02/.51         5.4/137         2.5/64           SSR12-250C         .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           SSR2-250C         .25/6.35         24/610         .02/.51         1.5/38         N/A           SSR2-375C         .38/9.53         9/229         .02/.51         2.5/63         1.1/28           SSR12-375C         .38/9.53         12/305         .02/.51         5.4/137         2.5/64           SSR2-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/89           SSR2-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR2-375C         .38/9.53         30/762         .01/.25         1.9/48         1.5/38           Vis6-280         TYS6-280C         .28/7.00         9/229         .01/.25         2.8/71           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         5.7/144	SSR9-250C         .25/6.35         9/229         .02/.           SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/229         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .28/7.00         6/152         .01/.           TYS6-280         TYS6-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/30	.51 10.5/265
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         5.4/137         2.5/64           SSR9-375C         .38/9.53         9/229         .02/.51         1.5/38         N/A           SSR13-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR14-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR13-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/99           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           Uncoated         Nylon 11 Coated         TYSE-280         TYSE-280         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYSE-280         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS12-280         TYS18-280C         .28/7.00<	SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/229         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .28/7.00         6/152         .01/.           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	.51 1.5/38 N/A
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         5.4/137         2.5/64           SSR9-375C         .38/9.53         9/229         .02/.51         1.5/38         N/A           SSR13-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR14-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR13-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/99           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           Uncoated         Nylon 11 Coated         TYSE-280         TYSE-280         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYSE-280         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS12-280         TYS18-280C         .28/7.00<	SSR12-250C         .25/6.35         12/305         .02/.           SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/229         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .28/7.00         6/152         .01/.           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
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         3.4/86         1.5/38           SSR12-375C         .38/9.53         12/305         .02/.51         3.4/86         1.5/38           SSR13-375C         .38/9.53         18/457         .02/.51         5.4/137         2.5/64           SSR30-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR36-375C         .38/9.53         30/762         .02/.51         11.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYSe-280         TYSe-280C         .28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYSe-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS18-280         TYS12-280C         .28/7.00         12/305         .01/.25         7.6/193         wrap           TYS18-280         TYS2-470C         .47/12.00 <td>SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/229         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated         V         V           TYS9-280         TYS9-280C         .28/7.00         6/152         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.</td> <td></td>	SSR18-250C         .25/6.35         18/457         .02/.           SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/229         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         12/305         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated         V         V           TYS9-280         TYS9-280C         .28/7.00         6/152         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
SR24-250C         .25/6.35         24/610         .02/.51         7.3/185         3.5/89           SR6-375C         .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           SSR13-375C         .38/9.53         12/405         .02/.51         7.3/185         3.5/89           SSR24-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/89           SSR36-375C         .38/9.53         30/762         .02/.51         9.1/231         4.4/112           SSR36-375C         .38/9.53         36/914         .02/.51         1.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYSP-280         TYSP-280C         .28/7.00         9/229         .01/.25         3.8/96           TYSP-280         TYSP-280C         .28/7.00         18/457         .01/.25         3.8/96           TYS12-280         TYS12-280C         .28/7.00         18/457         .01/.25         3.8/96           TYS24-280         TYS24-280C         .28/7.00         1.2/50	SSR24-250C         .25/6.35         24/610         .02/.           SSR6-375C         .38/9.53         6/152         .02/.           SSR9-375C         .38/9.53         9/29         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         12/305         .02/.           SSR36-375C         .38/9.53         18/457         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           VIncoated         Nylon 11 Coated         T         T           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         12/305         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.	
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           SSR30-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/89           SSR30-375C         .38/9.53         30/762         .02/.51         1.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 12/305         .01/.25         1.9/48         11.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 11 Coated           01/.25         1.9/48            TYS6-280         TYS8-280C         .28/7.00         12/4610         .01/.25         5.7/144         (single           TYS12-280         TYS24-280C         .28/7.00         12/4610         .01/.25	SSR9-375C         .38/9.53         9/229         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         18/457         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           Uncoated         Nylon 11 Coated         .02/.         .02/.           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
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           SSR30-375C         .38/9.53         24/610         .02/.51         7.3/185         3.5/89           SSR30-375C         .38/9.53         30/762         .02/.51         1.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 12/305         .01/.25         1.9/48         11.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 11 Coated           11.0/280         5.3/135           Uncoated         Nylon 11 Coated           01/.25         1.9/48            TYS6-280         TYS8-280C         .28/7.00         12/4610         .01/.25         5.7/144         (single           TYS12-280         TYS24-280C         .28/7.00         12/4610         .01/.25	SSR9-375C         .38/9.53         9/229         .02/.           SSR12-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         12/305         .02/.           SSR24-375C         .38/9.53         18/457         .02/.           SSR30-375C         .38/9.53         24/610         .02/.           SSR36-375C         .38/9.53         30/762         .02/.           Uncoated         Nylon 11 Coated         .02/.         .02/.           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	51 1.5/38 N/A
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         1.1.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYS6-280         1YS6-280C         .28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS9-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYS24-280C         .28/7.00         18/457         .01/.25         3.8/96           TYS12-280         TYS24-280C         .28/7.00         18/457         .01/.25         1.9/48         only)           TYS4-280         TYS24-280C         .28/7.00         24/610         .01/.25         1.9/48         only)           TYS12-470         TYS6-470C         .47/12.00         12/305         .01/.25         3.8/96         TYS12-470         TYS12-470C	SSR12-375C         .38/9.53         12/305         .02/.           SSR18-375C         .38/9.53         18/457         .02/.           SSR24-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated         T         T           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
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         9.1/231         4.4/112           SSR36-375C         .38/9.53         36/914         .02/.51         9.1/231         4.4/112           SSR36-375C         .38/9.53         36/914         .02/.51         1.1.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYSe-280         TYSe-280         2.8/7.00         9/229         .01/.25         2.8/7.1           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS24-280         TYS24-280C         .28/7.00         14/57         .01/.25         2.8/71         orlly)           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         orlly)           TYS24-280         TYS24-470C         .47/12.00         12/305         .01/.25         3.8/96 <t< td=""><td>SSR18-375C         .38/9.53         18/457         .02/.           SSR24-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated             TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.</td><td></td></t<>	SSR18-375C         .38/9.53         18/457         .02/.           SSR24-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated             TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
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         9.1/231         4.4/112           SSR36-375C         .38/9.53         36/914         .02/.51         11.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYSe-280         TYSe-280         2.8/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS12-280         .28/7.00         12/305         .01/.25         3.8/96         17512-280         TYS12-280         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS24-280         TYS24-280         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS12-280         TYS24-280         .28/7.00         24/610         .01/.25         3.8/96         11/17         11.0/280         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17         .01/17	SSR24-375C         .38/9.53         24/610         .02/.           SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated         .38/9.53         36/914         .02/.           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
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           Uncoated         Nylon 11 Coated         TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.25         2.8/71           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS12-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         3.8/96         0nly)           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS12-470         TYS18-470C         .47/12.00         12/305         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193	SSR30-375C         .38/9.53         30/762         .02/.           SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated             TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
SSR36-375C         .38/9.53         36/914         .02/.51         11.0/280         5.3/135           Uncoated         Nylon 11 Coated         TYS6-280         TYS6-280         28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS9-280         TYS9-280         28/7.00         9/229         .01/.25         2.8/71           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYS12-280C         .28/7.00         18/457         .01/.25         5.7/144         (single           TYS24-280         TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only           TYS12-470         TYS12-470C         .47/12.00         9/229         .01/.25         3.8/96         TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS24-470C         .47/12.00         18/457         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH16-250         .25/6.35         19/480         .02/.51         5.0/127         2.5/63 <t< td=""><td>SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated             TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.</td><td></td></t<>	SSR36-375C         .38/9.53         36/914         .02/.           Uncoated         Nylon 11 Coated             TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
Uncoated         Nylon 11 Coated           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.25         2.8/7.1           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYS18-280C         .28/7.00         18/457         .01/.25         5.7/144         (single           TYS24-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS14-470         TYS14-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         18/457         .01/.25         7.6/193           SH10-250         .25/6.35         10/250         .02/.51         3.5/88         1.5/38           SH10-250         .25/6.35         19/480         .02/.51         7.0/177         3.5/88	Uncoated         Nylon 11 Coated           TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         12/305         .01/.	
TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.25         1.9/48           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.25         2.8/71           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS18-280         TYS18-280C         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS24-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS12-470         TYS12-470C         .47/12.00         9/229         .01/.25         2.8/71           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         12/305         .01/.25         5.7/144           TYS24-470         TYS18-470C         .47/12.00         24/610         .01/.25         7.6/193           SH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH19-250         .25/6.35         19/480	TYS6-280         TYS6-280C         .28/7.00         6/152         .01/.           TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         12/305         .01/.	11.0/200 3.3/133
TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.25         2.8/71           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS12-280         TYS18-280C         .28/7.00         12/305         .01/.25         5.7/144         (single           TYS24-280         TYS18-280C         .28/7.00         24/610         .01/.25         5.7/144         (single           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS12-470         TYS18-470C         .47/12.00         9/229         .01/.25         3.8/96           TYS12-470         TYS18-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         5.7/144           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH10-250         .25/6.35         19/480         .02/.51         5.0/127         2.5/63           SSH27-250         .25/6.35         34	TYS9-280         TYS9-280C         .28/7.00         9/229         .01/.           TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.25         3.8/96           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.25         5.7/144         (single           TYS24-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS12-470         TYS9-470C         .47/12.00         9/229         .01/.25         3.8/96           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS24-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         5.7/144           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH19-250         .25/6.35         19/480         .02/.51         5.0/127         2.5/6.33           SSH34-250         .25/6.35 <td< td=""><td>TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.</td><td></td></td<>	TYS12-280         TYS12-280C         .28/7.00         12/305         .01/.           TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.	
TYS18-280         TYS18-280C         .28/7.00         18/457         .01/.25         5.7/144         (single           TYS24-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS6-470         TYS9-470C         .47/12.00         9/229         .01/.25         2.8/71           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS12-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         18/457         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH10-250         .25/6.35         19/480         .02/.51         3.5/88         1.5/38           SSH19-250         .25/6.35         27/680         .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 <td>TYS18-280 TYS18-280C .28/7.00 18/457 .01/.</td> <td></td>	TYS18-280 TYS18-280C .28/7.00 18/457 .01/.	
TYS24-280         TYS24-280C         .28/7.00         24/610         .01/.25         7.6/193         wrap only)           TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS9-470         TYS9-470C         .47/12.00         9/229         .01/.25         2.8/71         only)           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH10-250         .25/6.35         16/400         .02/.51         3.5/88         1.5/38           SSH19-250         .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 <td></td> <td></td>		
TYS6-470         TYS6-470C         .47/12.00         6/152         .01/.25         1.9/48         only)           TYS9-470         TYS9-470C         .47/12.00         9/229         .01/.25         2.8/71         0           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96         0           TYS12-470         TYS12-470C         .47/12.00         18/457         .01/.25         5.7/144         0           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         5.7/144         0           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193         0           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH19-250         .25/6.35         16/400         .02/.51         5.0/127         2.5/63           SSH27-250         .25/6.35         34/860         .02/.51         7.0/177         3.5/88           SSH34-250         .25/6.35         34/860         .02/.51         9.0/228         4.5/114           SSH44-375         .38/9.53         16/400         .03/.76         3.5/88         1.5/38           SSH44-375		( )
TYS6-470         TYS6-470         .47/12.00         6/152         .01/.25         1.9/48            TYS9-470         TYS9-470C         .47/12.00         9/229         .01/.25         2.8/71           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS12-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH16-250         .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         4.0/101	11524-200 11524-2806 .28/7.00 24/610 .01/.	
TYS9-470         TYS9-470C         .47/12.00         9/229         .01/.25         2.8/71           TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH16-250         .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           SSH31-500         .5/12.70         18/460         .03/.76         8.0/203         4.0/101	<b>TYS6-470 TYS6-470C</b> .47/12.00 6/152 .01/.	.25 1.9/48 <sup>only)</sup>
TYS12-470         TYS12-470C         .47/12.00         12/305         .01/.25         3.8/96           TYS18-470         TYS18-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH19-250         .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           SSH31-500         .5/12.70         18/460         .03/.76         8.0/203         4.0/101           SSH21-625         .63/15.88         21/530         .03/.76         5.0/127         2.5/63		
TYS18-470         TYS18-470C         .47/12.00         18/457         .01/.25         5.7/144           TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           SSH19-250         .25/6.35         16/400         .02/.51         3.5/88         1.5/38           SSH27-250         .25/6.35         19/480         .02/.51         5.0/127         2.5/63           SSH34-250         .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           SSH31-500         .5/12.70         18/460         .03/.76         8.0/203         4.0/101           SSH21-625         .63/15.88         21/530         .03/.76         5.0/127         2.5/63		
TYS24-470         TYS24-470C         .47/12.00         24/610         .01/.25         7.6/193           SSH10-250         .25/6.35         10/250         .02/.51         2.0/50         N/A           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         5.0/127         3.5/88           SSH34-250         .25/6.35         27/680         .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         4.0/101         2.0/50           SSH44-375         .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		
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         2.5/6.3           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           SSH34-500         .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		
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         2.5/6.3           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           SSH34-500         .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	CCU10 250 25/6 25 10/250 02/	51 2.0/50 N/A
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		
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		
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           SSH34-500         .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		
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           SSH31-500         .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		
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		
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		
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	SSH44-375 .38/9.53 44/1,120 .03/.	.76 12.0/304 6.0/152
SSH21-625 .63/15.88 21/530 .03/.76 5.0/127 2.5/63	<b>SSH18-500</b> .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		
<b>SSH69-625</b> .63/15.88 69/1,750 .03/.76 20.0/508 10.0/254		
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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	<b>SSH37-750</b> .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		76 1/ 0/255 7 0/177
<b>SSH62-750</b> .75/19.05 62/1,570 .03/.76 18.0/457 9.0/228	<b>SSH62-750</b> .75/19.05 62/1,570 .03/.	

Thomas&Betts

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**Ty-Rap<sup>®</sup> Cable Fastening Systems** 

D-22

# Stainless Steel Ties — Specifications

### **Specifications for Stainless Steel Ties (continued)**

CAT. NO.		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
SS7-180*		304	Dull to Bright	100/445	(single	WTA290	
SS10-180*		304	Ŭ	100/445	wrap	WTA290	<ul> <li>Wire/cable</li> </ul>
SS16-180*		304		100/445	only)	WTA290	bundling
SS23-180*		304		100/445		WTA290	<ul> <li>I.D. tagging</li> </ul>
SS29-180*		304		100/445		WTA290	
SS10-250*		304	Dull to Bright	200/890		WTA250	
SS17-250*		304	Ū	200/890	(single	WTA250	<ul> <li>Wire/cable</li> </ul>
SS23-250*		304		200/890	wrap	WTA250	bundling
SS29-250*		304		200/890	only)	WTA250	<ul> <li>I.D. tagging</li> </ul>
SS35-250*		304		200/890		WTA250	
SSR6-250C		200/300		75/334	300/1,334	WTAE200	
SSR9-250C		200/300		75/334	300/1,334	WTAE200	
SSR12-250C		200/300		75/334	300/1,334	WTAE200	<ul> <li>Reusable</li> </ul>
SSR18-250C		200/300	Nylon 11 Coated	75/334	300/1,334	WTAE200	<ul> <li>Cable bundling</li> </ul>
SSR24-250C		200/300	(Uncoated or other	75/334	300/1,334	WTAE200	Oil rigs
SSR6-375C		200/300	colors available on	100/445	500/2,224	WTAE200	<ul> <li>Telecommuni-</li> </ul>
SSR9-375C		200/300	special order)	100/445	500/2,224	WTAE201	cations towers
SSR12-375C		200/300		100/445	500/2,224	WTC075	<ul> <li>Hazardous</li> </ul>
SSR18-375C		200/300		100/445	500/2,224	WTC075	and corrosive
SSR24-375C		200/300		100/445	500/2,224	WTC075	environments
SSR30-375C		200/300		100/445	500/2,224	WTC075	<ul> <li>Cable trays</li> </ul>
SSR36-375C		200/300		100/445	500/2,224	WTC075	
Uncoated	Nylon 11 Coated						
TYS6-280	TYS6-280C	316		250/1,112		WTAE200	
TYS9-280	TYS9-280C	316		250/1,112		WTAE200	
TYS12-280	TYS12-280C	316		250/1,112		WTAE200	
TYS18-280	TYS18-280C	316	Uncoated or	250/1,112	(single	WTAE200	<ul> <li>Self-locking</li> </ul>
TYS24-280	TYS24-280C	316	Nylon 11	250/1,112	wrap	WTAE201	<ul> <li>Cable bundling</li> </ul>
TYS6-470	TYS6-470C	316	Coated Black	250/1,112	only)	WTC075	<ul> <li>Hazardous</li> </ul>
TYS9-470	TYS9-470C	316		250/1,112		WTC075	and corrosive
TYS12-470	TYS12-470C	316		250/1,112		WTC075	environments
TYS18-470	TYS18-470C	316		250/1,112		WTC075	
TYS24-470	TYS24-470C	316		250/1,112		WTC075	
SSH10-250		201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
SSH16-250		201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
SSH19-250		201	Bright	450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
SSH27-250		201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
SSH34-250		201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
SSH16-375		201		900/4,003	2,400/10,675	WTJ020/WTC075/WTC001	<ul> <li>Industrial hoses</li> </ul>
SSH44-375		201		900/4,003	2,400/10,675	WTJ075/WTC001	<ul> <li>Cable bundling</li> </ul>
SSH18-500		201		1,400/6,227	3,300/14,678	WTJ075/WTC001	<ul> <li>High strength</li> </ul>
SSH31-500		201		1,400/6,227	3,300/14,678	WTJ075/WTC001	
SSH21-625		201		1,700/7,562	4,000/17,792	WTJ075/WTC001	
SSH56-625		201		1,700/7,562	4,000/17,792	WTJ075/WTC001	
SSH69-625		201		1,700/7,562	4,000/17,792	WTC001	
SSH24-750		201		2,000/8,896	5,000/22,240	WTC001	
SSH37-750		201		2,000/8,896	5,000/22,240	WTC001	
SSH50-750 SSH62-750		201 201		2,000/8,896 2,000/8,896	5,000/22,240 5,000/22,240	WTC001 WTC001	
33002-730		201		2,000/0,090	5,000/22,240	WIGOUI	

*Ty-Rap*<sup>.</sup> Cable Fastening Systems

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

\*S.S. series also available in (316) Stainless.

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# **Stainless Steel Cable Ties, Tools & Accessories**

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

## **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

# 1,000-ft. reel to cut your desired length! Stainless Steel Strapping on a Reel

WIDTH

IN./MM.

STRENGTH

LBS./N.

200/889.60

STD.

PKG. QTY.

STD.

PKG. QTY.

50



STD PKG. Cat. No.	BODY Width In./Mm.	LENGTH IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	TENSILE Strength LBS./N.	STD. PKG. QTY.
TYS8	.31/7.87	10.65/270.51	2/50.80	200/889.60	50
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 and cutoff Cannot be coated with any covering material Made of 316 stainless steel

#### A perfect mate with cable ties for tensioning and cutoffs. Ty-Rap<sup>®</sup> Stainless Steel Cable Tie Installation Tools



STD. PKG. CAT. NO.	DESCRIPTION	STD. PKG. QTY.
WT3S	Installs strapping ties	1
DAS250	Installs multi-lok, ball lock, and roller bar lock stainless steel tie	s 1

#### Long-lasting anchor hold. Stainless Steel Mounting Base



STD. PKG. Cat. No.	DESCRIPTION	STD. PKG. QTY.
TCS25	Mounting base for stainless steel ties	50

Thomas@Betts	5
www.tnb.com	

DESCRIPTION

Heads only for stainless strapping

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

D-24

STD. PKG.

CAT. NO.

**TYS1000** 

STD. PKG.

CAT. NO.

DESCRIPTION

combination with the matching head. NOTE: Use WT3S tool for tensioning and cutoff

1,000-ft. of strap, 2 reels of 500 ft. each .31/7.87

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

Lockable heads for stainless steel strapping.

**Stainless Steel Strapping Locking Heads** 

# S.S. Tape Embossing System and Stainless Steel I.D. Tags

Identify cable bundles with permanent, stainless steel imprintable tags.

#### I.D. 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 installaton tool
- Works with ¼" wide ties
- .015" Thickness



STD. PKG. Cat. No.	W IN./MM.	L IN./MM.	WT. LBS./N.	STD. PKG. QTY.
SSID100	.75/19.05	2.0/50.80	0.5/2.22	100
SSID101	1.50/38.10	2.5/63.50	1.2/5.34	100
SSID102	.75/19.05	3.5/88.90	0.8/3.56	100

Packaging Quantity: 100/box

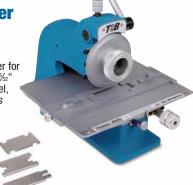
**NOTE:** Customized pre-embossed tags are available. Please consult Technical Service for details.

Add suffix (316) for 316 Stainless Steel.

#### No second guessing quickly and accurately position I.D. tags!

#### I.D. Tag Imprinter

- Imprint Thomas & Betts stainless steel I.D. tags
- Includes special tag holder for secure positioning and a <sup>3</sup>/<sub>2</sub>" character imprinting wheel, standard (no substitutions allowed)



CAT. NO.	DESCRIPTION	WEIGHT LBS./N.
WTID200	I.D. Tag Imprinter	29.5/131.2
WTID290	3/2" Character Imprinting Wheel	—
WTID281	1/4" Character Imprinting Wheel	—
WTID283	3/6" Character Imprinting Wheel	_
WTID204	(Kit) WTID200 and WTID 283	—

Packaging Quantity: 1/box

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

#### Thomas & Betts Stainless Steel I.D. Tag

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



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           ER017         H         .45/2.00         .38/1.69         .31         100           ER018         I         .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 <th>STD. PKG. CAT. NO.</th> <th>DESCRIPTION</th> <th>LENGTH IN./MM.</th> <th>WIDTH IN./MM.</th> <th>WT. PER 100</th> <th>STD. PKG. QTY</th>	STD. PKG. CAT. NO.	DESCRIPTION	LENGTH IN./MM.	WIDTH IN./MM.	WT. PER 100	STD. PKG. QTY
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           ER017         H         .45/2.00         .38/1.69         .31         100           ER018         I         .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           ER026						
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           ER023         M +W         .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						
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           ER020         K         .45/2.00         .38/1.69         .31         100           ER021         L         .45/2.00         .38/1.69         .31         100           ER022         M         .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           ER025         P         .45/2.00         .38/1.69         .31         100           ER026 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           ER017         H         .45/2.00         .38/1.69         .31         100           ER018         I         .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           ER021         L         .45/2.00         .38/1.69         .31         100           ER024         O         .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           ER029 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           ER017         H         .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           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           ER026         Q         .45/2.00         .38/1.69         .31         100           ER026         Q         .45/2.00         .38/1.69         .31         100           ER028         S         .45/2.00         .38/1.69         .31         100           ER029						
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           ER026         S         .45/2.00         .38/1.69         .31         100           ER027         R         .45/2.00         .38/1.69         .31         100           ER028						
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           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         Q         .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           ER026         T         .45/2.00         .38/1.69         .31         100           ER027         R         .45/2.00         .38/1.69         .31         100           ER020						
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           ER021         L         .45/2.00         .38/1.69         .31         100           ER022         M +W         .45/2.00         .38/1.69         .31         100           ER024         O         .45/2.00         .38/1.69         .31         100           ER024         O         .45/2.00         .38/1.69         .31         100           ER026         Q         .45/2.00         .38/1.69         .31         100           ER026         Q         .45/2.00         .38/1.69         .31         100           ER029         T         .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						
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           ER021         L         .45/2.00         .38/1.69         .31         100           ER022         M         .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           ER026         P         .45/2.00         .38/1.69         .31         100           ER026         Q         .45/2.00         .38/1.69         .31         100           ER026         Q         .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 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           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           ER027         R         .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           ER034						
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           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           ER026         Q         .45/2.00         .38/1.69         .31         100           ER027         R         .45/2.00         .38/1.69         .31         100           ER029         T         .45/2.00         .38/1.69         .31         100           ER031         V         .45/2.00         .38/1.69         .31         100           ER031         V         .45/2.00         .38/1.69         .31         100           ER033         Y         .45/2.00         .38/1.69         .31         100           ER034						
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           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           ER026         Q         .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           ER033         Y         .45/2.00         .38/1.69         .31         100           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037<						
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           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           ER034         Z         .45/2.00         .38/1.69         .31         100           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
ER024         0         .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           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           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           ER037 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
ER025         P         .45/2.00         .38/1.69         .31         100           ER026         Q         .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           ER031         V         .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           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037         2         .45/2.00         .38/1.69         .31         100           ER038 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           ER030         U         .45/2.00         .38/1.69         .31         100           ER031         V         .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           ER037         2         .45/2.00         .38/1.69         .31         100           ER038         3         .45/2.00         .38/1.69         .31         100           ER039 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           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           ER032         X         .45/2.00         .38/1.69         .31         100           ER034         Z         .45/2.00         .38/1.69         .31         100           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037         2         .45/2.00         .38/1.69         .31         100           ER037         2         .45/2.00         .38/1.69         .31         100           ER039         4         .45/2.00         .38/1.69         .31         100           ER040 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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           ER031         V         .45/2.00         .38/1.69         .31         100           ER032         X         .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 <td>ER026</td> <td></td> <td></td> <td></td> <td></td> <td></td>	ER026					
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           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	ER027					100
ER030         U         .45/2.00         .38/1.69         .31         100           ER031         V         .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           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037         2         .45/2.00         .38/1.69         .31         100           ER037         2         .45/2.00         .38/1.69         .31         100           ER039         4         .45/2.00         .38/1.69         .31         100           ER039         4         .45/2.00         .38/1.69         .31         100           ER039         4         .45/2.00         .38/1.69         .31         100	ER028		.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           ER034         Z         .45/2.00         .38/1.69         .31         100           ER037         2         .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	ER029		.45/2.00	.38/1.69	.31	
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           ER034         Z         .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           ER039         4         .45/2.00         .38/1.69         .31         100           ER040         5         .45/2.00         .38/1.69         .31         100	ER030		.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           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           ER039         4         .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	ER031	V	.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           ER039         5         .45/2.00         .38/1.69         .31         100           ER040         5         .45/2.00         .38/1.69         .31         100	ER032	Х	.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	ER033		.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	ER034	Z	.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	ER018		.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	ER037	2	.45/2.00	.38/1.69	.31	100
ER040 5 .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
ER041 6 .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	ER021				.31	100
ER042 8 .45/2.00 .38/1.69 .31 100	ER042	8		.38/1.69		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

Thomas & Betts S.S. I.D. Tag Strips/Carriers 

STD. PKG. Cat. No.	DESCRIPTION	LENGTH IN./MM.	WIDTH IN./MM.	WT. PER 100	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

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

Thomas Betts



Tel: 901.252.8000 800.816.7809 Fax: 90<u>1.252.1354</u>

**United States** 

**Canada** Tel: 450.347.5318 Fax: 450.347.1976

# Stainless Steel Self-Locking Ties

# Spring feature provides an extra-snug fit!

#### Stainless Steel Ties with Roller Bar Locking Mechanism

Thomas & Betts offers a line of self-locking, stainless steel ties for indoor and outdoor use. This low-profile design features an internal locking roller bar and spring-tension head that ensures a secure fit.

#### Features and Benefits

- Spring feature provides extra-snug fit in applications where bundle tightness is critical
- Internal locking roller bar (average slip, within the locking mechanism at 100 lb. (444.8 N) load is 55% lower than conventional ball lock design)
- · Rounded edges and smooth surfaces for fast, safe hand installation
- Buckle length is 38% less and height is 24% less than the conventional ball-locking design
- 5 standard lengths with custom lengths available
- Available in two grades of stainless steel (302/304 for standard applications and 316 for extra corrosion resistance)

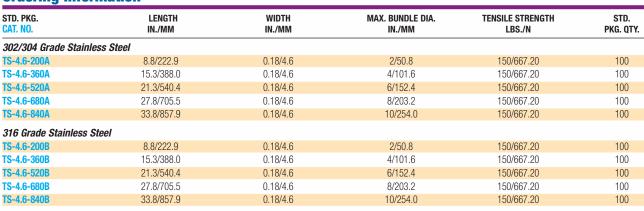
#### **Ideal Applications**

- High-temperature locations
- Marine environment (ship building, salt water environment)
- Harsh environment (oil rigs, refineries, mills food processing plants, auto car washers)
- · Wash down areas

#### Roller Locking Mechanism vs. Ball Locking Mechanism

CHARACTERISTIC	SELF-LOK	BALL LOCK
Rating (lbs./n)	150/667.20	100/444.80
Buckle Length (inch/mm)	.260/6.604	.420/10.668
Height over Buckle (inch/mm)	.130/3.302	.170/4.318
Avg. Slip @ 100lb. Load (inch/mm)	.090/2.286	.200/5.080
Normal Mode of Failure	Cont. Slip	Loss of Ball
Buckle Retention	Smooth ID	Fold Under
Tie Length	Same	Same
Material	304 or 316 SS	304 or 316 SS

#### **Ordering Information**



## Thomas&Betts

www.tnb.com

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289 Tension Head Design provides extra-snug fit where bundle tightness is critical.

Unique Spring-

#### **How It Works**

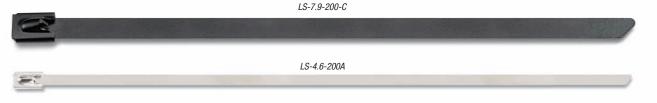
Insert the tail into the buckle. The internal locking bar ••• rolls freely as the tie is tightened.

Once the proper tension is reached, the tool automatically cuts off the tail. The bar then wedges into the •••• buckle, locking it tightly against both the top and bottom of the band.

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# **Stainless Steel Self-Locking Ties**

# Engineered to withstand the harshest environments!



# **Heavy-Duty Stainless Steel Ball-Lock Cable 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 required
- 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

#### Wide range of sizes

- · Six standard lengths cover most applications with custom lengths available
- Two standard widths offer tensile strength of 100 lbs. (444.8 N) or 250 lbs. (1,112 N)

#### Three materials suit a variety of environments

- 302/304 grade stainless steel for standard applications
- 316 grade (marine-grade) stainless steel for extra corrosion resistance
- 316 grade (marine-grade) stainless steel, fully coated with low-smoke, Halogen-free polyester to withstand continuous exposure to salt spray, sunlight, petroleum and chemicals



**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

#### **Typical Applications**

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

#### ..... Specifications .....

- Operating Temp. Range:
  - Uncoated: -112° F to 1,000° F (-80° C to 538° C) Coated: -40° F to 302° F (-40° C to 150° C)
- Approvals/Standards: UL, CE, Lloyd's Register, Germanischer Lloyd, American Bureau of Shipbuilding, Det Norske Veritas, RoHS compliant

#### **Application Tool**

DAS-250 Hand Tool (see page D-57)

(Adjustable tension, automatic cut off)

For a complete listing of Application Tools, see pages D-56–D-57.

#### **Ordering Information**

UNCOATED 316 GRADE STAINLESS STEEL	FULLY COATED 316 GRADE STAINLESS STEEL	LENGTH IN./MM	WIDTH IN./MM	MAX. BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.
LS-4.6-200B	LS-4.6-200-C	7.9/201	0.18/4.6	2/51	100/445	100
LS-4.6-360B	LS-4.6-360-C	14.2/360	0.18/4.6	4/102	100/445	100
LS-4.6-520B	LS-4.6-520-C	20.5/520	0.18/4.6	6/152	100/445	100
LS-4.6-680B	LS-4.6-680-C	26.7/679	0.18/4.6	8/203	100/445	100
LS-4.6-840B	—	33.0/838	0.18/4.6	10/254	100/445	100
LS-7.9-200B	LS-7.9-200-C	7.9/201	0.31/7.9	2/51	250/1,112	50
LS-7.9-360B	LS-7.9-360-C	14.2/360	0.31/7.9	4/102	250/1,112	50
LS-7.9-520B	LS-7.9-520-C	20.5/520	0.31/7.9	6/152	250/1,112	50
LS-7.9-680B	LS-7.9-680-C	26.7/679	0.31/7.9	8/203	250/1,112	50
LS-7.9-840B	—	33.0/838	0.31/7.9	10/254	250/1,112	50
LS-7.9-1010B	—	41.3/1050	0.31/7.9	12.5/318	250/1,112	50
	316 GRADE STAINLESS STEEL LS-4.6-200B LS-4.6-360B LS-4.6-520B LS-4.6-680B LS-4.6-840B LS-7.9-200B LS-7.9-360B LS-7.9-520B LS-7.9-680B LS-7.9-840B	316 GRADE         316 GRADE           STAINLESS STEEL         STAINLESS STEEL           LS-4.6-200B         LS-4.6-200-C           LS-4.6-360B         LS-4.6-360-C           LS-4.6-520B         LS-4.6-360-C           LS-4.6-680B         LS-4.6-680-C           LS-4.6-680B         LS-4.6-680-C           LS-4.6-840B            LS-7.9-200B         LS-7.9-200-C           LS-7.9-360B         LS-7.9-360-C           LS-7.9-520B         LS-7.9-360-C           LS-7.9-520B         LS-7.9-520-C           LS-7.9-680B         LS-7.9-680-C           LS-7.9-840B	316 GRADE STAINLESS STEEL         316 GRADE STAINLESS STEEL         LENGTH IN./MM           LS-4.6-200B         LS-4.6-200-C         7.9/201           LS-4.6-360B         LS-4.6-360-C         14.2/360           LS-4.6-520B         LS-4.6-520-C         20.5/520           LS-4.6-680B         LS-4.6-680-C         26.7/679           LS-4.6-840B          33.0/838           LS-7.9-200B         LS-7.9-200-C         7.9/201           LS-7.9-360B         LS-7.9-360-C         14.2/360           LS-7.9-520B         LS-7.9-520-C         20.5/520           LS-7.9-540B         LS-7.9-680-C         26.7/679           LS-7.9-840B          33.0/838	316 GRADE STAINLESS STEEL         316 GRADE STAINLESS STEEL         LENGTH IN./MM         WIDTH IN./MM           LS-4.6-200B         LS-4.6-200-C         7.9/201         0.18/4.6           LS-4.6-360B         LS-4.6-360-C         14.2/360         0.18/4.6           LS-4.6-520B         LS-4.6-360-C         14.2/360         0.18/4.6           LS-4.6-520B         LS-4.6-520-C         20.5/520         0.18/4.6           LS-4.6-680B         LS-4.6-680-C         26.7/679         0.18/4.6           LS-4.6-680B         LS-7.9-200-C         7.9/201         0.31/7.9           LS-7.9-200B         LS-7.9-360-C         14.2/360         0.31/7.9           LS-7.9-360B         LS-7.9-360-C         14.2/360         0.31/7.9           LS-7.9-520B         LS-7.9-520-C         20.5/520         0.31/7.9           LS-7.9-520B         LS-7.9-520-C         20.5/520         0.31/7.9           LS-7.9-520B         LS-7.9-680-C         26.7/679         0.31/7.9           LS-7.9-680B         LS-7.9-680-C         26.7/679         0.31/7.9           LS-7.9-840B         —         33.0/838         0.31/7.9	316 GRADE STAINLESS STEEL         316 GRADE STAINLESS STEEL         LENGTH IN./MM         WIDTH IN./MM         DIA.           LS-4.6-200B         LS-4.6-200-C         7.9/201         0.18/4.6         2/51           LS-4.6-360B         LS-4.6-360-C         14.2/360         0.18/4.6         4/102           LS-4.6-520B         LS-4.6-520-C         20.5/520         0.18/4.6         6/152           LS-4.6-680B         LS-4.6-680-C         26.7/679         0.18/4.6         8/203           LS-4.6-840B          33.0/838         0.18/4.6         10/254           LS-7.9-200B         LS-7.9-200-C         7.9/201         0.31/7.9         2/51           LS-7.9-360B         LS-7.9-360-C         14.2/360         0.31/7.9         4/102           LS-7.9-360B         LS-7.9-520-C         20.5/520         0.31/7.9         4/102           LS-7.9-520B         LS-7.9-520-C         20.5/520         0.31/7.9         6/152           LS-7.9-680B         LS-7.9-680-C         26.7/679         0.31/7.9         8/203           LS-7.9-680B         LS-7.9-680-C         26.7/679         0.31/7.9         8/203           LS-7.9-840B          33.0/838         0.31/7.9         10/254	316 GRADE STAINLESS STEEL         316 GRADE STAINLESS STEEL         LENGTH IN./MM         WIDTH IN./MM         DIA. IN./MM         STRENGTH LBS./N           LS-4.6-200B         LS-4.6-200-C         7.9/201         0.18/4.6         2/51         100/445           LS-4.6-360B         LS-4.6-360-C         14.2/360         0.18/4.6         4/102         100/445           LS-4.6-520B         LS-4.6-520-C         20.5/520         0.18/4.6         6/152         100/445           LS-4.6-680B         LS-4.6-680-C         26.7/679         0.18/4.6         8/203         100/445           LS-4.6-680B         LS-4.6-680-C         26.7/679         0.18/4.6         10/254         100/445           LS-4.6-840B          33.0/838         0.18/4.6         10/254         100/445           LS-7.9-200B         LS-7.9-200-C         7.9/201         0.31/7.9         2/51         250/1,112           LS-7.9-360B         LS-7.9-360-C         14.2/360         0.31/7.9         4/102         250/1,112           LS-7.9-520B         LS-7.9-520-C         20.5/520         0.31/7.9         6/152         250/1,112           LS-7.9-680B         LS-7.9-680-C         26.7/679         0.31/7.9         8/203         250/1,112           LS-7.9-840B

*Ty-Rap*<sup>.</sup> Cable Fastening Systems

Tel: 450.347.5318 Fax: 450.347.1976

Canada

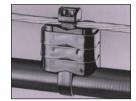
Technical Services Tel: 888.862.3289

# Thomas&Betts

www.tnb.com

# DELTEC<sup>®</sup> Cable Support System

## Strong, long-life and cost-saving method of securing communication cables.



# The Deltec<sup>®</sup> Cable **Support System**

The Deltec® Cable Support System is a user-friendly product designed to provide ease and flexibility in fastening communications cables to messenger strand. It is equally well suited for copper conductor cable, coaxial cable, fiber optic cable and inner duct in aerial applications.

The Deltec® system answers your aerial cable needs with innovative design and state-of-the-art materials. This system includes weather-resistant acetal cable straps, marine grade locking devices, and base hanger accessories for specific applications where mounting is required.

Pre-assembled Deltec® cable straps are available in standard lengths of 10" (254 mm), 13.5" (342.9 mm), and 27" (685.8 mm). Convenient 50' (15.24 m) to 3500' (1066.8 m) reels where specific lengths need to be established by the installer in the field are available. Additional "standard" lengths can be established for applications where higher volumes prevail.

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

- Proven years of service
- No sharp edges craft friendly! Cable friendly!
- Ease of installation one wrap,
- Lowers installation costs
- High tensile strength after fastening
- Total flexibility in lengths when using reel
- Stackable spacers accommodate all cable sizes — no need to stock multiple sizes of individual height spacers
- Spacer designed to retain strap on each side and cradle the cable, providing restricted movement of spacer and preventing damage to cable
- In situations where multiple cables are supported, the T&B TCP360 stackable spacer may be rotated 90° and installed similarly to a single cable, yet provide the same restricting features (unlike those commonly used today)
- · Month and year of manufacture stamped into strap material
- Squirrels and vermin won't eat it!

# Extra security!

## 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 silicon copper alloy
- Deltec System Temperature Range: -30° F to 150° F; (-34° C to 66° Č)

•	Minimum Tensile Strength: 250 lbs. minimum (1,211 N)

- Outdoor Life: Designed to last a minimum of 20 years
- Continuous Load: 20 lbs. (9.07 kg) Continuous Use Temperature: -85° F
- to 194° F; (-65° C to 90° C)

**United States** 

800.816.7809

Color: Black

STD. PKG. <mark>Cat. No</mark> .	BODY Width In./Mm.	MAX. WIRE LENGTH IN./MM.	BUNDLE DIA. IN./MM.	TENSILE Strength LBS./N.	STD. PKG. QTY.
TYD10M	.5/12.70	10/254.00	3/76.20	250/1,112	25
TYD510M	.5/12.70	51.2/1300.48	16/406.40	250/1,112	50
TYD5135M	.5/12.70	13.5/342.90	3.5/88.90	250/1,112	25
TYD5270M	.5/12.70	27/685.80	8/203.20	250/1,112	10

- - no re-treading of re-strap









# **Cable Ties–DELTEC® and Lashing Straps**

## One spacer for any cable size! Modular Stackable Cable Spacers

- Stackable for any desired spacing
- Less inventory one catalog number





STD PKG. <mark>Cat. No</mark> .	DESCRIPTION	STD. PKG. QTY.
TCP5255	Modular Stackable Spacer for DELTEC <sup>®</sup> Straps	25
TCP360	For Coaxial Cable	100
• Made of weat	her-resistant polypropylene	
• Color — Blac	k	

Heads for DELTEC<sup>®</sup> strap!

#### **Locking Heads**



STD PKG.		STD.
CAT. NO.	DESCRIPTION	PKG. QTY.
TYD-LH	Heads only for DELTEC Strap	25
696-41795	Heads only for DELTEC Strap	1,000
Made of weath	herable acetal	
• Color — Blaci	ζ.	

Secures cables to all types of surfaces.

## DELTEC<sup>®</sup> Base and Hanger



CSS-H

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

### Install ties easily!

## **Installation/Cutting Tool**

STD PKG. CAT. NO.	DESCRIPTION	RANGE	WT. Each	STD. PKG. QTY.
WT3D	Installs self-locking Ty-Rap® cable ties	.184 thru .500	8 oz.	1
	and Thomas & Betts Jashing ties			

#### Convenient and easy to use!

## **DELTEC® Strap Dispenser on Reels**

STD PKG. <mark>Cat. No.</mark>	DESCRIPTION	TENSILE STRENGTH LBS./N.	BODY WIDTH IN./MM.	STD. PKG. QTY.
TYD-50R	50' Reel of Strap	250/1,112	.50/12.70	1
<b>696-41794</b>	1,000' Reel of Strap	250/1,112	.50/12.70	1
696-41952	3,500' Reel Reel of Strap	250/1,112	.50/12.70	1

Canada

Tel: 450.347.5318

Fax: 450.347.1976

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809



*Ty-Rap*<sup>.</sup> Cable Fastening Systems

Thomas®Betts

**Technical Services** 

Tel: 888.862.3289

# **Lashing 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.





Weather-Resistant, Nylon 12 Messenger Hanger Straps (releasable)

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.
Weather-	Resistant Ny	lon 12 Mess	enger Hange	er Straps (Rel	easable)	
<b>TYM5412X</b>	.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
<b>TYM5423X</b>	.5/12.7	24/609.6	7/177.8	Bronze	200/889.6	25
<b>TYM5430X</b>	.5/12.7	30/762.0	9/228.6	Bronze	200/889.6	25
TYM5436X	.5/12.7	36/914.4	11/279	Bronze	200/889.6	25
TYM5412X	-S .5/12.7	12/304.8	3/76.2	Stainless Steel	200/889.6	50
<b>TYM5418X</b>	-S .5/12.7	18/457.2	5/127	Stainless Steel	200/889.6	25
TYM5423X	-S .5/12.7	24/609.6	7/177.8	Stainless Steel	200/889.6	25
<b>TYM5430X</b>	-S .5/12.7	30/762.0	9/228.6	Stainless Steel	200/889.6	25
TYM5436X	-S .5/12.7	36/914.4	11/279	Stainless Steel	200/889.6	25
Weather-	Resistant Ny	lon 12 Hang	er Strap (Re	leasable)		
<b>TY54407X</b>	.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
				r the nylon 12 stra		er 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.

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

C

IN./MM.

D

IN./MM.

IN./MM.

BULK

PKG.

OTY.

### Retains original shape after compression.

#### **Stud Buttons**

- · Part numbers contain recommended mounting hole diameters
- For use with Catamount strapping or panel thickness through .165" with mounting holes through  $\#\frac{1}{4}$
- Stocked in heat-stabilized Black Nylon for high heat applications •
- UL Flammability 94 V-2

#### Carbon black prolongs the cable tie's life — UV protective, too!

#### Heavy-Duty Lashing Tie (Releasable)



NEATHER



		BOD	v	ΜΔΧ W		SILE STO	BIIK
• •		• • • • • • • • •	• • • • • • • •				
	BTNY-265-0-D	.58/14.73	.17/4.32	.30/7.62	.26/6.60	.41/10.41	500
	BTNY-203-0-D	.47/11.94	.16/4.06	.24/6.10	.20/5.08	.36/9.14	500
	BTNY-167-0-D	.34/8.64	.13/3.30	.20/5.08	.17/4.32	.30/7.62	500

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

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

An absolute in chemical environments when nylon isn't applicable.

#### Weather-Resistant Polypropylene Lashing and Hanger Lashing Tie (Releasable)

Chemical exposure directly affects the life of a cable tie making polypropylene ties an ideal choice. Black is usable for outdoor use, too.



STD. PKG. Cat. No.	BODY WIDTH IN./MM.	LENGTH IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	TENSILE STRENGTH LBS./N.	STD. PKG. QTY.
Weather-I	Resistant Pol	ypropylene	e Lashing Tie (Rele	asable)	
<b>TY5418PX</b>	.5/12.7	18/457.2	5/127.0	150/667.2	25
<b>TY5424PX</b>	.5/12.7	24/609.6	7/177.8	150/667.2	25
<b>TY5442PX</b>	.5/12.7	42/1066.8	12/304.8	150/667.2	10
<b>TY5460PX</b>	.5/12.7	60/1524	18/457.2	150/667.2	10
Weather-I	Resistant Pol	ypropylene	e Hanger Lashing 1	Tie (Releasable)	
<b>TY53418PX</b>		.5/12.7	18/457.2	5	25

Made of black weather-resistant polypropylene for outdoor use. For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C).

**Strapping Accessories Reference** 

STRAPPING NUMBER	STRAP-TITE BUCKLE	MOUNTING TAB	MOUNTING CRADLE	STUD BUTTONS	MACHINE SCREW
S2NY-096-0-C	—	M4NY-203-0-D	C4NY-203-0-D	BTNY-096-0-D	) #2
S4NY-128-0-C	—	M4NY-203-0-D	C4NY-203-0-D	_	#5
S4NY-140-0-C	—	M4NY-203-0-D	C4NY-203-0-D	_	#6
S4NY-167-0-C	B4NY-167-0-D	M4NY-203-0-D	C4NY-203-0-D	BTNY-167-0-D	) #8
S4NY-167X-0-C	B4NY-167-0-D	M4NY-203-0-D	C4NY-203-0-D	BTNY-167-0-D	) #8
S6NY-000-0-C	_	M6NY-265-0-D	_	_	_
S6NY-167-0-C	—	M6NY-265-0-D	—	—	#8

STRAPPING NUMBER	STRAP-TITE BUCKLE	MOUNTING TAB	STUD BUTTONS	MACHINE SCREW
S6NY-203-0-C	B6NY-203-0-D	M6NY-265-0-D	BTNY-203-0-D	#10
S6NY-203X-0-C	B6NY-203-0-D	M6NY-265-0-D	BTNY-203-0-D	#10
S7NY-265-0-C	B7NY-265-0-D	M7NY-328-0-D	BTNY-265-0-D	#¼
S7NY-265X-0-C	B7NY-265-0-D	M7NY-328-0-D	BTNY-265-0-D	#¼
S7NY-281-0-C	_	M7NY-328-0-D		#¼
S9NY-203-0-C	_	—	BTNY-203-0-D	#10
S9NY-265-0-C	—	—	BTNY-265-0-D	#¼
S9NY-390-0-C	—	_	_	#%



**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Length: 19'

Canada Tel: 450.347.5318 Fax: 450.347.1976

BULK PKG.

AT. NO.

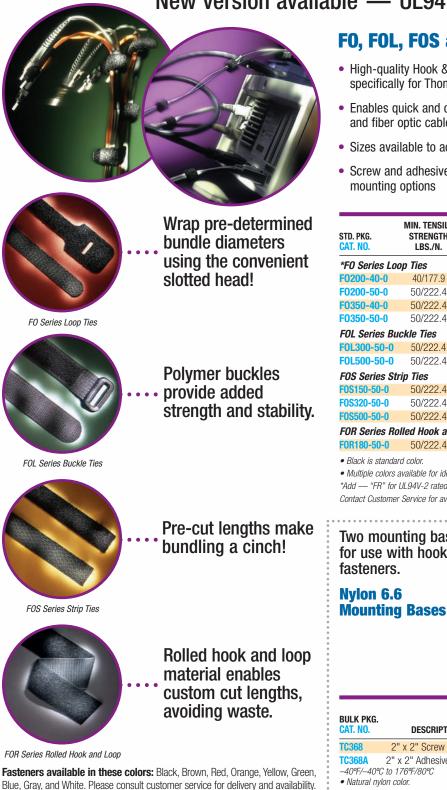
HEAD DIA

IN./MM.

IN./MM.

# **Hook and Loop Fasteners**

## New version available — UL94V-2 rated material.



# FO, FOL, FOS and FOR Series

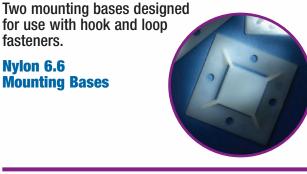
- High-guality Hook & Loop Fasteners designed specifically for Thomas & Betts
- · Enables quick and convenient bundling of data and fiber optic cables
- Sizes available to accommodate varying bundle diameters
- Screw and adhesive mounting bases provide multiple mounting options

STD. PKG. CAT. NO.	MIN. TENSILE Strength LBS./N.	MAX. BUNDLE DIA. IN./MM.	LENGTH IN./MM.	WIDTH IN./MM.	STD. PKG. QTY.
*FO Series Lo	op Ties				
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
FOL Series Bu	ickle Ties				
F0L300-50-0	50/222.4	3.0/76.20	12/304.8	.75	10
F0L500-50-0	50/222.4	5.0/127.0	18/457.2	.75	10
FOS Series St	rip Ties				
F0S150-50-0	50/222.4	1.5/38.10	6/152.4	—	10
F0S320-50-0	50/222.4	3.2/81.28	12/304.8	—	10
F0S500-50-0	50/222.4	5.0/127.00	18/457.2	—	10
FOR Series Ro	lled Hook and	Loop			
FOR180-50-0	50/222.4	Various	180/4572	—	1

Black is standard color

· Multiple colors available for identifying specific bundles \*Add — "FR" for UL94V-2 rated material, after color choice.

Contact Customer Service for availability and delivery.



BULK PKG. Cat. No.	DESCRIPTION	SCREW SIZE	MAXIMUM TIE WIDTH ACCOM.	BULK PKG. QTY.
TC368	2" x 2" Screw Mounted	#8	0.75/19.05	500
<b>TC368A</b> -40°F/-40°C	2" x 2" Adhesive Mounted C to 176% / 80%	#8	0.75/19.05	500

· Natural nylon color.

**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976





# Low-Profile All Nylon Cable Ties

# Ideal for precision bundling!

# Low-Profile All-Nylon 6.6 Cable Ties

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

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

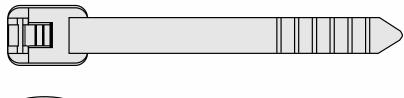
This fastener design from Thomas & Betts is ideal for use where clearance is a necessity. A unique saddleback design curves to form a snug fit around the bundle and allows for easy pull-through in bulkheads and any other tight spaces. Our contoured head eliminates snagging, and sharp edges are reduced by our safeguard walls.

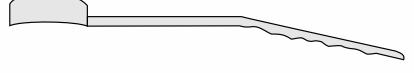
#### **Cable Ties Ordering Information**

STD. PKG. CAT. NO.	BULK. PKG. CAT. NO.	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.
SF100-18-100	SF100-18	.13/3.3-1.00/25.4	18/80.07	4.65/118.11	.095/2.41	.04/1.09	100	1,000
SF150-18-100	SF150-18	.13/3.3-1.50/38.1	18/80.07	6.45/163.83	.1/2.41	.04/1.09	100	1,000
SF200-18-100	SF200-18	.13/3.3-2.00/50.8	18/80.07	8.10/205.74	.1/2.41	.04/1.09	100	1,000
SF175-50-100	SF175-50	.19/4.8-1.75/44.45	50/222.4	7.70/195.58	.19/4.75	.05/1.22	100	1,000
SF300-50-100	SF300-50	.19/4.8-3.00/76.2	50/222.4	11.33/287.78	.19/4.75	.05/1.22	100	1,000
SF400-50-100	SF400-50	.19/4.8-4.00/101.6	50/222.4	14.53/369.06	.19/4.75	.05/1.22	100	1,000
SF400-120-100	SF400-120	.38/9.6-4.00/101.6	120/533.8	14.58/370.33	.30/7.62	.07/1.78	100	500
SF600-120-50	SF600-120	.38/9.6-6.00/152.4	120/533.8	21.00/533.4	.30/7.62	.07/1.78	50	500

Material: Natural Nylon 6.6. Also available in black outdoor weatherable (suffix "-X").

• Natural nylon color is standard. For colored Ty-Rap Low-Profile Cable Ties, refer to **page D-4**. Example: **SF175-50-2** (Red)







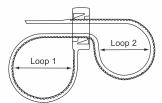
United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976

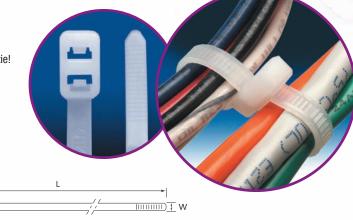
# **Double Loop, Badge Holder and Restricted Bundle Cable Ties**

## **Double Loop Nylon 6.6 Cable 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.	LENGTH	LENGTH WIDTH BUNDLE DIAMETER RANGE TENSILE		BUNDLE DIAMETER RANGE		INSTALLATION TOOLING	BULK
CAT. NO.	IN./MM.	IN./MM.	LOOP 1 IN./MM.	LOOP 2 IN./MM.	STRENGTH (LB/N.)	FOR ALL SIZES	PKG.
TB-50RLDH	7.8/198.12	.19/4.83	.1/2.54-1.8/45.72	.1/2.54-1.7/ 43.18	50/222.4	ERG50	1,000
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
TB-15-50RLDH	14.6/370.84	.19/4.83	1/2.54-3.9/99.06	.1/2.54-3.8/96.52	50/222.4	ERG50	1,000

60

Natural nylon color

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

#### The badge holder that won't leave you out in the cold!



## **Badge Holder Nylon 6.6 Cable**

- Designed specifically for ticket or badge attachment to prevent damage when in use
- Incorporates a loop diameter restriction device that forms the proper sized 1¼" loop required to hold the ticket or badge in place and lay flat
- Prevents the tie from being over-tightened and damaging the ticket or badge
- The Badge Holder is tamper-resistant and smooth up to the restriction point to keep it from being reused
- The Badge Holder is designed with a flexible short round tail, safely eliminating sharp edges
- Affordable at just pennies per fastener!



STD. PKG.	LENGTH	WIDTH	STD.
CAT NO.	IN./MM.	IN./MM.	PKG.
SJ-5-30SKI-9-M	5.6/142.24	.13/3.30	1,000

• Natural nylon color. Please consult Customer Service for ordering and availability of colors and heat-stamping.

Max. Tensile Strength: 30 lbs. (133.4 N.)

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

#### **Restricted Bundle Nylon 6.6 Cable Tie**

					<b>FI</b> ®			
Std. CAT. NO.	Bulk CAT. NO.	BUNDLE Diameter In./MM.	LENGTH IN./MM.	WIDTH IN./MM.	MINIMUM Loop tensile Lb/n.	TAB HEIGHT IN./MM.	STD. PKG. QTY.	BULK PKG. QTY.
TB-5-30TB-3-C	TB-5-30TB-3-M	<sup>21</sup> / <sub>32</sub> -1 <sup>1</sup> / <sub>4</sub> /17-32	5.6/142	.130/3	30/133.4	.062/1.58	100	1,000

• Recommended for tote-box, security and temporary applications.

• Use ERG50 Installation Tools on Low setting. Consult Customer Service for availability and colors.

• Orange color

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

Unit	ed States
Tel:	901.252.8000
	800.816.7809
Fax:	901.252.1354

**Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# **Cable Tie Mounting Bases**

#### 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	LENGTH I. 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	Weatherable Nylon	_	1,000
	TC342	TC2PA	.19	1.13/28.58	1.13/28.58	Nylon 6.6	—	1,000
	TC342X	TC2PA	.19	1.13/28.58	1.13/28.58	Weatherable Nylon		1,000
_	TC342A-FR	SRA* Adhesive	.19	1.13/28.58	1.13/28.58	Flame-Retardant Nylo	n —	1,000
	TC342AH-TFR	Acrylic Adhesive		1.13/28.58	1.13/28.58	Black High-Temp Flame-Retardant Nylo	— n	1,000
Temperatur	e Rating: 32° F to	150° F (0° C to 6	<i>6°С) *</i> 5	Synthetic Rubber	r Adhesive	, , , , , , , , , , , , , , , , , ,		

#### 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

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
4-Way Adhesiv	e Mounting Ba	se						
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 Nyloi	ı —	1,000
TC5345AX	TC345AX	SRA* Adhesive	.19	1.13/28.58	1.13/28.58	Weatherable Nylon	100	1,000
TC5345AHTFR	TC345AHTFR	Acrylic Adhesive	.19	1.13/28.58	1.13/28.58	Black High-Temp Flame-Retardant Nyloi	100 1	1,000
	TC345	TC2PA/Screws	.19	1.13/28.58	1.13/28.58	Nylon 6.6	—	1,000
4-Way Mini Bas	5e							
TC050X050A-C	TC050X050A	SRA* Adhesive	.10	0.5/12.70	0.5/12.70	Nylon 6.6	100	1,000
TC050X050-C	TC050X050AX	SRA* Adhesive	.10	0.5/12.70	0.5/12.70	Weatherable Nylon	100	1,000
TC5344A	TC344A	SRA* Adhesive	.14	.75/19.05	.750/19.05	Nylon 6.6	100	1,000
TC5344AX	TC344AX	SRA* Adhesive	.14	.75/19.05	.750/19.05	Weatherable Nylon	100	1,000
TC5344	TC344	Screw Mount	.14	.75/19.05	.750/19.05	Nylon 6.6	100	1,000
Large 4-Way Ba	ase							
TC150X150L	TC150X150	Screw Mount	.19	1.5/38.10	1.50/38.10	Nylon 6.6	50	500
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	Weatherable Nylon	50	500
TC200X200-L	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
_	TC200X200AX	SRA* Adhesive	.30	2.0/50.80	2.0/50.80	Weatherable Nylon	_	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

**Four-Way Mini Base** 

#### **Large Four-Way Base**



Great versatility!

#### · Accommodates the entire line of standard cable ties

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

4-way base for cable ties up to .184" maximum width and a two-way base for ties up to .301" maximum width

\*Synthetic Rubber Adhesive

#### **Two- and Four-Way** It may also be mounted with #8 size screw (2 holes) **Adhesive Mounting Base**



STD. PKG. Cat. No.	BULK PKG. Cat. No.	MOUNTING Method	MAX. TIE WIDTH ACCOM	LENGTH I. (IN.)	WIDTH (IN.)	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	Weatherable Nylon	100	_
<u> </u>	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	Weatherable Nylon	—	1,000
—	TCZ347	TC2PA/Screws	.30	1.13/28.58	1.13/28.58	Radiation Resistant Flouropolym	er —	1,000

Temperature Rating: 32° F to 150° F (0° C to 66° C) \*Synthetic Rubber Adhesive



D-34

#### **United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976

# **Cable Tie Mounting Bases**

## 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

		I	MAXIMUM CLAMPING AREA					
STD. PKG. Cat. No.	BULK PKG. Cat. No.	BASE STYLE	HEIGHT (IN.)	MINIMUM IN./MM	MAXIMUM IN./MM.	STD. PKG. QTY.	BULK PKG. QTY.	
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	TC350-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 Ba					
For adhesive-back bases, temperature rating is 32° F to 150° F (0° C to 66° C)				ndhesive-back bases, tempe 40° F to 185° F (-40° C to	rature	(23.88 x 23.88 mm)		

Hole for #6 screw

#### Simple to install! Snap-In Mounting Base for Preassembled Ties



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.
TC5353A	TC353A	SRA* Adhesive	.190	2.00/50.80	1.00/25.40	Nylon 6/6	25	500
	TC353	TC2PA/Screws	190	2 00/50 80	1 00/25 40	Nylon 6/6	_	500

Natural nylon color.

Temperature Rating: 32° F to 150° F (0° C to 66° C). \*Synthetic Rubber Adhesive.

#### Great for securing cables! Aluminum Mounting Plates



BULK PKG. <mark>Cat. No.</mark>	MOUNTING Method	WIDTH Accom.	MAX. TIE Length In./MM.	WIDTH IN./MM/	MATERIAL	BULK PKG. QTY.
TC105	TC2PA/Screws	.190	1.00/25.40	.50/12.70	Aluminum	1,000
TC824-TB	TC2PA/Screws	.190	1.38/34.93	.38/.38	Aluminum	1,000

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



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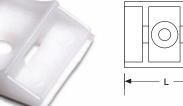


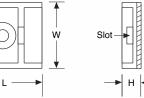
# **Cable Tie Mounting Bases**

Accepts cable ties up to 50-lb. (222N) tensile strength (miniature through standard)!

## **Adhesive Mounting Cradle**

- Supplied on closed cell foam with synthetic rubber-based adhesive
- Use #6 self-tapping screw for added strength if desired





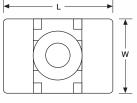
	ULK PKG.			L LENGTH	W WIDTH	SLOT HEIGHT	SLOT WIDTH	MOUNT	STD. PKG.	BULK PKG.
CAT. NO. CA	AT. NO.	MATERIAL	IN./MM.	IN./MM.	IN./MM.	IN./MM.	IN./MM.	METHOD	QTY.	QTY.
MCNY-1250-9-C M	CNY-1250-9-D	Vatural Nylon 6.6	.285/7.24	1.250/31.75	1.000/25.4	.090/2.29	.300/7.62	SRA Adhesive*	100	500

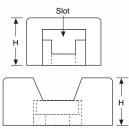
\*Synthetic Rubber Adhesive

## Fluoropolymer available for harsh environments!

### **Screw Mount**

- SMNY-001 accepts cable ties to 50-lb. (222N) tensile (miniature through standard)
- SMNY-002 accepts cable ties to 120-lb. (533N) tensile (miniature through heavy-duty)
- Use #4, #6, #8, or #10 machine screw (as referenced)





BULK PKG. CAT. NO.	MATERIAL	H HEIGHT IN./MM.	L LENGTH IN./MM.	W WIDTH IN./MM.	SLOT HEIGHT IN./MM.	SLOT WIDTH IN./MM.	MOUNT METHOD	BULK PKG. QTY.
SMNY-000-9-D	Natural Nylon 6.6	.27/6.86	.57/14.48	.34/8.64	.07/1.78	.12/3.10	#4 Screw	500
SMTZ-001-9-D	Radiation-Resistant Fluoropolymer (green)	.28/7.11	.60/15.24	.39/9.77	.06/1.52	.20/5.08	#6, #8 Screw	500
SMNY-002-9-D	Natural Nylon 6.6	.39/9.90	.88/22.22	.63/15.87	.09/2.29	.33/8.26	#8, #10 Screw	500
SMTZ-002-9-D	Radiation-Resistant Fluoropolymer (green)	.39/9.90	.88/22.22	.63/15.87	.09/2.29	.33/8.26	#8, #10 Screw	500
SMNY-001-0-D	Heat-Stabilized Black Nylon	.28/7.11	.60/15.24	.39/9.77	.06/1.52	.20/5.08	#6, #8 Screw	500
SMNY-002-0-D	Heat-Stabilized Black Nylon	.39/9.90	.88/22.22	.63/15.87	.09/2.29	.33/8.26	#8, #10 Screw	500

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TC5142

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### **Cable Tie Mounting Bases**

#### **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.



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).

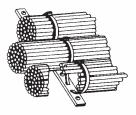
Natural nylon color.

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

TC5141

#### **Multiple-Bundle Mounting Strips**

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

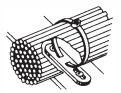


STD. PKG. Cat. No.	MAXIMUM MOUNTING METHOD	TIE WIDTH Accom.	WIDTH IN./MM.	LENGTH IN./MM.	CAPACITY (BUNDLES)	MIL. STD. Part no.	BULK PKG. QTY.
TC1101	#6 Screws	.190	.50/12.70	1.75/44.45	1	MS3339-1	100
TC1102	#6 Screws	.190	.50/12.70	3.00/76.20	2	MS3339-2	100
TC1103	#6 Screws	.190	.50/12.70	4.25/107.95	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. BULK PKG. MOUNTING CAT. NO. CAT. NO. METHOD AV		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	1/4" 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 1/4" through 4" in diameter. One mounting hole is slotted to permit adjustment of the bundle position up to the time of actual bundle installation.

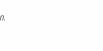
Natural nylon color.

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

Unit	ed States
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	800.816.7809
Fax:	901.252.1354

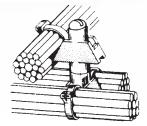
Canada Tel: 450.347.5318 Fax: 450.347.1976

**Technical Services** Tel: 888.862.3289



### **Cable Tie Mounting Bases**

Permits vertical stacking! Ty-Rap<sup>®</sup> Mounting Blocks





BULK PKG. CAT. NO.			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		
Nounting 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).

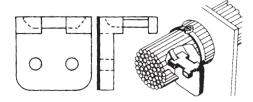
### Meets military specs as a support in bulkheads and walls! **Right-Angle Bundle Support**



STD.

PKG. QTY.

50



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 messels	Military Cassification		at halas in hull has de and u	

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

Weather resistant and transparent!

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

**Aluminum Siding Clip** 





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.



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STD. PKG.

CAT. NO.

**TC201** 

Material:

Technical Services Tel: 888.862.3289

• Provision for utilizing Ty-Rap® cable ties to secure large diameter bundles.

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.

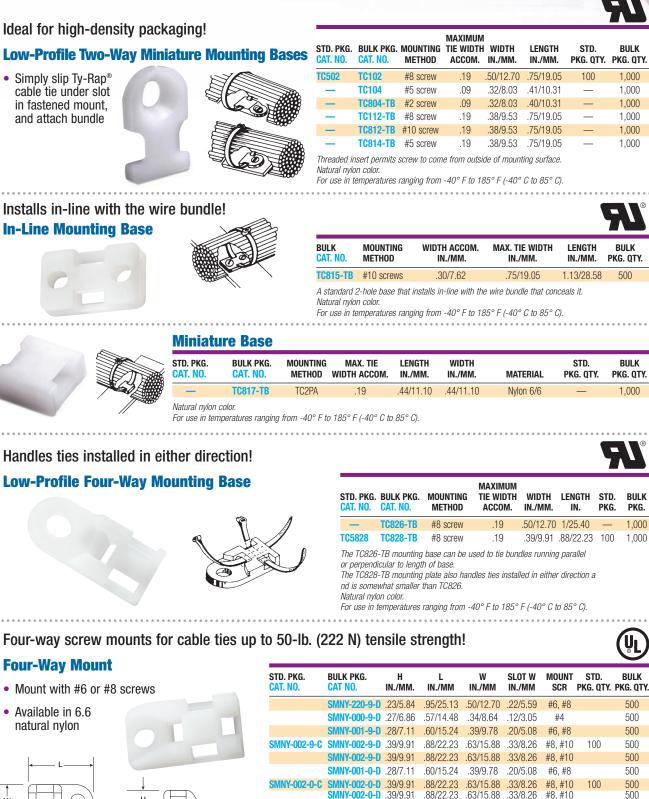
WIRE

ACCOMMODATION

1/8" Diameter Wire (2-pair station wire)

Ty-Rap<sup>®</sup> Cable Fastening Systems

### **Cable Tie Mounting Bases**



Tel: 888.862.3289

Thomas®Betts www.tnb.com

#### D-39

**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976

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

SMNY-002-0-D .39/9.91 .88/22.23 .63/15.88 Natural nylon color.

#### **Four-Way Mount**

- Available in 6.6 natural nylon





### **Cable Tie Mounting Bases**

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

#### **Self-Riveting** Base



BULK PKG. CAT. NO.	MOUNTING Hole Size	MAX. TIE WIDTH Accom.	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
TC116-0	.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).

**Snap-In Mounting Base Cap** 

BULK PKG. CAT. NO.	MOUNTING Hole Size	MAX. TIE WIDTH Accom.	WIDTH IN./MM	LENGTH IN./MM	MATERIAL	BULK 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 Heat Stabilized	1,000
TCH121-0†	.250	.190	.445/11.30	.415/10.54	Nylon 6.6 Black	1,000
					Heat Stabilized	

+ Not <sup>®</sup> 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).

### **STRONG** — up to 50-lb. tensile strength!

BULK PKG

PMNY-185-9-D

PMNY-254-9-C

MNY-245-9-D

Natural nylon color.

CAT. NO.

Snap

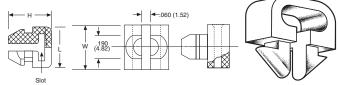
#### **Push Mounts**

#### **PMNY-185**

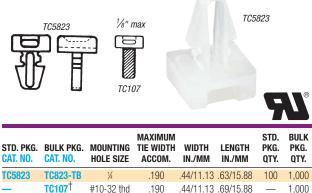
- Versatile push mount for cable ties to 50-lb, tensile strength
- For use in .187"/.192" mounting hole for panel thickness .030" to .080"

#### **PMNY-245**

- Accepts cable ties to 50-lb. tensile (miniature through standard)
- For use in .250" mounting hole for maximum panel thickness of .062"



#### **Push-In and Bolted Bases**



— TC107 <sup>†</sup>	#10-32 thd	.190	.44/11.13 .69/15.88	_	1,0
† Not 🕲 Recognized.					
Natural nylon color.					

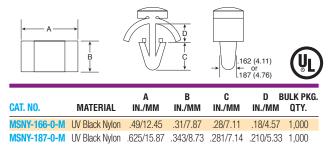
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



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For MSNY-187-0-M used with w6 or N6 Series Cable Clamps, allowable panel thickness is .030" to .050".



W

WIDTH

IN./MM.

.64/16.26 .43/10.92 .43/10.92 .07/1.65 .07/1.65

.36/9.02 .32/8.13 .32/8.13 .05/1.27 .22/5.59 500



ОТУ

500

WIDTH PKG.

IN./MM.

SLOT

HEIGHT

IN./MM.

.32/8.13 .05/1.27 .22/5.59 100

<sup>1</sup>/8" maximum panel thickness

**ТС121-ТВ** 

· · · · · · · · · · · · · · · · · · ·	
inap Mounts	5
For panel thicknesses from .060" to .150" to hold separate pieces of material together	
For MSNY-166-0-M used with W4 or N4 Series Cable	

L

LENGTH

IN./MM.

.36/9.02 .32/8.13

For MSN Clamps, allowable panel thickness is .030" to .050"

Н

HEIGHT

IN./MM.

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

MATERIAL

Nylon

Nylon

Nylon

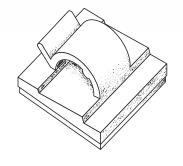
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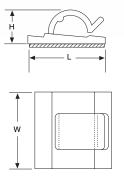
### **Cable Clamps and Clips**

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. CAT. NO.	MATERIAL	HEIGHT IN./MM.	H LENGTH IN./MM.	L WIDTH IN./MM.	W Maximum Bundle	MOUNTING METHOD	BULK PKG. QTY.
RANY-160-9-D	Nylon	.250/6.35	.630/16.0	.580/14.73	.160/4.06	Rubber-based adhesive	500
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 Natural nylon color.	Nylon	14.22/.560	1.250/31.75	28.45	.620/15.75	Rubber-based adhesive	500

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

#### 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



Optional Screw Hole

STD. PKG. Cat. No.	MATERIAL	A HEIGHT IN./MM	B LENGTH IN./MM	S WIDTH IN./MM	L MAXIMUM Bundle In./MM	APPLIED WIRE RANGE IN./MM	SCREW HOLE Diameter IN./MM	STD. PKG. QTY.
ULNY-013-8-C	Gray Nylon	.709/18.00	.984/24.99	.314/7.98	2.340/59.44	.118500/3.0 - 12.7	.110/2.79	100
ULNY-013-9-C	Natural Nylon	.709/18.00	.984/24.99	.314/7.98	2.340/59.44	.118500/3.0 - 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

Canada

Tel: 450.347.5318

Fax: 450.347.1976

**Technical Services** 

Tel: 888.862.3289

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

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809



Thomas®Betts

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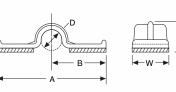
### **Cable Clamps & Clips**

Choose from four sizes to accommodate bundles up to  $\frac{1}{2}$ ".

#### **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





BIII K PKG		D DIAMETER	Α	В	H	W	STD	BULK
CAT. NO.	MATERIAL	IN./MM.	IN./MM.	IN./MM.	IN./MM.	IN./MM.	PKG. QTY.	PKG. QTY.
PCNY-125-9-D	Nylon	.13/3.30	.76/19.30	.38/9.65	.21/5.33	.38/9.65	100	500
PCNY-250-9-D	Nylon	.25/6.35	1.38/35.05	.69/17.53	.32/8.13	.50/12.70	100	500
PCNY-375-9-D	Nylon	.38/9.65	1.47/37.34	.74/18.80	.44/11.176	.63/16.00	100	500
PCNY-500-9-D	Nylon	.50/12.70	1.59/40.39	.80/20.32	.59/15.00	.75/19.05	100	500
	PCNY-125-9-D PCNY-250-9-D PCNY-375-9-D PCNY-500-9-D	CAT. NO.         MATERIAL           PCNY-125-9-D         Nylon           PCNY-250-9-D         Nylon           PCNY-375-9-D         Nylon	CAT. NO.         MATERIAL         IN./MM.           PCNY-125-9-D         Nylon         .13/3.30           PCNY-250-9-D         Nylon         .25/6.35           PCNY-375-9-D         Nylon         .38/9.65           PCNY-500-9-D         Nylon         .50/12.70	CAT. NO.         MATERIAL         IN./MM.         IN./MM.           PCNY-125-9-D         Nylon         .13/3.30         .76/19.30           PCNY-250-9-D         Nylon         .25/6.35         1.38/35.05           PCNY-375-9-D         Nylon         .38/9.65         1.47/37.34           PCNY-500-9-D         Nylon         .50/12.70         1.59/40.39	BULK PKG. CAT. NO.         DIAMETER MATERIAL         DIAMETER IN./MM.         IN./MM.           PCNY-125-9-D         Nylon         .13/3.30         .76/19.30         .38/9.65           PCNY-250-9-D         Nylon         .25/6.35         1.38/35.05         .69/17.53           PCNY-375-9-D         Nylon         .38/9.65         1.47/37.34         .74/18.80           PCNY-500-9-D         Nylon         .50/12.70         1.59/40.39         .80/20.32	BULK PKG. CAT. NO.         DIAMETER IN./MM.         IN./MM.         IN./MM.         IN./MM.           PCNY-125-9-D         Nylon         .13/3.30         .76/19.30         .38/9.65         .21/5.33           PCNY-250-9-D         Nylon         .25/6.35         1.38/35.05         .69/17.53         .32/8.13           PCNY-375-9-D         Nylon         .38/9.65         1.47/37.34         .74/18.80         .44/11.176           PCNY-500-9-D         Nylon         .50/12.70         1.59/40.39         .80/20.32         .59/15.00	BULK PKG. CAT. NO.         DIAMETER IN./MM.         IN./MM.         IN./MM.         IN./MM.         IN./MM.           PCNY-125-9-D         Nylon         .13/3.30         .76/19.30         .38/9.65         .21/5.33         .38/9.65           PCNY-250-9-D         Nylon         .25/6.35         1.38/35.05         .69/17.53         .32/8.13         .50/12.70           PCNY-375-9-D         Nylon         .38/9.65         1.47/37.34         .74/18.80         .44/11.176         .63/16.00           PCNY-500-9-D         Nylon         .50/12.70         1.59/40.39         .80/20.32         .59/15.00         .75/19.05	BULK PKG. CAT. NO.         DIAMETER MATERIAL         DIAMETER IN./MM.         IN./MM.         IN./MM.         IN./MM.         STD. PKG. QTY.           PCNY-125-9-D         Nylon         .13/3.30         .76/19.30         .38/9.65         .21/5.33         .38/9.65         100           PCNY-250-9-D         Nylon         .25/6.35         1.38/35.05         .69/17.53         .32/8.13         .50/12.70         100           PCNY-375-9-D         Nylon         .38/9.65         1.47/37.34         .74/18.80         .44/11.176         .63/16.00         100           PCNY-500-9-D         Nylon         .50/12.70         1.59/40.39         .80/20.32         .59/15.00         .75/19.05         100

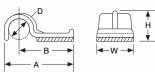
For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

#### Eliminate the dangers of loose cables with these clips.

#### **Half Press Clips**

- 4 sizes to accommodate bundles up to ½"
- 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



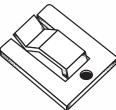


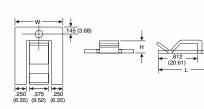
STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	MATERIAL	D DIAMETER IN./MM.	A IN./MM.	B IN./MM.	H IN./MM.	W IN./MM.	STD. PKG. QTY.	BULK PKG. QTY.
HCNY-125-9-C	HCNY-125-9-M	Nylon	.13/3.30	.49/12.45	.38/9.65	.18/4.57	.38/9.65	100	1,000
HCNY-250-9-C	HCNY-250-9-M	Nylon	.25/6.35	.87/22.10	.69/17.53	.33/8.38	.50/12.70	100	1,000
HCNY-375-9-C	HCNY-375-9-M	Nylon	.38/9.65	.98/25.90	.75/19.05	.42/10.67	.63/16.00	100	1,000
HCNY-500-9-C	HCNY-500-9-M	Nylon	.50/12.70	1.11/28.20	.82/20.83	.56/14.22	.75/19.05	100	1,000

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

### 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

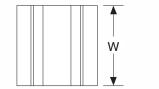
For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

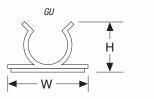


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### **Cable Clamps & Clips**

#### **Adhesive Cable Clips**



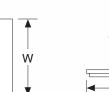


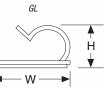
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GC

STD. PKG. Cat. No.	MAX. BUNDLE WIDTH ACCEPTED	H IN./MM.	L IN./MM.	W IN./MM.	MOUNTING Method	STD. PKG. QTY.
GC250RT	.25	.39/9.91	.75/19.05	.75/19.05	Adhesive	25
GC500RT	.50	.63/16.00	1.00/25.40	1.00/25.40	Adhesive	25
GL250RT	.25	.76/19.30	1.00/25.40	1.00/25.40	Adhesive	25
GL500RT	.50	.76/19.30	1.00/25.40	1.00/25.40	Adhesive	25
GU250RT	.25	.47/11.94	.75/19.05	.75/19.05	Adhesive	25
GU500RT	.50	.69/17.53	.75/19.05	.75/19.05	Adhesive	25





Natural nylon color.

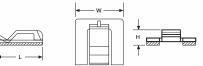
For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

### Low-profile clip for single or multiple layers of flat ribbon cable.

#### **Flat Adhesive Clips**

- Supplied on a rubber-based closed cell foam adhesive
- Flexible center tang for removal or addition of cables
- Stocked in 6.6 natural nylon color





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.
FANY-812-9-C	FANY-812-9-D	Nylon	.28/7.11	1.00/25.40	1.00/25.40	Adhesive	100	500
Natural nylon color								

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

Canada

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**Technical Services** 

Tel: 888.862.3289

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

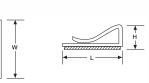
**United States** 

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800.816.7809



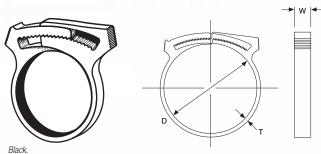




### **Cable Clamps & Clips**

### Ideal for assembly applications. Adjustable Cable Clamp

- 16 sizes for bundle diameters to 2.38"
- Removable and reusable. Twist by hand or with pliers to remove
- Stocked in weatherable Nylon. 100 pieces per package
- Request samples for testing to your application. Tested to 250 psi



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

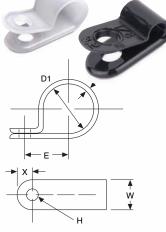
STD. PKG. DIA		CLOSED					D Nominal	D1 CLOSED		W	
CAT. NO. IN			THICKNESS IN./MM.	WIDTH IN./MM.	STD. PKG. QTY.	STD. PKG. CAT. NO.	DIAMETER IN./MM.	DIAMETER IN./MM.	THICKNESS IN./MM.	WIDTH IN./MM.	STD. PKG. QTY.
GGNY-344-0-C .41	1/10.41 .	.34/8.64	.07/1.78	.22/5.59	100	GGNY-953-0-C	.95/24.13	.41/10.41	.07/1.78	.31/7.87	100
<b>GGNY-406-0-C</b> .47	7/11.94 .4	.41/10.41	.07/1.78	.22/5.59	100	GGNY-1031-0-C	1.81/45.97	1.03/26.16	.07/1.78	.31/7.87	100
<b>GGNY-468-0-C</b> .53	3/13.46 .4	.47/11.94	.07/1.78	.22/5.59	100	GGNY-1250-0-C	1.44/36.58	1.25/31.75	.07/1.78	.36/9.14	100
<b>GGNY-531-0-C</b> .59	9/14.99 .	.53/13.46	.07/1.78	.22/5.59	100	GGNY-1406-0-C	1.63/41.40	1.41/35.81	.07/1.78	.36/9.14	100
GGNY-593-0-C .66	6/16.76 .	.59/14.99	.07/1.78	.22/5.59	100	GGNY-1593-0-C	1.81/45.97	1.59/40.39	.07/1.78	.36/9.14	100
GGNY-672-0-C .81	1/20.57 .0	.67/17.02	.07/1.78	.22/5.59	100	GGNY-1687-0-C	1.91/48.51	1.34/34.04	.07/1.78	.36/9.14	100
<b>GGNY-750-0-C</b> .88	8/22.35	.75/19.05	.07/1.78	.22/5.59	100	GGNY-1875-0-C	2.13/54.10	1.88/47.75	.07/1.78	.40/10.16	100
<b>GGNY-875-0-C</b> 1/3	/355.60 .8	.88/22.35	.07/1.78	.22/5.59	100	GGNY-2125-0-C	2.75/69.85	2.13/54.10	.07/1.78	.40/10.16	100

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

#### 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



		D1	E	т	W	H MOUNTING	Х	BULK
WHITE CAT. NO.	BLACK CAT. NO.	CLOSED DIA. IN./MM.	IN./MM.	THICKNESS IN./MM.	WIDTH IN./MM.	HOLE	IN./MM.	PKG. 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	1,00
N4NY-004-9-M	N4NY-004-0-M	.25/6.35	.42/10.70	.05/1.27	.38/9.53	#8	.22/5.54	1,00
N4NY-005-9-M	N4NY-005-0-M	.31/7.92	.44/11.20	.05/1.27	.38/9.53	#8	.22/5.54	1,00
N4NY-006-9-M	N4NY-006-0-M	.38/9.53	.46/11.79	.05/1.27	.38/9.53	#8	.22/5.54	1,00
N4NY-007-9-M	N4NY-007-0-M	.44/11.10	.50/12.70	.05/1.27	.38/9.53	#8	.22/5.54	1,00
N4NY-008-9-M	N4NY-008-0-M	.50/12.70	.53/13.46	.05/1.27	.38/9.53	#8	.22/5.54	1,00
N4NY-002B-9-M	N4NY-002B-0-M	.13/3.18	.34/8.71	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-003B-9-M	N4NY-003B-0-M	.19/4.475	.38/9.60	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-004B-9-M	N4NY-004B-0-M	.25/6.35	.42/10.70	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-005B-9-M	N4NY-005B-0-M	.31/7.92	.44/11.20	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-006B-9-M	N4NY-006B-0-M	.38/9.53	.46/11.79	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-007B-9-M	N4NY-007B-0-M	.44/11.10	.50/12.70	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N4NY-008B-9-M	N4NY-008B-0-M	.50/12.70	.53/13.46	.05/1.27	.38/9.53	#10	.22/5.54	1,00
N6NY-004C-9-M	N6NY-004C-0-M	.25/6.35	.44/11.10	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-005C-9-M	N6NY-005C-0-M	.31/7.92	.47/12.04	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-006C-9-M	N6NY-006C-0-M	.38/9.53	.50/12.70	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-007C-9-M	N6NY-007C-0-M	.44/11.10	.53/13.54	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-008C-9-M	N6NY-008C-0-M	.50/12.70	.55/14.05	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-009-9-M	N6NY-009-0-M	.56/14.27	.60/15.32	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-010-9-M	N6NY-010-0-M	.63/15.88	.63/15.88	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-011-9-M	N6NY-011-0-M	.69/17.45	.67/16.89	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-012-9-M	N6NY-012-0-M	.75/19.05	.67/17.75	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-013-9-M	N6NY-013-0-M	.81/20.62	.77/19.43	.06/1.52	.50/12.70	#10	.22/5.54	1,00
N6NY-014-9-M	N6NY-014-0-M	.88/22.23	.80/20.19	.06/1.52	.50/12.70	#10	.22/5.54	1,00
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	1,00
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



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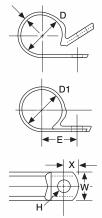
### **Cable Clamps & Clips**

#### Ideal for assembly applications.

#### **Self-Aligning Cable Clamps**



- · Molded-in saddle washer enhances performance and appearance
- · Self-alignment feature make this clamp ideal for assembl applications
- 14 diameters and 2 widths with mounting holes for #4 through #10 screws
- UL<sup>®</sup> Flammability W.NY 94 V-2; W.TZ 94 V-0.
- Stocked in natural and heatstabilized black nylon 6.6, and fluropolymer for harsh environments
- Item numbers molded-in for easy identification
- Replace "M" or "D" with "C" for 100 pack •
- Temperature Rating: -40° F to 185° F (-40° C to 85° C); Heat-Stabilized: -40° F to 221° F (-40° C to 105° C); Fluropolymer: -50° F to 302° F (-45° C to 150° C)



/			D Nominal	D1 CLOSED	E	т	w	H HOLE	Х	_
	BULK PKG. CAT. NO.	MATERIAL	DIAMETER IN./MM.	DIAMETER IN./MM.	IN./MM.	THICKNESS IN./MM.	WIDTH IN./MM.	DIAMETER IN./MM.	IN./MM.	BULK PKG. QTY.
	W4NY-125-9-M	Natural Nylon	.13/3.18	.11/2.90	.33/8.46	.04/1.02	.38/9.53	.17/4.24	.26/6.53	1,000
	W4NY-187-9-M	Natural Nylon	.19/4.75	.17/4.37	.36/9.02	.04/1.02	.38/9.53	.17/4.24	.22/5.54	1,000
	W4NY-250-9-M	Natural Nylon	.25/6.35	.23/5.94	.38/9.70	.04/1.02	.38/9.53	.17/4.24	.19/4.83	1,000
	W4NY-312-9-M	Natural Nylon	.31/7.92	.30/7.54	.42/10.72	.04/1.02	.38/9.53	.17/4.24	.21/5.21	1,000
	W4NY-375-9-M	Natural Nylon	.38/9.53	.36/9.12	.45/11.53	.04/1.02	.38/9.53	.17/4.24	.21/5.33	1,000
	W4NY-500-9-M	Natural Nylon	.50/12.70	.48/12.30	.49/12.45	.04/1.02	.38/9.53	.17/4.24	.27/6.86	1,000
	W6NY-187-9-M	Natural Nylon	.19/4.75	.17/4.37	.38/9.53	.06/1.52	.50/12.70	.20/5.16	.24/6.12	1,000
	W6NY-250-9-M	Natural Nylon	.25/6.35	.23/5.94	.41/10.34	.06/1.52	.50/12.70	.20/5.16	.24/6.12	1,000
	W6NY-312-9-M W6NY-375-9-M	Natural Nylon Natural Nylon	.31/7.92 .38/9.53	.30/7.54 .36/9.12	.43/11.30	.06/1.52	.50/12.70	.20/5.16 .20/5.16	.20/0.00	1,000 1,000
	W6NY-437-9-M	Natural Nylon	.30/9.33	.30/9.12	.40/12.30	.06/1.52	.50/12.70	.20/5.16	.29/1.39	1,000
	W6NY-500-9-M	Natural Nylon	.50/12.70	.48/12.30	.56/14.22	.06/1.52	.50/12.70	.20/5.16	.20/0.00	1,000
7	W6NY-562-9-M	Natural Nylon	.56/14.27	.40/12.30	.66/16.69	.06/1.52	.50/12.70	.20/5.16	.24/6.00	1,000
	W6NY-625-9-M	Natural Nylon	.63/15.88	.61/15.47	.64/16.18	.06/1.52	.50/12.70	.20/5.16	.29/7.37	1,000
	W6NY-687-9-M	Natural Nylon	.69/17.45	.67/17.10	.69/17.63	.06/1.52	.50/12.70	.20/5.16	.33/8.31	1,000
	W6NY-750-9-M	Natural Nylon	.75/19.05	.73/18.64	.73/18.44	.06/1.52	.50/12.70	.20/5.16	.33/8.28	1,000
	W6NY-812-9-M	Natural Nylon	.81/20.62	.80/20.24	.78/19.71	.06/1.52	.50/12.70	.20/5.16	.32/8.20	1,000
	W6NY-875-9-D	Natural Nylon	.88/22.23	.86/21.82	.73/18.62	.06/1.52	.50/12.70	.20/5.16	.31/7.87	500
kes	W6NY-1000-9-D	Natural Nylon	1.00/25.40	.98/25.00	.88/22.38	.06/1.52	.50/12.70	.20/5.16	.29/7.42	500
bly	W6NY-1250-9-D	Natural Nylon	1.25/31.75	1.23/31.17	1.01/25.65	.06/1.52	.50/12.70	.20/5.16	.34/8.61	500
~.,	W4NY-125-0-M	Heat-Stabilized Black Nylon	.13/3.18	.11/2.90	.33/8.46	.04/1.02	.38/9.53	.17/4.24	.26/6.53	1,000
3	W4NY-187-0-M	Heat-Stabilized Black Nylon	.19/4.75	.17/4.37	.36/9.02	.04/1.02	.38/9.53	.17/4.24	.22/5.54	1,000
	W4NY-250-0-M	Heat-Stabilized Black Nylon	.25/6.35	.23/5.94	.38/9.70	.04/1.02	.38/9.53	.17/4.24	.19/4.83	1,000
	W4NY-312-0-M	Heat-Stabilized Black Nylon	.31/7.92	.30/7.54	.42/10.72	.04/1.02	.38/9.53	.17/4.24	.21/5.21	1,000
	W4NY-375-0-M	Heat-Stabilized Black Nylon	.38/9.53	.36/9.12	.45/11.53	.04/1.02	.38/9.53	.17/4.24	.21/5.33	1,000
	W4NY-500-0-M	Heat-Stabilized Black Nylon	.50/12.70	.48/12.30	.49/12.45	.04/1.02	.38/9.53	.17/4.24	.27/6.86	1,000
at-	W6NY-187-0-M	Heat-Stabilized Black Nylon	.19/4.75	.17/4.37	.38/9.53	.06/1.52	.50/12.70	.20/5.16	.24/6.12	1,000
	W6NY-250-0-M	Heat-Stabilized Black Nylon	.25/6.35	.23/5.94	.41/10.34	.06/1.52	.50/12.70	.20/5.16	.24/6.12	1,000
	W6NY-312-0-M W6NY-375-0-M	Heat-Stabilized Black Nylon Heat-Stabilized Black Nylon	.31/7.92 .38/9.53	.30/7.54 .36/9.12	.45/11.30	.06/1.52 .06/1.52	.50/12.70 .50/12.70	.20/5.16 .20/5.16	.28/6.60 .29/7.39	1,000 1,000
	W6NY-437-0-M	Heat-Stabilized Black Nylon	.30/9.33	.30/9.12	.40/12.30	.06/1.52	.50/12.70	.20/5.16	.29/1.39	1,000
	W6NY-500-0-M	Heat-Stabilized Black Nylon	.50/12.70	.48/12.30	.56/14.22	.06/1.52	.50/12.70	.20/5.16	.27/6.91	1,000
	W6NY-562-0-M	Heat-Stabilized Black Nylon	.56/14.27	.55/13.90	.66/16.69	.06/1.52	.50/12.70	.20/5.16	.24/6.00	1,000
	W6NY-625-0-M	Heat-Stabilized Black Nylon	.63/15.88	.61/15.47	.64/16.18	.06/1.52	.50/12.70		.229/7.3790	1,000
F	W6NY-687-0-M	Heat-Stabilized Black Nylon	.69/17.45	.67/17.10	.69/17.63	.06/1.52	.50/12.70	.20/5.16	.33/8.31	1,000
;);	W6NY-750-0-M	Heat-Stabilized Black Nylon	.75/19.05	.73/18.64	.73/18.44	.06/1.52	.50/12.70	.20/5.16	.33/8.28	1,000
,,	W6NY-812-0-M	Heat-Stabilized Black Nylon	.81/20.62	.80/20.24	.78/19.71	.06/1.52	.50/12.70	.20/5.16	.32/8.20	1,000
	W6NY-875-0-D	Heat-Stabilized Black Nylon	.88/22.23	.86/21.82	.73/18.62	.06/1.52	.50/12.70	.20/5.16	.31/7.87	500
	W6NY-1000-0-D	Heat-Stabilized Black Nylon	1.00/25.40	.98/25.00	.88/22.38	.06/1.52	.50/12.70	.20/5.16	.29/7.42	500
	W6NY-1250-0-D	Heat-Stabilized Black Nylon	1.25/31.75	1.23/31.17	1.01/25.65	.06/1.52	.50/12.70	.20/5.16	.34/8.61	500
	For harsh envir									
	W4TZ-125-5-D	Fluropolymer (Aqua)	.13/3.18	.11/2.90	.33/8.46	.04/1.02	.38/9.53	.17/4.24	.26/6.53	500
	W4TZ-187-5-D	Fluropolymer (Aqua)	.19/4.75	.17/4.37	.36/9.02	.04/1.02	.38/9.53	.17/4.24	.22/5.54	500
	W4TZ-250-5-D	Fluropolymer (Aqua)	.25/6.35	.23/5.94	.38/9.70	.04/1.02	.38/9.53	.17/4.24	.19/4.83	500
	W4TZ-312-5-D	Fluropolymer (Aqua)	.31/7.92	.30/7.54	.42/10.72	.04/1.02	.38/9.53	.17/4.24	.21/5.21	500
	W4TZ-375-5-D	Fluropolymer (Aqua)	.38/9.53	.36/9.12	.45/11.53	.04/1.02	.38/9.53	.17/4.24	.21/5.33	500
	W4TZ-500-5-D	Fluropolymer (Aqua)	.50/12.70	.48/12.30	.49/12.45	.04/1.02	.38/9.53	.17/4.24	.27/6.86	500
	W6TZ-187-5-D W6TZ-250-5-D	Fluropolymer (Aqua) Fluropolymer (Aqua)	.19/4.75 .25/6.35	.17/4.37 .23/5.94	.38/9.53 .41/10.34	.06/1.52 .06/1.52	.50/12.70 .50/12.70	.20/5.16 .20/5.16	.24/6.12 .24/6.12	500 500
	W6TZ-250-5-D W6TZ-312-5-D	Fluropolymer (Aqua)	.25/6.35	.23/5.94	.41/10.34	.06/1.52	.50/12.70	.20/5.16	.24/6.12	500
	W6TZ-375-5-D	Fluropolymer (Aqua)	.38/9.53	.36/9.12	.43/11.30	.06/1.52	.50/12.70	.20/5.16	.29/7.39	500
	W6TZ-437-5-D	Fluropolymer (Aqua)	.44/11.10	.42/10.72	.52/13.26	.06/1.52	.50/12.70	.20/5.16	.26/6.68	500
	W6TZ-500-5-D	Fluropolymer (Aqua)	.50/12.70	.48/12.30	.56/14.22	.06/1.52	.50/12.70	.20/5.16	.27/6.91	500
	W6TZ-625-5-D	Fluropolymer (Aqua)	.63/15.88	.61/15.47	.64/16.18	.06/1.52	.50/12.70	.20/5.16	.29/7.37	500
	W6TZ-750-5-D	Fluropolymer (Aqua)	.75/19.05	.67/17.10	.73/18.44	.06/1.52	.50/12.70	.20/5.16	.33/8.28	500
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### Thomas®Betts

www.tnb.com

### Harnessing Accessories

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 WIDTH IN./MM.	LENGTH IN./MM.	STD. PKG. QTY.
TC88	.250/6.35	.500/12.7	.250/6.35	.891/22.63	100
TC95 Natural nyloi	.250/6.35 n color.	1.000/25.4	.500/12.7	1.590/40.39	100

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

#### Harness Clips

- Low installation cost
- Releasable

*Ty-Rap*<sup>°</sup> Cable Fastening Systems

- For grouping wires in appliances, •
- office equipment and other applications
- · Adjustable, self-locking clip requires no tools for installation

#### How it works:

A projecting prong is simply pressed into a 1/4" hole, where it compresses and locks. The simple ratchet-type lock is released by moving the locking lever.

BULK PKG. CAT. NO.	MOUNTING HOLE SIZE IN./MM.	MAX. WIRE BUNDLE DIA. IN./MM.	BULK PKG. QTY.
HCP438	.250/6.35	.375/9.53	1,000

Natural nylon color.

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

#### **Bundle-Retaining Clamp**

· Easy to add wires AC-loop

STD. PKG. <mark>Cat. No.</mark>	MOUNTING METHOD	BUNDLE DIA. IN./MM.	MAX. WIRE WIDTH IN./MM.	STD. PKG. QTY.
TC70	#10 screw	.250/6.35	.400/10.16	100
TC71	#10 screw	.500/12.7	.400/10.16	100
TC72	#10 screw	.750/19.05	.500/12.7	100
TC73	#10 screw	1.000/25.4	.500/12.7	100
TC74	#10 screw	1.500/38.10	.500/12.7	100

Rigid PVC construction

For use in temperatures ranging from -40° F to 122° F (-40° C to 50° C).

#### **TY-RAP®** Saddle **Mounting Plate**

CAI. NU IN./MM. IN./MM. IN./MM. **TC92** .190/4.83 1/2-11/4/12.7-31.75 #6 Screw 100 Natural nylon color. For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



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5/8"

Wires are held ½" 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.	HEIGHT IN./MM.	STD. PKG. QTY.
TC86	#6 screws	.750/19.05	1.750/44.45	1.813/46.05	25
TC87	#6 screws	1.250/31.75	2.469/62.71	2.281/57.94	10

#### Hardened, nickel-plated, steel construction.

#### **Harness-Board Nails**

For wire harness board manufacturing

			DIMENSIONS		STD.
A 🔸 🖛 C dia.	STD. PKG Cat. No.	A IN./MM.	B IN./MM.	C IN./MM.	PKG. QTY.
	HBP-1	1.000/25.40	.625/15.88	.072/1.83	100
	HBP112	1.500/38.10	.625/15.88	.082/2.08	100
B	HBP2	2.000/50.80	.625/15.88	.092/2.34	100
	HBP212	2.500/63.50	.625/15.88	.105/2.67	100
$\downarrow$	HBP3	3.000/76.20	.625/15.88	.120/3.05	100

### Offers extra support

for wires and cables.

#### **Bulkhead Bundle** Support Feedthrough



- TC131 bulkhead mounting base can be installed from either side
- Ties are installed through the clamp on either side of the bulkhead

BULK PKG. CAT. NO.	MOUNTING METHOD	TIE WIDTH ACCOM.	Maximum width In./MM.	LENGTH IN./MM.	BULK PKG. QTY.		
TC131	#6 screw	.190/4.83	1.115/28.32	1.890/48.00	1,000		
Natural nylon color. For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).							

#### Keep wire bundles apart. **Wire-Bundle Spacer**

STD. PKG. SAT. NO.	TIE WIDTH ACCOM.	WIDTH IN./MM.	LENGTH IN./MM.	STD. PKG.
C5339	.190/4.83	.266/6.76	.500/12.70	100
C5339		.266/6.76	.500/12.7	0

Natural nylon color

Canada

Tel: 450.347.5318

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

### Mounting Bases for Heavy-Duty Applications

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 11/2" and 11/2" channels regardless of channel depth.









STD. PKG. CAT. NO.	Channel Size (in.)	MAXIMUM TIE WIDTH Accom.	STD. PKG. QTY.
TC5363X	1½ & 1%	.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).

#### Weather-resistant! Ty-Rap<sup>®</sup> 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	1/4" 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).

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 Masonry	MAXIMUM TIE WIDTH ACCOM.	STD. PKG. QTY.
TC5358	1/4	.190/4.83	100
TC5359	3/8	.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).





Thomas®Betts www.tnb.com

D-47

**United States** Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Canada Tel: 450.347.5318 Fax: 450.347.1976

### **Mounting Bases for Heavy-Duty Applications**

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

### **Stud Mount Fastening System**

- Great for harnessing wires, cables and hoses to truck and trailer chassis
- Fast, easy installation, using standard %" 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  $\frac{3}{4}$ ",  $\frac{1}{2}$ ",  $\frac{5}{4}$ ", 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 %" 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.

BULK PKG. CAT. NO.	DESCRIPTION	STUD Size	MATERIAL	COLOR	BULK PKG.
XMNY-375-0-D	Mount Fastener	3/8	Nylon, UV Stabilized	Black	500
XMNY-500-0-D	Mount Fastener	1/2	Nylon, UV Stabilized	Black	500
XMNY-625-0-D	Mount Fastener	5/8	Nylon, UV Stabilized	Black	500
XMNY-750-0-D	Mount Fastener	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).



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.

Thomas Betts

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976

### Wire Protection Products

# 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
- For use with cutting tool SR-100 (see page D-51)
- UL 94 HB Flammability Rating

↓ Thickness	
	)

Pitch

STD. PKG.		OUTSIDE DIAMETER	PITCH	NOMINAL WALL THICKNESS	MINIMUM/MAXIM	UM BUNDLE RANGE	REEL
CAT. NO.	MATERIAL	IN./MM.	IN./MM.	IN./MM.	IN./MM.	IN./MM.	QTY.
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.)
SRNY-250-9-C	Natural Nylon 6.6	.25/6.35	.38/9.53	.03/.64	.19/4.75	2.00/50.80	1 (100 ft.)
SRNY-375-9-C	Natural Nylon 6.6	.38/9.53	.44/11.13	.04/.89	.31/7.92	3.00/76.20	1 (100 ft.)
SRNY-500-9-C	Natural Nylon 6.6	.50/12.70	.56/14.30	.04/.89	.38/9.53	4.00/101.60	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.

#### Flame-Retardant Polyethylene

Available in white only. Material is UL<sup>®</sup> 94 V-0 rated. More economical and less rigid than nylon.

#### Nylon 6.6

Available in natural only. Offers highest abrasion resistance and rigidity. Self-extinguishing to UL 94 HB and a UL Recognized Component.

#### Fluoropolymer

Available in opaque color. Excellent resistance to harsh environments 338° F (170° C) max operating temperature. *Ty-Rap*<sup>,</sup> Cable Fastening Systems

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Weatherable

Polyethylene

Available in black only.

Designed to resist ultraviolet

light in outdoor applications.

**Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# Thomas&Betts

D-49

### Wire Protection Products

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

**Ty-Rap<sup>®</sup> Cable Fastening Systems** 

- Also known as right-hand cut or clockwise cut
- Use cutting tool SR-100 (pg D-51)

	/			/			
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
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 (100ft.)
SRFR-125F-WH-C	White Flame-Retardant Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 V-0	1 (100ft.)
SRFR-187F-WH-C	White Flame-Retardant Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 V-0	1 (100ft.)
SRFR-250F-WH-C	White Flame-Retardant Polyethylene	.25/6.35	.38/9.53	.05/1.14	.19-2.0/4.78-50.80	94 V-0	1 (100ft.)
SRFR-375F-WH-C	White Flame-Retardant Polyethylene	.38/9.53	.44/11.13	.05/1.32	.31-3.0/7.95-76.20	94 V-0	1 (100ft.)
SRFR-500F-WH-C	White Flame-Retardant Polyethylene	.50/12.70	.56/14.30	.06/1.57	.38-4.0/9.53-101.60	94 V-0	1 (100ft.)
SRTL-250F-9-C	Fluoropolymer	.25/6.35	.38/9.53	.05/1.32	.19-2.0/4.78-50.80	94 V-0	1 (100ft.)
SRTL-500F-9-C	Fluoropolymer	.50/12.70	.56/14.30	.06/1.57	.38-4.0/9.53-101.60	94 V-0	1 (100ft.)

• 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.

#### Flame-Retardant Polyethylene

Available in white only. Material is UL 94 V-0 rated. More economical and less rigid than nylon.

Canada

Tel: 450.347.5318

Fax: 450.347.1976

#### Nylon 6.6

Available in natural only. Offers highest abrasion resistance and rigidity. Self-extinguishing to UL 94 HB and a UL Recognized Component.

**Technical Services** 

Tel: 888.862.3289

#### Fluoropolymer

Available in opaque color.

Excellent resistance to harsh environments 338° F (170° C) max operating temperature.

Thomas®Betts

Weatherable

Polyethylene

Available in black only.

Designed to resist ultraviolet

light in outdoor applications.

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

### Wire Protection Products

### Suitable for round hole or odd-shape applications! Molded Grommeting

- Meets MS21266
- Available in three materials for panel thicknesses from .015" to .192"
- Grommet is used to protect panel edges and knockouts where the chafing of passing wires is a concern
- Also available in fluoropolymer material for harsh environments
- Strip length 12<sup>3</sup>/<sub>4</sub>"

12.75/12.62

STD. PKG. CAT. NO.	BULK. PKG. CAT. NO.	MATERIAL	A IN./MM.	B IN./MM.	C IN./MM.	D IN./MM.	FOR PANEL THICKNESS (IN.)	MILITARY Standard Numbers	STD. PKG.	BULK PKG.
GSNY-052-9-C	_	Natural Nylon 6.6	.15/3.81	.06/1.42	.16/3.94	.10/2.54	.02052/.38-1.32	MS-21266-1N	100	_
GSNY-085-9-C	_	Natural Nylon 6.6	.18/4.45	.09/2.29	.16/3.94	.10/2.54	.05085/1.35-2.16	MS-21266-2N	100	_
GSNY-128-9-C	—	Natural Nylon 6.6	.22/5.59	.13/3.33	.16/3.94	.10/2.54	.09128/2.18-3.25	MS-21266-3N	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	MS-21266-4N	100	_
GSTZ-052-9-C	—	Fluoropolymer	.15/3.81	.06/1.42	.16/3.94	.10/2.54	.02052/.38-1.32	MS-21266-1T	100	—
GSTZ-085-9-C	_	Fluoropolymer	.18/4.45	.09/2.29	.16/3.94	.10/2.54	.05085/1.35-2.16	MS-21266-2T	100	—
GSTZ-128-9-C	<u> </u>	Fluoropolymer	.22/5.59	.13/3.33	.16/3.94	.10/2.54	.09128/2.18-3.25	MS-21266-3T	100	—
GSFR-052-WH-C		Flame-Retardant White	.15/3.81	.06/1.42	.16/3.94	.10/2.54	.02052/.38-1.32	_	100	_
_	GSFR-052-WH-D	Flame-Retardant White	.15/3.81	.06/1.42	.16/3.94	.10/2.54	.02052/.38-1.32	—	—	500
GSFR-085-WH-C		Flame-Retardant White	.18/4.45	.09/2.29	.16/3.94	.10/2.54	.05085/1.35-2.16	_	100	—
GSFR-128-WH-C	<u> </u>	Flame-Retardant White	.22/5.59	.13/3.33	.16/3.94	.10/2.54	.09128/2.18-3.25	—	100	—

### High-carbon, Teflon<sup>®</sup> coated steel blade! SR-100 Cutting Tool

Use our SR-100 cutting tool for all your spiral wrap, plastic pipe and PVC conduit needs up to  $1\%^{\prime\prime}$  I.D.

- Contoured handle resists tube crushing
- Produces no "sawdust" no need to debur
- Lightweight, low-profile and no exposed blade when stored

CAT. NO.	DESCRIPTION
SR-100	Cutting Tool

Teflon® is a trademark of the DuPont Corporation.



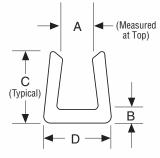
United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

**Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

### Wire Protection Products

### Line panel edges and knockouts! Extruded Grommeting

- 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" (1.02 mm) to .250" (6.35 mm) thick
    - A variety of stocked materials to cover a wide range of applications
      - Solid Wall Polyethylene is ideal for protection of glass, sheet metal, wood panels, or other sheet-form materials



STD. PKG. CAT. NO.	MATERIAL	A Max. Panel Thickness In./MM.	B GROMMETING THICKNESS IN./MM.	C Grommeting Height In./mm.	D GROMMETING WIDTH IN./MM.	UL® Flammability	REEL 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/.40	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/.40	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/.40	94 HB	1 (100 ft.)
GRUPE-040-9-C	Solid Wall Polyethylene	.04/1.02	.04/1.02	.19/4.83	.13/3.18	94 HB	1 (100 ft.)
GRUPE-052-9-C	Solid Wall Polyethylene	.05/1.32	.04/1.02	.19/4.83	.13/3.18	94 HB	1 (100 ft.)
GRUPE-062-9-C	Solid Wall Polyethylene	.06/1.57	.05/1.14	.20/5.08	.17/4.32	94 HB	1 (100 ft.)
GRUPE-085-9-C	Solid Wall Polyethylene	.09/2.16	.05/1.14	.20/5.08	.17/4.32	94 HB	1 (100 ft.)
GRUPE-100-9-C	Solid Wall Polyethylene	.10/2.54	.05/1.14	.22/5.89	.21/5.33	94 HB	1 (100 ft.)
GRUPE-125-9-C	Solid Wall Polyethylene	.13/3.18	.05/1.27	.22/5.89	.21/5.21	94 HB	1 (100 ft.)
GRUPE-187-9-C	Solid Wall Polyethylene	.19/4.75	.05/1.27	.27/6.86	.28/6.99	94 HB	1 (100 ft.)
GRUPE-250-9-C	Solid Wall Polyethylene	.25/6.35	.05/1.27	.28/7.11	.379/.40	94 HB	1 (100 ft.)
GRFR-040-WH-C	Flame-Retardant White Polyethylene	.04/1.02	.04/1.02	.19/4.83	.13/3.18	94 V-0	1 (100 ft.)
GRFR-052-WH-C	Flame-Retardant White Polyethylene	.05/1.32	.04/1.02	.19/4.83	.13/3.18	94 V-0	1 (100 ft.)
GRFR-062-WH-C	Flame-Retardant White Polyethylene	.06/1.57	.05/1.14	.20/5.08	.17/4.32	94 V-0	1 (100 ft.)
GRFR-085-WH-C	Flame-Retardant White Polyethylene	.09/2.16	.05/1.14	.20/5.08	.17/4.32	94 V-0	1 (100 ft.)
GRFR-100-WH-C	Flame-Retardant White Polyethylene	.10/2.54	.05/1.14	.22/5.89	.23/5.89	94 V-0	1 (100 ft.)
GRFR-125-WH-C	Flame-Retardant White Polyethylene	.13/3.18	.05/1.27	.22/5.89	.23/5.89	94 V-0	1 (100 ft.)
GRFR-187-WH-C	Flame-Retardant White Polyethylene	.19/4.75	.05/1.27	.27/6.86	.28/6.99	94 V-0	1 (100 ft.)
GRFR-250-WH-C	Flame-Retardant White Polyethylene	.25/6.35	.05/1.27	.28/7.11	.379/.40	94 V-0	1 (100 ft.)

## Thomas Betts

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

**United States** 

**Canada** Tel: 450.347.5318 Fax: 450.347.1976

### **Braided Wire Protection Sleeving**

### 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 ¼" (3.18 mm) to 2½" (63.5 mm) 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).

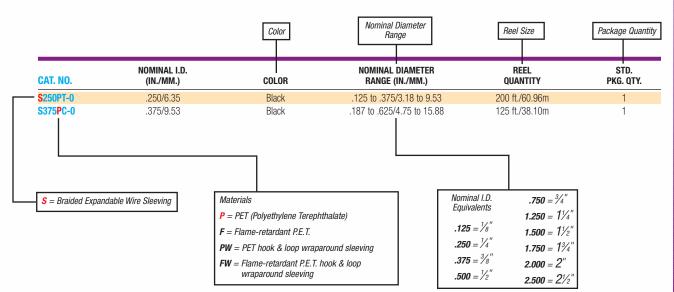
### Types of Materials



#### F – Flame Retardant Polyethylene Terephthalate (P.E.T.)

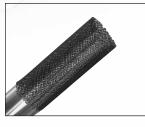
A 0.010" (.25 mm) self-extinguishing polyester monofilament material that can be used indoors and outdoors. It's provided in black with white tracer for identification, and is rated for continuous operating temp. -103° F to 257° F (-75° C to 125° C). Meets UL 94V-1 Flammability Rating.

#### **Catalog Number System**



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

### **Braided Expandable Wire Sleeving**



Portable convenience!

PET Braided Expandable Wire Sleeving — **Mini Spool** 



QUANTITY	PKG. QTY.
000 (1. 100.00	
200 ft./60.96m	1
125 ft./38.10m	1
100 ft./30.48m	1
100 ft./30.48m	1
50 ft./15.24m	1
	125 ft./38.10m 100 ft./30.48m 100 ft./30.48m

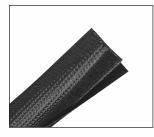
NOTE: Order by spool, not per foot.

#### Safety first! **Flame-Retardant Braided Expandable** Wire Sleeving — Mini Spool

Meets UL94V-1



STD PKG. <mark>CAT. NO.</mark>	NOMINAL I.D. IN./MM.	COLOR	NOMINAL DIAMETER RANGE IN./MM.	SPOOL QUANTITY	STD. PKG. QTY.
S250FT-0	.25/6.35	Black with White Tracer	.13 to .38/3.18 to 9.53	200 ft./60.96m	1
S500FC-0	.50/12.70	Black with White Tracer	.25 to .75/6.35 to 19.05	100 ft./30.48m	1
S750FC-0	.75/19.05	Black with White Tracer	.50 to 1.25/12.70 to 31.75	100 ft./30.48m	1
S1250FL-0	1.25/31.75	Black with White Tracer	.75 to 1.75/19.05 to 44.45	50 ft./15.24m	1



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



### Enables for easy wrapping of existing wire harnesses and cables! PET Hook and Loop, Wraparound Sleeving —

STD PKG. CAT. NO.	NOMINAL I.D. IN./MM.	COLOR	NOMINAL DIAMETER RANGE IN./MM.	SPOOL QUANTITY	STD. 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.

**United States** 

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

#### Convenient for rework without disrupting existing connection!

#### Flame Retardant Hook and Loop, Wraparound Sleeving — Mini Spool Meets UL94V-1

Canada

Tel: 450

Fax: 450.

4m 1				CAT. NO.
	.75/6.35 to 19.05 50 ft./15.24m	Black with White Tracer	.50/12.70	S500FWL-0
4m 1	25/12.70 to 31.75 50 ft./15.24m	Black with White Tracer	.75/19.05	S750FWL-0
4m 1	75/19.05 to 44.45 50 ft./15.24m	Black with White Tracer	1.25/31.75	S1250FWL-0
24m 1	3.50/38.10 to 88.90 50 ft. /15.24m	Black with White Tracer	2.00/50.80	S2000FWL-0
				S2000FWL-0



D-54

#### **Mini Spool**



<b>AI</b> ®	

	le
347.5318	Tel
347.1976	

chnical Services 888.862.3289

### **Braided Expandable Wire Sleeving**

#### Buy in bulk and save!

#### PET Braided Expandable Wire Sleeving — Bulk Reel



**A** (

BULK PKG. CAT. NO.	NOMINAL I.D. IN./MM.	COLOR	NOMINAL DIAMETER RANGE IN./MM.	REEL QUANTITY	BULK 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.

#### Choose from a variety of reel sizes! Flame-Retardant Braided Expandable Wire Sleeving — Bulk Reel

For other colors, lengths, sizes and materials, please contact Customer Service.

BULK PKG. CAT. NO.	Nominal I.D. IN./MM.	COLOR	NOMINAL DIAMETER RANGE IN./MM.	REEL QUANTITY	BULK PKG. QTY.
S125FM-0	.125/3.18	Black with White Tracer	.09 to .250/2.39 to 6.35	1,000 ft./304.80m	1
S250FM-0	.25/6.35	Black with White Tracer	.125 to .375/3.18 to 9.53	1,000 ft./304.80m	1
S375FD-0	.38/9.53	Black with White Tracer	.19 to .63/4.75 to 15.88	500 ft./152.40m	1
S500FD-0	.50/12.70	Black with White Tracer	.25 to .75/6.35 to 19.05	500 ft./152.40m	1
S750FK-0	.75/19.05	Black with White Tracer	.50 to 1.25/12.70 to 31.75	250 ft./76.20m	1
S750FK-9	.75/19.05	White with Black Tracer	.50 to 1.25/12.70 to 31.75	250 ft./76.20m	1
S1250FK-0	1.25/31.75	Black with White Tracer	.75 to 1.75/19.05 to 44.45	250 ft./76.20m	1
S1750FT-0	1.75/44.45	Black with White Tracer	1.25 to 2.75/31.75 to 59.85	200 ft./60.96m	1
S1750FT-9	1.75/44.45	White with Black Tracer	1.25 to 2.75/31.75 to 59.85	200 ft./60.96m	1
S2000FT-0	2.00/50.80	Black with White Tracer	1.50 to 3.50/38.10 to 88.90	200 ft./60.96m	1
S2500FT-0	2.50/63.50	Black with White Tracer	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 Tools**

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. <mark>Cat. No.</mark>	DESCRIPTION	STD PKG.
WTBM	Benchmount End Cutter/Sealer Tool, 110V AC	1



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**Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# 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 high performance and very reliable 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<sup>®</sup> 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 carpal tunnel syndrome and other cumulative trauma disorders 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!



#### **Designed for Efficiency**

- Wide cable-tie insertion gap makes it easier to insert tie into tool
- Tension adjustment wheel on nose offers easy access and quick setting — about five times faster than competing tools!
- Tension-locking mechanism maintains constant tension setting, even when tool is frequently put down and picked up again
- Flush tail-to-head cut-off eliminates sharp cable tie ends that can cut or scratch installers, wires and nearby devices
- Longest stroke length available on the market a full 1" — means fewer handle-tensioning cycles to save time and lower installation costs

#### **Designed for Comfort**

- 360° rotating nose offers maximum flexibility in any position, especially in tight spaces — no twisting of tool required!
- · Adjustable grip span adapts to fit large or small hands
- Anti-recoil cut-off mechanism reduces shock and vibration to hand and wrist
- High-low handle travel feature offers lowest handle force with highest tension in any hand-operated cable tie installation tool on the market
- Handles constructed from rugged, lightweight, high-impact polymer in a balanced design with soft, over-molded, round-edged grips for added user comfort

#### ..... Specifications

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

STD PKG. CAT. NO.	DESCRIPTION	STD. PKG. QTY.
ERG50	Tool for 18-50 lb. (80-222 N.) Cable Ties	1
ERG120	Tool for 50-120 lb. (222-533 N.) Cable Ties	1

RELIX

### Thomas&Betts

www.tnb.com

**Canada** Tel: 450.347.5318 Fax: 450.347.1976

### Ty-Rap<sup>®</sup> Cable Installation Tools

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

#### Ty-Rap<sup>®</sup> 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.

#### Cuts tail off - flush.

#### Ty-Rap<sup>®</sup> Cable Ties Installation Tool — Metallic

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

STD PKG.	DESCRIPTION	TIE BODY	STD.
Cat. No.		WIDTH IN./MM.	PKG. QTY.
WT193A	Cable Tie Installation Tool, 18–50 lbs. (80-222.4N)	.0918/2.39-4.67	7 1

### Easy tension adjustment!

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

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

STD PKG. <mark>Cat. No.</mark>	DESCRIPTION	TIE BODY WIDTH IN./MM.	STD. PKG. QTY.
WT199	Installation Tool, 18–50 lbs. (80–222.4N)	.0918/2.39-4.67	1
WT197	Installation Tool, 50-120 lbs. (222.4-533.8N)	.1830/4.67-7.65	1
* Mil Spec Approved (WT199 — MS90387-1, WT197 — MS90387-2;)			

STD. PKG. Cat. No.	DESCRIPTION	TIE BODY WIDTH IN./MM.	STD. PKG. QTY
WT1-TB	Cable Tie Installation Tool, 18-50 lbs.(80-222.4 N)	.0918/2.39-4.67	1
WT2-TB	Cable Tie Installation Tool, 50-120 lbs.(222.4-533.8N)	.18301/4.67-7.65	51

### Get the job done right!

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

- Installs Ty-Rap<sup>®</sup> stainless steel cable ties
- Rugged stainless steel construction
- Pistol-type installation tool
- Adjustable tension settings

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

Makes tie installation easy!

#### Ty-Rap<sup>®</sup> Installation Tool — Deltec & Stainless Steel



CABLE TIE

 Installs both self-locking Ty-Rap<sup>®</sup> cable ties and lashing ties

#### WT3S

Installs stainless steel ties

STD PKG. CAT. NO.	DESCRIPTION	TIE BODY WIDTH IN./MM.	STD. PKG. QTY.	
WT3D	Deltec Installation Tool	.1850/4.67-12.70	1	
WT3S	Stainless Steel Installation Tool	up to .50/12.70	1	
NOTE: Tensions only				

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**Canada** Tel: 450.347.5318 Fax: 450.347.1976 Technical Services Tel: 888.862.3289

# Thomas®Betts

*y-Rap*<sup>®</sup> Cable Fastening Systems

### **Catamount®** Cable Ties

Catamount® Ties and Terminals fit the needs of general-purpose fastening and wire terminations. Installers quickly discover that Catamount products offer durable and value-priced cable bundling for a variety of commercial and residential construction applications. Electricians can also take advantage of other benefits in stocking Catamount products in their toolboxes, such as more terminals per bag in most popular sizes than leading comparable brands.

Catamount Ties and Terminals are offered in a wide range of sizes, styles and colors and meet listing requirements for most electrical termination and fastening projects. A choice of matching tools are also offered to provide quick and reliable installations.

*H* 

#### Miniature — Series 18

CAT. NO.	LENGTH (IN.)	MAX. Bundle dia.	COLOR	STD. QTY.
L-4-18-9-C	4.0	5/8	Natural	100
L-4-18-0-C	4.0	5%	Black	100
L-6-18-9-C	6.4	1½	Natural	100
L-6-18-0-C	6.4	1½	Black	100
L-8-18-9-C	8.0	2	Natural	100
L-8-18-0-C	8.0	2	Black	100

Bulk packages available. Contact Customer Service. Use QC-100, L-200, L-400-C or ERG-50 Installation Tools

Intermediate — Series 30				
CAT. NO.	LENGTH (IN.)	MAX. Bundle dia.	COLOR	STD. QTY.
L-5-30-9-C	5.6	1¼	Natural	100
L-5-30-0-C	5.6	1¼	Black	100
L-8-40-9-C	8.5	2	Natural	100
L-8-40-0-C	8.5	2	Black	100
L-11-40-9-C	11.5	3	Natural	100
L-11-40-0-C	11.5	3	Black	100
L-14-40-9-C	14.5	4	Natural	100

Δ

Black

100

Bulk packages available. Contact Customer Service. Use QC-100, L-200, L-400-C or ERG-50 Installation Tools

14.5

L-14-40-0-C

Standard	91			
CAT. NO.	LENGTH (IN.)	MAX. Bundle dia.	COLOR	STD. QTY.
L-5-50-9-C	5.5	1	Natural	100
L-5-50-0-C	5.5	1	Black	100
L-7-50-0-C	7.5	1¾	Natural	100
L-7-50-0-C	7.5	1¾	Black	100
L-11-50-9-C	11.1	3	Natural	100
L-11-50-0-C	11.1	3	Black	100
L-14-50-9-C	14.1	4	Natural	100
L-14-50-0-C	14.1	4	Black	100

Bulk packages available. Contact Customer Service. Use QC-100, L-200, L-400-C or ERG-50 Installation Tools

Heavy-Du	ıty — S	eries 120		91
CAT. NO.	LENGTH (IN.)	MAX. Bundle dia.	COLOR	STD. QTY.
L-8-120-9-C	8.0	2	Natural	100
L-8-120-0-C	8.0	2	Black	100
L-11-120-9-C	11.1	3	Natural	100
L-11-120-0-C	11.1	3	Black	100
L-14-120-9-C	14.2	4	Natural	100
L-14-120-0-C	14.2	4	Black	100
L-18-120-9-L	18.0	41/8	Natural	50
L-18-120-0-L	18.0	41/8	Black	50
L-24-120-9-L	24.2	7	Natural	50
L-24-120-0-L	24.2	7	Black	50
L-28-120-9-L	28.0	9	Natural	50
L-28-120-0-L	28.0	9	Black	50

Use L-300C or ERG-120 Installation Tool

#### 91 Extra Heavy-Duty — Series 175 LENGTH MAX. STD. CAT. NO. BUNDLE DIA. COLOR OTY. (IN.) L-24-175-9-L 24.0 7.2 Natural 50 L-24-175-0-L 24.0 Black 7.2 50 L-34-175-9-L 34.0 10 Natural 50 L-36-175-9-L 36.0 10¾ Natural 50 L-36-175-0-L 36.0 10¾ Black 50 Natural 50 L-41-175-9-L 41.0 12 L-41-175-0-L 12 Black 50 41.0 L-48-175-9-L 48.0 15 Natural 50 L-48-175-0-L 48.0 15 Black 50

Use L-300C Installation Tool



91

#### **Identification Ties**

CAT. NO.	LENGTH (IN.)	MAX. BUNDLE DIA.	COLOR	STD. QTY.	
L-7-50ID-9-C	7.875	1¾	Natural	100	
L-4-18ID-9-C	4.0	3/4	Natural	100	

Bulk packages available. Contact Customer Service. Use QC-100, L-200 or L-400-C Installation Tool



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### **Catamount® Cable Ties**



#### **Releasable Ties**

CAT. NO.	LENGTH (IN.)	MAX. BUNDLE DIA.	COLOR	STD. QTY.
L-5-50R-9-C	5.9	1/4	Natural	100
L-5-50R-0-C	5.9	1/4	Black	100
L-8-50R-9-C	7.8	2	Natural	100
L-8-50R-0-C	7.8	2	Black	100
L-10-50R-9-C	11.265	3	Natural	100
L-10-50R-0-C	11.265	3	Black	100

Bulk packages available. Contact Customer Service. Push button release.



#### LENGTH MOUNTING MAX, PANEL MAX. STD. CAT. NO. THICKNESS BUNDLE DIA. COLOR (IN.) HOLE OTY. L-5-50PM-9-C 5.8 .250 105 Natural 100 L-5-50PM-0-C .250 .105 100 5.8 Black 1 L-7-50PM-9-C 8.2 .250 .105 Natural 100 1% L-7-50PM-0-C 8.2 .250 .105 1¾ Black 100

Bulk packages available. Contact Customer Service.

Use QC-100, L-200, L-400-C Installation Tool

Black shown

#### Tail twists right off — no tools needed! TwistTail™



- · Unique, patent-pending design for quick, easy, tool-less installation
- After installing, remove excess tail with a simple "bend, bend again and twist" motion
- Tail breaks off neat and clean no sharp edges to damage hands or cables
- · Ideal for limited-space installations where you can't fit a cut-off tool
- · Suitable for any general-purpose cable tie application
- Available in white or UV resistant black 6.6 nylon



CAT. NO.	LENGTH (IN.)	MIN. TENSILE Strength (LBS.)	COLOR	STD. QTY.
TT-7-50-9-C	7	50	White	100
TT-7-50-0-C	7	50	Black	100
TT-11-50-9-C	11	50	White	100
TT-11-50-0-C	11	50	Black	100
TT-14-50-9-C	14	50	White	100
TT-14-50-0-C	14	50	Black	100

91

#### **Mounting Head Ties**

CAT. NO.	LENGTH (IN.)	MAX. BUNDLE DIA.	WIDTH (IN.)	MIN. Loop Tensile	MOUNTING Head Screw Size	COLOR	STD. QTY.
L-5-30MH-9-C	5.85	1¼	.140	30	No. 8	Natural	100
L-5-30MH-0-C	5.85	1¼	.140	30	No. 8	Black	100
L-7-50MH-9-C	7.5	1¾	.185	30	No. 10	Natural	100
L-7-50MH-0-C	7.5	1¾	.185	30	No. 10	Black	100
L-11-50MH-9-C	11.1	3	.187	50	No. 10	Natural	100
L-11-50MH-0-C	11.1	3	.187	50	No. 10	Black	100
L-14-50MH-9-C	14.5	4	.187	50	No. 10	Natural	100
L-14-50MH-0-C	14.5	4	.187	50	No. 10	Black	100
L-14-120MH-9-C	14.85	4	.300	120	1/4"	Natural	100
L-14-120MH-0-C	14.85	4	.300	120	1/4"	Black	100

Bulk packages available. Contact Customer Service. Use QC-100, L-200, L-400-C, ERG-120 or ERG-50 Installation Tool

#### **Releasable Push Mount Cable Ties**

CAT. NO.	LENGTH (IN.)	MOUNTING Hole	MAX. PANEL Thickness	MAX. Bundle dia.	COLOR	STD. QTY.
L-5-50PMR-9-C	5.8	.250	.105	1	Natural	100
L-5-50PMR-0-C	5.8	.250	.105	1	Black	100
L-7-50PMR-9-C	8.2	.250	.105	1¾	Natural	100
L-7-50PMR-0-C	8.2	.250	.105	1¾	Black	100

Bulk packages available. Contact Customer Service.

Use QC-100, L-200, L-400-C Installation Tool

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 Canada

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### **Catamount®** Cable Ties

### **Catamount® Cable Tie Assortment Packages**

- Natural nylon or black weather-resistant nylon
- · Reusable jar
- · Easily merchandised
- Great value
- Two size combinations and quantities



90650 and 90650-IUV

#### **Cable Tie Jar**

**Catamount**<sup>®</sup> Cable Fastening Systems

CAT. NO.	LENGTH (IN.)	WIDTH	MAX. BUNDLE (IN.)	TENSILE Strength	MATERIAL	JAR QTY.
90457-l	4	.100	% (.625)	18#		200
	5.6	.130	1¼ (1.25)	30#	Natural Nylon	100
	7.5	.187	1¾ (1.75)	50#		200
90457-IUV	4	.100	% (.625)	18#	Black Weather-	200
	5.6	.130	1¼ (1.25)	30#	Resistant	100
	7.5	.187	1¾ (1.75)	50#	Nylon	200
90650-l	4	.100	% (.625)	18#		300
	7.5	.187	1¾ (1.75)	50#	Natural Nylon	300
	11.1	.187	3	50#		50
90650-IUV	4	.100	% (.625)	18#	Black Weather-	300
	7.5	.187	1¾ (1.75)	50#	Resistant	300
	11.1	.187	3	50#	Nylon	50



#### Cable Tie Assortments — Natural Nylon Я

CAT. NO.	CONTENTS	QTY.	BAGS/CASE	
CAT-711	L-7-50-9-C	100	25	
	L-11-50-9-C	50		
CAT-4811	L-4-18-9-C	100	35	
	L-8-40-9-C	100		
	L-11-50-9-C	50		
CAT-5811	L-5-30-9-C	200	35	
	L-8-40-9-C	200		
	L-11-50-9-C	50		

For UV Black assortments, add -B to Catalog Number.

### **Cable Tie Mounting Bases**

- <sup>3</sup>/<sub>4</sub>" and 1<sup>1</sup>/<sub>8</sub>" mounts for use with 18# through 50# tensile cable ties
- · Supplied on rubber-based or acrylic closed cell foam adhesive or with no adhesive for #6 screw mount applications
- Available in 6.6 Natural Nylon and 6.6 Black Nylon
- UL<sup>®</sup> Flammability 94 V-2 (clip)



Cat. No.	MOUNT METHOD	COLOR
¾" Class		
MPNY-750-9-C	Synthetic Rubber Adhesive	Natural
MPNY-750-0-C	Synthetic Rubber Adhesive	Black
MPNY-750A-9-C	Acrylic Adhesive	Natural
MPNY-750A-0-C	Acrylic Adhesive	Black
MPNY-750S-9-C	#6 Screw	Natural
MPNY-750S-0-C	#6 Screw	Black
1" Class		
MPNY-1000-9-C	Synthetic Rubber Adhesive	Natural Nylon
MPNY-1000-0-C	Synthetic Rubber Adhesive	Black Nylon
MPNY-1000A-9-C	Acrylic Adhesive	Natural Nylon
MPNY-1000A-0-C	Acrylic Adhesive	Black Nylon
MPNY-1000S-9-C	#6 Screw	Natural Nylon
MPNY-1000S-0-C	#6 Screw	Black Nylon
For use with 18–50 lb. C	able Ties	

- Mounting Surface should be cleaned with alcohol based (IPA) cleaner before application
- Acrylic Based may be repositioned initially. Allow 24-72 hours setup for maximum performance with Acrylic Based adhesives
- For Rubber Based, allow 15 minutes setup for maximum performance

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