

PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

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WW-SSOB06 (replaces SA101N16J-NL)

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PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

PAN-STEEL® System for Harsh Environments

PANDUIT® PAN-STEEL® Stainless Steel Ties are engineered to outlast the toughest corrosive and environmental extremes.

Now a revolutionary new locking head design makes them the highest rated loop tensile strength, tightest clamping, easiest threading ball locking ties in the world.

The increased performance of the PAN-STEEL® System provides an extra margin of safety and lower installed cost.

- Withstands harsh environments
- Unique locking ramp
- Self-locking with low thread force
- Fully rounded edges
- Type 304 and 316 stainless steel
- State-of-the-art tooling

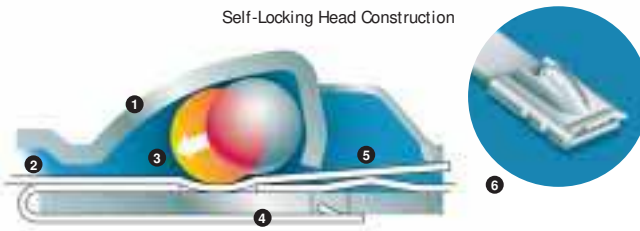
Nylon 11 Coated Ties

WAVE-TY™ Stainless Steel Ties

General Purpose Ties

A Revolutionary New Design in Stainless Steel Ties

Self-Locking Head Construction



- | | |
|--|--|
| <p>1 New aggressive locking head* Quicker locking, tighter installation</p> <p>2 Exclusive lead in design* Wider entrance for easier threading</p> <p>3 Innovative displacement lock* Assures superior locking strength</p> | <p>4 Extended retaining tab Increases overall tie strength</p> <p>5 Unique locking ramp Assures locking in any position</p> <p>6 Strengthening ribs** Stronger head increases lock strength</p> |
|--|--|

* Patented
** Patent Pending

**PANDUIT® is a Global Leader
Providing Innovative Wire
Management Solutions.**

- **Stainless Steel Systems**
- *Cable Ties and Accessories*
- *Raceway Systems*
- *Routing Systems*
- *Identification Systems*
- *Power and Grounding Systems*
- *Terminals*
- *Safety and Facility Solutions*



Military Specification
MIL-S-23190E



ABS Programs
Cert. 99CH18282-X



Bureau Veritas



Det Norske Veritas



Lloyd's Register
of Shipping



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PAN-STEEL® System

The **PAN-STEEL®** System provides a strong, durable method of bundling, identifying and fastening, which can be used in virtually all indoor, outdoor and underground (including direct burial) applications, where severe environmental conditions exist. The ties are designed for use in critical applications where strength, vibration, radiation, weathering, corrosion and temperature extremes are a factor.



- High strength
- Long life
- Weather resistant
- Chemical resistant
- Temperature extremes
- Radiation resistant
- Permanent identification

PANDUIT® offers unique products to meet customer needs:

Metal Locking Ties— Excellent performance in any environment

Nylon 11 Selectively Coated Ties— Strength of steel, protection of nylon

WAVE-TY™ Stainless Steel Ties— Maintains a high tension grip on non-resilient objects

Fully Coated Ties— Polyester coated for additional bundle protection

Strapping— Reduces installation time and leaves no sharp edges

Mounts and accessories— Used with **PAN-STEEL®** ties and straps to speed and simplify mounting

Permanent identification products— Custom identification for harsh environments

State-of-the-art tooling— Speed installation and lower installed cost

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PANDUIT® PAN-STEEL® Applications



AIRCRAFT

PANDUIT® PAN-STEEL® Stainless Steel Ties (type MLT) are used to fasten thermal insulation blankets to jet engine manifolds and tubes.

PRIMARY BENEFIT

Installation tooling with controlled tension and auto cut-off capability significantly reduces cost of installation. The low weight, high strength of the ties makes them more efficient and reliable than conventional fasteners. The stainless steel ties have been temperature tested to over 1000° F (538°C) to provide excellent continuous service over the entire temperature range and to provide long life.



AIRCRAFT

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to secure insulation envelopes to ducting in aircraft fuselages.

PRIMARY BENEFIT

The ties have been tested to over 1000° F (538°C) which provides excellent continuous service over the entire operating range. The single wrap, self-locking low weight design provides improved efficiency and reliability.



TRUCK ENGINES

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to fasten thermal insulation blankets to truck engine exhaust pipes.

PRIMARY BENEFIT

The ties provide high strength, low profile and low weight design, which are more efficient than conventional fasteners. The ties are temperature tested to over 1000° F (538°C) for performance under continuous high temperature conditions.



AUTOMOTIVE

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to fasten constant velocity (CV) boots on front wheel drive automobiles.

PRIMARY BENEFIT

The ties can be installed without disassembling the constant velocity (CV) joint which saves installation time and lowers installed costs. The stainless steel ties provide excellent weather resistance and corrosion resistance for long life with high strength and low weight.



AUTOMOTIVE

PANDUIT® PAN-STEEL® WAE Ties and the PPTMT Pneumatic Installation Tool are used to fasten heat shields on automotive exhaust assemblies.

PRIMARY BENEFIT

Pneumatic installation tooling with controlled tension and automatic cut-off capability speeds installation time and lowers installed costs. *WAE Ties* Stainless Steel Ties retain tension on a solid bundle where other stainless steel ties will not function.

PANDUIT® PAN-STEEL® Applications (continued)



TELECOMMUNICATIONS

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to securely fasten cables to telecommunication towers.

PRIMARY BENEFIT

The ties provide long life, corrosion and chemical resistance in outdoor harsh environments and temperature extremes. The self-locking design provides fast and easy installation. State-of-the-art tooling further reduces installation time.

MLT Ties



MAINTENANCE AND REPAIR (MRO)

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to fasten pipe markers in pulp and paper mills, refineries, power plants and breweries.

PRIMARY BENEFIT

The ties provide extended service life, which reduces the need for periodic rework. The single wrap self-locking design provides fast and easy installation. The ties provide excellent chemical resistance in harsh environments and in high temperature extremes.

MS
Strapping

MAINTENANCE AND REPAIR (MRO)

PANDUIT® Custom Marked Marker Plates attached with PAN-STEEL® Stainless Steel Ties are used to identify conduit and circuits in petrochemical plants, pulp and paper mills, refineries, and breweries.

PRIMARY BENEFIT

The products are marked to meet customer specifications with one of two computer controlled systems (laser or embosser), which provides permanent identification to resist corrosion, abrasion, and radiation in harsh environments.

Marking
and
ID

PETRO-CHEMICAL PROCESSING

PANDUIT® PAN-STEEL® Stainless Steel Ties, Strapping and Marker Plates are used in chemical plants to bundle cables to cable trays and to identify conduit and cables.

PRIMARY BENEFIT

The ties provide long life, corrosion resistance and high temperature extremes and allow the ties to be used in many different applications.

Accessories



NUCLEAR PLANTS

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to secure heat trace cable and replace wing seal strapping methods. A complete selection of state-of-the-art tooling makes installation quicker and easier and reduces the amount of exposure time for plant maintenance personnel in containment areas.

PRIMARY BENEFIT

The ties have high radiation resistance (2X10⁸ RAD) for excellent use in containment areas.

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PANDUIT® PAN-STEEL® Applications (continued)

MLT Ties



TRAFFIC SIGNALS

PANDUIT® PAN-STEEL® Stainless Steel Ties are used for bundling and fastening cables to messenger strand in traffic signal applications.

PRIMARY BENEFIT

The ties provide a 40 year service life, which reduces the need for periodic rework. The smooth fully radiused sides are safe to use and will not injure installer's hands or abrade cable insulation.

MS Strapping



AERIAL SUPPORT

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to fasten cable and/or splice closures to the messenger strand in aerial support applications.

PRIMARY BENEFIT

The ties provide a 40 year service life, which reduces the need for periodic rework. The ties are unaffected by sun, acid rain, or most chemicals, which allows them to be used in many different environments.

Marking and ID



OFFSHORE OIL

PANDUIT® PAN-STEEL® 316 Grade Stainless Steel Cable Ties, Straps, and Nylon 11 Selectively Coated Ties are used to fasten cables and hoses on offshore platforms.

PRIMARY BENEFIT

The ties provide superior corrosion protection in salt spray environments, which extends service life and reduces need for periodic rework.

Accessories



SHIPBUILDING

PANDUIT® PAN-STEEL® Stainless Steel Cable Ties are used to fasten cables to cable trays and cable hangers in shipbuilding applications.

PRIMARY BENEFIT

The ties provide extended service life, which reduces the need for periodic rework; are non-flammable so no toxic or harmful gases are released in case of fire; and have fully rounded sides, which are safe to use and will not injure installer's hands or abrade cable insulation.

Technical Info



RAILROAD

PANDUIT® PAN-STEEL® Stainless Steel Ties are used to bundle, fasten, and secure cables and hoses on trains, especially in exposed areas underneath engines and cars that are subjected to harsh environmental conditions. The ties have passed Japanese Industry Standard for salt spray (JIS-G-5028) and vibration (JIS-G-4031).

PRIMARY BENEFIT

The ties provide high strength with low weight and low profile for improved efficiency and reliability. The extended service life reduces the need for periodic rework.

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PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

STAINLESS STEEL SYSTEMS

METAL TIES

PAN-STEEL® STAINLESS STEEL TIES (MLT SERIES): Metal locking ties, ball lock version in .17" (4.4mm), .25" (6.4mm), .31" (7.9mm), .50" (12.7mm), and .63" (15.9mm) widths

CUSTOM LENGTH BANDING SYSTEM: Provided in reels in .17" (4.4mm), .25" (6.4mm), .31" (7.9mm), .50" (12.7mm), and .63" (15.9mm) widths

METAL STRAPS

STAINLESS STEEL STRAPS (MS SERIES): Fold-over buckle design in .38" (9.5mm), .50" (12.7mm) and .63" (15.9mm) widths

CUSTOM LENGTH STRAPPING SYSTEM: Provided in reels in .375" (9.5mm), .50" (12.7mm) and .63" (15.9mm) widths

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PAN-STEEL® Self-Locking Stainless Steel Cable Ties (MLT Series)

PANDUIT® is a leading producer of stainless steel ties for harsh environments. New designs are continually introduced to meet the application challenges encountered by our customers, while providing the lowest installed cost.

MLT Ties



- Self-locking
- Fully rounded edges
- Low thread force
- 100% Stainless Steel construction
- Patented displacement lock
- Unique locking ramp
- Patented lead-in design
- Extended retaining tab
- Patented aggressive locking head
- Patent pending strengthening ribs
- Complete line of installation tools

MS
StrappingMarking
and
ID

PANDUIT® offers unique products to meet customer needs:

General Purpose Ties— Excellent performance in any environment

WAVE™ Stainless Steel Ties— Unique wave form spring maintains a high tension grip on non-resilient objects

Patented Nylon 11 Selectively Coated Ties— Strength of steel, protection of nylon

Fully Coated Ties— Polyester coated for additional bundle protection

Double Loop Ties— Tighter tensioning and higher loop tensile strength

Complete Line of Installation Tools— Manual and pneumatic installation tools for controlled tension, automatic cut-off and lower installed cost

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A revolutionary new design in stainless steel ties!

MLT Ties

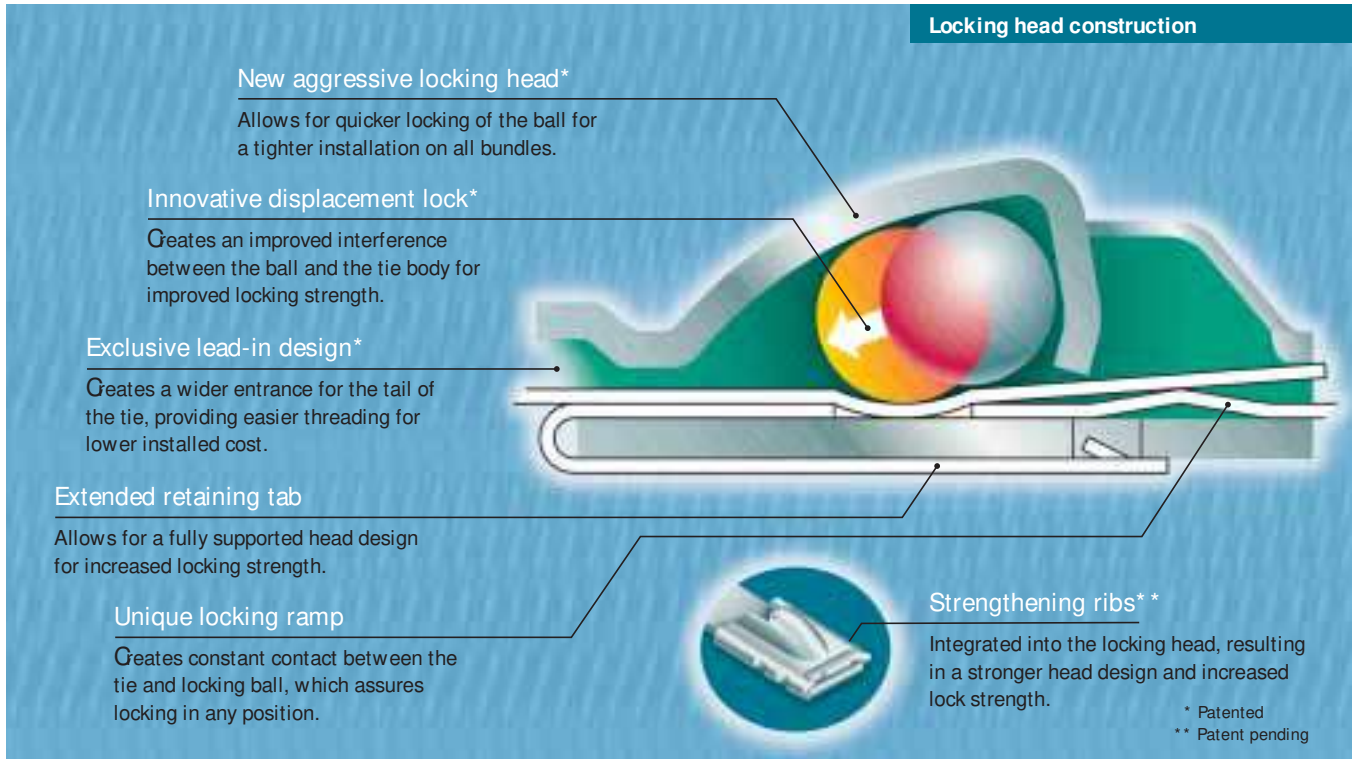
Engineered for the most extreme applications...

- World's highest rated loop tensile strength ball locking tie for an extra margin of safety
- Aggressive head design provides higher retained tension for a more secure bundle
- Exclusive lead-in design for quick, easy threading for fastest installation time

MS Strapping

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Advantages of the Rounded Side of PAN-STEEL® Stainless Steel Ties

Technical Info



Cross sectional view of other manufacturer's tie body. (Photo micrograph shown is magnified 150X).



Cross sectional view of PANDUIT® tie body. (Photo micrograph shown is magnified 150X).

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The PAN-STEEL® Stainless Steel Cable Tie is designed for superior comfort and safety when handling due to its fully rounded sides and smooth surfaces. Smooth surfaces and rounded sides assure cable protection and operator safety. PANDUIT® not only removes the burr, but actually passes the material through a secondary process which removes the top and bottom corners of the material.

Self-Locking Head for Fast Installation



1. Place tie around bundle, put tip through head and pull up tight by hand.



2. Use one of the PANDUIT® PAN-STEEL® installation tools to tension and cut off excess tail quickly.

The stainless steel metal locking tie series can be fastened by hand as shown in **Photo 1**. No tools are required. Just place around bundle, pull the tip of the tail through the locking head and pull up tight by hand. The self-locking head secures the tie in place.

Photo 2 shows the metal locking tie series being installed with the PANDUIT® GS4MT tool, which automatically tensions and cuts off excess tie. The system provides adjustable tension control and automatic cut-off for quick, consistent and secure installation with the lowest installed cost.

Part Number System Example – MLT Series

(Stock Size Tie)

| MLT | 6 | S | – | CP | |
|------------------|---|--|----------|--|--|
| Part Description | Bundle Diameter Reference (Inches) | Cross-Section S = Standard LH = Light Heavy H = Heavy EH = Extra Heavy SH = Super Heavy | | Package Qty. Q = 25 L* = 50 LP** = 50 CP = 100 *Standard Cross-Section **Heavy Cross-Section | Material (blank) = 304 316 = 316 |

PAN-STEEL® Stainless Steel Ties – MLT Series



Enhanced PAN-STEEL® Self-Locking Stainless Steel Cable Ties



- Strong, durable method of bundling and fastening
- Can be used in virtually all indoor, outdoor and underground (including direct burial) applications
- Well suited for network bundling of data and power cables
- Fully rounded edges and exclusive lead-in design
- Provides ultimate support for network cables
- Available in 316 material for the most corrosive environments

| Part Number | Max. Bundle Diameter | | Length** | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------------------|----|----------|----|-----------------------------|---|----------------------|----|-------|----|-----------|----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

AISI 304 Stainless Steel – For General Purpose

Standard Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|------|-----|------|------|-----|-----|-----|------|-----|-----|------|-----|------------------------------------|-----|-----|
| MLT1S-CP | 1.0 | 25 | 5.0 | 127 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 100 | 500 |
| MLT2S-CP | 2.0 | 51 | 7.9 | 201 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT2S-L | 2.0 | 51 | 7.9 | 201 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 50 | 500 |
| MLT2.7S-CP | 2.7 | 69 | 10.2 | 259 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT4S-CP | 4.0 | 102 | 14.3 | 362 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT4S-L | 4.0 | 102 | 14.3 | 362 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 50 | 500 |
| MLT6S-CP | 6.0 | 152 | 20.5 | 521 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT8S-CP | 8.0 | 203 | 26.8 | 679 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT10S-CP | 10.0 | 254 | 33.0 | 838 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT12S-Q | 12.0 | 304 | 39.3 | 998 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 25 | 125 |
| MLT14S-Q | 14.0 | 355 | 45.5 | 1156 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | 25 | 125 | |
| MLT15S-Q | 15.0 | 380 | 49.2 | 1250 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | 25 | 125 | |

NEW! Light-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|------------------|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2LH-LP | 2.0 | 51 | 7.9 | 201 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4LH-LP | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT6LH-LP | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT8LH-LP | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|------|-----|------|------|-----|------|-----|------|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2H-LP | 2.0 | 51 | 7.9 | 201 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT2.7H-LP | 2.7 | 69 | 10.2 | 259 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT4H-LP | 4.0 | 102 | 14.3 | 362 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT6H-LP | 6.0 | 152 | 20.5 | 521 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT8H-LP | 8.0 | 203 | 26.8 | 679 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT10H-LP | 10.0 | 254 | 33.0 | 838 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT12H-Q | 12.0 | 305 | 42.0 | 1087 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 25 | 125 |
| MLT14H-Q | 14.0 | 356 | 47.0 | 1194 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 25 | 125 |

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|---------------------|------|-----|------|------|-----|------|-----|------|-----|------|------|-----|----------------|----|-----|
| MLT2EH-LP | 2.0 | 51 | 11.8 | 300 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT or ST3MT | 50 | 250 |
| MLT4EH-LP | 4.0 | 102 | 17.1 | 434 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT6EH-LP | 6.0 | 152 | 23.4 | 594 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT8EH-LP | 8.0 | 203 | 29.7 | 754 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT10EH-LP | 10.0 | 254 | 35.9 | 912 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT12EH-Q | 12.0 | 305 | 42.2 | 1072 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 25 | 125 |
| MLT4EH15-LP | 4.0 | 102 | 17.1 | 434 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT6EH15-LP | 6.0 | 152 | 23.4 | 594 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT8EH15-LP | 8.0 | 203 | 29.7 | 754 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT10EH15-LP | 10.0 | 254 | 35.9 | 912 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT12EH15-Q | 12.0 | 305 | 42.2 | 1072 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Other lengths available, contact customer service.

***For information on installation tools, refer to pages B12-B14.

PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

Markets



Enhanced PAN-STEEL® Self-Locking Stainless Steel Cable Ties (continued)



MLT Ties

| Part Number | Max. Bundle Diameter | | Length** | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|---|----------------------|-----|----------|------|-----------------------------|------|----------------------|------|-------|------|-----------|-----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |
| NEW! Super-Heavy Cross Section | | | | | | | | | | | | | | | |
| MLT4SH-LP | 4.0 | 102 | 17.1 | 434 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | RT1HT | 50 | 250 |
| MLT6SH-LP | 6.0 | 152 | 23.4 | 594 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MLT8SH-LP | 8.0 | 203 | 29.7 | 754 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MLT10SH-LP | 10.0 | 254 | 35.9 | 912 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MLT12SH-Q | 12.0 | 305 | 42.2 | 1072 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 25 | 125 |
| AISI 316 Stainless Steel – For Superior Corrosion Resistance | | | | | | | | | | | | | | | |
| Standard Cross Section | | | | | | | | | | | | | | | |
| MLT1S-CP316 | 1.0 | 25 | 5.0 | 127 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 100 | 500 |
| MLT2S-CP316 | 2.0 | 51 | 7.9 | 201 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT4S-CP316 | 4.0 | 102 | 14.3 | 362 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT6S-CP316 | 6.0 | 152 | 20.5 | 521 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT8S-CP316 | 8.0 | 203 | 26.8 | 679 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLT10S-CP316 | 10.0 | 254 | 33.0 | 838 | 200 | 890 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| NEW! Light-Heavy Cross Section | | | | | | | | | | | | | | | |
| MLT2LH-LP316 | 2.0 | 51 | 7.9 | 201 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4LH-LP316 | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT6LH-LP316 | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT8LH-LP316 | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| Heavy Cross Section | | | | | | | | | | | | | | | |
| MLT2H-LP316 | 2.0 | 51 | 7.9 | 201 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4H-LP316 | 4.0 | 102 | 14.3 | 362 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT6H-LP316 | 6.0 | 152 | 20.5 | 521 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT8H-LP316 | 8.0 | 203 | 26.8 | 679 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT10H-LP316 | 10.0 | 254 | 33.0 | 838 | 450 | 2000 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| NEW! Extra-Heavy Cross Section | | | | | | | | | | | | | | | |
| MLT2EH-LP316 | 2.0 | 51 | 11.8 | 300 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT or ST3MT | 50 | 250 |
| MLT4EH-LP316 | 4.0 | 102 | 17.1 | 434 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT6EH-LP316 | 6.0 | 152 | 23.4 | 594 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT8EH-LP316 | 8.0 | 203 | 29.7 | 754 | 600 | 2670 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLT4EH15-LP316 | 4.0 | 102 | 17.1 | 434 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT6EH15-LP316 | 6.0 | 152 | 23.4 | 594 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT8EH15-LP316 | 8.0 | 203 | 29.7 | 754 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MLT8EH15-LP316 | 8.0 | 203 | 29.7 | 754 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| NEW! Super-Heavy Cross Section | | | | | | | | | | | | | | | |
| MLT4SH-LP316 | 4.0 | 102 | 17.1 | 434 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | RT1HT | 50 | 250 |
| MLT6SH-LP316 | 6.0 | 152 | 23.4 | 594 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MLT8SH-LP316 | 8.0 | 203 | 29.7 | 754 | 900 | 4005 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |

MS Strapping

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*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Other lengths available, contact customer service.

***For information on installation tools, refer to pages B12-B14.

Markets

Enhanced PAN-STEEL® WAVE-TY™ Superior Grip Stainless Steel Ties

MLT Ties



- Patented wave-form spring maintains greater installed tension on non-resilient objects
- Tightly clamps on applications where other stainless steel ties will not function
- Retains tension on a solid bundle with minimal applied force
- Available in 316 material for the most corrosive environments
- Guarantees performance in critical applications
- Self-locking with low thread force

| Part Number | Max. Bundle Diameter | | Length** | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------------------|----|----------|----|-----------------------------|---|----------------------|----|-------|----|-----------|----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

AISI 304 Stainless Steel – For Superior Grip on Rigid Bundles

NEW! Standard Cross Section

| | | | | | | | | | | | | | | | |
|-------------|-----|-----|------|-----|-----|-----|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WS-LP | 2.7 | 69 | 10.2 | 259 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WS-LP | 4.0 | 102 | 14.3 | 362 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |
| MLT6WS-LP | 6.0 | 152 | 20.5 | 521 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |
| MLT8WS-LP | 8.0 | 203 | 26.8 | 679 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |

NEW! Light-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|--------------|-----|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WLH-LP | 2.7 | 69 | 10.2 | 259 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WLH-LP | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT6WLH-LP | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT8WLH-LP | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------|------|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WH-LP | 2.7 | 69 | 10.2 | 259 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WH-LP | 4.0 | 102 | 14.3 | 362 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT6WH-LP | 6.0 | 152 | 20.5 | 521 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT8WH-LP | 8.0 | 203 | 26.8 | 679 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT10WH-LP | 10.0 | 254 | 33.0 | 838 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |

NEW! Standard Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|-----|-----|-----|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WS-LP316 | 2.7 | 69 | 10.2 | 259 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WS-LP316 | 4.0 | 102 | 14.3 | 362 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |
| MLT6WS-LP316 | 6.0 | 152 | 20.5 | 521 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |
| MLT8WS-LP316 | 8.0 | 203 | 26.8 | 679 | 200 | 890 | 2.0 | 51 | .18 | 4.6 | .010 | .25 | | 50 | 250 |

NEW! Light-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-----------------|-----|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WLH-LP316 | 2.7 | 69 | 10.2 | 259 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WLH-LP316 | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT6WLH-LP316 | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLT8WLH-LP316 | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | 2.0 | 51 | .25 | 6.4 | .010 | .25 | | 50 | 250 |

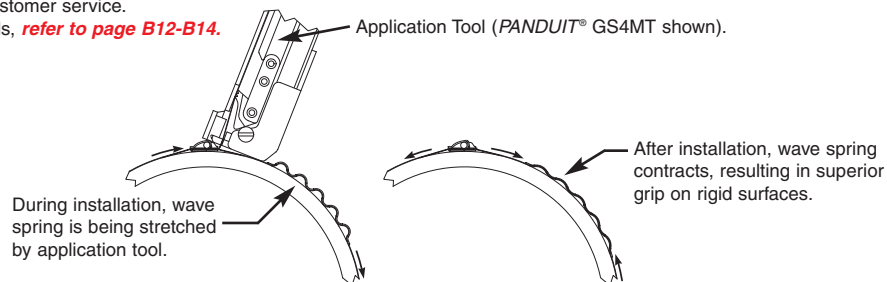
Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|-----|-----|------|-----|----|-----|-----|------|-----|------------------------------------|----|-----|
| MLT2.7WH-LP316 | 2.7 | 69 | 10.2 | 259 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLT4WH-LP316 | 4.0 | 102 | 14.3 | 362 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT6WH-LP316 | 6.0 | 152 | 20.5 | 521 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT8WH-LP316 | 8.0 | 203 | 26.8 | 679 | 450 | 2000 | 2.0 | 51 | .31 | 7.9 | .010 | .25 | | 50 | 250 |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Other lengths available, contact customer service.

***For information on installation tools, refer to page B12-B14.



MS Strapping

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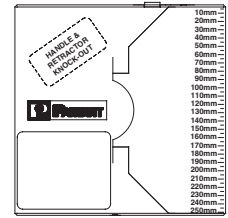
PAN-STEEL® Custom Length Banding System (Coated and Non-Coated)

Custom Length Banding System MBS, MBH, MBEH and MBSH Banding

- For applications that require bundling various bundle diameters
- Supplied in reels of 200 ft (61m), 250 ft (76m) or 1000 ft (305m)
- Bundle any size bundle diameter
- To use, pull out as much banding as needed, cut off using GS4MT with CAMT accessory or with shears and install with MTHS or MTHH banding heads

Polyester coating option provides:

- Low smoke
- Halogen free
- Temperature tolerance -40°F (-40°C) to -302°F (150°C)
- Good UV resistance



| Part Number | Max. Bundle Diameter | | Length** | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool*** | Recommended Banding Head | Std. Pkg. Qty. |
|-------------|----------------------|----|----------|---|-----------------------------|---|----------------------|----|-------|----|-----------|----|---|--------------------------|----------------|
| | In. | mm | Ft. | M | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

AISI 304 Stainless Steel – For General Purpose Banding

Standard Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|------|-----|----------------------------------|--------|---|
| MBS-TLR | Any | Any | 250 | 76 | 100 | 445 | .50 | 12.7 | .18 | 4.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, ST3MT | MTHS-C | 1 |
| MBS-MR | Any | Any | 1000 | 305 | 100 | 445 | .50 | 12.7 | .18 | 4.4 | .010 | .25 | | MTHS-C | 1 |

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|-----|----------------------------------|--------|---|
| MBH-TLR | Any | Any | 250 | 76 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, ST3MT | MTHH-C | 1 |
| MBH-MR | Any | Any | 1000 | 305 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | MTHH-C | 1 |

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-----------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|--------------|---------|---|
| MBEH-TLR | Any | Any | 250 | 76 | 300 | 1335 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT, ST3MT | MTHEH-C | 1 |
|-----------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|--------------|---------|---|

NEW! Super-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|-------|---------|---|
| MBSH-TR | Any | Any | 200 | 61 | 450 | 2000 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | RT1HT | MTHSH-C | 1 |
|----------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|-------|---------|---|

AISI 316 Stainless Steel – For Superior Corrosion Resistance

Standard Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|------|-----|----------------------------------|-----------|---|
| MBS-TLR316 | Any | Any | 250 | 76 | 100 | 445 | .50 | 12.7 | .18 | 4.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, ST3MT | MTHS-C316 | 1 |
| MBS-MR316 | Any | Any | 1000 | 305 | 100 | 445 | .50 | 12.7 | .18 | 4.4 | .010 | .25 | | MTHS-C316 | 1 |

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|-----|----------------------------------|-----------|---|
| MBH-TLR316 | Any | Any | 250 | 76 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, ST3MT | MTHH-C316 | 1 |
| MBH-MR316 | Any | Any | 1000 | 305 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | MTHH-C316 | 1 |

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|--------------|------------|---|
| MBEH-TLR316 | Any | Any | 250 | 76 | 300 | 1335 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT, ST3MT | MTHEH-C316 | 1 |
|--------------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|--------------|------------|---|

NEW! Super-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|-------|------------|---|
| MBSH-TR316 | Any | Any | 200 | 61 | 450 | 2000 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | RT1HT | MTHSH-C316 | 1 |
|-------------------|-----|-----|-----|----|-----|------|-----|------|-----|------|------|-----|-------|------------|---|

NEW! Polyester Coated AISI 316 Stainless Steel

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------------|-----|-----|----|----|-----|------|-----|-----|-----|-----|------|-----|------------------------------------|-----------|---|
| MBCH-QR316 | Any | Any | 82 | 25 | 250 | 1112 | N/A | N/A | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | MTHH-C316 | 1 |
|-------------------|-----|-----|----|----|-----|------|-----|-----|-----|-----|------|-----|------------------------------------|-----------|---|

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|--------------------|-----|-----|----|----|-----|------|-----|-----|-----|------|------|-----|--------------|------------|---|
| MBCEH-QR316 | Any | Any | 82 | 25 | 300 | 1335 | N/A | N/A | .50 | 12.7 | .010 | .25 | RT1HT, ST3MT | MTHEH-C316 | 1 |
|--------------------|-----|-----|----|----|-----|------|-----|-----|-----|------|------|-----|--------------|------------|---|

NEW! Super-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|--------------------|-----|-----|----|----|-----|------|-----|-----|-----|------|------|-----|-------|------------|---|
| MBCSH-QR316 | Any | Any | 82 | 25 | 450 | 2000 | N/A | N/A | .63 | 15.9 | .015 | .38 | RT1HT | MTHSH-C316 | 1 |
|--------------------|-----|-----|----|----|-----|------|-----|-----|-----|------|------|-----|-------|------------|---|

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**The GS4MT with CAMT accessory is recommended for cutting the banding. This system provides a straight cut-off which assists in head assembly and eliminates the need for shears.

***For information on installation tools, refer to pages B12-B14.

To determine the proper amount of banding required, use the following formula to determine length of banding needed

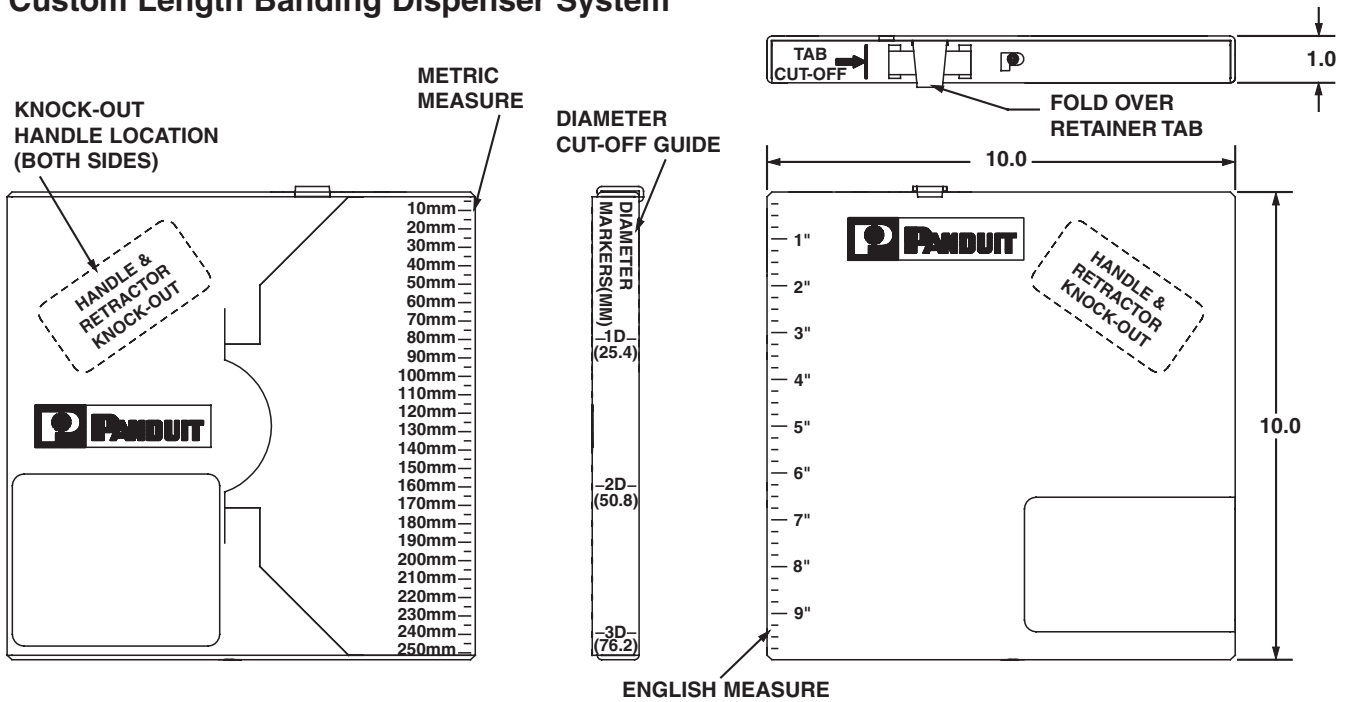
Calculate Diameter inches (mm) x 3.14 + 3 inches (76mm)

Example: 10 in. (250mm) Diameter Bundle

10 in. (250mm) x 3.14 = 31.40 + 3 in. (76mm) = 34.40 in. or 35 in. (861mm) of banding required.

Markets

Custom Length Banding Dispenser System



MLT Ties

MS Strapping

Marking and ID

MTHS, MTHH, MTHEH and MTHSH Banding Heads



- To use, take one end of the cut banding and bend back 1/2" (13mm)
- Take a self-locking head and slide it the entire length of the band until it reaches the bend
- Bend tail flat against bottom of banding head to complete assembly

Accessories

| Part Number | Part Description | Std. Pkg. Qty. | Std. Ctn. Qty. |
|---|---|----------------|----------------|
| AISI 304 Stainless Steel – For Banding Heads | | | |
| MTHS-C | Loose piece banding head for standard cross section banding 304 stainless steel. | 100 | 1000 |
| MTHH-C | Loose piece banding head for heavy cross section banding 304 stainless steel. | 100 | 1000 |
| MTHEH-C | Loose piece banding head for extra-heavy cross section banding 304 stainless steel. | 100 | 1000 |
| MTHSH-C | Loose piece banding head for super heavy cross section banding 304 stainless steel. | 100 | 1000 |
| AISI 316 Stainless Steel – For Banding Heads | | | |
| MTHS-C316 | Loose piece banding head for standard cross section banding 316 stainless steel. | 100 | 1000 |
| MTHH-C316 | Loose piece banding head for heavy cross section banding 316 stainless steel. | 100 | 1000 |
| MTHEH-C316 | Loose piece banding head for extra-heavy cross section banding 316 stainless steel. | 100 | 1000 |
| MTHSH-C316 | Loose piece banding head for super heavy cross section banding 316 stainless steel. | 100 | 1000 |

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PAN-STEEL® Coated Stainless Steel Cable Ties

Enhanced Patented Nylon 11 Selectively Coated Ties – MLTC Series



- For communication and electrical cables
- Strength of steel, the protection of nylon; the nylon coating provides protection for the cables
- Available in loop tensile strength of 250 lbs.
- Base metal 316 grade stainless steel for excellent resistance to temperature extremes, corrosion, weather, chemicals, salt sprays and UV radiation

Nylon 11 Coating:

- Resistance to chemicals and salt sprays
- Halogen-free
- Temperature tolerance -40°F (-40°C) to 285°F (140°C)
- Coating thickness .003 in. (.08mm) / .005 in. (.13mm) per side

MLTies

| Part Number | Max. Bundle Diameter | | Length | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness** | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------------------|----|--------|----|-----------------------------|---|----------------------|----|-------|----|-------------|----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

AISI 316 Stainless Steel – For Nylon 11 Selectively Coated Cable Ties

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------------|------|-----|------|-----|-----|------|-----|------|-----|------|------|-----|------------------------------------|----|-----|
| MLTC2H-LP316 | 2.0 | 51 | 7.9 | 201 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT or ST3MT | 50 | 250 |
| MLTC4H-LP316 | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLTC6H-LP316 | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLTC8H-LP316 | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLTC10H-LP316 | 10.0 | 254 | 33.0 | 838 | 250 | 534 | .50 | 12.7 | .31 | 7.90 | .010 | .25 | | 50 | 250 |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Base material less coating.

***For information on installation tools, refer to pages B12-B14.

MS Strapping

Fully Coated Ties



- Polyester coating
- Base metal 316 grade stainless steel
- Self-locking with low thread force
- Available in standard, light-heavy, heavy, and extra-heavy cross sections
- Low smoke
- Halogen free
- Temperature tolerance -40°F (-40°C) to -302°F (150°C)
- Good UV resistance

Marking and ID

| Part Number | Max. Bundle Diameter | | Length | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness** | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------------------|----|--------|----|-----------------------------|---|----------------------|----|-------|----|-------------|----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

NEW! Standard Cross Section

| | | | | | | | | | | | | | | | |
|----------------------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|------|-----|-------------------------------------|-----|-----|
| MLTFC2S-CP316 | 2.0 | 51 | 7.9 | 201 | 100 | 445 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, or ST3MT | 100 | 500 |
| MLTFC4S-CP316 | 4.0 | 102 | 14.3 | 362 | 100 | 445 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLTFC6S-CP316 | 6.0 | 152 | 20.5 | 521 | 100 | 445 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |
| MLTFC8S-CP316 | 8.0 | 203 | 26.8 | 679 | 100 | 445 | .50 | 12.7 | .18 | 4.6 | .010 | .25 | | 100 | 500 |

NEW! Light-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-----------------------|-----|-----|------|-----|-----|-----|-----|------|-----|-----|------|-----|-------------------------------------|----|-----|
| MLTFC2LH-LP316 | 2.0 | 51 | 7.9 | 201 | 150 | 668 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, or ST3MT | 50 | 250 |
| MLTFC4LH-LP316 | 4.0 | 102 | 14.3 | 362 | 150 | 668 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLTFC6LH-LP316 | 6.0 | 152 | 20.5 | 521 | 150 | 668 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |
| MLTFC8LH-LP316 | 8.0 | 203 | 26.8 | 679 | 150 | 668 | .50 | 12.7 | .25 | 6.4 | .010 | .25 | | 50 | 250 |

NEW! Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------------|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|-----|-------------------------------------|----|-----|
| MLTFC2H-LP316 | 2.0 | 51 | 7.9 | 201 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, or ST3MT | 50 | 250 |
| MLTFC4H-LP316 | 4.0 | 102 | 14.3 | 362 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLTFC6H-LP316 | 6.0 | 152 | 20.5 | 521 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLTFC8H-LP316 | 8.0 | 203 | 26.8 | 679 | 250 | 1112 | .50 | 12.7 | .31 | 7.9 | .010 | .25 | | 50 | 250 |

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-----------------------|-----|-----|------|-----|-----|------|-----|-----|-----|------|------|-----|----------------|----|-----|
| MLTFC2EH-LP316 | 2.0 | 51 | 11.8 | 300 | 300 | 1335 | N/A | N/A | .50 | 12.7 | .010 | .25 | RT1HT or ST3MT | 50 | 250 |
| MLTFC4EH-LP316 | 4.0 | 102 | 17.1 | 434 | 300 | 1335 | N/A | N/A | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLTFC6EH-LP316 | 6.0 | 152 | 23.4 | 574 | 300 | 1335 | N/A | N/A | .50 | 12.7 | .010 | .25 | | 50 | 250 |
| MLTFC8EH-LP316 | 8.0 | 203 | 29.7 | 754 | 300 | 1335 | N/A | N/A | .50 | 12.7 | .010 | .25 | | 50 | 250 |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Base material less coating.

***For information on installation tools, refer to pages B12-B14.

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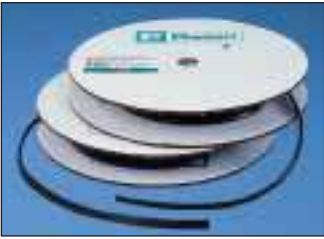
PCS Cushion Sleeve

MLT Ties



- Black vinyl sleeving slips on standard and heavy cross section *PAN-STEEL*® Stainless Steel Ties and Custom Length Banding
- Used on applications requiring improved gripping on non-resilient objects
- Can be used indoors or outdoors (excellent ultraviolet resistance, good resistance to petroleum, and many chemicals)
- Provides full separation between the ties and the material to which you are fastening
- Operating temperature range 41°F – 167°F (5°C to 75°C)

MS Strapping



| Part Number | Width | | Length | | Std. Pkg. Qty. |
|----------------|-------|------|--------|------|----------------|
| | In. | mm | Ft. | M | |
| PCSS-CR | .31 | .87 | 100 | 30.5 | 1 |
| PCSH-CR | .47 | 11.9 | 100 | 30.5 | 1 |

Bulk Pkg. -CR = 100 ft. (30.5m) reel.

Marking and ID

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PAN-STEEL® Double Wrapped Stainless Steel Cable Ties

PAN-STEEL® Double Wrapped Stainless Steel Cable Ties — MLTDH Series



Cable tie body passes through head two times

- Available in 304 and 316 stainless steel for extra high strength in critical applications
- Allow for tighter tensioning on non-resilient bundles
- Available in .31 in. (7.9mm), .50 in. (12.7mm), .625 in. (15.9mm) width for bundle diameters ranging from 1-8 in. (203mm)
- Loop tensile strength up to 1200 lbs. (5340 N)
- Self-locking ties — no tools required
- Optional tooling is available to speed installation and lower installed costs

MLT Ties

| Part Number | Max. Bundle Diameter | | Length** | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool*** | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------------------|----|----------|----|-----------------------------|---|----------------------|----|-------|----|-----------|----|---|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |

MS Strapping

AISI 304 Stainless Steel — MLTDH Double Wrapped Ties

Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|-----|-------------------------------------|----|-----|
| MLT2DH-L | 2.0 | 50 | 18.5 | 470 | 600 | 2670 | 1.0 | 25.4 | .31 | 7.9 | .010 | .25 | GS4MT, HTMT, PPTMT, ST2MT, or ST3MT | 50 | 250 |
| MLT4DH-L | 4.0 | 102 | 28.0 | 711 | 600 | 2670 | 1.0 | 25.4 | .31 | 7.9 | .010 | .25 | | 50 | 250 |
| MLT5DH-L | 5.0 | 125 | 34.0 | 863 | 600 | 2670 | 1.0 | 25.4 | .31 | 7.9 | .010 | .25 | | 50 | 250 |

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-------------|-----|-----|------|------|------|------|-----|------|-----|------|------|-----|--------------|----|-----|
| MLT4DEH-Q | 4.0 | 102 | 29.5 | 749 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT, ST3MT | 25 | 125 |
| MLT6DEH-Q | 6.0 | 152 | 41.5 | 1054 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 25 | 125 |
| MLT8DEH-Q | 8.0 | 203 | 53.5 | 1359 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 25 | 125 |
| MLT4DEH15-Q | 4.0 | 102 | 29.5 | 749 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |
| MLT6DEH15-Q | 6.0 | 152 | 41.5 | 1054 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |
| MLT8DEH15-Q | 8.0 | 203 | 53.5 | 1359 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |

Marking and ID

NEW! Super-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|-----------|-----|-----|------|------|------|------|-----|------|------|------|------|-----|-------|----|-----|
| MLT4DSH-Q | 4.0 | 102 | 29.5 | 749 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | RT1HT | 25 | 125 |
| MLT6DSH-Q | 6.0 | 152 | 41.5 | 1054 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | | 25 | 125 |
| MLT8DSH-Q | 8.0 | 203 | 53.5 | 1359 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | | 25 | 125 |

AISI 316 Stainless Steel — For MLTDH Double Wrapped Ties

NEW! Extra-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|------|------|------|-----|------|-----|------|------|-----|--------------|----|-----|
| MLT4DEH-Q316 | 4.0 | 102 | 29.5 | 749 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | RT1HT, ST3MT | 25 | 125 |
| MLT6DEH-Q316 | 6.0 | 152 | 41.5 | 1054 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 25 | 125 |
| MLT8DEH-Q316 | 8.0 | 203 | 53.5 | 1359 | 800 | 3560 | 1.0 | 25.4 | .50 | 12.7 | .010 | .25 | | 25 | 125 |
| MLT4DEH15-Q316 | 4.0 | 102 | 29.5 | 749 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |
| MLT6DEH15-Q316 | 6.0 | 152 | 41.5 | 1054 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |
| MLT8DEH15-Q316 | 8.0 | 203 | 53.5 | 1359 | 1000 | 4450 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 25 | 125 |

Accessories

NEW! Super-Heavy Cross Section

| | | | | | | | | | | | | | | | |
|--------------|-----|-----|------|------|------|------|-----|------|------|------|------|-----|-------|----|-----|
| MLT4DSH-Q316 | 4.0 | 102 | 29.5 | 749 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | RT1HT | 25 | 125 |
| MLT6DSH-Q316 | 6.0 | 152 | 41.5 | 1054 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | | 25 | 125 |
| MLT8DSH-Q316 | 8.0 | 203 | 53.5 | 1359 | 1200 | 5340 | 1.0 | 25.4 | .625 | 15.9 | .015 | .38 | | 25 | 125 |

Technical Info

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Other lengths available, contact customer service.

***For information on installation tools, refer to pages B12-B14.

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Markets

Installation Tools for All Stainless Steel Cable Ties and Custom Length Banding System

A large selection of state-of-the-art installation tooling allows you to choose the proper tool to meet all your requirements, no matter what your application. These tools are lightweight and easy to operate. Because they are fast and efficient they speed cable tie installation and lower your total installed cost. The *PANDUIT®* PPTMT and GS4MT tools automatically cut off excess tie when the pre-set tension level is reached.



ST3MT, PPTMT, HTMT, GS4MT, RT1HT

MLT Ties

MS Strapping

PPTMT Installation Tool



PPTMT (Pneumatic)

- Power assisted tool for fast and effortless installation
- Cable tie side entry for immediate positioning of tie and tool
- Controlled tension, fully adjustable
- Automatic cut-off
- One hand operation — lightweight
- Easy removal of excess tie
- Operates 85 PSI - 586 KPA Bar non-lubricated air and requires no special maintenance

Marking and ID

| Part Number | Part Description | Std. Pkg. Qty. |
|----------------|--|----------------|
| PPTMT | Pneumatic hand tool used with <i>PAN-STEEL®</i> Type MLT ties, Type MLTC coated ties, Type MLTDH double wrapped ties and <i>WAVE-TY™</i> Stainless Steel Ties. Automatically tensions and cuts off tie when predetermined tension is reached, providing more reliable and consistent installations. Ideal for high production applications. Installs standard .18 in. (4.6mm), light-heavy .25 in. (6.4mm) and heavy .31 in. (7.9mm) cross section ties. | 1 |
| PPH10 | 10 ft. (3 m) hose assembly; 1/8 in. (3.175 mm) NPT male connector | 1 |
| PL289N1 | Filter regulator | 1 |
| KPPTMTG | Replacement gripper kit for PPTMT | 1 |
| KPPTMTB | Replacement blade kit for PPTMT | 1 |

Power assisted (pneumatic tool) will automatically tension and cut off excess tie when predetermined tension is reached with the squeeze of a trigger.

Accessories



Side Entry

Technical Info

Adjustment Features for PPTMT and GS4MT Tools*

Fast and Easy Selection



The cross-section of the cable tie being installed is clearly indicated on the knob. To change, simply flip knob to proper cross-section indicator.

Tension Indicator



Each cross-section of cable ties can be installed with a variety of tensions to meet the application.

The proper tensions (listed on *PANDUIT®* cable tie packages) are clearly marked with this indicator.

To Change the Tension:



Turn clockwise to increase.



Turn counter-clockwise to decrease.

Index

*For information on GS4MT installation tool, refer to page B13.

GS4MT Installation Tool



Hand Operated Tool

- Single handle operation for fast installation
- Cable tie side entry for immediate positioning of tie and tool
- Controlled tension, fully adjustable
- Easy removal of excess tie
- Qualified product listed per SAE Standard MS90387-3
- Automatically tensions and cuts off tie when predetermined tension is reached, providing more reliable and consistent installations*
- Installs standard .18 in. (4.6mm), light-heavy .25 in. (6.4mm) and heavy .31 in. (7.9mm) cross section ties

| Part Number | Part Description | Std. Pkg. Qty. |
|----------------|--|----------------|
| GS4MT | Used with standard, light-heavy and heavy cross section <i>PAN-STEEL</i> ® Type MLT ties, Type MLTC Coated ties, Type MLTDH Double Wrapped ties and <i>WAVE-TY</i> ™ Stainless Steel Ties. | 1 |
| K4M-BLD | Replacement cutter blade for GS4MT | 1 |
| K4MTG | Replacement tension gripper for GS4MT | 1 |
| CAMT | Cut-off accessory. Use this accessory with GS4MT tool to cut MBH or MBS continuous banding. Accessory drops in place for use. | 1 |

* When installing over resilient objects (or made resilient by using PCS cushion sleeve).



CAMT



SIDE ENTRY

Tool Tension Lock Kit



To lock selector knob and tension level



To lock fine adjustment

- For applications requiring a locking device on either the selector knob (one cross-section size and tension only) or tension level adjustment (but allow cross-section size changes)
- Replacement blade kits and gripper replacement kits can be part of a scheduled maintenance plan or used when cut-offs are not clean and crisp

| Part Number | Part Description | Std. Pkg. Qty. |
|--------------|--|----------------|
| TTLK3 | Tool Tension Locking Kit for GS4MT and PPTMT installation tools. | 1 |

Markets

ST3MT Installation Tool



Hand operated tool with installer controlled tension and cut-off.

- Cable tie side entry for immediate positioning of tie and tool
- One hand operation — lightweight
- Easy removal of excess tie
- Tool tension is controlled by installer. Lever actuated cut-off
- Rugged, lightweight, easy-to-operate pliers-type tool provides mechanical advantage

| Part Number | Part Description | Std. Pkg. Qty. |
|--------------|--|----------------|
| ST3MT | Used with standard, light-heavy, heavy, and extra-heavy cross section <i>PAN-STEEL</i> ® Type MLT ties, Type MLTC coated ties, Type MLTDH double wrapped ties and <i>WAVE-TY</i> ™ Stainless Steel Ties. | 1 |
| KT3MG | Replacement tension gripper for ST3MT tool. | 1 |

MLT Ties

MS Strapping

RT1HT Installation Tool



Hand operated tool with adjustable tension control and lever cut-off.

- Cable tie side entry for immediate positioning of tie and tool
- One or two hand tensioning with multi-position rear handle
- Adjustable tension control
- Lever actuated cut-off
- Easy removal of excess tie
- Ratchet style tool for high tension
- Rugged, lightweight, easy-to-operate ratchet tool provides mechanical advantage

| Part Number | Part Description | Std. Pkg. Qty. |
|--------------|--|----------------|
| RT1HT | Used with extra-heavy and super-heavy cross section <i>PAN-STEEL</i> ® Type MLT ties, Type MLTFC coated ties and type MLTDH double wrapped ties. | 1 |

Marking and ID

Accessories



HTMT Installation Tool



Installer controlled tension.

- Economical
- The coiled tie end remaining after tensioning assures a safe end
- No sharp edges
- Manual tension, no cut-off
- Installs ties parallel to the bundle

| Part Number | Part Description | Std. Pkg. Qty. |
|-------------|--|----------------|
| HTMT | Used with standard, light-heavy and heavy cross section <i>PAN-STEEL</i> ® Type MLT ties, Type MLTC coated ties, Type MLTDH double wrapped ties and <i>WAVE-TY</i> ™ Stainless Steel Ties. | 1 |

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PAN-STEEL® Stainless Steel Strapping (MS Series)

PANDUIT® continues to provide innovative products that create the ultimate solution for strapping applications. A new buckle design and tension controlled installation tool offer a quick and safe installation for all harsh environments applications.



- Increased loop tensile strength for an extra margin of safety
- Increased retained tension for a more secure bundle
- No sharp edges after installation
- Simplified installation versus ear lock straps
- Fully assembled discrete lengths

PANDUIT® offers unique products to meet customer needs:

General Purpose Straps— Excellent performance in any environment, available in three widths

Fully Coated Straps— Strength of steel with the protection and safety of nylon

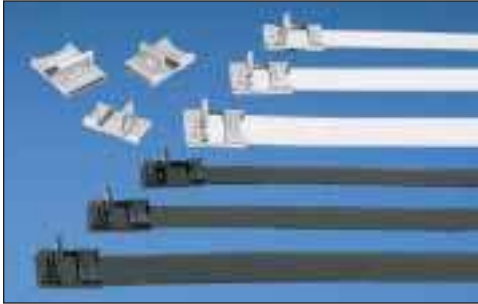
Custom Length Strapping System — For use with large bundles

Installation Tool — For controlled tension, lever cut-off and lower installed cost

Markets

PANDUIT® PAN-STEEL® Stainless Steel Strapping System

MLT Ties



The PANDUIT® PAN-STEEL® Stainless Steel Strapping System reduces installation time and leaves no sharp edges.

- 3 widths available: 3/8 in. (9.5mm), 1/2 in. (12.7mm), and 5/8 in. (15.9mm)
- Burr-free sides
- 304 and 316 stainless steel
- Designed for use in critical applications where strength, radiation, weathering, corrosion, and temperature extremes are a concern
- Temperature range: -112°F (-80°C) to 1000°F (538°C)

MS Strapping

Unique Patented Locking Method

Buckle design provides a low finished profile



After tensioning, cut end is locked inside buckle — no exposed sharp edge

Marking and ID

Hooked Clamping Tab*

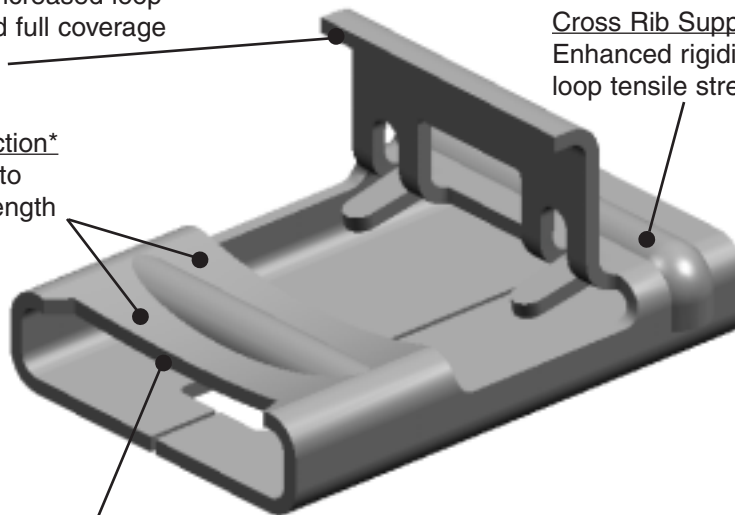
Bends strap body within retention area of buckle for increased loop tensile strength and full coverage of cut end of strap

Cross Rib Support*

Enhanced rigidity for higher loop tensile strength

Concave Cross-section*

Enhanced support to improve tensile strength



Concave Buckle Recess*

Increases body resistance for increased loop tensile strength

*Patents Pending

Accessories

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The PANDUIT® Method Reduces Installation Time



1. Place strap around the material, insert tail of strap through buckle. Pull strapping tight and bend up to hold in place. Insert tail of strapping into tool nose section. Squeeze handle to tension.



2. Once proper tension is reached, maintain tension and raise tool 90° – 120° over buckle and pull down on cutter lever, cutting strap.



3. Remove tool, press cut end down and toward retaining tab.



4. Using the closure lever on the handle of the tool, bend retaining tab down and over cut end. Provides finished, safe, low profile closure.

Part Number System Example

Discrete Length Part Numbering System

| <u>MS</u> | <u>4</u> | <u>W</u> | <u>38</u> | <u>T</u> | <u>15</u> | <u>L</u> | <u>4</u> |
|--------------------------------|-----------------|--------------|---------------|------------------|--------------------|---------------------|-----------------|
| Part Description | Bundle | Width | Inches | Thickness | 15 = 0.015" | Package Qty. | Material |
| Metal | Diameter | | 38 = 3/8 | | | | 4 = 304 SS |
| Strap | Inches | | 50 = 1/2 | | | L = 50 Pcs. | 6 = 316 SS |
| (C=Coated) (blank=Uncoated) | | | 63 = 5/8 | | | | |

Stainless Steel Coil Part Number System

| <u>MS</u> | <u>W</u> | <u>50</u> | <u>T</u> | <u>15</u> | <u>CR</u> | <u>6</u> |
|--------------------------------|--------------|---------------|------------------|--------------------|---------------------|-----------------|
| Part Description | Width | Inches | Thickness | 15 = 0.015" | Package Qty. | Material |
| Metal | | 38 = 3/8 | | | | 4 = 304 SS |
| Strap | | 50 = 1/2 | | | QR = 25m | 6 = 316 SS |
| (C=Coated) (blank=Uncoated) | | 63 = 5/8 | | | CR = 100 ft | |

Stainless Steel Buckle Part Number System

| <u>MS</u> | <u>B</u> | <u>W</u> | <u>63</u> | <u>C</u> | <u>4</u> |
|-------------------------|-------------------|--------------|---------------|---------------------|-----------------|
| Part Description | B = Buckle | Width | Inches | Package Qty. | Material |
| Metal | | | 38 = 3/8 | | 4 = 304 SS |
| Strap | | | 50 = 1/2 | C = 100 Pcs | 6 = 316 SS |
| | | | 63 = 5/8 | | |

Markets

PAN-STEEL® Stainless Steel Strapping



- Buckle design provides a low finished profile
- After tensioning, cut end is locked inside buckle — no sharp edges
- Buckle locked in place — will not slip down strap
- Available in 316 material for the most corrosive environments

MLT Ties

MS Strapping

Marking and ID

Accessories

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| Part Number | Max. Bundle Diameter | | Length | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width | | Thickness | | Recommended PANDUIT® Installation Tool | Std. Pkg. Qty. | Std. Ctn. Qty. |
|---------------------------------|----------------------|-----|--------|-----|-----------------------------|------|----------------------|------|-------|------|-----------|-----|--|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |
| AISI 304 Stainless Steel | | | | | | | | | | | | | | | |
| MS2W38T15-L4 | 2.0 | 51 | 11.8 | 300 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | BT1HT, BT2MS75 | 50 | 250 |
| MS4W38T15-L4 | 4.0 | 102 | 18.0 | 457 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS6W38T15-L4 | 6.0 | 152 | 24.4 | 620 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS8W38T15-L4 | 8.0 | 203 | 30.7 | 780 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS10W38T15-L4 | 10.0 | 254 | 37.0 | 790 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS4W50T15-L4 | 4.0 | 102 | 18.0 | 457 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS6W50T15-L4 | 6.0 | 152 | 24.4 | 620 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS8W50T15-L4 | 8.0 | 203 | 30.7 | 780 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS10W50T15-L4 | 10.0 | 254 | 37.0 | 940 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS4W63T15-L4 | 4.0 | 102 | 18.0 | 457 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MS6W63T15-L4 | 6.0 | 152 | 24.4 | 620 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |
| MS8W63T15-L4 | 8.0 | 203 | 30.7 | 780 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |
| MS10W63T15-L4 | 10.0 | 254 | 37.0 | 940 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |
| AISI 316 Stainless Steel | | | | | | | | | | | | | | | |
| MS2W38T15-L6 | 2.0 | 51 | 11.8 | 300 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | BT1HT, BT2MS75 | 50 | 250 |
| MS4W38T15-L6 | 4.0 | 102 | 18.0 | 457 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS6W38T15-L6 | 6.0 | 152 | 24.4 | 620 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS8W38T15-L6 | 8.0 | 203 | 30.7 | 780 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS10W38T15-L6 | 10.0 | 254 | 37.0 | 940 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MS4W50T15-L6 | 4.0 | 102 | 18.0 | 457 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS6W50T15-L6 | 6.0 | 152 | 24.4 | 620 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS8W50T15-L6 | 8.0 | 203 | 30.7 | 780 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS10W50T15-L6 | 10.0 | 254 | 37.0 | 940 | 700 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MS4W63T15-L6 | 4.0 | 102 | 18.0 | 457 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MS6W63T15-L6 | 6.0 | 152 | 24.4 | 620 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |
| MS8W63T15-L6 | 8.0 | 203 | 30.7 | 780 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |
| MS10W63T15-L6 | 10.0 | 254 | 37.0 | 940 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | 50 | 250 | |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to pages F1.

Custom Length Strapping



- For applications that require various bundle diameters
- Supplied in reels of 100 ft. (30.5m) and 82.5 ft. (25m)
- 304 and 316 stainless steel
- Provides job-site versatility with minimum inventory
- Available with Nylon 11 coating or PPA 571 coating for additional edge protection

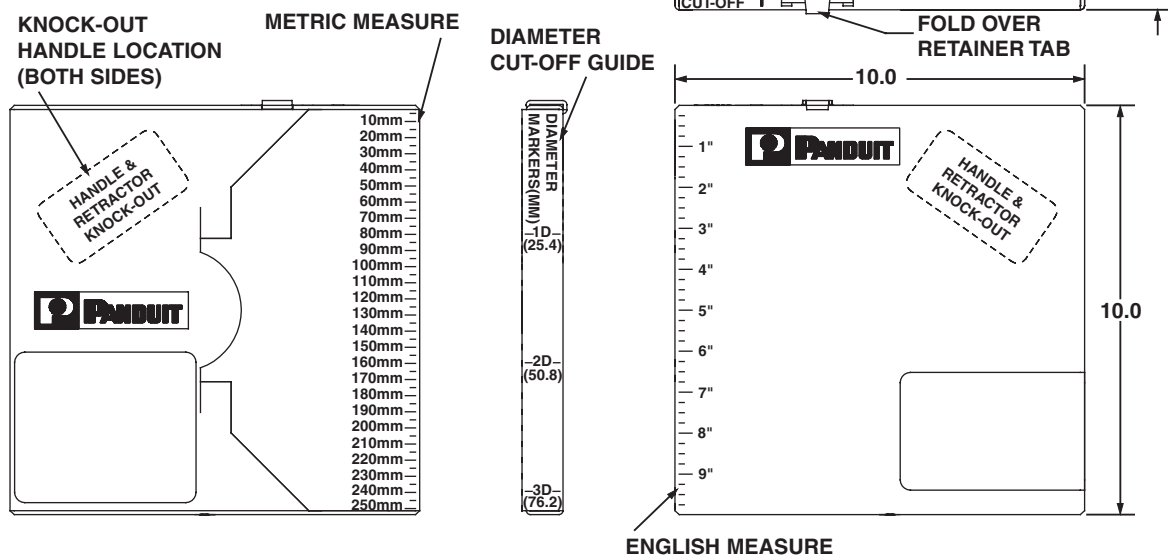
| Part Number | Min. Loop Tensile Str.* | | Width | | Thickness** | | Used with Buckle | Tool | Std. Pkg. Qty.*** |
|---|-------------------------|------|-------|------|-------------|-----|------------------|-------------------|-------------------|
| | Lbs. | N | In. | mm | In. | mm | | | |
| 304 Stainless Steel | | | | | | | | | |
| MSW38T15-CR4 | 500 | 2225 | .38 | 9.5 | .015 | .38 | MSBW38-C4 | BT1HT, BT2MS75 | 1 |
| MSW50T15-CR4 | 500 | 2225 | .50 | 12.7 | .015 | .38 | MSBW50-C4 | | 1 |
| MSW63T15-CR4 | 500 | 2225 | .63 | 15.9 | .015 | .38 | MSBW63-C4 | | 1 |
| 316 Stainless Steel | | | | | | | | | |
| MSW38T15-CR6 | 700 | 3115 | .38 | 9.5 | .015 | .38 | MSBW38-C6 | BT1HT, BT2MS75 | 1 |
| MSW50T15-CR6 | 700 | 3115 | .50 | 12.7 | .015 | .38 | MSBW50-C6 | | 1 |
| MSW63T15-CR6 | 700 | 3115 | .63 | 15.9 | .015 | .38 | MSBW63-C6 | | 1 |
| Nylon Coated Custom Length Strapping | | | | | | | | | |
| MSCNW38T15-QR6 | 800 | 3560 | .38 | 9.5 | .015 | .38 | MSBW38-C6 | BT1HT, BT2MS75 | 1 |
| MSCNW50T15-QR6 | 800 | 3560 | .50 | 12.7 | .015 | .38 | MSBW50-C6 | | 1 |
| MSCNW63T15-QR6 | 800 | 3560 | .63 | 15.9 | .015 | .38 | MSBW63-C6 | | 1 |
| PPA Coated Custom Length Strapping | | | | | | | | | |
| MSCW38T15-QR6 | 800 | 3560 | .38 | 9.5 | .015 | .38 | MSBW38-C6 | BT1HT, BT2MS75 | 1 |
| MSCW50T15-QR6 | 800 | 3560 | .50 | 12.7 | .015 | .38 | MSBW50-C6 | | 1 |
| MSCW63T15-QR6 | 800 | 3560 | .63 | 15.9 | .015 | .38 | MSBW63-C6 | | 1 |

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page F1.

**Base metal less coating

***Order number of reels required in multiples of Standard Package Quantity.

Custom Length Banding Dispenser System



Buckles for Custom Length Strapping



- Buckle design provides a low finished profile
- After tensioning cut end is locked inside buckle

- No exposed sharp edge

| Part Number | Material | Width | | Part Description | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|----------|-------|------|---|----------------|----------------|
| | | In. | mm | | | |
| MSBW50-C4 | 304 | .50 | 12.7 | Individual low profile buckles. To use, slip buckle onto strapping; turn back extended back approximately 2 in. (51 mm) to hold in place. | 100 | 1000 |
| MSBW38-C4 | 304 | .38 | 9.5 | | 100 | 1000 |
| MSBW63-C4 | 304 | .63 | 15.9 | | 100 | 1000 |
| MSBW38-C6 | 316 | .38 | 9.5 | | 100 | 1000 |
| MSBW50-C6 | 316 | .50 | 12.7 | | 100 | 1000 |
| MSBW63-C6 | 316 | .63 | 15.9 | | 100 | 1000 |

PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

Markets

PAN-STEEL® Nylon Coated Stainless Steel Strapping



MLT Ties

- The strength of steel, the protection of nylon; the nylon coating provides protection for the bundles
- Available in loop tensile strength up to 800 lbs. (3560N)
- Base metal is 316 grade stainless steel for excellent resistance to temperature extremes, corrosion, weather, chemicals, salt sprays and UV radiation

Nylon 11 Coating

- 100% coated with Black Nylon 11, coating thickness .003 in. (.07 mm) / .005 in. (.13 mm) per side
- Halogen-free
- Good in applications at temperatures down to -40° F (-40° C)
- Excellent resistance to chemicals and salt sprays
- Upper temperature limit 285° F (140° C)

MS Strapping

| Part Number | Max. Bundle Diameter | | Length | | Min. Loop Tensile Strength* | | Min. Bundle Diameter | | Width** | | Thickness** | | Recommended PANDUIT® Installation Tool | Std. Pkg. Qty. | Std. Ctn. Qty. |
|----------------|----------------------|-----|--------|-----|-----------------------------|------|----------------------|------|---------|------|-------------|-----|--|----------------|----------------|
| | In. | mm | In. | mm | Lbs. | N | In. | mm | In. | mm | In. | mm | | | |
| MSC4W38T15-L6 | 4.0 | 102 | 18.0 | 457 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | BT1HT, BT2MS75 | 50 | 250 |
| MSC6W38T15-L6 | 6.0 | 152 | 24.4 | 620 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MSC8W38T15-L6 | 8.0 | 203 | 30.7 | 780 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MSC10W38T15-L6 | 10.0 | 254 | 37.0 | 940 | 500 | 2225 | 1.0 | 25.4 | .38 | 9.5 | .015 | .38 | | 50 | 250 |
| MSC4W50T15-L6 | 4.0 | 102 | 18.0 | 457 | 500 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MSC6W50T15-L6 | 6.0 | 152 | 24.4 | 620 | 500 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MSC8W50T15-L6 | 8.0 | 203 | 30.7 | 780 | 500 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MSC10W50T15-L6 | 10.0 | 254 | 37.0 | 940 | 500 | 3115 | 1.0 | 25.4 | .50 | 12.7 | .015 | .38 | | 50 | 250 |
| MSC6W63T15-L6 | 6.0 | 152 | 24.4 | 620 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MSC4W63T15-L6 | 4.0 | 102 | 18.0 | 457 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MSC8W63T15-L6 | 8.0 | 203 | 30.7 | 780 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |
| MSC10W63T15-L6 | 10.0 | 254 | 37.0 | 940 | 800 | 3560 | 1.0 | 25.4 | .63 | 15.9 | .015 | .38 | | 50 | 250 |

Marking and ID

*Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to [page F1](#).
** Base material before coating

Accessories

BT1HT Installation Tool for Strapping (MS Series)



- Strap side entry (see photo)
- One or two hand tensioning with multi-position rear handle
- Adjustable tension control
- Lever actuated cut-off
- Easy removal of excess strap
- Installs all (3) sizes: 3/8 in. (9.5mm), 1/2 in. (12.7mm) and 5/8 in. (15.9mm)

Technical Info

Hand operated tool. Adjustable tension control and lever actuated cut-off.

| Part Number | Part Description | Std. Pkg. Qty. |
|--------------|---|----------------|
| BT1HT | Installation tool. Used for all widths of PANDUIT® PAN-STEEL® strapping. Tensions, cuts strapping, and secures the buckle tab. Ratchet-type tool provides mechanical advantage for tensioning. Easy to operate. | 1 |



Index

BT2MS75 Installation Tool for Strapping (MS Series)



BT2MS75

- Strap side entry (see photo)
- One or two hand tensioning with multi-position rear handle
- Lever actuated cut-off
- Easy removal of excess strap
- Installs all (3) sizes: 3/8 in. (9.5mm), 1/2 in. (12.7mm) and 5/8 in. (15.9mm)

| Part Number | Part Description | Std. Pkg. Qty. |
|----------------|--|----------------|
| BT2MS75 | Installation tool. Used for all widths of <i>PANDUIT® PAN-STEEL®</i> strapping. Tensions, cuts strapping, and secures the buckle tab. Allows one hand operation in otherwise difficult areas to install. Pliers-type tool provides mechanical advantage for tensioning. Easy to operate. | 1 |
| BT2N75 | Replacement nose section for BT2MS75 tool. Provides the economy of repair vs. total tool replacement. Easy to install on tool. | 1 |
| KT2MG | Replacement tension gripper for BT2MS75 and ST2MT tool. Easy to install on tool. Can be part of a maintenance program. Extends life of tool. | 1 |

PAN-STEEL® System for Permanent Marking and Identification

The *PAN-STEEL*® System can be used to identify pipes, conduit, valves, cables and equipment in petrochemical plants, pulp and paper mills, refineries, offshore oil rigs and in many other harsh environments. It is designed to work with *PANDUIT*® MLT ties to provide the ultimate permanent identification solution.



- Long life
- Weather resistant
- Chemical resistant
- Temperature extremes
- Radiation resistant

PANDUIT® offers unique products to meet customer needs:

Custom laser marking — Sharp, crisp, high quality legends

Custom embossing — For rough and dirty applications

On-site marking devices — For quick and easy identification

Marker plates and tags — Sizes and styles for virtually all applications

Markets

Stainless Steel, Brass and Aluminum Marker Plates and Tags



- Identify pipes, conduit, valves, cables and equipment in petrochemical plants, pulp and paper mills, refineries, offshore oil rigs and in any other harsh environments
- All marker plates/tags can be custom marked by PANDUIT® with one of two computer controlled systems (laser or embosser) to provide permanent identification to resist corrosion, abrasion and radiation
- Use with PANDUIT® PAN-STEEL® Stainless Steel Cable Ties for fast installation at lowest installed cost

MLT Ties

Most tags are provided with one .25 in. (6.35mm) hole.

MS Strapping



Marking and ID

Accessories

Technical Info

Index

| Part Number | Used with PAN-STEEL® Ties | Plate/Tag Size | | | | Material | Thickness | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-----------------------|---------------------------------|------------------|----|--------|----|---------------------|-----------|------|----------------|----------------|
| | | Width | | Length | | | In. | mm | | |
| | | In. | mm | In. | mm | | | | | |
| MMP350-C | MLT-S | .75 | 19 | 3.50 | 89 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP350-C316 | MLT-S | .75 | 19 | 3.50 | 89 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP350H-C | MLT-S/H | .75 | 19 | 3.50 | 89 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP350H-C316 | MLT-S/H | .75 | 19 | 3.50 | 89 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP350W38-C | MLT-S | .38 | 10 | 3.50 | 89 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP350W38-C316 | MLT-S | .38 | 10 | 3.50 | 89 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP172-C | MLT-S | .75 | 19 | 1.72 | 44 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP172-C316 | MLT-S | .75 | 19 | 1.72 | 44 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP172W38-C | MLT-S | .38 | 10 | 1.72 | 44 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MMP172W38-C316 | MLT-S | .38 | 10 | 1.72 | 44 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT350-C | MLT-S | .75 | 19 | 3.50 | 89 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT350-C316 | MLT-S | .75 | 19 | 3.50 | 89 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT350W38-C316 | MLT-S | .38 | 10 | 3.50 | 89 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT172-C | MLT-S | .75 | 19 | 1.72 | 44 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT172-C316 | MLT-S | .75 | 19 | 1.72 | 44 | 316 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT172W38-C | MLT-S | .38 | 10 | 1.72 | 44 | 304 Stainless Steel | .010 | .25 | 100 | 1000 |
| MT338W21-Q | MLT-S | 2.13 | 54 | 3.38 | 86 | 304 Stainless Steel | .015 | .38 | 25 | 250 |
| MTB338W21-Q | MLT-S | 2.13 | 54 | 3.38 | 86 | Brass | .015 | .38 | 25 | 250 |
| MT350W17-Q | MLT-S | 1.73 | 44 | 3.50 | 89 | 304 Stainless Steel | .015 | .38 | 25 | 250 |
| MTB350W17-Q | MLT-S | 1.73 | 44 | 3.50 | 89 | Brass | .015 | .38 | 25 | 250 |
| MMP338W21-Q | MLT-S | 2.13 | 54 | 3.38 | 86 | 304 Stainless Steel | .015 | .38 | 25 | 250 |
| MMPB338W21-Q | MLT-S | 2.13 | 54 | 3.38 | 86 | Brass | .015 | .38 | 25 | 250 |
| MMP350W17-Q | MLT-S | 1.73 | 44 | 3.50 | 89 | 304 Stainless Steel | .015 | .38 | 25 | 250 |
| MT1D-Q | MLT-S | 1.00 Circular | 25 | — | — | 304 Stainless Steel | .035 | .89 | 25 | 250 |
| MTB1D-Q | MLT-S | 1.00 Circular | 25 | — | — | Brass | .040 | 1.02 | 25 | 250 |
| MT150D-Q | MLT-S | 1.50 Circular | 38 | — | — | 304 Stainless Steel | .035 | .89 | 25 | 250 |
| MTB150D-Q | MLT-S | 1.50 Circular | 38 | — | — | Brass | .040 | 1.02 | 25 | 250 |
| MT213D-Q | MLT-S | 2.13 Circular | 54 | — | — | 304 Stainless Steel | .015 | .38 | 25 | 250 |
| MTB213D-Q | MLT-S | 2.13 Circular | 54 | — | — | Brass | .015 | .38 | 25 | 250 |
| AP350HW86-C | MLT-S/H* | .86 | 22 | 3.50 | 89 | Aluminum | .015 | .38 | 100 | 1000 |

*Galvanic reaction may occur between stainless steel ties and aluminum marker plates in certain environments causing the aluminum to corrode.

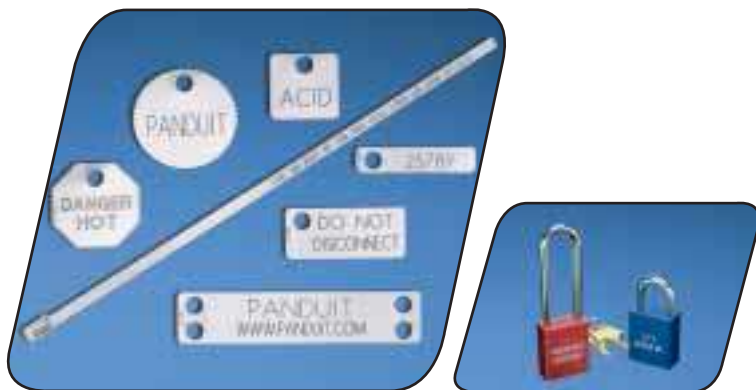
PAN-STEEL® Custom Marking Capabilities

Custom Marking Capabilities on PANDUIT® PAN-STEEL® Stainless Steel Cable Ties, Strapping, Metal Marker Plates/Tags and Anodized Aluminum Locks*



PANDUIT® stainless steel cable ties, strapping, stainless steel, brass and aluminum marker plates/tags and anodized aluminum locks can be custom marked for identification of equipment, cables, hoses, pipes, conduit, etc. in petrochemical plants, power plants, pulp and paper mills, breweries, and many other applications. PANDUIT® in-house computer controlled custom marking systems provide sharp, crisp, high quality legends. Sequential numbering for serialization is available.

* Anodized aluminum locks can only be marked by the laser system.



LASER MARKING SYSTEM

- Used on all stainless steel cable ties, strapping, metal marker plates/tags and anodized aluminum locks
- BOLD block letters
- Upper and lower case character capability
- Alphanumeric and sequential numbering ability

EMBOSSING SYSTEM

- Used on metal marker plates and tags which are a maximum of .020 in. (0.5 mm) thick
- Excellent for applications that are exposed to occasional painting and excessive dirt
- Upper case "raised" character capability only
- Alphanumeric and sequential numbering ability

Character Sizes** Available:

1/8 in. (3.18mm) 1/4 in. (6.35mm) 3/16 in. (4.77mm)
5/16 in. (7.94 mm) 1/2 in. (12.7 mm)

Character Sizes** Available:

1/8 in (3.18 mm) 3/16 in. (4.77 mm)

**Contact customer service for other available character sizes.

Markets

Metal Marking Devices

Metal Embossing Tape System



Used with PAN-STEEL® ties and accessories

- Embosses 3/16" (5mm) characters onto rolls of stainless steel or aluminum tape
- Excellent for on-site applications requiring quick, easy and permanent identification
- Can be used with PAN-STEEL® Stainless Steel Ties as a flag or a marker

MLT Ties

| Part Number | Part Description | Std. Pkg. Qty. |
|-------------|------------------|----------------|
|-------------|------------------|----------------|

Tool Kit

| | | |
|-------------|--|---|
| MEHT | Includes tool, carrying case, (1) roll each META (aluminum) and METS4 (stainless) tape. Characters Include: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 2 3 4 5 6 7 8 9 . / | 1 |
|-------------|--|---|

MS Strapping



Used with PAN-STEEL® ties and accessories

Tape

| | | |
|----------------|--|------|
| META-X | .50" X 16' (12.7mm X 4.9m) aluminum tape*. | 10** |
| METS3-X | .50" X 21' (12.7mm X 6.4m) 316 grade stainless steel tape. | 10** |
| METS4-X | .50" X 21' (12.7mm X 6.4m) 304 grade stainless steel tape. | 10** |

* Galvanic reaction may occur between stainless steel ties and aluminum tape in certain environments causing the aluminum to corrode.

**Order number of rolls required in multiples of Standard Package Quantity.

Marking and ID



Tool punches a single 3/16" (5mm) diameter hole (For Std. Cross section tie) or a series of holes for wider cross-section sizes.

Indenter Press



Easy-to-operate manual indenter press. Interchangeable indenter wheels in three character sizes are available.

- For identification in various environments
- Provides quick easy and permanent identification of PANDUIT® PAN-STEEL® Stainless Steel Cable Ties, Straps, Marker Plates, and Tags
- Interchangeable wheels
- Press includes fixture to hold MMP350 series marker plates, MLT series cable ties, and MS strapping in place to provide high quality marking
- Tool is designed for long life and durability
- Automatic table indexing
- Depth adjustment screw

Accessories

| Part Number | Part Description | Std. Pkg. Qty. |
|-------------|------------------|----------------|
|-------------|------------------|----------------|

Press

| | | |
|---------------|---|---|
| IMP094 | Indenter press with 3/32" (2.38mm) character wheel. | 1 |
| IMP125 | Indenter press with 1/8" (3.18mm) character wheel. | 1 |
| IMP187 | Indenter press with 3/16" (4.77mm) character wheel. | 1 |

Interchangeable Wheel Kits

| | | |
|----------------|--|---|
| MWK094 | 3/32" (2.38mm) character wheel kit (wheel and indexing gear). | 1 |
| MWK125 | 1/8" (3.18mm) character wheel kit (wheel and indexing gear). | 1 |
| MWK187 | 3/16" (4.77mm) character wheel kit (wheel and indexing gear). | 1 |
| IMP-FIX | Interchangeable fixture for MMP172, MMP338, MT Series, and the aluminum marker plates. | 1 |

Technical Info

Index

Marker Stamp Kit



The impression is made by hitting the holder with a hammer.

- Provides quick, easy and permanent identification of PANDUIT® PAN-STEEL® Stainless Steel Cable Ties, Straps, Marker Plates and Tags

| Part Number | Part Description | Std. Pkg. Qty. |
|-------------|--|----------------|
| STK12 | Marker stamp kit contains (100) character stamps, (1) holder and (1) carrying case. High quality 1/8" (3.18mm) nom. size steel character. Type holder keeps type aligned and provides uniform depth of impression. The holder takes up to 9 characters - 1 1/8" (28.6mm) long. | 1 |

MLT Ties

Characters include:

A A A B B C C D D E E E F F G G H H I I J J K K L L L M M N N N O O O
P P Q R R R S S S T T U U U V W W X X Y Z & / / - - . . , , 1 1 1 1 2 2 2 2 3 3 3
4 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 0 0 0

MS
Strapping

KP-515 Design Kit



- Perfect for proto-typing
- Durable and lightweight
- Convenient and handy plastic kit box; once closed parts stay in their compartments

| Part Number | Part Description | Std. Pkg. Qty. |
|-------------|--|----------------|
| KP-515 | Contains: (100) MLT2S ties (100) MLT2H ties (50) MMP350H marker plates (10) PCSS-5 in. (12.7 cm) length cushion sleeve (10) PCSH-5 in. (12.7 cm) length cushion sleeve (1) HTMT installation tool (1) K-505 plastic kit box | 1 |

Marking
and
ID

Accessories

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Index

PAN-STEEL® System Accessories

PAN-STEEL® System Accessories are used with PAN-STEEL® Stainless Steel Cable Ties to speed and simplify the mounting of wires, cables and tubing. Installation methods include screw mounts and push mounts.



- High strength
- Long life
- Weather resistant
- Chemical resistant
- Temperature extremes
- Radiation resistant
- Easy to use

PANDUIT® offers unique products to meet customer needs:

Screw mounts— One hole mounting

Push mount — No tapping required

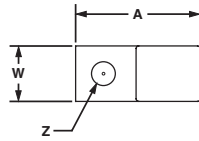
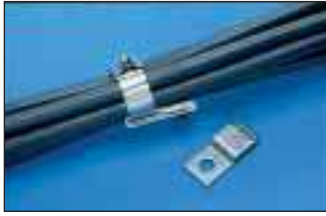
Bulk head mount — Zero profile mounting

Stackable spacers— For aerial lashing applications

PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

Markets

MTM1H Stainless Steel Tie Mount



- Low profile
- One hole mounting
- For use with standard, light-heavy and heavy cross section PAN-STEEL® ties as well as .375" (9.5mm) wide strapping
- 304 Stainless Steel

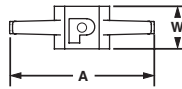
MLT Ties

| Part Number | Used with PAN-STEEL® Ties/Strapping | Mounting Method* | Length A | | Width W | | Height H | | Hole Diameter Z | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|------------------|-------------------------------------|-------------------|----------|------|---------|------|----------|-----|-----------------|-----|----------------|----------------|
| | | | In. | mm | In. | mm | In. | mm | In. | mm | | |
| MTM1H-C | MLTS/LH/H, MS375 or MSC375 | #8 (4.0mm) screw | .90 | 22.6 | .40 | 10.2 | .17 | 4.4 | .17 | 4.4 | 100 | 1000 |
| MTM1H10-C | MLTS/LH/H, MS375 or MSC375 | #10 (5.0mm) screw | .90 | 22.6 | .40 | 10.2 | .17 | 4.4 | .21 | 5.4 | 100 | 1000 |
| MTM1H25-C | MLTS/LH/H, MS375 or MSC375 | 1/4" (6 mm) screw | .90 | 22.6 | .40 | 10.2 | .17 | 4.4 | .28 | 7.1 | 100 | 1000 |

*Stainless steel screws are recommended for fastening to avoid corrosion problems associated with dissimilar metals.

MS Strapping

Stainless Steel Push Mount



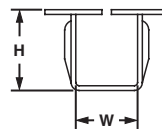
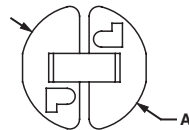
- No tapping required
- Used where only one side of the panel is accessible
- Nothing to assemble
- For use with standard, light-heavy and heavy cross section PAN-STEEL® ties
- 304 Stainless Steel

Marking and ID

| Part Number | Used with PAN-STEEL® Ties/Strapping | Mounting Method | Length A | | Width W | | Height H | | Panel Thickness P | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------------|-------------------------------------|---|----------|------|---------|-----|----------|------|-------------------|-----------|----------------|----------------|
| | | | In. | mm | In. | mm | In. | mm | In. | mm | | |
| MPWM-H56-Q | MLTS/LH/H | Inserted into pre-drilled hole 5/16 in. (8 mm). | .98 | 24.7 | .29 | 7.3 | .56 | 14.2 | .031 – .094 | 0.8 – 2.4 | 25 | 250 |

Accessories

Stainless Steel Push Button Mount



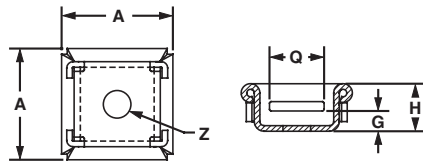
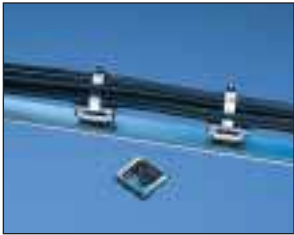
- Low profile
- No tapping required
- Designed for use only where both sides of the panel are accessible
- For use with standard cross section PAN-STEEL® ties
- 304 Stainless Steel

Technical Info

| Part Number | Used with PAN-STEEL® Ties/Strapping | Mounting Method | Diameter D | | Width W | | Height H | | Panel Thickness | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|------------------|-------------------------------------|---|------------|------|---------|-----|----------|-----|-----------------|----------|----------------|----------------|
| | | | In. | mm | In. | mm | In. | mm | In. | mm | | |
| MBM-H25-Q | MLT-S | Inserted into pre-drilled hole .25 in. (6.4mm). | .40 | 10.0 | .20 | 5.0 | .26 | 6.5 | .03 – .13 | .8 – 4.0 | 25 | 250 |

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Stainless Steel 2-Way Mount

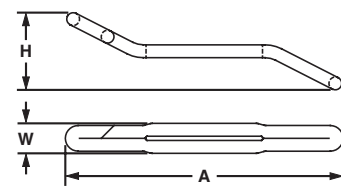


- Two-way mount allows stainless steel cable ties to be inserted from either of two sides
- Low profile
- Single hole center mounting for maximum holding and stability
- Maximum screw head height .09 (2.3mm)
- For use with standard, light-heavy and heavy cross section PAN-STEEL® ties
- 304 Stainless Steel

| Part Number | Used with PAN-STEEL® Ties/Strapping | Mounting Method* | Length A | | Height H | | Screw Head Height G | | Slot Width Q | | Hole Diameter Z | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|-------------------------------------|------------------|----------|------|----------|-----|---------------------|-----|--------------|-----|-----------------|-----|----------------|----------------|
| | | | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | | |
| MTM2H-Q | MLTS/LH/H | #8 (4 mm) screw | .71 | 18.0 | .30 | 8.0 | .09 | 2.3 | .35 | 9.0 | .17 | 4.5 | 25 | 250 |

*Stainless steel screws are recommended for fastening to avoid corrosion problems associated with dissimilar metals.

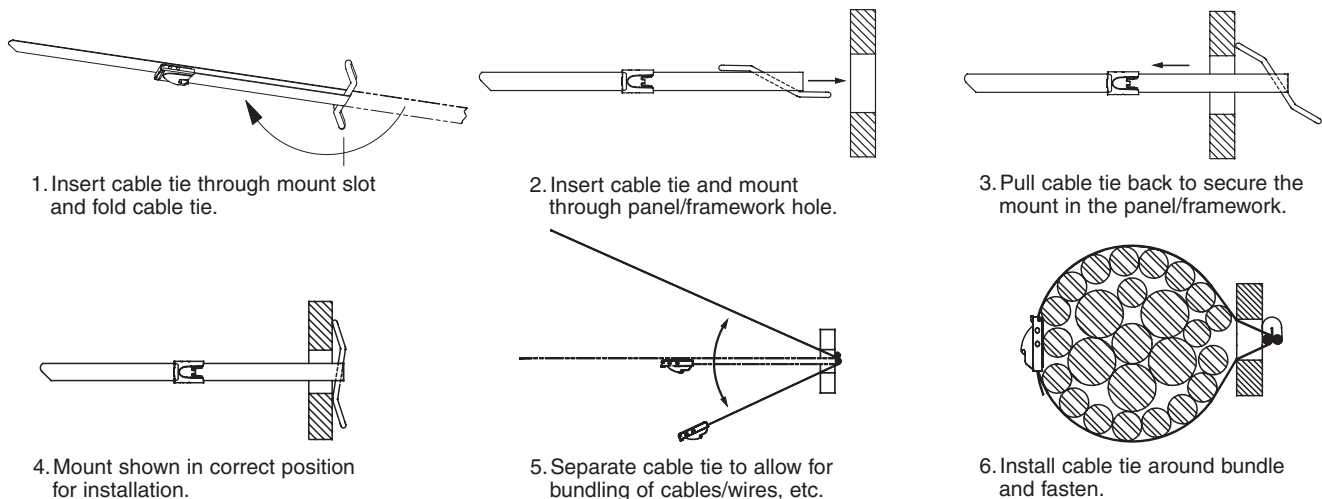
Stainless Steel Bulkhead Mount



- Zero profile
- Mounts directly to surface
- Used where only one side of the panel is accessible
- Permanent, secure application
- Used with standard, light-heavy and heavy cross section PAN-STEEL® ties
- 304 Stainless Steel

| Part Number | Used with PAN-STEEL® Ties/Strapping | Mounting Method | Length A | | Width W | | Height H | | Max. Panel Thickness | | Std. Pkg. Qty. | Std. Ctn. Qty. |
|-------------|-------------------------------------|---|----------|------|---------|-----|----------|------|----------------------|------|----------------|----------------|
| | | | In. | mm | In. | mm | In. | mm | In. | mm | | |
| MTMBH-Q | MLTS/LH/H | Pre-drill hole size Standard and Light Heavy cross section MLT-S/LH .375 (9.5) – .500 (12.7) Heavy cross section MLT-H .500 (12.7) – .625 (15.9) | 1.92 | 48.5 | .21 | 5.3 | .54 | 13.7 | .50 | 12.7 | 25 | 250 |

To Install Bulkhead Mount:



PANDUIT® PAN-STEEL® System FOR HARSH ENVIRONMENTS

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Stackable Aerial Cable Spacer

MLT Ties



- Just one part to inventory
- Spacer snaps by hand into another to increase spacer height by .50 in. (12.7mm) increments

- Only one part, on-site sorting is eliminated
- Used with cable ties up to .75 in. (19mm) wide in parallel or perpendicular applications

MS Strapping



Stackable Spacers (SACS50-T100) and Stainless Steel Ties (MLT4H-LP).

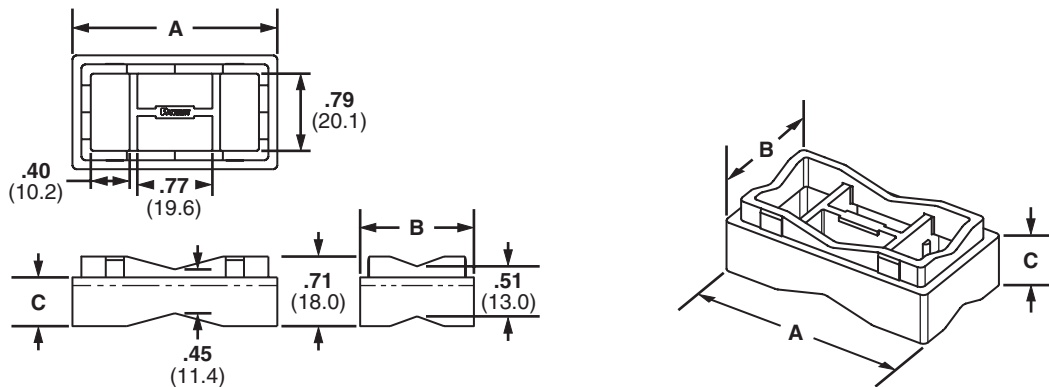
PANDUIT® cable ties and spacers are used to separate the support strand from the cable or to separate two cables in aerial lashing applications.

Marking and ID

| Part Number | Used with Cable Ties | Dimensions | | | | | | Material | Color | Environment | Mounting Method | Std. Pkg. Qty. | Std. Ctn. Qty. |
|--------------------|----------------------|------------|------|------|------|-----|------|---------------------------------|-------|-------------|-----------------|----------------|----------------|
| | | A | | B | | C | | | | | | | |
| | | In. | mm | In. | mm | In. | mm | | | | | | |
| SACS50-T100 | ▲ See Footnote | 2.08 | 52.8 | 1.16 | 29.5 | .50 | 12.7 | Weather Resistant Polypropylene | Black | Outdoors | Cable Ties | 200 | 2000 |

▲ Stackable spacers may be installed using stainless steel cable ties or weather resistant cable ties (see Cable Ties & Wiring Accessories Catalog SA-CTCB03).

Accessories



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Stainless Steel Tie Technical Information

Physical Characteristics of Stainless Steel Cable Ties (MLT Series)

| PAN-STEEL® | Stainless Steel |
|--------------------------------|--------------------------|
| Tensile Strength 73° F (23° C) | 90,000* PSI |
| Color | Stainless |
| Flammability | Non-flammable |
| Radiation Resistance | 2 X 10 ⁶ Rads |
| Water Absorption | None |

* ASTM E8 Test Method

| PAN-STEEL® | Stainless Steel |
|---------------------------------|---|
| Max. Continuous Use Temperature | 1000° F (538° C) for 304 & 316 material |
| Min. Continuous Use Temperature | -112° F (-80° C) for 304 & 316 |
| Ultraviolet Light Resistance | Excellent |

MLT Ties

PANDUIT® Stainless Steel Cable Tie and Strapping Approvals

| AGENCY | SPEC / APPROVAL | REQUIREMENT | APPLICABLE PRODUCTS | AGENCY | SPEC / APPROVAL | REQUIREMENT | APPLICABLE PRODUCTS |
|------------------------------|---------------------------|---|---|---------------------------|-----------------------------|--|---|
| SAE Int'l formerly US MIL | AS23190 formerly MS23109E | Dimensional, visual, vibration, temp. cycling, immersion, melting point | MLT-S & MLT-H Series and heavy cable ties in both 304 & 316 material | Underwriters Laboratories | E56854 | Dimensional, tensile, temp., cycling, humidity | MLT-S, MLT-H, MLT-WS, & MLTWH in 304, 316, and 321 material |
| Det Norske Veritas | Cert. #E-6540 #E-6539 | Salt mist test, tensile test, accelerated aging, vibration tests | MLT-S, MLT-H & MS ties and straps in 316 material | Germanischer Lloyd | Cert. #32666-83HH51796-89HH | Mechanical | All MLT Ties and MS Straps |
| Amer. Bureau of Shipping | Cert. #99-CH18282-X | Mechanical | MLT-S, MLT-H, MLT-H in both 304 & 316 material and MLTC in 316 material | US Coast Guard | File No.16703/46 | Mechanical | MLT-H Series Cable Ties |
| Lloyd's Register of Shipping | Cert. #89/60123(E2) | Material specification, tensile test, vibration tests | All MLT & MS ties and straps in both 304 and 316 material | US Military | MIL-T-81306A MS90387-3 | Mechanical | GS4MT Installation tools |
| Bureau Veritas | Cert. #04048/CIB | Material specification, dimensional, visual | MLT-S, MLT-H in 316 material | RINA | Cert. #ELE71502CS | Mechanical | All MLT ties |

MS Strapping

Marking and ID

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Approvals



Military Specification
MIL-S-23190E



E56854



Cert. 99CH18282-X



United States
Coast Guard



Bureau
Veritas



Det Norske
Veritas



Lloyd's Register
of Shipping



Germanischer
Lloyd



RINA



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Chemical Resistance at 70° F (21° C) Temperature

| | 304 & 316 Stainless Steel* | | 304 & 316 Stainless Steel* | | 304 & 316 Stainless Steel* | | 304 & 316 Stainless Steel* | | | | | |
|--------------|----------------------------|---------|----------------------------|---------------------|----------------------------|---|----------------------------|---------|---|--------------------|---------|---|
| | Chemical | % | Chemical | % | Chemical | % | Chemical | % | | | | |
| MLT Ties | Arsenic Acid | 40 | E | Cider | | E | Methyl Alcohol | 100 | E | Sodium Bisulfate | 10 | E |
| | Acetone | 100 | E | Diochloroethane | 100 | E | Methyl Chloride | 100 | E | Sodium Borate | All | E |
| | Aluminum Hydroxide | AQ C.S. | E | Diethyl Ether | 100 | E | Methyl Ethyl Ketone | 100 | E | Sodium Carbonate | 5 | E |
| | Ammonium Carbonate | 5 | E | Ethyl Alcohol | 100 | E | Naphtha | 100 | E | Sodium Chlorate | 25 | E |
| | Ammonium Hydroxide | 10 | E | Ethyl Chloride | 100 | E | Nitric Acid | 30-70 | E | Sodium Chloride | 2 | E |
| | Ammonium Nitrate | | E | Ethyl Glycol | 100 | E | Nitrous Acid | 5 | E | Sodium Fluoride | 5 | F |
| | Ammonium Sulfate | 10 | S | Ferric Hydroxide | All | E | Oleic Acid | 100 | E | Sodium Hydroxide | 10 | E |
| | Barium Carbonate | All | E | Ferric Nitrate | 10 | E | Oxalic Acid | 10 | E | Sodium Hyposulfite | AQ C.S. | E |
| | Barium Chloride | 5 | E | Ferrous Sulfate | 10 | E | Paraffin | 100 | E | Sodium Nitrate | 5 | E |
| | Barium Sulfate | 10 | E | Fuel Oil | 100 | E | Petroleum Ether | 100 | E | Sodium Nitrite | AQ C.S. | E |
| MS Strapping | Barium Sulfide | 10 | E | Furfural | 100 | E | Phenol | 90 | E | Sodium Perchlorate | 10 | E |
| | Benzene | 100 | E | Gallic Acid | AQ C.S. | E | Phosphoric Acid | 10 | E | Sodium Phosphate | 5 | E |
| | Benzoic Acid | 100 | E | Gasoline | 100 | E | Picric Acid | 1 | S | Sodium Sulfate | 5 | E |
| | Butyric Acid | 50 | E | Glycerine | 100 | E | Potassium Bromide | AQ C.S. | S | Sodium Thiosulfate | 5 | S |
| | Calcium Carbonate | AQ C.S. | E | Hydrocyanic Acid | All | E | Potassium Carbonate 1% | | E | Stearic Acid | 100 | E |
| | Calcium Chlorate | 10 | E | Hydrogen Peroxide | 30 | E | Potassium Chlorate | AQ C.S. | E | Sulfur | 100 | E |
| | Calcium Hydroxide | 20 | E | Hydrogen Sulfide | Dry | E | Potassium Dichromate | 40 | E | Sulfur Dioxide | All | E |
| | Calcium Hydrochlorite | 2 | F | Idoform | 100 | E | Potassium Ferrocyanide | 25 | E | Sulfuric Acid | 100 | E |
| | Calcium Sulfate | 2 | E | Isopropyl Alcohol | 100 | E | Potassium hydroxide | 5 | E | Sulfuric Acid | 5 | F |
| | Carbon Tetrachloride | | | Jet Fuel | 100 | E | Potassium Iodide | All | E | Tannic Acid | 10 | E |
| Accessories | Chlorine (Wet) | | F | Lactic Acid | 100 | E | Potassium Nitrate | 50 | E | Tartaric Acid | 50 | E |
| | Chlorine (Dry) | | F | Lanolin | 10 | E | Potassium Permanganate | 5 | E | Tetrahydrofuran | 100 | E |
| | Chloroacetic Acid | 30 | F | Lead Acetate | 5 | E | Potassium Sulfate | 5 | E | Toluene | 100 | F |
| | Chloroform | 100 | E | Magnesium Carbonate | All | E | Potassium Sulfide | AQ C.S. | E | Xylene | 100 | E |
| | Chromic Acid | 5 | E | Magnesium Chloride | 10 | F | Propyl Alcohol | 100 | E | Zinc Chloride | 70 | E |
| | Citric Acid | 50 | E | Magnesium Nitrate | All | E | Silver Nitrate | 10 | E | Zinc Nitrate | AQ C.S. | E |
| | Copper Cyanide | 10 | E | Malic Acid | AQ C.S. | E | Sodium Acetate | 60 | E | Zinc Sulfate | AQ C.S. | E |
| | Copper Nitrate | 50 | E | Mercury | 100 | E | Sodium Bicarbonate | All | E | | | |

* E = Excellent S = Satisfactory F = Fair AQ C.S. = Aqueous Cold Saturated All = All % Concentrations

Technical Info

Rigorous Tests and Physical Properties of Stainless Steel Ties

STRENGTH: PANDUIT® PAN-STEEL® Stainless Steel Ties are tested per the U.S. Military Specification MIL-S-23190, minimum loop tensile test. This test consists of applying a tie to a split mandrel and then measuring the force required to separate the (2) halves until the tie fails. These minimum loop tensile strengths are given for the various products on [pages B4 through B6](#).

TEMPERATURE EXTREMES: PANDUIT® PAN-STEEL® Stainless Steel Ties are 100% stainless steel in the alloy provided (locking head, locking ball and body all provided from the same grade of material ordered).

Various temperature tests have been successfully completed. One such test is the U.S. Military Temperature Cycling Test per Thermal Shock Method 107, Test Condition B of MIL-STD-202F. This test exposes the parts from low temperature -85° F (-65°C) to high temperature 275° F (135°C) to low temperature -85° F (-65°C). After exposure, the parts must be free of cracks, distortions, breaks, release of locking device, and meet the minimum loop tensile requirements.

VIBRATION: PANDUIT® PAN-STEEL® standard cross section ties have passed the U.S. Military random vibration Test Method 214. Test Condition II, Letter J of MIL-STD-202. This test consists of applying parts to a bundle and then vibrating them with random vibration for 8 hours in each of two mutually perpendicular directions. The parts are then subjected to further temperature testing and finally have to pass the minimum loop tensile strength test.



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Rigorous Tests and Physical Properties of Stainless Steel Ties (continued)

SALT SPRAY: PANDUIT® PAN-STEEL® Stainless Steel Ties have been subjected to salt spray tests without signs of corrosion or reduction in performance.

OUTDOOR EXPOSURE: PANDUIT® PAN-STEEL® Stainless Steel Ties have been exposed outdoors at New Lenox, Illinois USA since 1985. At the printing of this catalog, there has been no sign of corrosion or loss of performance.

FLUID IMMERSION: PANDUIT® PAN-STEEL® Stainless Steel Ties were immersed in: 1-Hydraulic Fluid, 2-Turbine Fuel, 3-Lubricating Oil, and 4-Isopropyl Alcohol for (4) hours at temperatures of 122° F (50° C). Per SAE Standard AS23190/3, the parts were then subjected to and passed the minimum loop tensile test.

RADIATION: Installed cable ties of various materials have been exposed to different amounts of radiation to determine the maximum acceptable limit. These tests were conducted by PANDUIT® to determine the acceptability for use in various areas of nuclear power plants (accumulated over 40 year life). Radiation resistance is 2x10⁸ rads.

| Military Cross Reference (AS23190) | |
|------------------------------------|---------------------------------------|
| PANDUIT® Part Number | Current Military Standard Part Number |
| MLT2S-CP | AS23190/3-1 |
| MLT2S-CP316 | AS23190/3-1 |
| MLT4S-CP | AS23190/3-2 |
| MLT4S-CP316 | AS23190/3-2 |
| MLT6S-CP | AS23190/3-3 |
| MLT6S-CP316 | AS23190/3-3 |
| MLT8S-CP | AS23190/3-4 |
| MLT8S-CP316 | AS23190/3-4 |
| MLT2H-LP | AS23190/3-5 |
| MLT2H-LP316 | AS23190/3-5 |
| MLT4H-LP | AS23190/3-6 |
| MLT4H-LP316 | AS23190/3-6 |
| MLT6H-LP | AS23190/3-7 |
| MLT6H-LP316 | AS23190/3-7 |
| MLT8H-LP | AS23190/3-8 |
| MLT8H-LP316 | AS23190/3-8 |
| MLT10H-LP | AS23190/3-9 |
| MLT10H-LP316 | AS23190/3-9 |

| Gage Conversion Chart | | |
|-----------------------|--------|-------|
| Gage | Inches | mm |
| 10 | .135 | 3.571 |
| 11 | .120 | 3.175 |
| 12 | .105 | 2.778 |
| 13 | .090 | 2.381 |
| 14 | .075 | 1.984 |
| 15 | .067 | 1.778 |
| 16 | .060 | 1.587 |
| 17 | .054 | 1.422 |
| 18 | .048 | 1.270 |
| 19 | .042 | 1.118 |
| 20 | .036 | 0.965 |
| 21 | .033 | 0.865 |
| 22 | .030 | 0.793 |
| 23 | .027 | 0.711 |
| 24 | .024 | 0.635 |
| 25 | .021 | 0.559 |
| 26 | .018 | 0.483 |
| 27 | .016 | 0.432 |
| 28 | .015 | 0.396 |
| 29 | .014 | 0.356 |
| 30 | .012 | 0.330 |
| 31 | .011 | 0.279 |
| 32 | .010 | 0.254 |
| 33 | .009 | 0.229 |
| 34 | .008 | 0.216 |

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| MMP338W21-Q | .D2 |
| MMP350-C | .D2 |
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| MMP350H-C | .D2 |
| MMP350H-C316 | .D2 |

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PANDUIT® Catalogs

Cable Ties

SA-CTCB03

- PAN-TY® Cable Ties
- PAN-TY® Clamp Ties
- PAN-TY® Push Mount Ties
- PAN-TY® Marker Ties
- DOME-TOP® Barb Ty Cable Ties
- DOME-TOP® Barb Ty Clamp Ties
- DOME-TOP® Barb Ty Marker Ties
- CONTOUR-TY™ Cable Ties
- DURA-TY™ Cable Ties
- BELT-TY™ In-Line Cable Ties
- TAK-TY® Hook & Loop Cable Ties
- STA-STRAP® Cable Ties
- Cable Tie Installation Tools
- Custom Hot Stamping

Wiring Accessories/Insulation

SA-CTCB03

- Adhesive Backed Cable Tie Mounts
- Screw Applied Cable Tie Mounts
- Flat Cable Mounts
- Fixed Diameter Clamps
- Harness Board Accessories
- Spiral Wrap
- Grommet Edging
- Braided Expandable Sleeving
- Corrugated Loom Tubing and Fittings
- Heat Shrink Tubing
- Non-Shrink PVC Tubing
- PAN-WRAP™ Split Harness Wrap

Identification Products

SA-101N315C-ID

- Hand-Held Printers
- Tabletop Printers
- Labeling Software
- Computer Printable Labels
- Wire Markers
- Lockout/Tagout Products
- Voltage Markers
- Warning Labels
- Safety Signs and Tags
- Letters and Numbers

Terminals

SA-TM03CB02A

- PAN-TERM® Terminals
- Ferrule End Sleeves
- PAN-TERM® Disconnects
- PAN-TERM® Splices
- PAN-TERM® Wire Joints
- Terminal Kits
- Ferrule End Sleeve Kits
- REEL SMART™ Terminal Products
- Terminal Installation Tools

Power Connectors

SA101N15C-NL

- Copper Compression Lugs
- Copper Compression Splices
- High Voltage Lugs and Splices
- Compression Taps
- Aluminum Compression Lugs
- Aluminum Compression Splices
- Compression Connector Accessories
- Copper Mechanical Connectors
- Split Bolt Connectors
- Aluminum Mechanical Connectors - Dual Rated Connectors
- Grounding Connectors
- Crimping Tools and Dies

Wiring Duct

SA-WDCB05

- PANDUCT® Slotted Wall Wiring Duct
- PANDUCT® Solid Wall Raceway
- PANDUCT® Halogen Free Slotted Wall Wiring Duct
- PANDUCT® Flush Cover Round Hole Wiring Duct
- PANDUCT® Hinged Slotted Wall Wiring Duct
- PANDUCT® Flexible Wiring Duct
- PANDUCT® Low Smoke Slotted Wall Wiring Duct
- Wiring Duct Accessories and Installation Tools

Surface Raceway

SA-SRCB02

- Office Furniture Raceway
- Cove Raceway
- PAN-WAY® TG-70 Surface Raceway
- PAN-WAY® T-70 & Twin-70 Surface Raceway
- PAN-WAY® T-45 Surface Raceway
- ULTIMATE ID™ Network Labeling System
- Faceplates, Surface Mount Outlet Boxes & Labeling Administration
- PAN-WAY® LD Profile Surface Raceway
- PAN-WAY® T130 Surface Raceway
- PAN-POLE™ Outlet Poles

Network Connectivity

SA-NCCB04

- Modules
- ULTIMATE ID™ System
- Work Area
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- Fiber Connectors, Enclosures & Patch Cords
- Racks & Cable Management
- Grounding and Bonding
- Fiber Routing
- Surface Raceway
- Labeling & Administration
- Cable Ties & Accessories