

Panduit Permanent Identification System

Panduit offers the widest range of permanent identification solutions in the industry to enable reliable, comprehensive identification throughout the physical infrastructure. Ideal in harsh and industrial environments, the Panduit permanent identification system delivers long-term durability and legibility for optimum identification of pipes, conduit, cables and equipment. Safe, quick, and easy to install, the system includes stainless steel and aluminum marker plates, tags, marking tools and ties engineered for maximum reliability, improved productivity and workplace safety to mitigate risk in the physical infrastructure.

Featuring on-site custom marking tools, these systems offer portability for permanent identification on demand. Panduit also offers a rapid response, factory custom marking service for embossed and laser etched marker plates, tags, and ties to speed installation time, reduce labor costs and keep projects on schedule.



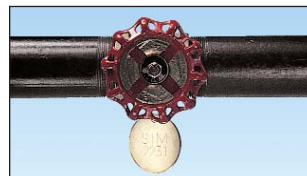
Applications



Cable Identification



Pipe Identification



Valve/Device Identification



General Mechanical Identification

Technical Information

	Pan-Steel® Stainless Steel, Marker Plates, Tags, and Cable Ties	Pan-Alum™ Aluminum Marker Plates and Cable Ties	Brass Tags
Material:	304 and 316 Grade Stainless Steel	Aluminum – Natural and Anodized	Brass
Maximum temperature rating:	538°C (1000°F)	100°C (212°F)	150°C (302°F)
Minimum temperature rating:	-80°C (-112°F)	-80°C (-112°F)	-80°C (-112°F)
RoHS:	Compliant	Compliant	Compliant
Flammability:	Non-flammable	Non-flammable	Non-flammable
Ultraviolet light resistance:	Excellent	Good	Excellent

Permanent Identification System



Panduit offers the largest selection of permanent identification systems to meet the demands of your specific applications – enabling reliable, safe, and efficient identification throughout the physical infrastructure.

Key Features

Benefits


Panduit Factory Custom Marking Service

Factory custom marking service	Creates embossed or laser etched metal plates, tags, and ties to speed installation time and reduce labor costs
Rapid shipment worldwide	Provides quick product availability to the job site to keep projects on schedule
Embossing capability	Creates raised characters for maximum visibility in applications that are exposed to dirt and paint
Laser etching capability	Provides crisp, high quality text and graphics for improved visibility

On-Site Custom Marking Tools

Portable embossing system	Easily moved from job site to job site; the system creates raised characters on stainless steel and aluminum marker plates, to deliver maximum visibility for applications that are exposed to dirt and paint
Metal embossing hand tool and tape system (MEHT187)	New multi-functional cutting die design creates embossed marker plates with raised cable tie slot in one step instead of three, for faster installation Lightweight and portable, easily moves from one job site to another; this system embosses 3/16" characters onto stainless steel or aluminum tape, to improve visibility in applications that are subjected to dirt or paint
Metal indenting machine	Stable bench top tool safely indents on marker plates, tags, ties and straps to provide quick identification

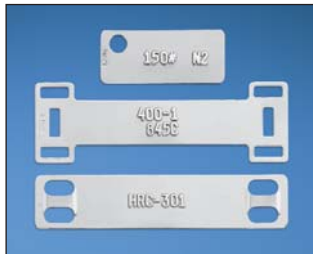
Stainless Steel and Aluminum Marker Plates, Tags, and Cable Ties

Smooth surfaces and rounded edges	Protects the cable bundle and the installer for improved productivity, job site safety, and reliability
Easy feed cable tie slot	Raised slot provides easy cable tie insertion to speed installation (available on select marker plates)
 Self-locking cable tie design	Reduces the number of installation steps required to provide lowest installed cost
Smooth cable tie cut-off	Eliminates burrs and sharp edges after installation to protect installer and adjacent bundles
Flexible, lightweight material and color options of aluminum marker plates and cable ties	Easy to handle for improved productivity and provides quick visual identification for a wide range of applications

Panduit Factory Custom Marking Service

Panduit factory custom marking service simplifies identification with high quality, made-to-order custom embossed marker plates and tags or laser etched cable ties, marker plates, and tags. Panduit offers rapid direct shipment with fast turn around on custom marking orders worldwide. Work with Panduit to create an effectively identified infrastructure.

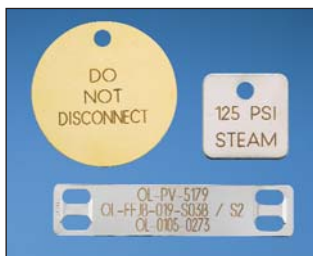
Embossing Service



- Used on rectangular metal marker plates and tags which are a maximum of .020 inches (.5mm) thick, and minimum .038 inches (10mm) width
- Excellent for applications that are exposed to dirt and paint
- Upper case "raised" characters
- Alphanumeric and sequential numbering

Available Character Sizes:	
1/8" (3.18mm)	For high character volume tags
3/16" (4.77mm)	The most common size
1/4" (6.35mm)	Larger font for greater visibility
5/16" (7.94mm)	Maximum visibility for tags requiring only a few characters

Laser Etching Service



- Used on all metal marker plates, tags, and cable ties
- BOLD block letters
- Upper and lower case character capability
- Ability to create text and graphics
- Alphanumeric and sequential numbering



Pan-Steel Custom Marking Order Form

One form per Part Number - Custom Marked Tags are non-returnable
Email form with Excel legend file to an authorized Panduit distributor

Company Name	
Contact Name & Phone	
Project Name	
Job Name	
Local PANDUIT Sales Rep.	

Note: If form buttons do not work, please set your macro security to "Low" and reopen the form. To change security choose: Tools-Macro-Security-Low-OK

Instructions: This guide will allow you to build a part number for a custom marked metal tag

Step 1: Select metal tag style with desired marking type (embossed or laser etched)

Step 2: Select required font size

Step 3: Select required number of lines

Step 4: Select required grade of stainless steel or aluminum

Step 5: Complete order information

Step 6: Click the Add Legend button to enter legend list

For assistance, or other marking options, call PANDUIT customer service

Have a question.....? Check out the FAQ's

Step 1: Select Tag Style

Select for tag MMP360HE Embossed

Select for tag MMP360HL Laser Etched

Step 2: Select Font Size

3/16" (4.77mm)	1/8" (3.18mm)
20 spaces	23 spaces
3 Lines Max	3 Lines Max
<input type="checkbox"/>	<input type="checkbox"/>

Step 3: Select Number of Lines

1	2	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Step 4: Stainless Steel Material

304	316
<input type="checkbox"/>	<input type="checkbox"/>

Step 5: Order info: Quantity, part number, font size

Enter Total Qty. of tags	<input type="text"/>	Full Part Number	<input type="text"/>	Font Size	<input type="text"/>
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Step 6: Add Legend

Recommended Cable Tie: 304 or 316 Stainless Steel MLT H Series

Use the online order form located at www.panduit.com/permanentid to:

- Receive support on selecting the proper marker plate or tag best suited for your application
- Obtain answers to frequently asked questions
- Gain knowledge on the various material options available
- Attach your custom legend template directly to your order

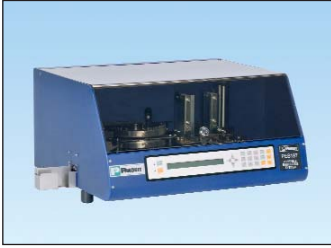
Once completed, email your order form to your authorized Panduit distributor for order placement or contact Panduit customer service for assistance.

Prime items appear in **BOLD**

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Permanent Identification System

Portable Embossing System*



- Easily moves from job site to job site, to deliver a permanent identification solution where it's needed, when it's needed
- Creates raised characters on stainless steel and aluminum marker plates, to deliver maximum visibility for medium to high volume applications that are exposed to dirt and paint
- Improves productivity by providing a reliable connection from the embossing machine to your PC using Easy-Mark™ Software
- Easy-Mark™ Software allows for a quick print legend and exact preview, saving time and reducing print costs
- Easy loading hopper allows for easy stacking of up to 200 plates, saving time and money

Part Number	Description	Std. Pkg. Qty.
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Portable Embossing System*

PES197	Portable embossing system 3/16" (4.77mm) character, 11.5" (292mm) x 21.0" (534mm) x 19.0" (483mm), 95 lbs. (43 kg), 115 volt, 60 Hz with Easy-Mark™ Software**	1
PES197/E	Portable embossing system 3/16" (4.77mm) character, 11.5" (292mm) x 21.0" (534mm) x 19.0" (483mm), 95 lbs. (43 kg), 230 volt, 50 Hz with Easy-Mark™ Software**	1

Characters include: ABCD...Z, 0123...9, ! @ # \$ % & * () - + = : " ' . / ?

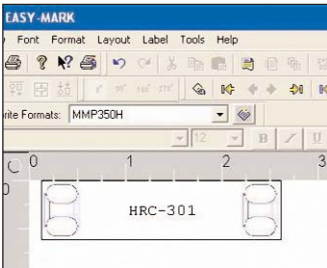
*For use with 1000 pack marker plates only.

**System Requirements:

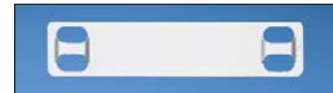
Designed for Windows^ 98, Windows MS, Windows 2000, Windows NT 4.x, Windows XP, Windows Vista 64 MB hard drive space, and 64 MB RAM (256 MB RAM recommended). Female DB9 serial communication port.

^Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Pan-Steel Marker Plates for Use with the Panduit Embossing System



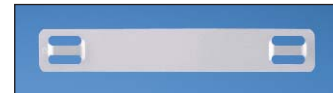
MMP350-M



MMP350H-M



MMP350W38-M



MMP350HW54-MAL

Part Number	Material	Color	Length/ Diameter		Width		Custom Marking Parameters*		Used with Pan-Steel® Cable Ties**	Thickness		Std. Pkg. Qty.^	Std. Ctn. Qty.
			In.	mm	In.	mm	Max. 3/16" (4.77mm) Character Per Line	Max. Lines of Text		In.	mm		

Pan-Steel® Marker Plates

MMP350-M	304 Stainless Steel	Natural	3.50	89	.75	19	18	3	MLT-S	.010	.25	1000	4000
MMP350-M316	316 Stainless Steel												
MMP350H-M	304 Stainless Steel												
MMP350H-M316	316 Stainless Steel												
MMP350H-MALBU	Anodized Aluminum	Blue	3.50	89	.75	19	16	3	MLT1H-LPAL MLT2H-LPAL and MLT4H-LPAL	.010	.25	1000	4000
MMP350H-MALGR		Green											
MMP350H-MALRD		Red											
MMP350H-MALBL		Black											
MMP350H-MALYL		Yellow											
MMP350H-MAL	Aluminum	Natural	3.50	89	.54	13.7	16	2	MLT-S	.012	.3	1000	4000
MMP350HW54-MAL	Aluminum												
MMP350W38-M	304 Stainless Steel												
MMP350W38-M316	316 Stainless Steel				.38	10	18	1	MLT-S	.010	.25		

*See page 3 for Panduit Factory Custom Marking Service information.

**See last page for Pan-Steel® Stainless Steel Cable Ties.

^Order number of pieces required, in multiples of Standard Package Quantity.

NEW! Metal Embossing Hand Tool and Tape System

- New multi-functional cutting die design creates embossed marker plates with raised cable tie slot in one step instead of three, for faster installation
- Lightweight, compact and portable, allows user to create custom length identification on demand at remote job sites
- Embosses 3/16" characters onto stainless steel or aluminum tape, to improve visibility in applications that are subjected to dirt or paint



Part Number	Description	Std. Pkg. Qty. [^]
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Tool Kit

MEHT187	Includes tool, additional marking wheel, carrying case, one roll each META (aluminum) and METS (stainless steel) tape. Characters included: 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 1 2 3 4 5 6 7 8 9 / ()	1
TM26319B01	Embossing Wheel Replacement Kit	1

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

*Aluminum ties are recommended for use with aluminum tape to prevent galvanic reaction (corrosion that can occur between stainless steel and aluminum in certain environments).

[^]Order number of pieces required, in multiples of Standard Package Quantity.

Metal Indenting Machine



- Provides quick, easy, and permanent identification with aluminum marker plates and cable ties and stainless steel marker plates, tags, cable ties and straps for low to medium volume applications
- Automatic table indexing advances material forward for convenience and improved productivity
- Aluminum base for tool stability and durable construction

Part Number	Description	Std. Pkg. Qty. [^]
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Indenting Machine

MIM094	Indenting machine with 3/32" (2.38mm) character wheel, 11.25" (286mm) x 16.25" (413mm) x 11.75" (298mm), 41 lbs. (18.6 kg).	1
MIM125	Indenting machine with 1/8" (3.18mm) character wheel, 11.25" (286mm) x 16.25" (413mm) x 11.75" (298mm), 41 lbs. (18.6 kg).	1
MIM187	Indenting machine with 3/16" (4.77mm) character wheel, 11.25" (286mm) x 16.25" (413mm) x 11.75" (298mm), 41 lbs. (18.6 kg).	1

Interchangeable Wheel Kits

MIW094	3/32" (2.38mm) character wheel kit (wheel and indexing gear).	1
MIW125	1/8" (3.18mm) character wheel kit (wheel and indexing gear).	1
MIW187	3/16" (4.77mm) character wheel kit (wheel and indexing gear).	1

Characters include: ABC...Z, 0123...9, & / @ ' . -

[^]Order number of pieces required, in multiples of Standard Package Quantity.

Permanent Identification System

Stainless Steel and Brass Marker Plates and Tags

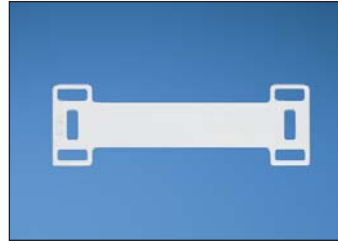
- Provides permanent identification of pipes, conduit, valves, cables, and equipment in harsh environments
- Delivers long life when exposed to chemicals, vibration, radiation, weathering, and extreme temperatures
- Designed for use with Pan-Steel® Stainless Steel Cable Ties for fast installation at lowest installed cost
- All marker plates can be embossed or laser etched with Panduit Factory Custom Marking Service
- For on-site custom marking use the metal indenting machine



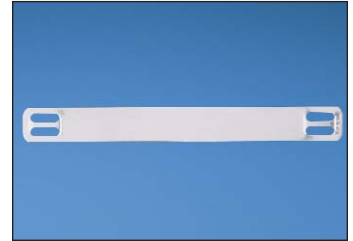
MMP350-C



MMP350H-C



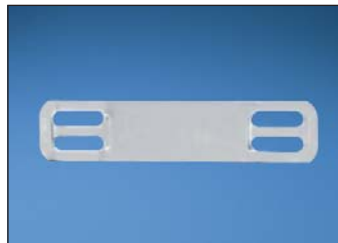
MMP350DB-C



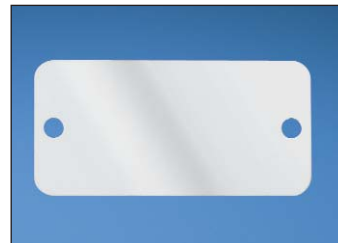
MMP350W38-C



MMP172-C



MMP172W38-C



MMP350W17-Q

Part Number	Material	Color	Length/ Diameter		Width		Custom Marking Parameters*		Used with Pan-Steel® Cable Ties**	Thickness		Std. Pkg. Qty.^	Std. Ctn. Qty.
			In.	mm	In.	mm	Max. 3/16" (4.77mm) Character Per Line	Max. Lines of Text		In.	mm		
MMP350-C	304 Stainless Steel	Natural	3.50	89.0	0.75	19.0	23	3	MLT-S	0.010	0.25	100	1000
MMP350-C316	316 Stainless Steel												
MMP350H-C	304 Stainless Steel	Natural	3.50	89.0	0.75	19.0	20	3	MLT-H	0.010	0.25	100	1000
MMP350H-C316	316 Stainless Steel												
MMP350W38-C	304 Stainless Steel	Natural	3.50	89.0	0.38	10.0	23	1	MLT-S	0.010	0.25	100	1000
MMP350W38-C316	316 Stainless Steel												
MMP350DB-C	304 Stainless Steel	Natural	3.50	89.0	1.12	29.0	20	3	MLT-H	0.015	0.38	100	1000
MMP350DB-C316	316 Stainless Steel												
MMP172-C	304 Stainless Steel	Natural	1.72	44.0	0.75	19.0	8	3	MLT-S	0.010	0.25	100	1000
MMP172-C316	316 Stainless Steel												
MMP172W38-C	304 Stainless Steel	Natural	1.72	44.0	0.38	10.0	8	1	MLT-S	0.010	0.25	100	1000
MMP172W38-C316	316 Stainless Steel												
MMP350W17-Q	304 Stainless Steel	Natural	3.50	89.0	1.73	44.0	23	6	MLT-S	0.015	0.38	25	250

*See page 3 for Panduit Factory Custom Marking Service information.

**See last page for Pan-Steel® Stainless Steel Cable Ties.

^Order number of pieces required, in multiples of Standard Package Quantity.

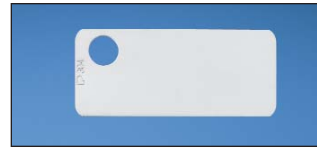
Stainless Steel and Brass Marker Plates and Tags (continued)



MT350-C



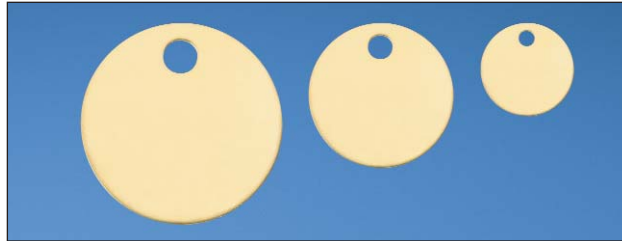
MT350W17-Q



MT172-C



MT172W38-C



MTB213D-Q

MTB150D-Q

MTB1D-Q



MT125S-Q

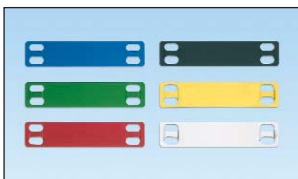
Part Number	Material	Color	Length/ Diameter		Width		Custom Marking Parameters*		Used with Pan-Steel® Cable Ties**	Thickness		Std. Pkg. Qty.^	Std. Ctn. Qty.
			In.	mm	In.	mm	Max. 3/16" (4.77mm) Character Per Line	Max. Lines of Text		In.	mm		
MT350-C	304 Stainless Steel	Natural	3.50	89.0	0.75	19.0	26	3	MLT-S	0.010	0.25	100	1000
MT350-C316	316 Stainless Steel	Natural											
MT350W17-Q	304 Stainless Steel	Natural	3.50	89.0	1.73	44.0	26	6	MLT-S	0.015	0.38	25	250
MT172-C	304 Stainless Steel	Natural	1.72	44.0	0.75	19.0	10	3	MLT-S	0.010	0.25	100	1000
MT172-C316	316 Stainless Steel	Natural	1.72	44.0	0.75	19.0	10	3	MLT-S	0.010	0.25	100	1000
MT172W38-C	304 Stainless Steel	Natural	1.72	44.0	0.38	10.0	10	1	MLT-S	0.010	0.25	100	1000
MT1D-Q	304 Stainless Steel	Natural	—	—	1.00	25.0	5	1	MLT-S	0.035	0.89	25	250
MT1D-Q316	316 Stainless Steel	Natural	—	—	1.00	25.0	5	1	MLT-S	0.035	0.89	25	250
MTB1D-Q	Brass	Brass	—	—	1.00	25.0	5	1	MLT-S	0.040	1.02	25	250
MT150D-Q	304 Stainless Steel	Natural	—	—	1.50	38.0	5,6,5	3	MLT-S	0.035	0.89	25	250
MT150D-Q316	316 Stainless Steel	Natural	—	—	1.50	38.0	5,6,5	3	MLT-S	0.035	0.89	25	250
MTB150D-Q	Brass	Brass	—	—	1.50	38.0	5,6,5	3	MLT-S	0.040	1.02	25	250
MT213D-Q	304 Stainless Steel	Natural	—	—	2.13	54.0	6,12,8	3	MLT-S	0.015	0.38	25	250
MT213D-Q316	316 Stainless Steel	Natural	—	—	2.13	54.0	6,12,8	3	MLT-S	0.015	0.38	25	250
MTB213D-Q	Brass	Brass	—	—	2.13	54.0	6,12,8	3	MLT-S	0.015	0.38	25	250
MT125S-Q	304 Stainless Steel	Natural	1.25	32.0	1.25	32.0	5	2	MLT-S	0.035	0.89	25	250

*See page 3 for Panduit factory custom marking service information.

**See last page for Pan-Steel® Stainless Steel Cable Ties.

^Order number of pieces required, in multiples of Standard Package Quantity.

Pan-Alum™ Aluminum Marker Plates



- Lightweight aluminum construction for flexibility and ease of handling
- Five color options in addition to natural aluminum finish provide quick visual identification; ideal for applications requiring color-coding

- Easy feed cable tie slot provides easy cable tie insertion to speed installation

Part Number	Material	Color	Length		Width		Thickness		Custom Marking Parameters*		Used With Pan-Alum™ Cable Tie	Std. Pkg. Qty.^	Std. Ctn. Qty.
			In.	mm	In.	mm	In.	mm	Max. 3/16" (4.77mm) Characters Per Line	Max. Lines of Text			
MMP350H-CALBU	Anodized Aluminum	Blue	3.50	89.0	0.75	19.0	0.012	0.3	20	3	MLT1H-LPAL MLT2H-LPAL and MLT4H-LPAL	100	1000
MMP350H-CALGR		Green	3.50	89.0	0.75	19.0	0.012	0.3	20	3			
MMP350H-CALRD		Red	3.50	89.0	0.75	19.0	0.012	0.3	20	3			
MMP350H-CALBL		Black	3.50	89.0	0.75	19.0	0.012	0.3	20	3			
MMP350H-CALYL		Yellow	3.50	89.0	0.75	19.0	0.012	0.3	20	3			
MMP350H-CAL	Aluminum	Natural	3.50	89.0	0.75	19.0	0.012	0.3	20	3	100	1000	

*See page 3 for Panduit factory custom marking service.

^Order number of pieces required, in multiples of Standard Package Quantity.

Permanent Identification System

Pan-Steel® Stainless Steel Cable Ties



MLTS



MLTH

- Delivers strength, long life, and resistance to chemicals, vibration, radiation, weathering and extreme temperatures
- Use with Pan-Steel® Marker Plates and Tags for fast installation at the lowest installed cost
- Smooth surfaces and rounded edges, protects the cable bundle and the installer for improved productivity, job site safety, and reliability
- Patented self-locking head reduces installation steps for improved productivity

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	0.50	12.7	0.18	4.6	0.010	0.25	GS4MT, HTMT, ST2MT	100	500
MLT2S-CP	2.0	51	7.9	201											
MLT4S-CP	4.0	102	14.3	362											
MLT6S-CP	6.0	152	20.5	521											

Heavy Cross Section

MLT2H-LP	2.0	51	7.9	201	450	2000	0.50	12.7	0.31	7.9	0.010	0.25	PBTMT(/E), GS4MT, HTMT, ST2MT	50	250
MLT4H-LP	4.0	102	14.3	362											
MLT6H-LP	6.0	152	20.5	521											

AISI 316 Stainless Steel – For Superior Corrosion Resistance Standard Cross Section

MLT1S-CP316	1.0	25	5.0	127	200	890	0.50	12.7	0.18	4.6	0.010	0.25	GS4MT, HTMT, ST2MT	100	500
MLT2S-CP316	2.0	51	7.9	201											
MLT4S-CP316	4.0	102	14.3	362											
MLT6S-CP316	6.0	152	20.5	521											

Heavy Cross Section

MLT2H-LP316	2.0	51	7.9	201	450	2000	0.50	12.7	0.31	7.9	0.010	0.25	PBTMT(/E), GS4MT, HTMT, ST2MT	50	250
MLT4H-LP316	4.0	102	14.3	362											
MLT6H-LP316	6.0	152	20.5	521											

*Other lengths available, contact customer service.

**Tested per SAE Standard AS23190/3 (formerly MIL).

^Order number of pieces required, in multiples of Standard Package Quantity.

See pages 6 and 7 for stainless steel and brass marker plates and tags.

Cable Tie Installation Tools



PBTMT



ST2MT



GS4MT

- Tools speed installation
- Feature high reliability, low maintenance, long life
- GS4MT and PBTMT feature automatic tension and cut-off capabilities for improved productivity and installer safety

Part Number	Description	Std. Pkg. Qty.
High Volume Use		
PBTMT	Battery powered installation tool, for use with Pan-Steel® Heavy, Extra-Heavy, and Super-Heavy Cross Section MLT Style Ties, and MLTD Double Wrapped Style Ties, 2 – 12 volt lithium-ion batteries and 115 volt, 60 Hz charger included.	1
Medium Volume Use		
GS4MT	Used with Standard and Heavy Cross Section Pan-Steel® Type MLT Ties.	1
ST2MT	Used with Heavy Cross Section Pan-Alum™ Type MLT Ties and Standard and Heavy Cross Section Pan-Steel® Type MLT Ties.	1

WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA
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