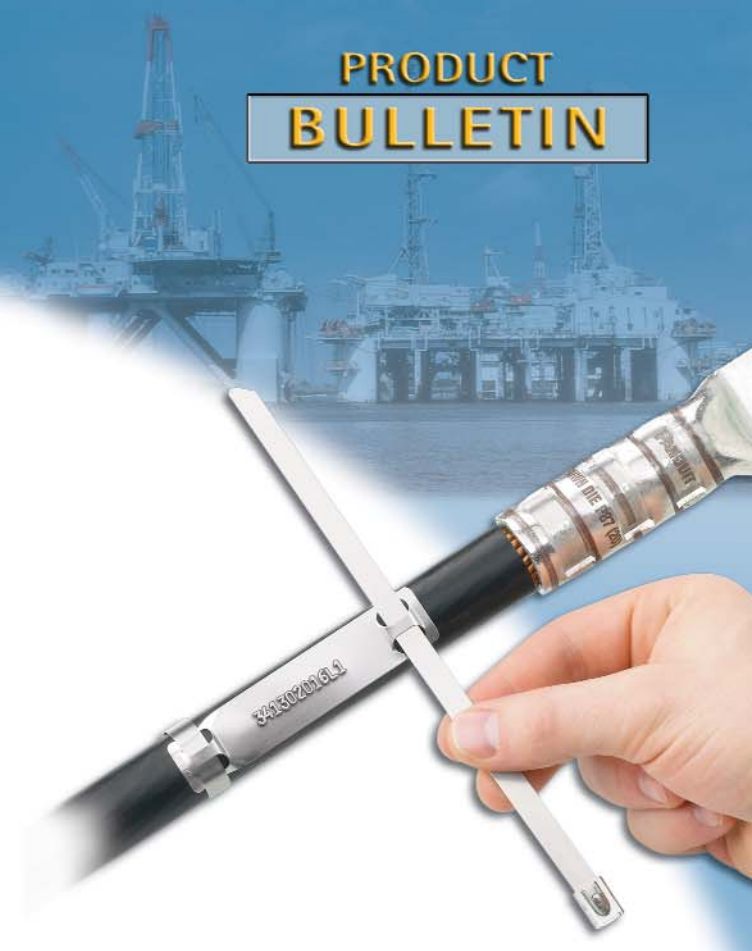


PANDUIT Permanent Identification System

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

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)	704°C (1300°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

On-Site Custom Marking Tools

NEW! <i>Portable embossing system</i>	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
<i>Metal indenting machine</i>	Stable bench top tool safely indents on marker plates, tags, ties and straps to provide quick identification

PANDUIT Factory Custom Marking Service

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

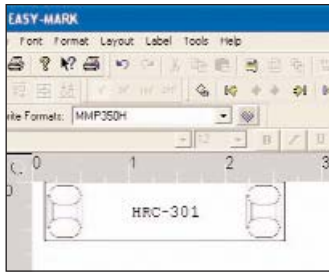
Stainless Steel and Aluminum Marker Plates, Tags, and Cable Ties

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

NEW! Portable Embossing System *



- Easily moved 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 250 plates, saving time and money



Part Number	Description	Used with PAN-STEEL® Marker Plates	Std. Pkg. Qty.
PES197	Portable embossing system 3/16" (5mm) character, 11.5" (292mm) x 21.0" (534mm) x 19.0" (483mm), 95 lbs. (43 kg), 115 volt, 60 Hz with <i>EASY-MARK™</i> Software***	MMP350-M, MMP350-M316, MMP350H-M**, MMP350W38-M, MMP350W38M-316	1
PES197/E	Portable embossing system 3/16" (5mm) character, 11.5" (292mm) x 21.0" (534mm) x 19.0" (483mm), 95 lbs. (43 kg), 230 volt, 50 Hz with <i>EASY-MARK™</i> Software***	MMP350-M, MMP350-M316, MMP350H-M**, MMP350W38-M, MMP350W38M-316	1

*For use with 1000 pack marker plates only.

**Available in 304 and 316 stainless steel and aluminum (Natural, Blue, Green, Red, Black, Yellow).

***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.

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.
-------------	-------------	----------------

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

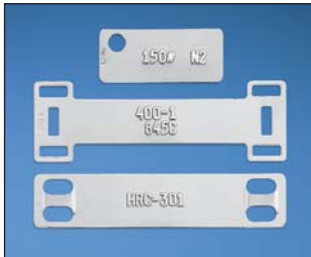
Interchangeable Wheel Kits

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

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.

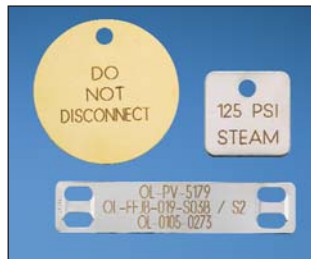
Embossing Service



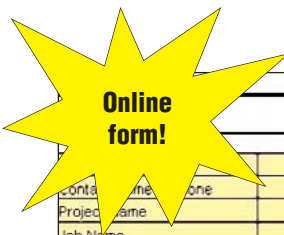
- Used on rectangular metal marker plates and tags which are a maximum of .020 inches (.5mm) thick, and minimum .038 inches (10mm) width
- Excellent for applications that are exposed to dirt and paint
- Upper case "raised" characters
- Alphanumeric and sequential numbering

Available Character Sizes:	
1/8" (3.18mm)	For high character volume tags
3/16" (4.77mm)	The most common size
1/4" (6.35mm)	Excellent for military applications
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

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](#)

Project Name: _____

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

Step 1: Select Tag Style

Select for tag MFP350HE Embossed

Select for tag MFP350HLL 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

Step 3: Select Number of Lines

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

Step 4: Stainless Steel Material

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

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

Enter Total Qty of tags:

Full Part Number:

Font Size:

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.

Stainless Steel and Brass Marker Plates and Tags

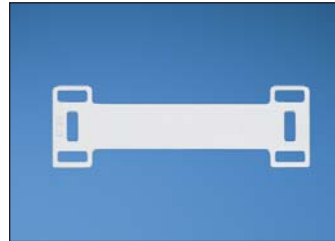
- Provides permanent identification of pipes, conduit, valves, cables and equipment in harsh environments
- Delivers long life when exposed to chemicals, vibration, radiation, weathering and extreme temperatures
- Designed for use with *PAN-STEEL*® Stainless Steel Cable Ties for fast installation at 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



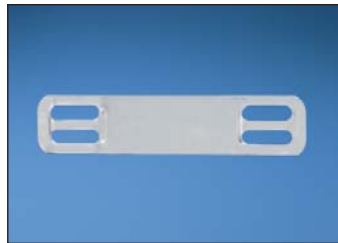
MMP350DB-C



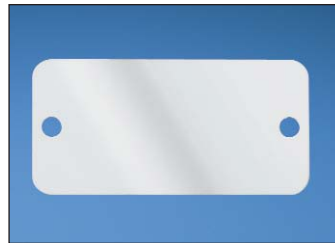
MMP350W38-C



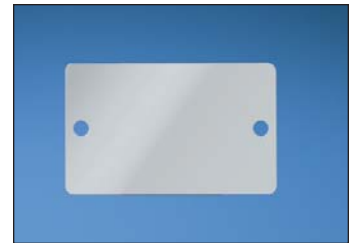
MMP172-C



MMP172W38-C



MMP350W17-Q



MMP338W21-Q

Part Number	Material	Color	Length/ Diameter		Width		Custom Marking Parameters*		Used with <i>PAN-STEEL</i> ® 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	.75	19	23	3	MLT-S	.010	.25	100	1000
MMP350-C316	316 Stainless Steel												
MMP350-M	304 Stainless Steel												
MMP350-M316	316 Stainless Steel												
MMP350H-C	304 Stainless Steel	Natural	3.50	89	.75	19	20	3	MLT-H	.010	.25	100	1000
MMP350H-C316	316 Stainless Steel												
MMP350H-M	304 Stainless Steel												
MMP350H38-M316	316 Stainless Steel												
MMP350W38-C	304 Stainless Steel	Natural	3.50	89	.38	10	23	1	MLT-S	.010	.25	100	1000
MMP350W38-C316	316 Stainless Steel												
MMP350W38-M	304 Stainless Steel												
MMP350W38-M316	316 Stainless Steel												
MMP350DB-C	304 Stainless Steel	Natural	3.50	89	1.12	29	20	3	MLT-H	.015	.38	100	1000
MMP350DB-C316	316 Stainless Steel												
MMP172-C	304 Stainless Steel	Natural	1.72	44	.75	19	8	3	MLT-S	.010	.25	100	1000
MMP172-C316	316 Stainless Steel												
MMP172W38-C	304 Stainless Steel	Natural	1.72	44	.38	10	8	1	MLT-S	.010	.25	100	1000
MMP172W38-C316	316 Stainless Steel												
MMP350W17-Q	304 Stainless Steel	Natural	3.50	89	1.73	44	26	6	MLT-S	.015	.38	25	250
MMP338W21-Q	304 Stainless Steel		3.38	86	2.13	54	22						

*See page 4 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.

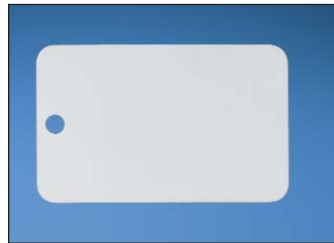
Stainless Steel and Brass Marker Plates and Tags (continued)



MT350-C



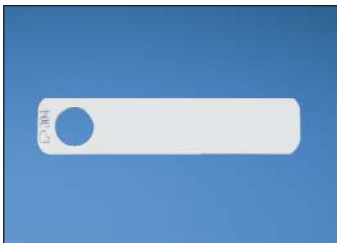
MT350W17-Q



MT338W21-Q



MT172-C



MT172W38-C



MTB150D-Q

MTB213D-Q

MTB1D-Q



MT125S-Q

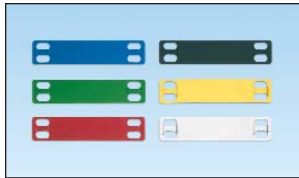
Part Number	Material	Color	Length/ Diameter		Width		Custom Marking Parameters*		Used with <i>PAN-STEEL</i> ® Cable Ties**	Thickness		Std. Pkg. Qty. [^]	Std. Ctn. Qty.
			In.	mm	In.	mm	Max. 3/16" (4.77mm) Character Per Line	Max. Lines of Text		In.	mm		
MT350-C	304 Stainless Steel	Natural	3.50	89	.75	19	26	3	MLT-S	.010	.25	100	1000
MT350-C316	316 Stainless Steel	Natural					23	3					
MT350W17-Q	304 Stainless Steel	Natural	3.50	89	1.73	44	23	6	MLT-S	.015	.38	25	250
MT338W21-Q	304 Stainless Steel	Natural	3.38	86	2.13	54	22	6	MLT-S	.015	.38	25	250
MT172-C	304 Stainless Steel	Natural	1.72	44	.75	19	10	3	MLT-S	.010	.25	100	1000
MT172-C316	316 Stainless Steel	Natural	1.72	44	.75	19	10	3	MLT-S	.010	.25	100	1000
MT172W38-C	304 Stainless Steel	Natural	1.72	44	.38	10	10	1	MLT-S	.010	.25	100	1000
MT1D-Q	304 Stainless Steel	Natural	—	—	1.00	25	5	1	MLT-S	.035	.89	25	250
MT1D-Q316	316 Stainless Steel	Natural	—	—	1.00	25	5	1	MLT-S	.035	.89	25	250
MTB1D-Q	Brass	Brass	—	—	1.00	25	5	1	MLT-S	.040	1.02	25	250
MT150D-Q	304 Stainless Steel	Natural	—	—	1.50	38	5,6,5	3	MLT-S	.035	.89	25	250
MT150D-Q316	316 Stainless Steel	Natural	—	—	1.50	38	5,6,5	3	MLT-S	.035	.89	25	250
MTB150D-Q	Brass	Brass	—	—	1.50	38	5,6,5	3	MLT-S	.040	1.02	25	250
MT213D-Q	304 Stainless Steel	Natural	—	—	2.13	54	6,12,8	3	MLT-S	.015	.38	25	250
MT213D-Q316	316 Stainless Steel	Natural	—	—	2.13	54	6,12,8	3	MLT-S	.015	.38	25	250
MTB213D-Q	Brass	Brass	—	—	2.13	54	6,12,8	3	MLT-S	.015	.38	25	250
MT125S-Q	304 Stainless Steel	Natural	1.25	32	1.25	32	5	2	MLT-S	.035	.89	25	250

*See page 4 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

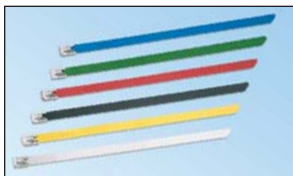
Part Number	Material	Color	Length		Width		Thickness		Custom Marking Parameters*		Used With PAN-ALUM™ Cable Tie**	Std. Pkg. Qty.^	Std. Ctn. Qty.
			In.	mm	In.	mm	In.	mm	Max. 3/16" (4.77mm) Characters Per Line	Max. Lines of Text			
MMP350H-CALBU	Anodized Aluminum	Blue	3.50	88.9	.75	19.1	.012	.30	20	3	MLT1H-LPAL MLT2H-LPAL and MLT4H-LPAL	100	1000
MMP350H-MALBU												1000	4000
MMP350H-CALGR		Green	3.50	88.9	.75	19.1	.012	.30	20	3		100	1000
MMP350H-MALGR												1000	4000
MMP350H-CALRD												Red	3.50
MMP350H-MALRD		1000	4000										
MMP350H-CALBL		Black	3.50	88.9	.75	19.1	.012	.30	20	3		100	1000
MMP350H-MALBL												1000	4000
MMP350H-CALYL		Yellow	3.50	88.9	.75	19.1	.012	.30	20	3		100	1000
MMP350H-MALYL												1000	4000
MMP350H-CALAL	Aluminum	Natural	3.50	88.9	.75	19.1	.012	.30	20	3	100	1000	
MMP350H-MALAL											1000	4000	

*See page 4 for PANDUIT factory custom marking service.

**See PAN-ALUM™ Ties below for matching natural finish and colors.

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

PAN-ALUM™ Aluminum Cable Ties



- Lightweight aluminum construction for flexibility and ease of handling
- Five color options in addition to natural aluminum finish for color-coding applications
- Smooth surfaces and rounded edges, protects the cable bundle and the installer for improved productivity, job site safety, and reliability
- Patented self-locking head design, reduces installation steps for improved productivity
- For use with PAN-ALUM™ Marker Plates for fast installation at the lowest installed cost

Part Number	Max. Bundle Diameter		Length		Color	Min. Loop Tensile Strength**		Min. Bundle Diameter		Width		Thickness		Recommended Installation Tool***	Std. Pkg. Qty.^	Std. Ctn. Qty.																											
	In.	mm	In.	mm		Lbs.	N	In.	mm	In.	mm	In.	mm																														
MLT1H-LPALBU	1.0	25	5.5	140	Blue	50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT	50	250																											
MLT2H-LPALBU	2.0	51	7.9	201											50	250																											
MLT4H-LPALBU	4.0	102	14.3	362											50	250																											
MLT1H-LPALGR	1.0	25	5.5	140	Green										50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT	50	250																		
MLT2H-LPALGR	2.0	51	7.9	201																				50	250																		
MLT4H-LPALGR	4.0	102	14.3	362																				50	250																		
MLT1H-LPALRD	1.0	25	5.5	140	Red																			50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT	50	250									
MLT2H-LPALRD	2.0	51	7.9	201																													50	250									
MLT4H-LPALRD	4.0	102	14.3	362																													50	250									
MLT1H-LPALBL	1.0	25	5.5	140	Black																												50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT	50	250
MLT2H-LPALBL	2.0	51	7.9	201																																						50	250
MLT4H-LPALBL	4.0	102	14.3	362																																						50	250
MLT1H-LPALYL	1.0	25	5.5	140	Yellow	50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT																												50	250
MLT2H-LPALYL	2.0	51	7.9	201																																						50	250
MLT4H-LPALYL	4.0	102	14.3	362																																						50	250
MLT1H-LPAL	1.0	25	5.5	140	Aluminum										50	222	.50	12.7	.31	7.9	.012	.03	ST2MT, HTMT																			50	250
MLT2H-LPAL	2.0	51	7.9	201																																						50	250
MLT4H-LPAL	4.0	102	14.3	362																																						50	250

**Per SAE Standard AS23190/3 (formerly MIL).

***See last page for cable tie installation tooling.

^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	.50	12.7	.18	4.6	.010	.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	.50	12.7	.31	7.9	.010	.25	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	.50	12.7	.18	4.6	.010	.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	.50	12.7	.31	7.9	.010	.25	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.

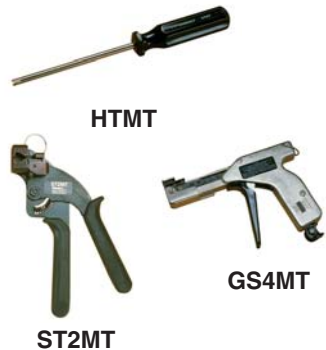
**Tested per SAE Standard AS23190/3 (formerly MIL).

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

See page 5 and 6 for stainless steel and brass marker plates and tags.

Cable Tie Installation Tools

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



HTMT

GS4MT

ST2MT

Part Number	Description	Std. Pkg. Qty.
Low Volume Use		
HTMT	Used with heavy cross section PAN-ALUM™ Type MLT Ties and standard and heavy cross section PAN-STEEL® Type MLT Ties.	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
Markham, Ontario
cs-cdn@panduit.com
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
cs-emea@panduit.com
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
cs-ap@panduit.com
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
cs-japan@panduit.com
Phone: 81.3.3767.7011

PANDUIT LATIN AMERICA
Jalisco, Mexico
cs-la@panduit.com
Phone: 52.333.777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
cs-aus@panduit.com
Phone: 61.3.9794.9020

For a copy of PANDUIT product warranties, log on to www.panduit.com/warranty



For more information
Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800-777-3300 and reference SSCB18

©2008 PANDUIT Corp.
ALL RIGHTS RESERVED.
Printed in the U.S.A.
Product Bulletin Number SA-SSCB18
Replaces SA-SSCB15
8/2008