

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.

Featuring on-site custom marking tools, these systems offer portability for permanent identification on demand. Panduit also offers a rapid response, 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







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 Custom Marking Service	
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	The system automatically creates raised characters on stainless steel and aluminum marker plates, quickly and easily using Easy-Mark™ software, to deliver maximum visibility for applications that are exposed to dirt and paint
Metal embossing hand tool	Multi-functional cutting die design creates embossed marker plates with

On one odolom marking room	
Portable embossing system	The system automatically creates raised characters on stainless steel and aluminum marker plates, quickly and easily using Easy-Mark™ software, to deliver maximum visibility for applications that are exposed to dirt and paint
Metal embossing hand tool and tape system (MEHT187)	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)
Patented 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
Broad offering of metal materials available for marker plates and cable ties, including stainless steel and aluminum	Choose the best metal material to meet the requirements of the application

Panduit Custom Marking Service

Panduit's 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

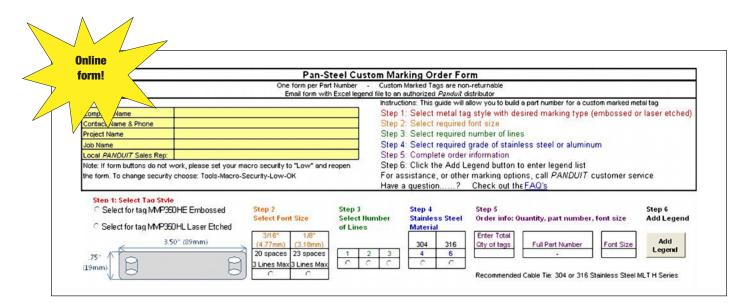
Laser Etching Service



- 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

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

* Please advise if this size is requested as it is not stated on the



Use the online order form, GA2-0218 - Pan-Steel Custom Form:

- 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

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

Portable Embossing System*



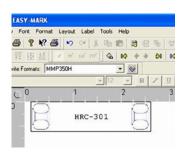
- To deliver a permanent identification solution on-site when it's needed
- Creates raised characters on stainless steel and aluminum marker plates, to deliver maximum visibility for medium to high volume applications that are exposed to dirt and paint
- Improves productivity by providing a reliable 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

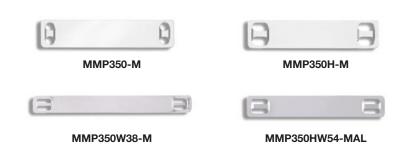
Part Number	Description	Std. Pkg. Qty.
Portable Emb	ossing System*	
PES197	Portable embossing system 3/16" (4.77mm) character, 11.5" (292mm) x 21.0" (534mm) x 19.0" (483mm), 95 lbs. (43 kg), 115 volt, 60 Hz with Easy-Mark™ Software**	1
PES197/E	Portable embossing system 3/16" (4.77mm) character, 11.5" (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, ! @ # \$ % & * () - + = : " ' . / ?

- **System Requirements:
- 64 MB hard drive space and 64 MB RAM (256 MB RAM recommended)
- Windows 2000, XP, Vista, 7, 8, or 10
- Mouse or compatible pointing device
- Microsoft.NET Framework 2.0 or higher
- Female DB9 serial communication port.
- ^Windows is a registered trademark of Microsoft Corp. in the United States and/or other countries.

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





					Length/		Custom N Parame	-					
			Dian	-	Wi	dth	Max.			Thickness			
Part Number	Material	Color	In.	mm	In.	mm	3/16" (4.77mm) Character Per Line	Max. Lines of Text	Used with Pan-Steel® Cable Ties**	In.	mm	Std. Pkg. Qty.^	Std. Ctn. Qty.
Pan-Steel® Marker	Plates												
MMP350-M	304 Stainless Steel				0.75		18	3	MLT-S	0.010	0.25	1000	
MMP350-M316	316 Stainless Steel	Nistrani					16 3	3					
MMP350H-M	304 Stainless Steel	Natural				19	9 16 3		MLT-H				
MMP350H-M316	316 Stainless Steel		3.50	89				3					4000
MMP350H-MAL	Aluminum		3.50	99									4000
MMP350HW54-MAL	Aluminum	Nistrania			0.54	13.7	16	2		0.012	0.3		
MMP350W38-M	304 Stainless Steel	Natural			0.00	10	18	1	MITC	0.010	0.05		
MMP350W38-M316	316 Stainless Steel				0.38	10	18	'	MLT-S	0.010	0.25		

^{*}See page 3 for Panduit Custom Marking Service information.

^{*}For use with 1000 pack marker plates only.

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

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

Metal Embossing Hand Tool and Tape System

- 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.^
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
Таре		
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).

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 Ma	nchine	
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
Interchangea	able 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

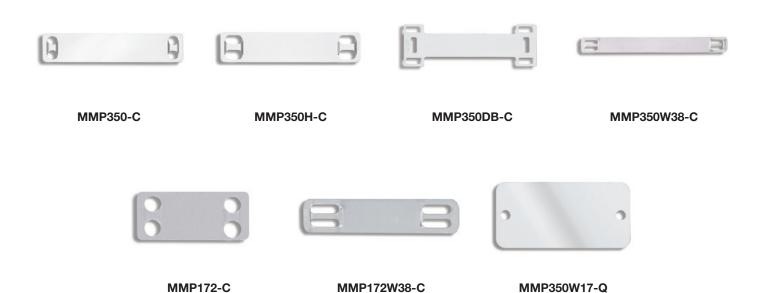
Characters include: ABC...Z, 0123...9, & / @ '.-

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

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

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 Custom Marking Service
- For on-site custom marking use the metal indenting machine



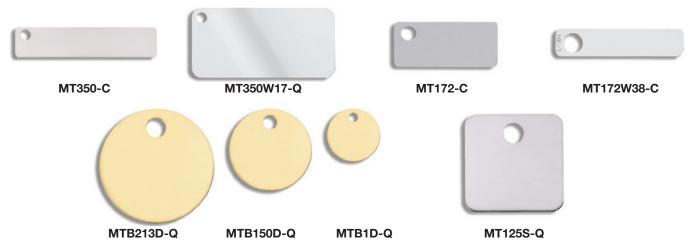
							Custom Marking Parameters*						
			Lenç Diam	_			Max. 3/16" (4.77mm)	Max.	Used with Pan-Steel®	Thickness		Std.	Std.
Part Number	Material	Color	ln.	mm	In.	mm	Character Per Line	Lines of Text	Cable Ties**	In.	mm	Pkg. Qty.^	Ctn. Qty.
ММР350-С	304 Stainless Steel	Natural	0.50	89.0	0 0.75	19.0	23	2	MLT-S	0.010	0.25	100	1000
MMP350-C316	316 Stainless Steel		3.50	69.0		19.0		3					
ммрз50н-С	304 Stainless Steel	NI-tI	0.50	00.0	0.75	19.0	20	3	MLT-H	0.010	0.25	100	1000
MMP350H-C316	316 Stainless Steel	Natural	3.50	89.0	0.75								
MMP350W38-C	304 Stainless Steel	Network	0.50	00.0		10.0	23	1	MLT-S	0.010	0.25	100	1000
MMP350W38-C316	316 Stainless Steel	Natural	3.50	89.0	0.38	10.0				0.010		100	1000
MMP350DB-C	304 Stainless Steel		0.50	89.0	4.40	29.0	20	3	MLT-H		0.38	100	1000
MMP350DB-C316	316 Stainless Steel	Natural	3.50		1.12					0.015			1000
MMP172-C	304 Stainless Steel	Natural	1.72	44.0	0.75	19.0	8	3	MLT-S	0.010	0.25	100	1000

^{*}See page 3 for Panduit 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)



							Custom Ma	_					
Part Number Materi			Length/ Diameter		Width		Max. 3/16" (4.77mm) Character	Max. Lines of	Used with	Thickness		Std.	Std.
	Material	Color	ln.	mm	ln.	mm	Per Line	Text	Cable Ties**	ln.	mm	Qty.^	Qty.
MT350-C	304 Stainless Steel	Natural	2.50	00.0	0.75	10.0	26	3	MITC	0.010	0.25	100	1000
MT350-C316	316 Stainless Steel	Natural	3.50	89.0	0.75	19.0	26	3	MLT-S	0.010	0.25	100	1000
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 Custom Marking Service information.

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

									Custom Marking Parameters*				
			Leng	th	W	Width Thickness		Max. 3/16" Max (4.77mm) Line Characters of		Used With Pan-Alum ™	Std. Pkg.	Std. Ctn.	
Part Number	Material	Color	ln.	mm	ln.	mm	In.	mm	Per Line	Text	Cable Tie	Qty.^	Qty.
MMP350H-CAL	Aluminum	Natural	3.50	89.0	0.75	19.0	0.012	0.3	20	3	MLT1H-LPAL MLT2H-LPAL and MLT4H-LPAL	100	1000

^{*}See page 3 for Panduit Custom Marking Service.

^{**}See last page for Pan-Steel $^{\tiny{\textcircled{\tiny{0}}}}$ Stainless Steel Cable Ties.

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

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Pan-Steel® Stainless Steel Cable Ties



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	Std. Pkg.	Std.
	ln.	mm	ln.	mm	Lbs.	N	ln.	mm	ln.	mm	In.	mm	Installation Tool	Qty.^	Qty.
AISI 304 Stainl Standard Cros			or Gene	eral Pu	rpose										
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 S	ection														
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 Stainl Standard Cros			or Supe	rior Co	orrosio	n Resi	stance	•							
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 S	ection														
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.

Cable Tie Installation Tools



- 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 U	se			
РВТМТ	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.			
Medium Volum	ne Use			
ST2MT	Used with Standard and Heavy Cross Section Pan-Steel® Type MLT Ties.			
GS4MT	Used with Heavy Cross Section Pan-Alum™ Type MLT Ties and Standard and Heavy Cross Section Pan-Steel® Type MLT Ties.			

WORLDWIDE SUBSIDIARIES AND SALES OFFICES

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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 SSCB33

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^{**}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.