

Part Number System for Pan-Steel® Cable Ties

MLT

Type

MLT = Metal
Locking
Tie**6**Bundle Reference
Diameter (In.)**S**

Cross Section

S = Standard
LH = Light-Heavy
H = Heavy
EH = Extra-Heavy
EH15 = Extra-Heavy-15
SH = Super-Heavy

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CP

Standard Package Size

Q = 25
L = 50
LP = 50
CP = 100

Material

(blank) = 304
316 = 316**Pan-Steel® Self-Locking Cable Ties – MLT Series**

- Self-locking head design speeds installation and locks into place at any length along the tie body
- Provides a strong, durable method of cable bundling
- Can be used in a wide range of indoor, outdoor, and underground (including direct burial) applications
- Smooth surfaces and rounded edges assures cable protection and worker safety
- Available in AISI 304 stainless steel for general-purpose applications
- Available in AISI 316 stainless steel for the most corrosive environments



Part Number	Max. Bundle Diameter		Length*		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			

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-E, HTMT, PPTMT, ST2MT	100	500
MLT2S-CP	2.0	51	7.9	201	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT2S-L	2.0	51	7.9	201	200	890	0.50	12.7	0.18	4.6	0.010	0.25		50	
MLT2.7S-CP	2.7	69	10.2	259	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT4S-CP	4.0	102	14.3	362	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT4S-L	4.0	102	14.3	362	200	890	0.50	12.7	0.18	4.6	0.010	0.25	GS4MT-E, HTMT, PPTMT, ST2MT	50	500
MLT6S-CP	6.0	152	20.5	521	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT8S-CP	8.0	203	26.8	679	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT10S-CP	10.0	254	33.0	838	200	890	0.50	12.7	0.18	4.6	0.010	0.25		100	
MLT12S-Q	12.0	304	39.3	998	200	890	0.50	12.7	0.18	4.6	0.010	0.25		25	
MLT14S-Q	14.0	355	45.5	1156	200	890	0.50	12.7	0.18	4.6	0.010	0.25	GS4MT-E, HTMT, PPTMT, ST2MT	25	125
MLT15S-Q	15.0	380	49.2	1250	200	890	0.50	12.7	0.18	4.6	0.010	0.25			

*For other lengths, thicknesses and material grades (316SS) available, contact Panduit Customer Service or refer to www.panduit.com.

**Per SAE Standard AS23190/3 (formerly MIL). For additional details, refer to page B3.30.

***For information on installation tools, refer to www.panduit.com/tools.*Continued on next page*

Rigorous Tests and Physical Properties of Stainless Steel

STRENGTH: Panduit® Pan-Steel® Stainless Steel Ties and Straps are tested per the SAE Standard AS23190 formerly 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 (two) halves until the tie fails. These minimum loop tensile strengths are given for the various products on pages B3.5 – B3.26.

TEMPERATURE EXTREMES: Panduit® Pan-Steel® Stainless Steel Ties and Straps 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-202. 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.

SHOCK AND VIBRATION: Panduit® Pan-Steel® Standard and Heavy 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 eight 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.

Panduit® Pan-Steel® Extra-Heavy, Super-Heavy, MSW50 Strapping and MSW63 Strapping have passed the U.S. Military Shock and Vibration Testing per MIL-STD-167 and MIL-S-901D. The ties were subjected to vibrations in all three planes from 4 – 50 Hz and Shock testing in all three planes utilizing a hammer shock machine.

SALT SPRAY: Panduit® Pan-Steel® Stainless Steel Ties and Straps have been subjected to salt spray tests without signs of corrosion or reduction in performance.

OUTDOOR EXPOSURE: Panduit® Pan-Steel® Stainless Steel Ties and Straps have been exposed outdoors in Northern 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 four hours at temperatures of 122°F (50°C). Per SAE Standard MS23190, 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 (M23190)

Military Standard Part Number	Panduit Part Number
M23190/3-1	MLT2S-CP
M23190/3-1	MLT2S-CP316
M23190/3-2	MLT4S-CP
M23190/3-2	MLT4S-CP316
M23190/3-3	MLT6S-CP
M23190/3-3	MLT6S-CP316
M23190/3-4	MLT8S-CP
M23190/3-4	MLT8S-CP316
M23190/3-5	MLT2H-LP
M23190/3-5	MLT2H-LP316
M23190/3-6	MLT4H-LP
M23190/3-6	MLT4H-LP316
M23190/3-7	MLT6H-LP
M23190/3-7	MLT6H-LP316
M23190/3-8	MLT8H-LP
M23190/3-8	MLT8H-LP316
M23190/3-9	MLT10H-LP
M23190/3-9	MLT10H-LP316