

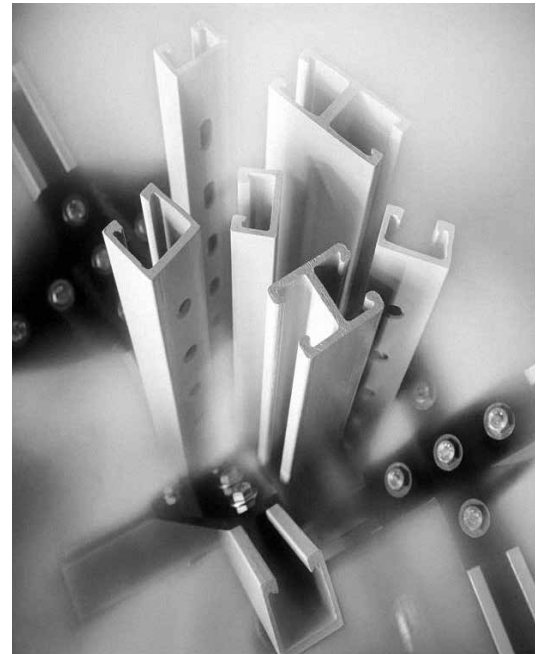
Nonmetallic - Strut systems

Channels

Channels

Thomas & Betts is proud of its line of nonmetallic strut and accessories. You'll find a complete selection of nonmetallic accessories, fasteners, hangers, pipe clamps and channels.

Most Thomas & Betts strut products are available in a choice of resins – either vinylester or polyester. Our design and engineering staff is ready to help you select the material that best suits your needs.

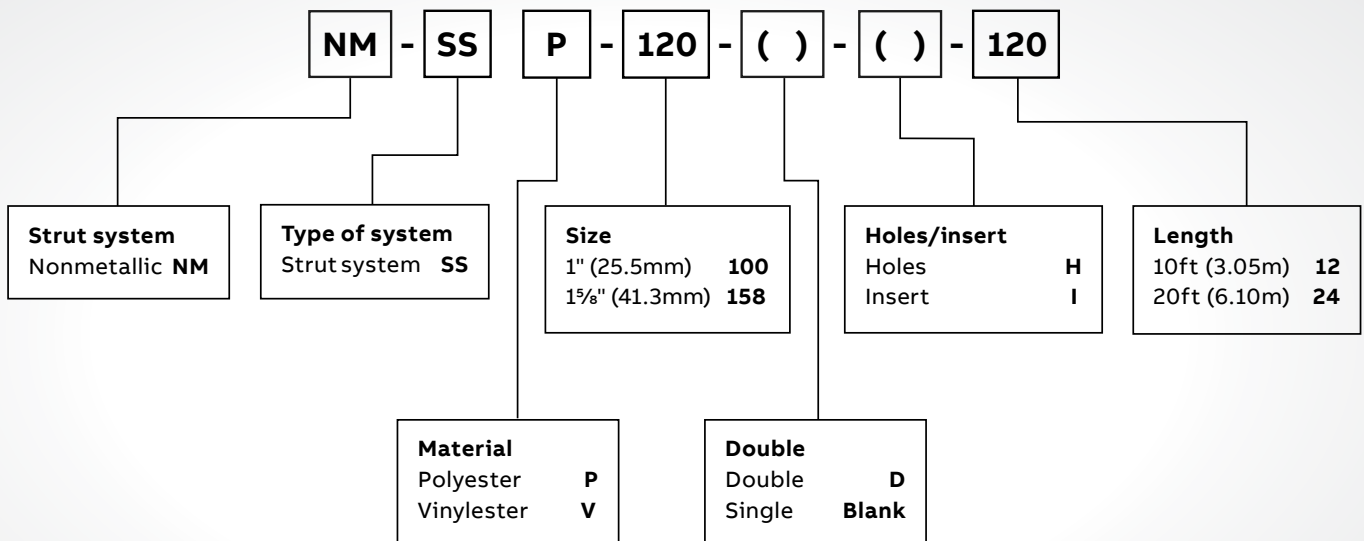


Channel fitting selection

Example:

NM-SSP-100-120, 1" (25.5mm) single strut, 120" (10 ft / 3.05m) NOTE: Stocked in 120" (10 ft / 3.05m) and 240" (20 ft / 6.10m) lengths.

*NOTE: The U-style and H-style systems are interchangeable.



Nonmetallic - Strut systems

Channels - Combinations and hole pattern

Solid - Single strut

		Cat. No.	Material/resin	Color	Weight	
					(lb/ft)	(kg/m)
		NM-SSP-100-(L)	Polyester	Gray	0.47	0.70
		NM-SSP-158-(L)			0.63	0.94
		NM-SSV-100-(L)	Vinylester	Beige	0.47	0.70
		NM-SSV-158-(L)			0.63	0.94

*Add P for polyester or V for vinylester.
(L) Add desired length 120 (10 ft.) or 240 (20 ft.)
Cut-to-length channel also available.

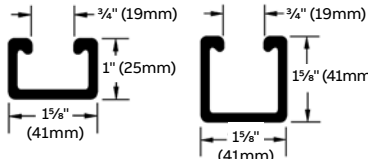
Solid - Back to back

		Cat. No.	Material/resin	Color	Weight	
					(lb/ft)	(kg/m)
		NM-SSP-100-D-(L)	Polyester	Gray	0.86	1.28
		NM-SSP-158-D-(L)			1.17	1.75
		NM-SSV-100-D-(L)	Vinylester	Beige	0.86	1.28
		NM-SSV-158-D-(L)			1.17	1.75

*Add P for polyester or V for vinylester.
(L) Add desired length 120 (10 ft.) or 240 (20 ft.)
Cut-to-length channel also available.

Punched

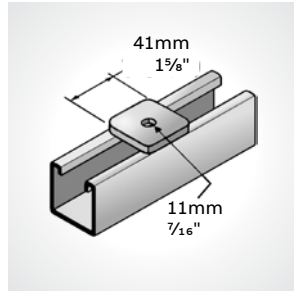
		Cat. No.	Material/resin	Color	Weight	
					(lb/ft)	(kg/m)
		NM-SSP-100-H-(L)	Polyester	Gray	0.47	0.67
		NM-SSP-158-H-(L)			0.63	0.91
		NM-SSV-100-H-(L)	Vinylester	Beige	0.45	0.67
		NM-SSV-158-H-(L)			0.61	0.91



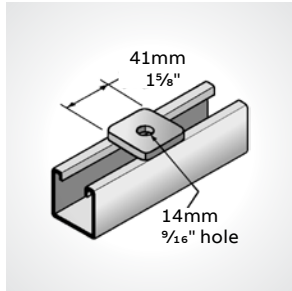
Holes - 3/8" holes x 1 7/8" on center.
(L) Add desired length 120 (10 ft.) or 240 (20 ft.)
Cut-to-length channel also available.

Nonmetallic - Strut systems

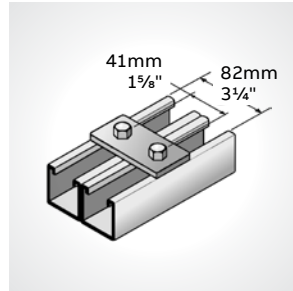
Superstrut™ fittings and brackets



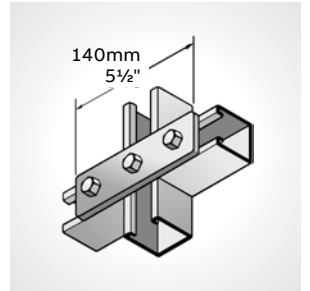
01



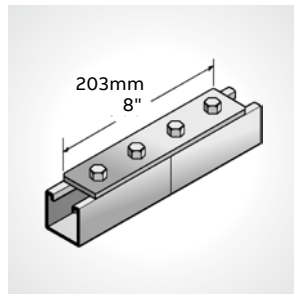
02



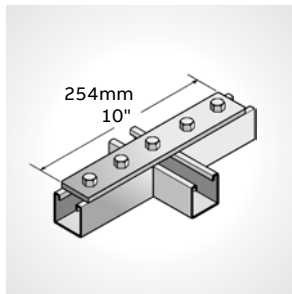
03



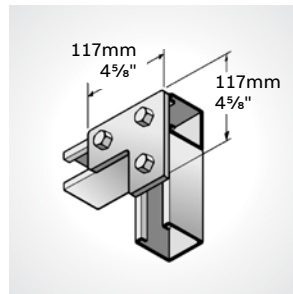
04



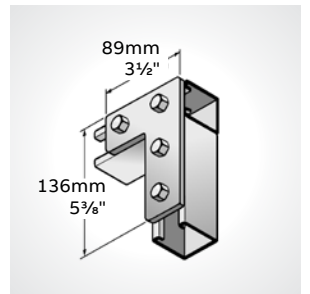
05



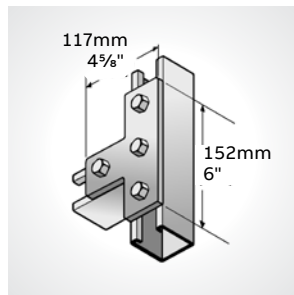
06



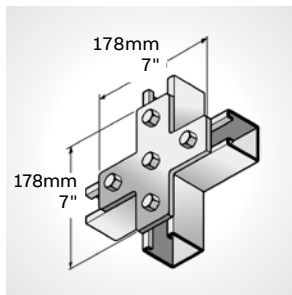
07



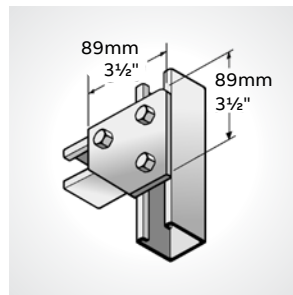
08



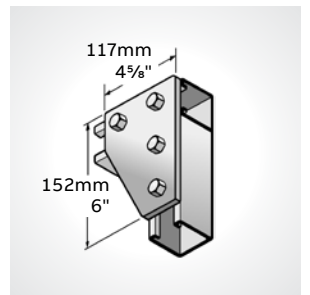
09



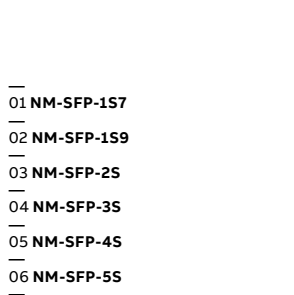
10



11



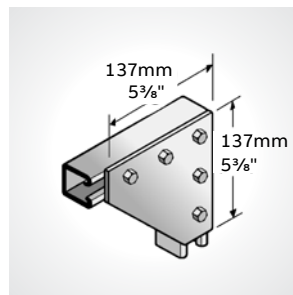
12



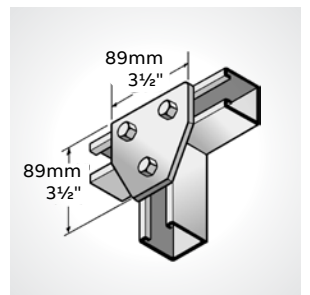
13



14



15



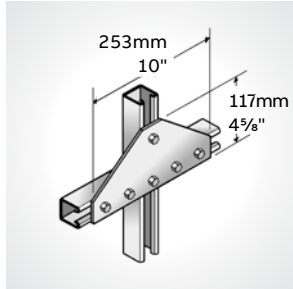
16

- 01 NM-SFP-1S7
- 02 NM-SFP-1S9
- 03 NM-SFP-2S
- 04 NM-SFP-3S
- 05 NM-SFP-4S
- 06 NM-SFP-5S
- 07 NM-SFP-3HL
- 08 NM-SFP-4HL
- 09 NM-SFP-4HT
- 10 NM-SFP-5HX
- 11 NM-SFP-3HCG
- 12 NM-SFP-4HCG
- 13 NM-SFP-5HCG
- 14 NM-SFP-3HTG
- 15 NM-SFP-4HTG
- 16 NM-SFP-5HTG

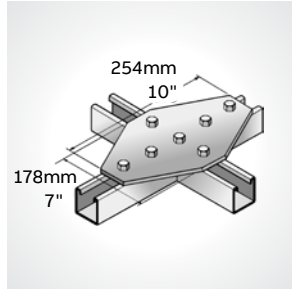
NOTE: Based on individual applications, changes may be required on dimension and thickness of material. All fittings are 3/4" (6mm) thick unless specified otherwise. All holes are drilled to accept 3/8" and 1/2" bolts with washers. Not supplied with hardware.

Nonmetallic - Strut systems

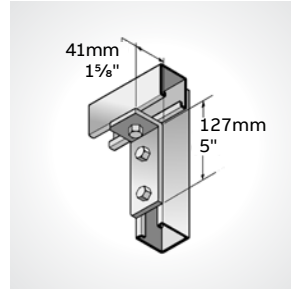
Superstrut™ fittings and brackets



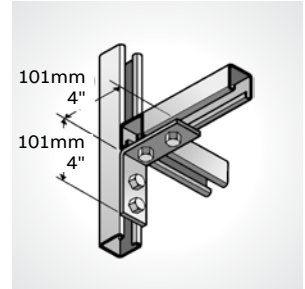
01*



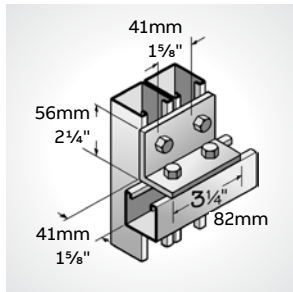
02*



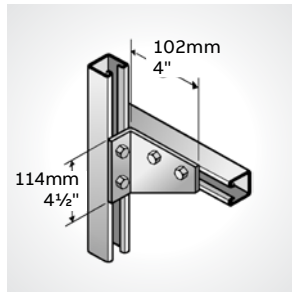
03*



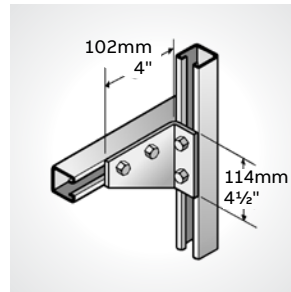
04*



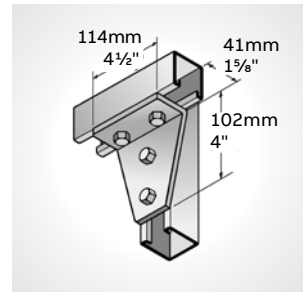
05*



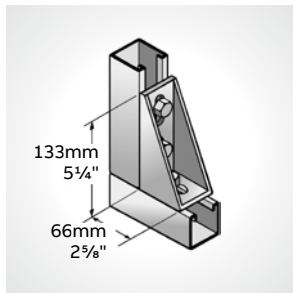
06*



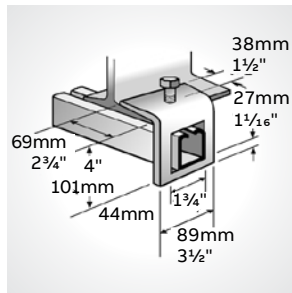
07*



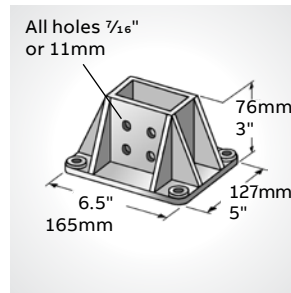
08*



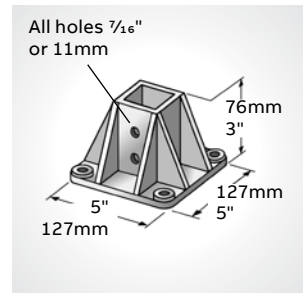
09



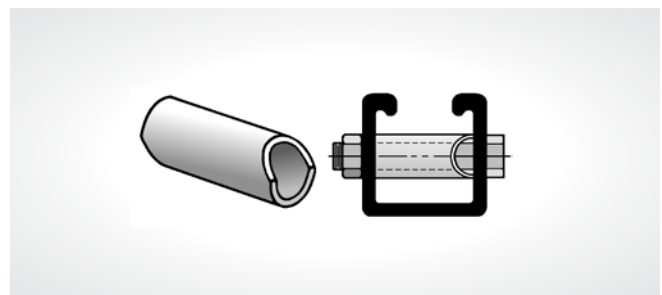
10



11



12



13

01 NM-SFP-6HTG

02 NM-SFP-7HXG

03 NM-SFP-3VL

04 NM-SFP-4VL

05 NM-SFP-4VLD

06 NM-SFP-4VGL

07 NM-SFP-4VGR

08 NM-SFP-4VTG

09 NM-SFP-3CB

10 NM-SWC-158

11 NM-SSV-DBASE

12 NM-SSV-SBASE

13 NM-SCSP-158

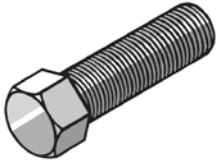
* Items 2 thru 8 (FRP angle components) will not support tensile loads or forces.

NOTE: Based on individual applications, changes may be required on dimension and thickness of material. All fittings are 1/4" (6mm) thick unless specified otherwise. All holes are drilled to accept 3/8" and 1/2" bolts with washers. Not supplied with hardware.

Nonmetallic - Strut systems

Nonmetallic threaded hardware

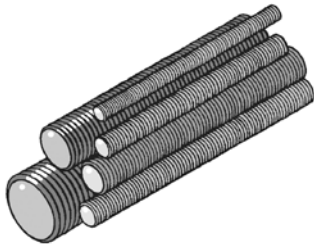
Hex head bolt



Cat. No.	Thread size	Bolt length (in)	Design load		Max. torque		Weight / C	
			(lb)	N	in - lb	N - m	(lb)	(g)
NM-F516100	5/16" - 18	5/16 x 1	190	845	30	3.4	0.4	181
NM-F516114	5/16" - 18	5/16 x 1 1/4	190	845	30	3.4	0.4	181
NM-F38100	3/8" - 16	3/8 x 1	300	1334	45	5.1	0.9	408
NM-F38114	3/8" - 16	3/8 x 1 1/4	300	1334	45	5.1	1.1	499
NM-F38212	3/8" - 16	3/8 x 2 1/2	300	1334	45	5.1	1.5	680
NM-F12100	1/2" - 13	1/2 x 1	490	2180	110	12.4	1.4	635
NM-F12114	1/2" - 13	1/2 x 1 1/4	490	2180	110	12.4	1.8	816
NM-F12212	1/2" - 13	1/2 x 2 1/2	490	2180	110	12.4	3.7	1678

Safety factor of 3 on design load.

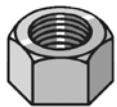
All-thread rod



Cat. No.	Thread size	Height		Weight / C	
		(in)	(mm)	(lb)	(g)
NM-F38HN	3/8" - 16	2 1/64	8	0.69	136
NM-F12HN	1/2" - 13	7/16	11	0.69	318
NM-F58HN	5/8" - 11	3 5/64	14	0.69	635

NOTE: 3/4" and 1" sizes are available.
Standard lengths are 4 ft. and 8 ft. Example: NM-F38HN-4.

Hex nut



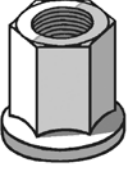
Cat. No.	Thread size	Design load		Max. torque		Weight / C	
		(lb)	N	in - lb	N - m	(lb)	(g)
NM-F38AT	3/8" - 16	425	1890	45	5.1	0.08	36
NM-F12AT	1/2" - 13	750	3336	110	12.4	0.13	59
NM-F58AT	5/8" - 11	950	4226	230	26	0.21	95

Safety factor of 3 on design load. NOTE: 3/4" and 1" sizes are available.

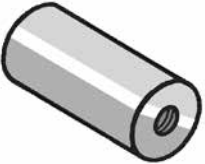
Nonmetallic - Strut systems

Nonmetallic threaded hardware

All-thread rod hex nut

	Cat. No.	Thread size	Height		Weight / C	
			(in)	(mm)	(lb)	(g)
	NM-F38ATHN	3/8" - 16	3/4	19	0.8	376
	NM-F12ATHN	1/2" - 13	7/8	22	1.7	771

Rod coupler

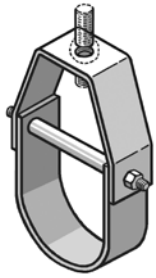
	Cat. No.	Thread size	Weight / C	
			(lb)	(kg)
	NM-FRC38	3/8" - 16	7.4	3.36
	NM-FRC12	1/2" - 13	11.3	5.13
	NM-FRC58	5/8" - 11	16.7	7.57

3/4" and 1" sizes are available.

Nonmetallic - Strut systems

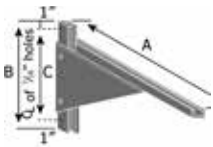
Nonmetallic pipe hangers, brackets and beam clamps

Clevis hangers



Cat. No.	Nominal pipe size		Max. O.D. range		Hanger rod size	Design load	
	(in)	(mm)	(in)	(mm)		(lb)	N
NM-SCH200	2	50.8	2½	63.5	½ - 13	90	0.40
NM-SCH212	2½	63.5	¾	82.6	½ - 13	120	0.54
NM-SCH300	3	76.2	¾	98.4	½ - 13	160	0.71
NM-SCH400	4	101.6	5	127	⅝ - 11	250	1.12
NM-SCH600	6	152.4	7	177.8	⅝ - 11	400	1.79
NM-SCH800	8	203.2	9	228.6	⅝ - 11	450	2.01
NM-SCH1000	10	250	11¾	288.9	⅝ - 11	500	2.24
NM-SCH1200	12	304.8	13½	342.9	⅝ - 11	600	2.69

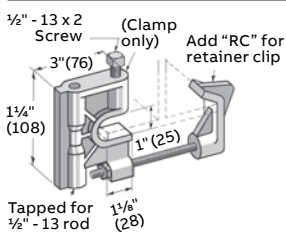
Support brackets



Cat. No.*	Dimension "A"		Dimension "B"		Dimension "C"		Design load		
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	N	
SB 1	NM-SB1-6P	10	254	12	304.8	10	254	1,600	7117
	NM-SB1-9P	13	330.2	12	304.8	10	254	1,100	4893
	NM-SB1-12P	16	406.4	12	304.8	10	254	850	3781
	NM-SB1-18P	22	558.8	12	304.8	10	254	725	3225
	NM-SB1-24P	28	711.2	12	304.8	10	254	480	2135
SB 2	NM-SB2-24P	26	660.4	21	533.4	15	381	750	3336
	NM-SB2-30P	32	812.8	21	533.4	15	381	750	3336
	NM-SB2-36P	38	965.2	21	533.4	15	381	750	3336

*Substitute "V" for "P" when vinyl ester resin is needed. Design loads based on uniform. Allowable load is based on a total load, uniformly distributed over the length of the rack. Safety factor = 2.0 loading with a safety factor of 3.

Beam clamps



Cat. No.	Description	Design load	
		(lb/ft)	(kg/m)
NM-SBC	Beam clamp	800	3.56
NM-SBC-RC	Beam clamp with retainer clip	800	3.56

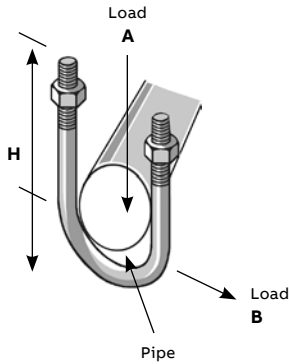
Safety factor of 3 on design load.

Nonmetallic - Strut systems

Nonmetallic pipe hangers and hardware

U-bolt

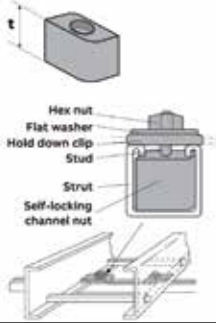
Cat. No.	Nominal pipe size		H	Design load A		Design load B		Max. torque		Weight / C	
	(in)	(mm)	(in)	(lb)	N	(lb)	N	in - lb	N - m	(lb)	(kg)
NM-FUB050	½	12.7	2.41	300	1334	150	667	30	3.4	3.5	1.59
NM-FUB075	¾	19.1	2.60							3.9	1.77
NM-FUB100	1	25.4	2.85							4.4	2.00
NM-FUB114	1¼	31.8	3.16							4.8	2.18
NM-FUB112	1 ½	38.1	3.47							5.2	2.36
NM-FUB200	2	50.8	4.18	600	2669	200	890	60	6.8	7.7	3.49
NM-FUB212	2½	63.5	4.68							10.2	4.63
NM-FUB300	3	76.2	5.31							12.6	5.72
NM-FUB312	3½	88.9	5.81							15.1	6.85
NM-FUB400	4	101.6	6.31								
										17.6	7.98



Safety factor of 3 on design load.

Channel nut

Part. No.	Thread size	Weight / C		Dimension "t"	
		(lb)	(g)	(in)	(mm)
NM-FCN25	¼-20	5.58	2531	1½/₁₆	27
NM-FCN38	⅜-16	5.31	2408	1½/₁₆	27
NM-FCN12	½-13	5.27	2390	1½/₁₆	27



Vinyl Ester resin is the standard. Channel nuts are self locking and designed for use with EC-158 and EC-158D strut only. Resistance to slip = 450 Lbs. per bolt Pull out strength = 700 Lbs. per bolt . Safety factor of 3 on design load.

Flat washer

Cat. No.	Hole size (in)	Weight / C	
		(lb)	(g)
NM-F38W	⅜	0.5	227
NM-F12W	½		
NM-F58W	⅝		
NM-F34W	¾		
NM-F100W	1		



Nonmetallic - Strut systems

Sealant



Kit contents

- Resin
- Catalyst
- Stir stick and applicator

Brush-on resin seal kit

Cat. No.	Description
NM-RSK-QT	946 ml

To reseal fiberglass after field modifications.
Vinylester resin.

Spray sealant

- Spray acrylic to reseal fiberglass after field modifications.

Spray sealant

Cat. No.	Description
NM-CLEAR-1215	12 fl. oz. can



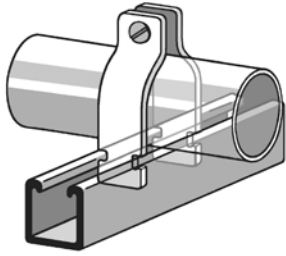
Should be used for top coating polyester applications only.
Not recommended to seal vinylester.

Nonmetallic - Strut systems

Pipe clamps

Rigid pipe clamp

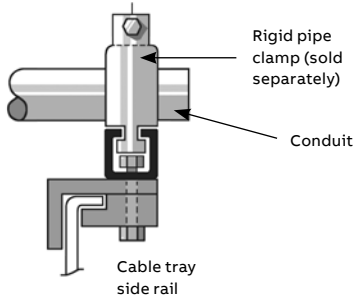
Cat. No.	Nominal pipe size		Design load		Max. Torque		
	(in)	(mm)	(lb)	(kg)	N	(in - lb)	(N - m)
NM-SRPC050	½	12.7	300	136	1.33	10	1.13
NM-SRPC075	¾	19.1					
NM-SRPC100	1	25.4					
NM-SRPC114	1¼	31.8					
NM-SRPC112	1½	38.1					
NM-SRPC200	2	50.8					
NM-SRPC212	2½	63.5					
NM-SRPC300	3	76.2					
NM-SRPC312	3½	88.9					
NM-SRPC400	4	101.6					



Safety factor of 3 on design load.

Conduit swivel clamp

Cat. No.	Description
NM-SCSC-(CTD)	Conduit swivel clamp



Cable tray designation (CTD) required. (Ex. 6CP series designates 6" deep polyester resin). Pipe clamps are a separate order item.

Nonmetallic - Strut systems

Channel Loading Chart

Loading information

Beam loads: The charts below list the total allowable uniform load for various simple spans based on a minimum safety factor of 2.

If the load is concentrated at center span, multiply the load by 0.5 and the corresponding deflection by 0.8.

Channel framing loading – Beam and column data: Polyester and vinyl ester resin base

Beam span in / (mm)	Cat. No.	Maximum allowable uniform beam load		Deflection @ Maximum allowable uniform beam load		Uniform load @ Maximum deflection = 0.25 in (6mm)		Uniform load @ Maximum Deflection = 0.50 in (13mm)		Maximum allowable column load Lbs (kg)
		Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	
12 (304.8)	NM-SSP-100	790 (358)	990 (449)	0.11 (3)	0.12 (3)	–	–	–	–	2550 (1156)
	NM-SSP-158	1720 (780)	2150 (975)	0.07 (2)	0.07 (2)	–	–	–	–	3650 (1655)
	NM-SSP-158-D	5080 (2301)	6350 (2880)	0.04 (1)	0.04 (1)	–	–	–	–	7300 (3111)
18 (457)	NM-SSP-100	530 (240)	670 (304)	0.24 (6)	0.27 (7)	–	620 (281)	–	–	2350 (1066)
	NM-SSP-158	1150 (521)	1440 (653)	0.15 (4)	0.17 (4)	–	–	–	–	3370 (1528)
	NM-SSP-158-D	5080 (2301)	4240 (1923)	0.09 (2)	0.10 (2)	–	–	–	–	6740 (3058)
24 (609.6)	NM-SSP-100	400 (181)	500 (227)	0.43 (11)	0.48 (12)	240 (109)	270 (122)	–	–	2070 (939)
	NM-SSP-158	860 (390)	1080 (490)	0.27 (7)	0.30 (8)	810 (367)	910 (412)	–	–	2960 (1342)
	NM-SSP-158-D	2540 (1152)	3180 (1442)	0.16 (4)	0.17 (4)	–	–	–	–	5920 (2685)
30 (762)	NM-SSP-100	320 (145)	400 (181)	0.67 (17)	0.75 (19)	120 (54)	140 (63)	240 (109)	270 (122)	1710 (775)
	NM-SSP-158	690 (313)	870 (394)	0.42 (11)	0.48 (12)	410 (186)	460 (209)	–	–	2450 (1111)
	NM-SSP-158-D	2040 (925)	2550 (1156)	0.24 (6)	0.27 (7)	2000 (907)	2350 (1066)	–	–	4900 (2222)
36 (914.4)	NM-SSP-100	270 (122)	340 (154)	0.98 (25)	1.10 (28)	70 (31)	80 (36)	140 (63)	160 (72)	1260 (571)
	NM-SSP-158	580 (263)	730 (331)	0.61 (15)	0.69 (19)	240 (109)	270 (122)	480 (217)	540 (245)	1800 (816)
	NM-SSP-158-D	1700 (771)	2130 (966)	0.35 (9)	0.39 (10)	1220 (553)	1370 (621)	–	–	3600 (1633)
42 (1066.8)	NM-SSP-100	230 (104)	290 (131)	1.32 (34)	1.49 (38)	50 (22)	55 (25)	100 (45)	115 (52)	920 (417)
	NM-SSP-158	490 (222)	620 (281)	0.82 (21)	0.92 (23)	150 (68)	170 (77)	300 (136)	340 (154)	1320 (598)
	NM-SSP-158-D	1460 (662)	1830 (830)	0.48 (12)	0.62 (16)	770 (349)	870 (394)	1510 (650)	1720 (530)	2640 (1197)
48 (1219.2)	NM-SSP-100	200 (91)	250 (113)	1.72 (44)	1.92 (49)	30 (13)	25 (16)	60 (27)	70 (31)	700 (317)
	NM-SSP-158	430 (195)	540 (245)	1.07 (27)	1.20 (30)	100 (45)	115 (52)	200 (90)	230 (104)	1010 (458)
	NM-SSP-158-D	1270 (576)	1590 (721)	0.62 (16)	0.69 (17)	520 (236)	590 (267)	1040 (471)	1170 (780)	2020 (916)
60 (1524)	NM-SSP-100	160 (72)	200 (91)	2.68 (68)	2.99 (76)	20 (9)	23 (10)	40 (18)	45 (20)	180 (81)
	NM-SSP-158	350 (158)	400 (200)	1.70 (43)	1.91 (48)	60 (27)	70 (32)	120 (54)	135 (61)	260 (118)
	NM-SSP-158-D	1020 (462)	1280 (580)	0.97 (25)	1.09 (28)	270 (122)	310 (140)	540 (245)	610 (276)	520 (235)
72 (1828.8)	NM-SSP-100	140 (63)	180 (81)	–	–	10 (4)	12 (5)	20 (9)	23 (10)	–
	NM-SSP-158	290 (131)	370 (168)	2.44 (62)	2.78 (71)	30 (13)	34 (15)	60 (27)	70 (32)	–
	NM-SSP-158-D	850 (385)	1070 (485)	1.40 (35)	1.57 (40)	160 (72)	180 (81)	320 (145)	360 (163)	–
84 (2133.6)	NM-SSP-100	120 (54)	150 (68)	–	–	NR	–	12 (5)	15 (7)	–
	NM-SSP-158	250 (113)	320 (145)	–	–	20 (9)	23 (10)	40 (18)	45 (20)	–
	NM-SSP-158-D	730 (331)	920 (417)	1.91 (48)	2.15 (55)	100 (45)	115 (52)	200 (90)	230 (104)	–
96 (2438.4)	NM-SSP-100	100 (45)	130 (59)	–	–	NR	–	–	–	–
	NM-SSP-158	220 (100)	250 (113)	–	–	13 (6)	15 (7)	26 (12)	30 (13)	–
	NM-SSP-158-D	640 (290)	800 (363)	2.50 (63)	2.79 (71)	70 (32)	80 (36)	140 (63)	160 (72)	–

Temperature	Design load multiplier
75°F (24°C)	100%
100°F (38°C)	90%
125°F (52°C)	78%
150°F (66°C)	68%
175°F (79°C)	60%
200°F (93°C)	52%

Recommended guideline

Published design loads are based on usage at 70°F (21°C) and must be reduced for continuous exposure to higher temperatures. Refer to the chart opposite for high temperature applications.