



# NON-METALLIC STRUT SYSTEMS

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

Thomas & Betts is proud to present its new line of Non-metallic Struts and Accessories. You'll find a complete selection of non-metallic accessories, fasteners, hangers, pipe clamps and channels.

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



### STRUT STRAIGHT SECTION CATALOGUE SELECTOR

**NM - SS 100 ( ) ( ) - 20**

STRUT SYSTEM	TYPE OF SYSTEM	SIZE	DOUBLE	HOLES/SLOTS/INSERT	LENGTH
NM = Non-metallic	SS = Strut system	100 = 1" 158 = 1-5/8"	D = double Blank = single	H = holes I = insert S = slots	120 = 10 ft 240 = 20 ft

**Example: NM-SS100-120, 1" single strut, 120 inches (10 ft).**

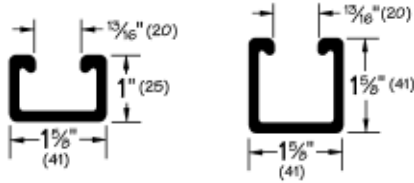
**Note: Stocked in 120 inches (10 ft) and 240 inches (20 ft).**



# CHANNELS, COMBINATIONS & HOLE PATTERN

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

### SOLID - SINGLE STRUT



NM-SS(\*)-100

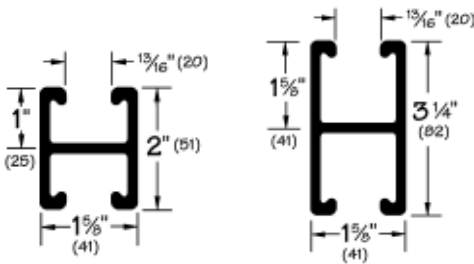
NM-SS(\*)-158

\*Add P - for polyester or V - for vinyl ester

Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSP-100-(L)</b>	Grey	0.47	0.70
	<b>NM-SSP-158-(L)</b>	Grey	0.63	0.94
<b>Vinyl Ester</b>	<b>NM-SSV-100-(L)</b>	Beige	0.47	0.70
	<b>NM-SSV-158-(L)</b>	Beige	0.63	0.94

(L) Add desired length 120 (10 ft) or 240 (20 ft).  
Cut-to-length channel also available.  
Contact your sales office for more information.

### SOLID - BACK TO BACK



NM-SS(\*)-100-D

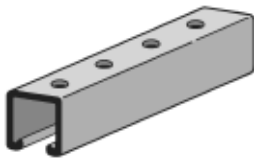
NM-SS(\*)-158-D

\*Add P - for polyester or V - for vinyl ester

Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSP-100-D-(L)</b>	Grey	0.86	1.28
	<b>NM-SSP-158-D-(L)</b>	Grey	1.17	1.75
<b>Vinyl Ester</b>	<b>NM-SSV-100-D-(L)</b>	Beige	0.86	1.28
	<b>NM-SSV-158-D-(L)</b>	Beige	1.17	1.75

(L) Add desired length 120 (10 ft) or 240 (20 ft).  
Cut-to-length channel also available.  
Contact your sales office for more information.

### PUNCHED



Holes - 9/16" holes X 1-7/8" on center

Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSP-100-H-(L)</b>	Grey	0.45	0.67
	<b>NM-SSP-158-H-(L)</b>	Grey	0.61	0.91
<b>Vinyl Ester</b>	<b>NM-SSV-100-H-(L)</b>	Beige	0.45	0.67
	<b>NM-SSV-158-H-(L)</b>	Beige	0.61	0.91

(L) Add desired length 120 (10 ft) or 240 (20 ft).  
Cut-to-length channel also available.  
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# CHANNELS, COMBINATIONS & HOLE PATTERN

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

### SLOTTED



Slots - 9/16" X 7/8" on 2" centers

Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSP-100-S-(L)</b>	Grey	0.46	0.69
	<b>NM-SSP-158-S-(L)</b>	Grey	0.62	0.93
<b>Vinyl Ester</b>	<b>NM-SSV-100-S-(L)</b>	Beige	0.46	0.69
	<b>NM-SSV-158-S-(L)</b>	Beige	0.62	0.93

(L) Add desired length 120 (10 ft) or 240 (20 ft).  
Cut-to-length channel also available.  
Contact your sales office for more information.

### CONCRETE INSERT



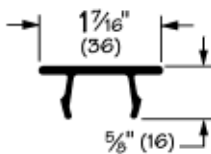
Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSP-158-I-(L)</b>	Grey	1.04	1.55
<b>Vinyl Ester</b>	<b>NM-SSV-158-I-(L)</b>	Beige	1.04	1.55

(L) Add desired length 120 (10 ft) or 240 (20 ft).  
Cut-to-length channel also available.  
Contact your sales office for more information.

### CLOSURE STRIP



Closure strip fits all 1-5/8" wide strut regardless of depth.



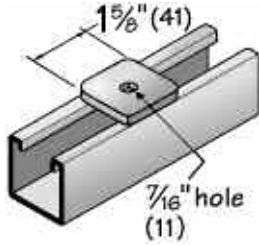
Material/Resin	Catalogue No.	Color	Weight	
			lb. / ft.	kg / m
<b>Polyester</b>	<b>NM-SSCS-158-120</b>	Grey	TBA	TBA

Note : Not available in vinyl ester.  
Only stocked in 120" or 10 ft lengths.  
Contact your sales office for more information.

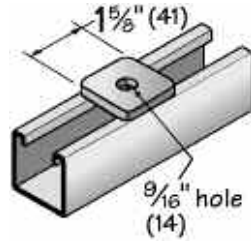


# NON-METALLIC STRUT FITTINGS AND BRACKETS

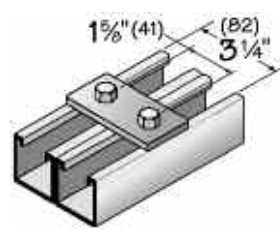
## NON-METALLIC CABLE TRAY & STRUT SYSTEMS



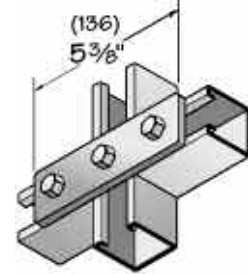
**NM-SFP-1S7**



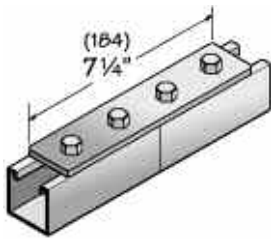
**NM-SFP-1S9**



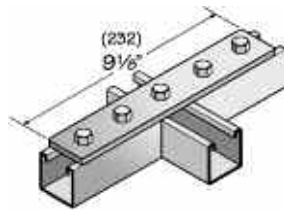
**NM-SFP-2S**



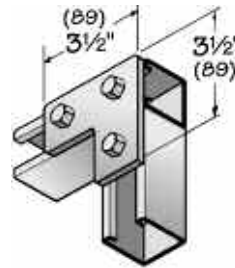
**NM-SFP-3S**



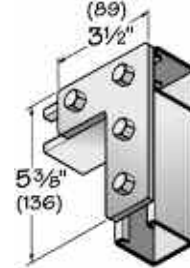
**NM-SFP-4S**



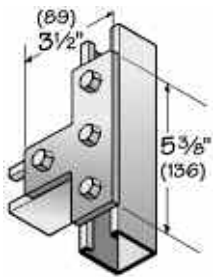
**NM-SFP-5S**



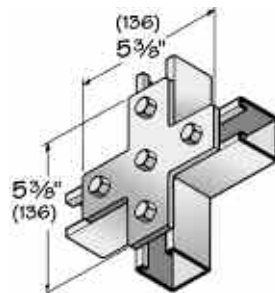
**NM-SFP-3HL**



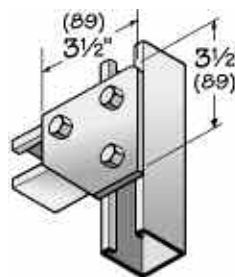
**NM-SFP-4HL**



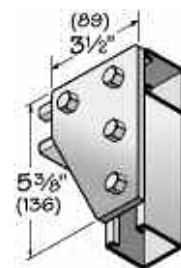
**NM-SFP-4HT**



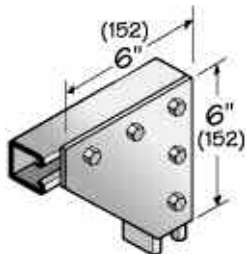
**NM-SFP-5HX**



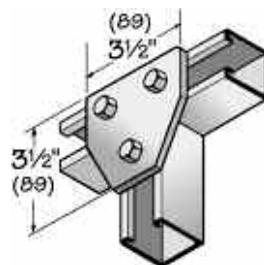
**NM-SFP-3HCG**



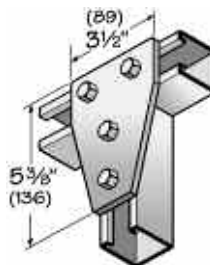
**NM-SFP-4HCG**



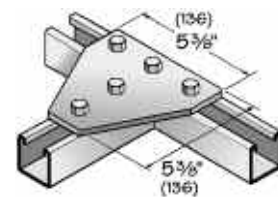
**NM-SFP-5HCG**



**NM-SFP-3HTG**



**NM-SFP-4HTG**



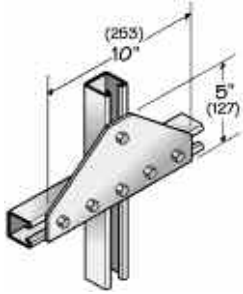
**NM-SFP-5HTG**

All fittings are 1-5/8" (41) wide and 1/4" (6) thick unless specified otherwise. All holes are 13/32" (10) diameter unless specified otherwise.

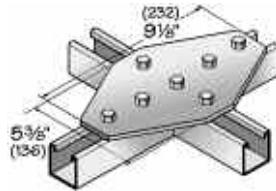


# NON-METALLIC STRUT FITTINGS AND BRACKETS

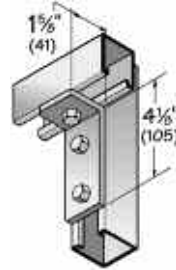
## NON-METALLIC CABLE TRAY & STRUT SYSTEMS



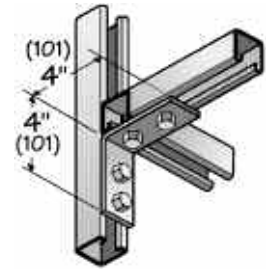
**NM-SFP-6HTG**



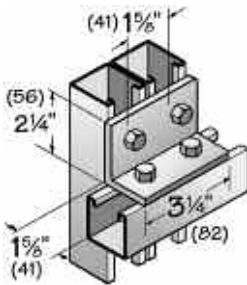
**NM-SFP-7HXG**



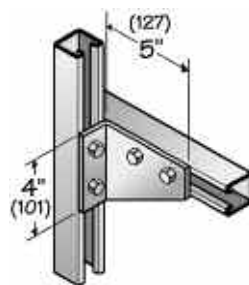
**NM-SFP-3VL**



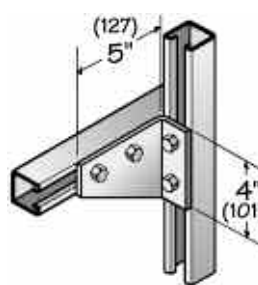
**NM-SFP-4VL**



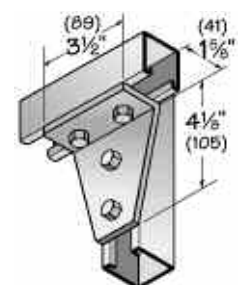
**NM-SFP-4VLD**



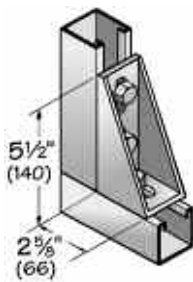
**NM-SFP-4VGL**



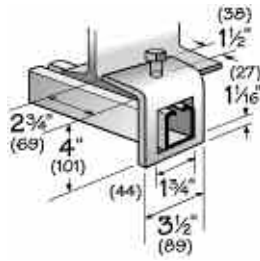
**NM-SFP-4VGR**



**NM-SFP-4VTG**

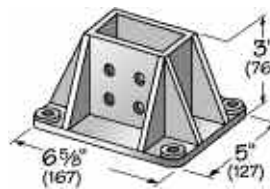


**NM-SFP-3CB**



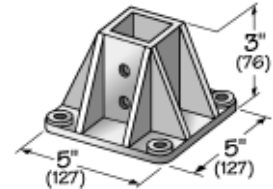
Window Clamp

**NM-SWC-158**



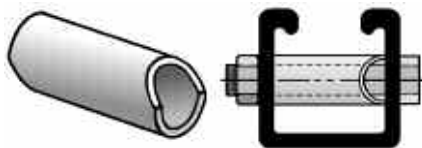
Double Base

**NM-SSV-DBASE**



Single Base

**NM-SSV-SBASE**



Channel Spacer (for 3/8" rod)

**NM-SCSP-158**

NON-METALLIC STRUT SYSTEMS

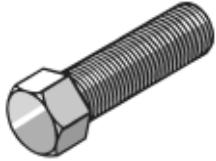
All fittings are 1-5/8" (41) wide and 1/4" (6) thick unless specified otherwise. All holes are 13/32" (10) diameter unless specified otherwise.



# NON-METALLIC THREADED HARDWARE

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

### HEX HEAD BOLT



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

Safety Factor of 3 on Design Load.

### HEX NUT



Thread Size	Catalogue No.	Height		Weight / C	
		in.	mm	lb.	g
3/8" - 16	NM-F38HN	21/64	8	0.3	136
1/2" - 13	NM-F12HN	7/16	11	0.7	318
5/8" - 11	NM-F58HN	35/64	14	1.4	635

Note: 3/4" and 1" sizes are available.

### ALL-THREAD ROD



Thread Size	Catalogue No.	Design Load		Max Torque		Weight / C	
		lb.	N	in-lbs	N-m	lb.	g
3/8" - 16	NM-F38AT	425	1890	45	5.1	0.08	36
1/2" - 13	NM-F12AT	750	3336	110	12.4	0.13	59
5/8" - 11	NM-F58AT	950	4226	230	26.0	0.21	95

Safety Factor of 3 on Design Load. Note: 3/4" and 1" sizes are available. Standard lengths are 4' and 8'. Example: NM-F38AT-4.

### ALL-THREAD ROD HEX NUT



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

### ROD COUPLER



Thread Size	Catalogue No.	Weight / C	
		lb.	g
3/8" - 16	NM-FRC38	7.4	3357
1/2" - 13	NM-FRC12	11.3	5118
5/8" - 11	NM-FRC58	16.7	7575

3/4" and 1" sizes are available.



# NON-METALLIC PIPE HANGERS, BRACKETS & BEAM CLAMPS

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

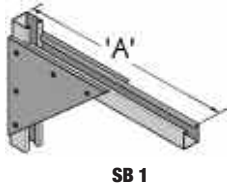
### CLEVIS HANGERS



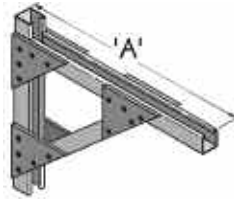
Nominal Pipe Size		Cat. No.	Maximum O.D. Range		Hanger Rod	Design Load	
in.	mm		in.	mm	Size	lb.	N-m
2	50	NM-SCH200	2-1/2	63	1/2" - 13	90	0.40
2-1/2	65	NM-SCH212	3-1/4	82	1/2" - 13	120	0.54
3	80	NM-SCH300	3-7/8	98	1/2" - 13	160	0.71
4	100	NM-SCH400	5	127	5/8" - 11	250	1.12
6	150	NM-SCH600	7	177	5/8" - 11	400	1.79
8	200	NM-SCH800	9	228	5/8" - 11	450	2.01
10	250	NM-SCH1000	11-3/8	289	5/8" - 11	500	2.24
12	300	NM-SCH1200	13-1/2	342	5/8" - 11	600	2.69

Safety Factor of 3 on Design Loads at 120°F (49°C).  
Insulation may be required at high temperatures.  
Order hanger rods and nuts separately.

### SUPPORT BRACKETS



SB 1

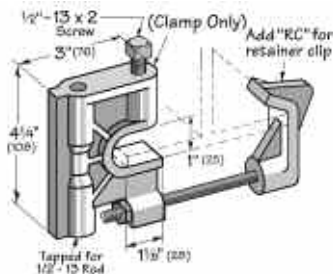


SB 2

Cat. No.*	Dimension "A"		Design Load	
	in.	mm	lb.	N
NM-SB1-06P	10	250	1400	6.22
NM-SB1-09P	13	330	1000	4.45
NM-SB1-12P	16	406	800	3.56
NM-SB1-18P	22	559	675	3.00
NM-SB1-24P	28	711	450	2.00
NM-SB2-24P	28	711	750	3.33
NM-SB2-30P	34	863	750	3.33
NM-SB2-36P	40	1016	750	3.33

\*Substitute "V" for "P" when Vinyl Ester Resin is needed.  
Design loads based on uniform loading with a Safety Factor of 3.

### BEAM CLAMPS



Description	Cat. No.	Design Load	
		lb. / ft.	kg / m
Beam Clamp	NM-SBC	800	3.56
Beam Clamp w/retainer clip	NM-SBC-RC	800	3.56

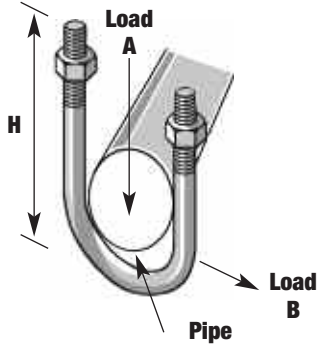
Safety Factor of 3 on Design Load.



# NON-METALLIC THREADED HARDWARE & SEALANT

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

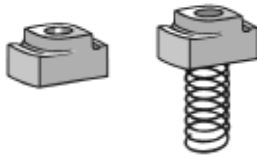
### U-BOLT



Nominal Pipe Size		H Height	Catalogue No.	Design Load A		Design Load B		Max. Torque		Weight / C	
in.	mm	in.		lb.	N	lb.	N	in.-lb.	N-m	lb.	g
1/2	15	2.41	NM-FUB050	300	1334	150	667	30	3.4	3.5	1588
3/4	20	2.60	NM-FUB075	300	1334	150	667	30	3.4	3.9	1769
1	25	2.85	NM-FUB100	300	1334	150	667	30	3.4	4.4	1996
1-1/4	32	3.16	NM-FUB114	300	1334	150	667	30	3.4	4.8	2177
1-1/2	40	3.47	NM-FUB112	300	1334	150	667	30	3.4	5.2	2359
2	50	4.18	NM-FUB200	600	2669	200	890	60	6.8	7.7	3493
2-1/2	65	4.68	NM-FUB212	600	2669	200	890	60	6.8	10.2	4627
3	80	5.31	NM-FUB300	600	2669	200	890	60	6.8	12.6	5715
3-1/2	90	5.81	NM-FUB312	600	2669	200	890	60	6.8	15.1	6849
4	100	6.31	NM-FUB400	600	2669	200	890	60	6.8	17.6	7983

Safety Factor of 3 on Design Load.

### CHANNEL NUT



Thread	Cat. No. w/spring	Cat. No. w/o spring	Pull-Out		Slip Resistance		Max. Torque		Weight / C	
			lb.	N	lb.	N	in.-lb.	N-m	lb.	g
3/8 - 16	NM-FCN38	FCN38W0	300	1334	150	667	200	22.6	2.3	1043
1/2 - 13	NM-FCN12	FCN12W0	300	1334	150	667	200	22.6	2.3	1043

Safety Factor of 3 on Design Load.

Note: 1/4" and 5/16" sizes are available.

### FLAT WASHER



Hole Size in.	Cat. No.	Weight / C	
		lb.	g
3/8"	NM-F38W	.5	227
1/2"	NM-F12W	.5	227
5/8"	NM-F58W	.5	227
3/4"	NM-F34W	.5	227
1"	NM-F100W	.5	227

### SPRAY SEALANT



Spray acrylic to reseal fiberglass after field modifications.

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

### BRUSH-ON RESIN SEAL KIT



To reseal fiberglass after field modifications. Vinyl Ester Resin

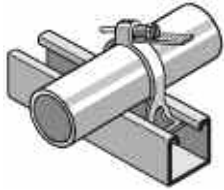
#### Kit Contents

- Resin
- Catalyst
- Stir stick and applicator

Description	Catalogue No.
1/2 pint	NM-RSK-05
1 pint	NM-RSK-10



**ADJUSTABLE PIPE CLAMP**

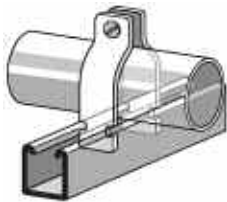


Nominal Pipe Size		Cat. No.	Pipe O.D. Range		Design Load		Max. Torque	
in.	mm		in.	mm	lb.	N	in.-lb.	N-m
1/2 to 3/4	15-20	NM-SAPC050	75 to 1.05	19 to 28	75	.33	15	1.69
1 to 1-1/2	5-40	NM-SAPC100	1.05 to 1.90	29 to 48	150	.67	22	2.48
1-1/2 to 2-1/2	40-65	NM-SAPC112	1.90 to 2.87	48 to 73	150	.67	22	2.48
2-1/2 to 3-1/2	65-90	NM-SAPC212	2.87 to 4.0	73 to 101	150	.67	22	2.48

Safety Factor of 3 on Design Load.

**Not recommended for vertical installation without additional supports**

**RIGID PIPE CLAMP**

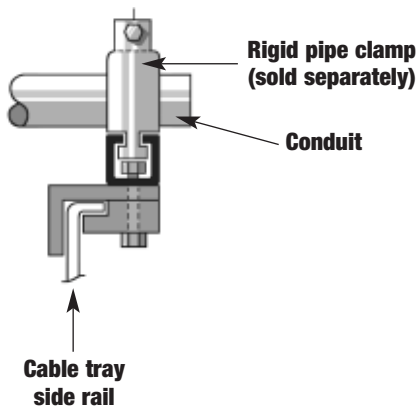


Nominal Pipe Size		Cat. No.	Design Load		Max. Torque	
in.	mm		lb.	N	in.-lb.	N-m
1/2	15	NM-SRPC050	300	1.33	10	1.13
3/4	20	NM-SRPC075	300	1.33	10	1.13
1	25	NM-SRPC100	300	1.33	10	1.13
1-1/4	32	NM-SRPC114	300	1.33	10	1.13
1-1/2	40	NM-SRPC112	300	1.33	10	1.13
2	50	NM-SRPC200	300	1.33	10	1.13
2-1/2	65	NM-SRPC212	300	1.33	10	1.13
3	80	NM-SRPC300	300	1.33	10	1.13
3-1/2	90	NM-SRPC312	300	1.33	10	1.13
4	100	NM-SRPC400	300	1.33	10	1.13

Safety Factor of 3 on Design Load.

**Not recommended for vertical installation without additional supports**

**CONDUIT SWIVEL CLAMP**



**Catalogue No.**

**NM-SCSC-(CTD)**

Cable Tray Designation (CTD) required (Ex. 6CP Series designates 6" deep polyester resin).  
Pipe Clamps are a separate order item.



# NON-METALLIC STRUT LOAD CHARTS

## NON-METALLIC CABLE TRAY & STRUT SYSTEMS

### 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.

#### BEAM LOADING DATA FOR GLASS REINFORCED POLYESTER RESIN

Beam Span	Catalogue No.	Maximum Allowable Beam Load		Deflection at Maximum Allowable Beam Load		Allowable Load @ Deflection =			
		lb.	N	in.	mm	1/240 Span		1/360 Span	
						lb.	N	lb.	N
<b>12"</b> (305)	NM-SSP-100	793	3527	0.106	2.69	373	1659	249	1107
	NM-SSP-100-D	2301	10235	0.060	1.52	1928	8576	1285	5715
	NM-SSP-158	1783	7931	0.067	1.70	1327	5902	885	3936
	NM-SSP-158-D	5172	23005	0.037	.94	5172	23005	4696	20888
<b>24"</b> (609)	NM-SSPP-100	397	1766	0.425	10.79	93	413	62	276
	NM-SSP-100-D	1150	5115	0.239	6.07	482	2144	321	1428
	NM-SSP-158	891	3963	0.269	6.83	332	1477	221	983
	NM-SSP-158-D	2586	11502	0.147	3.73	1761	7833	1174	5222
<b>36"</b> (914)	NM-SSP-100	264	1174	0.957	24.31	41	182	28	124
	NM-SSP-100-D	767	3411	0.537	13.64	214	952	143	636
	NM-SSP-158	594	2642	0.604	15.34	147	654	98	436
	NM-SSP-158-D	1724	7668	0.330	8.38	783	3483	522	2322

#### BEAM LOADING DATA FOR GLASS REINFORCED VINYL ESTER RESIN

Beam Span	Catalogue No.	Maximum Allowable Beam Load		Deflection at Maximum Allowable Beam Load		Allowable Load @ Deflection =			
		lb.	N	in.	mm	1/240 Span		1/360 Span	
						lb.	N	lb.	N
<b>12"</b> (305)	NM-SSV-100	988	4394	0.112	2.84	441	1961	294	1308
	NM-SSV-100-D	2866	12748	0.063	1.60	2279	10137	1519	6756
	NM-SSV-158	2221	9879	0.071	1.80	1569	6979	1046	4652
	NM-SSV-158-D	6443	28658	0.039	.99	6443	28658	5550	24686
<b>24"</b> (609)	NM-SSV-100	494	2197	0.448	11.38	110	489	73	325
	NM-SSV-100-D	1433	6374	0.252	6.40	570	2535	380	1690
	NM-SSV-158	1110	4937	0.283	7.19	392	1743	261	1161
	NM-SSV-158-D	3221	14327	0.155	3.94	2081	9256	1387	6169
<b>36"</b> (914)	NM-SSV-100	329	1463	1.009	25.63	49	218	33	147
	NM-SSV-100-D	955	4248	0.566	14.37	253	1125	169	752
	NM-SSV-158	740	3291	0.637	16.18	174	774	116	516
	NM-SSV-158-D	2148	9554	0.348	8.84	925	4114	617	2744

Note: Dimensions shown as metric are in millimeters, unless otherwise specified.

### 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 at right for high temperature applications.

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%