TECHNICAL DATA SHEET: SFS Channel

MECHANICAL CHARACTERISTICS

- Section Area: 0.50 in²
- Weight: 0.36 lb/ft
- Inertia: I_x: 0.07 in⁴
 I_x: 0.07 in⁴
- Section Modulus: W_x: 0.12 in³
 W_y: 0.8 in³

BASE MATERIALS

- Pultruded channel
- Surface reinforced
- Glass fibre reinforced

TECHNICAL CHARACTERISTICS

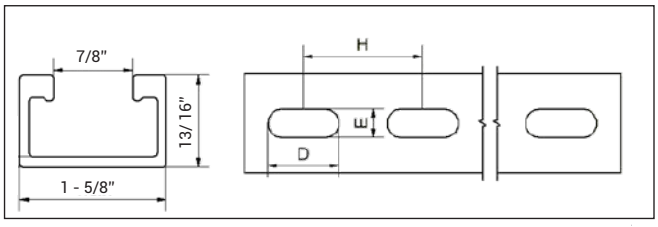
- Rust and corrosion resistant.
- Electrical and thermal resistance.
- Fire retardant and self-extinguishing requirement of UL94 – V0.

APPROVALS AND CERTIFICATES

STANDARD LENGTHS

Code	Imperial length
4125SFS05	20 inch
4125SFS09	36 inch (3 ft)
4125SFS18	72 inch (6ft)
4125SFS30	120 inch (10ft)

MIAN DIMENSIONS (inches)



10 gauge norminal thickness

Slots dimensions		
D	E	H
1- 1/8	15/32	1-31/32

RECOMMENDED LOADS

Load Variation

Load capacity is affected by exposure to temperature. In case of continuous exposure, the load capacity has to be modified according to the following indications:

The "k_T" factor has to be applied in order to know the real load capacity.

$$F_{per} = k_T \cdot F^*$$

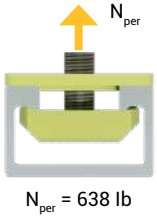
* The F values are obtained from load tables based on load distribution and span distance.

The temperatures between indicated values, can be interpolated.

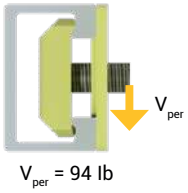
	Load variation under temperature			
Temperature	- 40 °F	+ 273°C	+ 104 °F	+ 158 °F
Coef. "K_T"	0.94	1.00	0.87	0.65

* The information detailed is based on data from raw material suppliers.

Fittings load capacity



N_{per} = 638 lb



V_{per} = 94 lb

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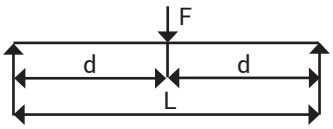
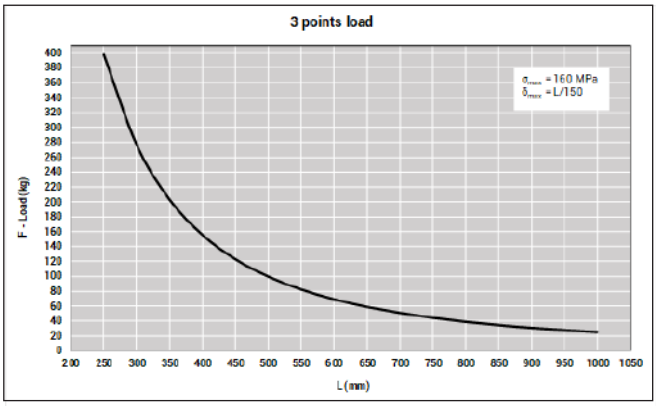
TECHNICAL DATA SHEET: SFS Channel

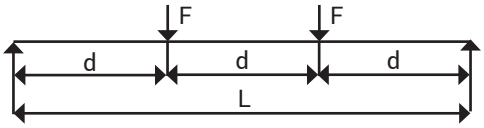
3 POINTS BENDING

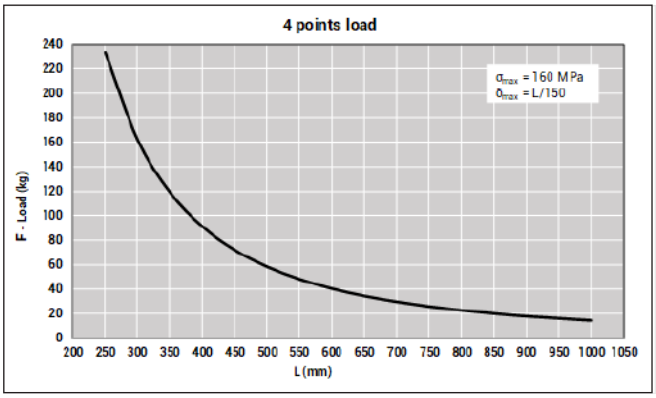




T. 73°C		SFS Channel		
		"F" Max. Load	Deflection Max. Load	
L		lb	mm	in
9 - 27/32 in	0.82 ft	876	1.67	0.07
11-13/16 in	0.98 ft	608	2.00	0.08
13 - 25/32 in	1.15 ft	447	2.33	0.09
15 - 3/4 in	1.31 ft	342	2.67	0.10
17 - 23/32 in	1.48 ft	270	3.00	0.12
19 - 11/16 in	1.64 ft	219	3.33	0.13
21 - 21/32 in	1.80 ft	181	3.67	0.14
23 - 5/8 in	1.97 ft	152	4.00	0.16
25 - 19/32 in	2.13 ft	130	4.33	0.17
27 - 9/16 in	2.30 ft	112	4.67	0.18
29 - 17/32 in	2.46 ft	97	5.00	0.20
31- 1/2 in	2.62 ft	86	5.33	0.21
33 - 15/32 in	2.79 ft	76	5.67	0.22
35 - 7/16 in	2.95 ft	68	6.00	0.24
39 - 3/8 in	3.28 ft	55	6.67	0.26

4 POINTS BENDING





T. 73°C		SFS Channel		
		"F" Max. Load	Deflection Max. Load	
L		lb	mm	in
9 - 27/32 in	0.82 ft	514	1.67	0.07
11-13/16 in	0.98 ft	357	2.00	0.08
13 - 25/32 in	1.15 ft	262	2.33	0.09
15 - 3/4 in	1.31 ft	201	2.67	0.10
17 - 23/32 in	1.48 ft	159	3.00	0.12
19 - 11/16 in	1.64 ft	128	3.33	0.13
21 - 21/32 in	1.80 ft	106	3.67	0.14
23 - 5/8 in	1.97 ft	89	4.00	0.16
25 - 19/32 in	2.13 ft	76	4.33	0.17
27 - 9/16 in	2.30 ft	66	4.67	0.18
29 - 17/32 in	2.46 ft	57	5.00	0.20
31- 1/2 in	2.62 ft	50	5.33	0.21
33 - 15/32 in	2.79 ft	44	5.67	0.22
35 - 7/16 in	2.95 ft	40	6.00	0.24
39 - 3/8 in	3.28 ft	32	6.67	0.26

* Permissible loads are based on the following limits:
- 160MPa tension
- Deflection of L/15

Small Things Matter

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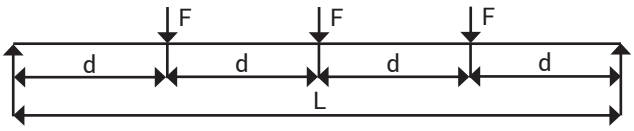
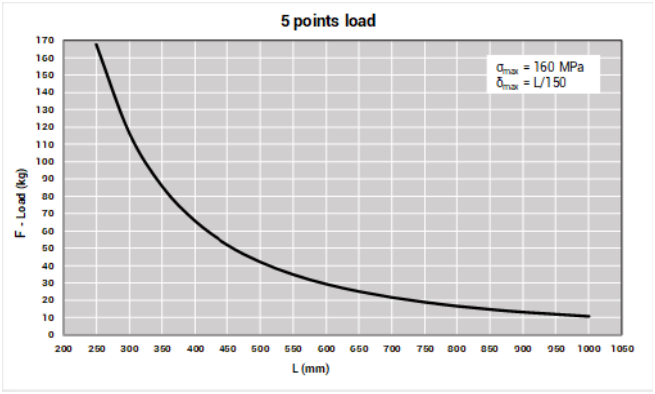
TECHNICAL DATA SHEET: SFS Channel

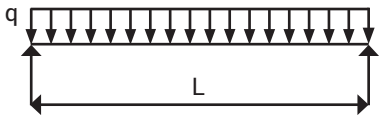
5 POINTS BENDING

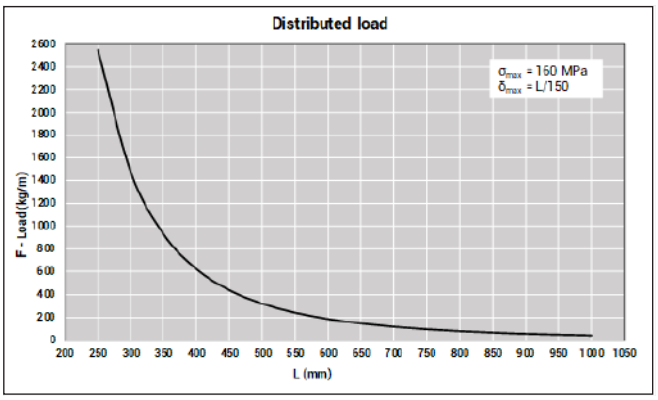




T. 73°C		SFS Channel		
		"F" Max. Load	Deflection Max. Load	
L		lb	mm	in
9 - 27/32 in	0.82 ft	369	1.67	0.07
11-13/16 in	0.98 ft	256	2.00	0.08
13 - 25/32 in	1.15 ft	188	2.33	0.09
15 - 3/4 in	1.31 ft	144	2.67	0.10
17 - 23/32 in	1.48 ft	114	3.00	0.12
19 - 11/16 in	1.64 ft	92	3.33	0.13
21 - 21/32 in	1.80 ft	76	3.67	0.14
23 - 5/8 in	1.97 ft	64	4.00	0.16
25 - 19/32 in	2.13 ft	55	4.33	0.17
27 - 9/16 in	2.30 ft	47	4.67	0.18
29 - 17/32 in	2.46 ft	41	5.00	0.20
31- 1/2 in	2.62 ft	36	5.33	0.21
33 - 15/32 in	2.79 ft	32	5.67	0.22
35 - 7/16 in	2.95 ft	28	6.00	0.24
39 - 3/8 in	3.28 ft	23	6.67	0.26

DISTRIBUTED LOAD





T. 73°F		SFS Channel		
		"F" Max. Load	Deflection Max. Load	
L		lb	mm	in
9 - 27/32 in	0.82 ft	1708	1.67	0.07
11-13/16 in	0.98 ft	988	2.00	0.08
13 - 25/32 in	1.15 ft	622	2.33	0.09
15 - 3/4 in	1.31 ft	417	2.67	0.10
17 - 23/32 in	1.48 ft	293	3.00	0.12
19 - 11/16 in	1.64 ft	213	3.33	0.13
21 - 21/32 in	1.80 ft	160	3.67	0.14
23 - 5/8 in	1.97 ft	124	4.00	0.16
25 - 19/32 in	2.13 ft	97	4.33	0.17
27 - 9/16 in	2.30 ft	78	4.67	0.18
29 - 17/32 in	2.46 ft	63	5.00	0.20
31- 1/2 in	2.62 ft	52	5.33	0.21
33 - 15/32 in	2.79 ft	43	5.67	0.22
35 - 7/16 in	2.95 ft	37	6.00	0.24
39 - 3/8 in	3.28 ft	27	6.67	0.26

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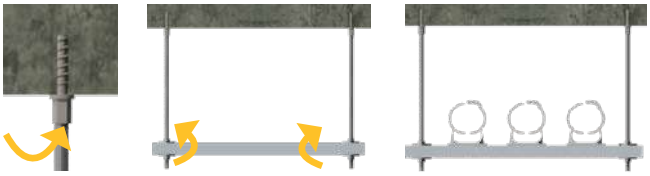
INSTALLATION PROCEDURE

Suspended installation



1. Anchor installation
2. Install rail
3. Attach fittings

Direct installation

1. Fasten rail
2. Attach fitting

CUTTING

To cut the SFS at a specific length, both a hand held saw and circular power saw can be used.
It is recommended to wear dust filter masks, gloves and long sleeve clothing during cutting process.

INSTALLATION PARAMETERS

Based on span distances and load configuration, admissible channel loads are specified in previous points. It is extremely important not to exceed these values.
Admissible channel loads are based on simple span configuration and when applied correctly will avoid rotation at the fixing point.

APPLICATIONS

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