



### **MECHANICAL CHARACTERISTICS**

- Section Area 0.50 in<sup>2</sup>
- Weight 0.36 lb/ft
- Inertia I∴ 0.07 in⁴ I∵ 0.18 in⁴
- Section Modulus  $W_x$ : 0.12 in  $^{\circ}$   $W_y$ : 0.18 in  $^{\circ}$

### **BASE MATERIAL**

Pultruded channel Glass fibre reinforced

# APPROVALS AND CERTIFICATES





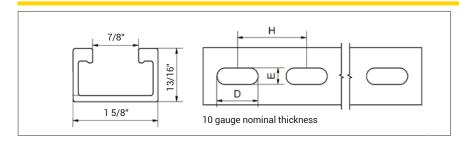
### **TECHNICAL CHARACTERISTICS**

- · Resistance to corrosive environments.
- · Rust and corrosion resistant.
- · Electrical and Thermal properties.
- Fire retardant and self-extinguishing properties of UL94 V0.
- · Lightweight.
- · Easy to drill and cut.

### STANDARD LENGTHS

CODE	Imperial Length
4125SFS05	20in
4125SFS09	36in (3ft)
4125SFS18	72in (6ft)
4125SFS30	120in (10ft)

### **MAIN DIMENSIONS**



Slots Dimensions					
D	E	Н			
1 1/8" (30mm)	15/32" (12mm)	1 31/32" (50mm)			

# RECOMMENDED LOADS

### **Load Variation**

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

The " $k_{T}$ " factor has to be applied in order to know the real load capacity.

$$\mathbf{F}_{per} = \mathbf{k}_{\mathsf{T}} \cdot \mathbf{F}^*$$

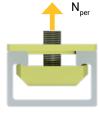
	Load Variation under Temperature			
Temperature	- 40°F	+ 73°F	+ 104°F	+ 158°F
Coefff. "K <sub>⊤</sub> "	0.94	1.00	0.87	0.65

<sup>\*</sup>The information detailed, is based on data from raw material suppliers.

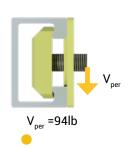
\* The F values are obtained from load tables based on load distribution and span distance.

The temperatures between indicated values, can be interpolated.

# **Application load capacity**



N<sub>per</sub> = 638lb

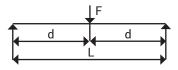


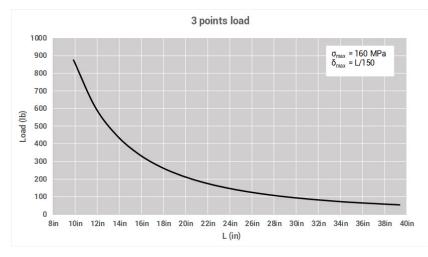


# **TDS: SFS Channel**



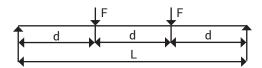
# **3 POINTS BENDING**

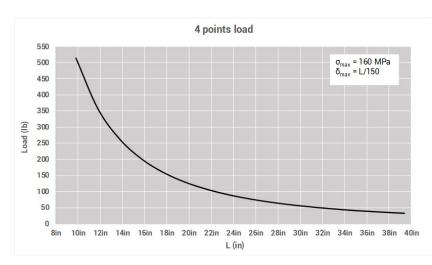




т. 73°F		SFS Channel		
		"F" Max. Load	Deflection Max. Load	
L	L		(mm)	(in)
9-27/32 in	0.82 ft	876	1.67	0.07
11-13/16 in	0.98 ft	608	2.00	0.08
13-25/32 in	1.15 ft	447	2.33	0.09
15- 3/4 in	1.31 ft	342	2.67	0.10
17-23/32 in	1.48 ft	270	3.00	0.12
19-11/16 in	1.64 ft	219	3.33	0.13
21-21/32 in	1.80 ft	181	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**





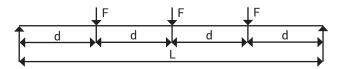
			SES Channel	
T. 73°F		"F" Max. Load	Deflection Max. Load	
L		(lb)	(mm) (in)	
9-27/32 in	0.82 ft	514	1.67	0.07
11-13/16 in	0.98 ft	357	2.00	0.08
13-25/32 in	1.15 ft	262	2.33	0.09
15- 3/4 in	1.31 ft	201	2.67	0.10
17-23/32 in	1.48 ft	159	3.00	0.12
19-11/16 in	1.64 ft	128	3.33	0.13
21-21/32 in	1.80 ft	106	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

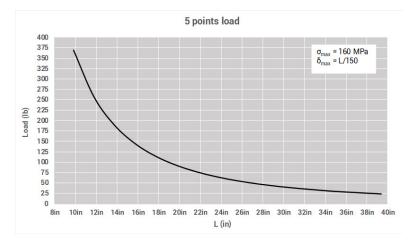
Permissible loads are based on the following limits:

- · 160MPa tension
- Deflection of L/150



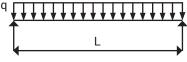
# **5 POINTS BENDING**

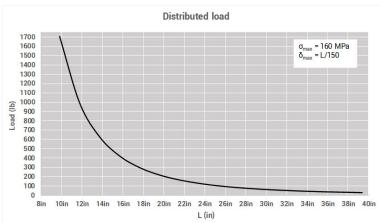




T. 73°F		SFS Channel		
		"F" Max. Load	Deflec Max.	
L		(lb)	(mm)	(in)
9-27/32 in	0.82 ft	369	1.67	0.07
11-13/16 in	0.98 ft	256	2.00	0.08
13-25/32 in	1.15 ft	188	2.33	0.09
15- 3/4 in	1.31 ft	144	2.67	0.10
17-23/32 in	1.48 ft	114	3.00	0.12
19-11/16 in	1.64 ft	92	3.33	0.13
21-21/32 in	1.80 ft	76	3.67	0.14
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

Permissible loads are based on the following limits:

- 160MPa tension
- Deflection of L/150





### **INSTALLATION PROCEDURE**

· Suspended installation



- 1. Anchor installation
- 2. Rail Assembling
- 3. Application assembly

· Direct installation





- 1. Rail fastening
- 2. Application Assembly

# **CUTTING**

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

# **INSTALLATION PARAMETERS**

Based on span distances and loads configuration, admissible channel loads are specified in previous points. It is extremely important not exceed these values.

Admissible channel loads are based on simple span configuration and when correctly implemented, avoid rotation at fixing points.

### **APPLICATIONS**





