Steel Cable Tray

Straight Length Tray Bottom Types Available

Ladder, Ventilated and Solid Trough

Ladder

— Formed siderails are welded to 1-5/8" wide rungs to provide maximum rigidity and strength. Rung design includes exclusive Ty-Rap® cable tie slots on 1" centers

Ventilated

— A fabricated structure consisting of integral or separate longitudinal rails and a bottom having openings sufficient for the passage of air and utilizing 75% or less of the plan area of the surface to support cables. The maximum open spacings between cable support surfaces of transverse elements do not exceed 102 mm (4 in) in the direction parallel to the tray side rails (rung to rung).

Solid Trough

— Solid sheet welded to steel siderails below rungs. This design offers added cable protection.

Straight Section Number Selection

How to create part numbers

Thomas & Betts has created a numbering system based on the order of selection criteria. For example the first selection issue is the environment which the cable tray will be subjected to. This selection will lead to the best material for your application. For complete details on cable tray selection process, see page 10 in the technical section.

Methods

1. Select the material best suited to your environment. Refer to technical section page 10.
2. Determine the series tray using the NEMA/CSA Load/Span Designations page 11, and Sizing Cable Tray page 13.
3. Select nominal depth and width of tray based on Cable Loading. See Sizing Cable Tray page 13.
4. Select the bottom type based on cables and spacing requirements.
5. The last number is the length of the cable tray in meters or inches.

Straight Section Number Selection

SP3624L09144

Material

- **SP** • Pre-Galvanized
- **SH** • Hot Dip Galvanized after fabrication
- **SS** • Stainless Steel 316

Series

- ****1** • Series 1
- **1** • Series 1
- **3** • Series 3
- **2** • Series 2
- **4** • Series 4
- **5** • Series 5
- **0** • Series 0
- **1** • Series 1
- **3** • Series 3
- **4** • Series 4
- **3** • Series 3

Siderail Height

- 3-5/8”
- 4”
- 5”
- 6”
- 7”

Width

- **06** • (6")
- **09** • (9")
- **12** • (12")
- **18** • (18")
- **24** • (24")
- **30** • (30")
- **36** • (36")
- ***42** • (42")

Bottom Type

- **L06** • 6" rung spacing
- **L09** • 9" rung spacing
- **L12** • 12" rung spacing
- *** L18** • 18" rung spacing
- **V** • Ventilated
- **S** • Solid Trough

Length

- **3** • (3 meters)
- **6** • (6 meters)
- **144** • (12 ft)
- **288** • (24 ft)

Prefix

* **Only upon request (consult factory for loading).**
** **Series 1-3 and 0-6 are not available in 6 meter and 288” lengths.**

6” Straight Sections
Series 0-6, 1-6, 3-6, 4-6
Ladder, Ventilated and Solid Trough

Straight Section Number Selection

SP3624L09144

Material
- **SP** • Pre-Galvanized
- **SH** • Hot Dip Galvanized after fabrication
- **SS** • Stainless Steel 316

Prefix

Series
- **0** • Series 0
- **1** • Series 1
- **3** • Series 3
- **4** • Series 4

Siderail Height
- **6** • (6")

Width
- **06** • (6")
- **09** • (9")
- **12** • (12")
- **18** • (18")
- **24** • (24")
- **30** • (30")
- **36** • (36")
- ***42** • (42")

Bottom Type
- **L06** • 6" rung spacing
- **L09** • 9" rung spacing
- **L12** • 12" rung spacing
- ***L18** • 18" rung spacing
- **V** • Ventilated
- **S** • Solid Trough

Length
- **3** • (3 meters)
- **6** • (6 meters)
- **144** • (12 ft)
- **288** • (24 ft)

*** Only upon request (consult factory for loading).**

Technical Specifications

All calculations and data are based on 36" wide cable trays with rungs spaced on 12" centers with tray supported as simple spans with deflection measured at the midpoint. Continuous spans may reduce deflection by as much as 50%.

Deflection factor
For lighter loads, deflection at any length can be calculated by multiplying the load by the deflection factor.
For Fittings consult pages 128 to 142

SERIES		SUPPORT SPAN (Feet) 6	8	10	12	14	16	18	20
SP0-6	Load (lb/ft)	424	239	153	106	–	–	–	–
SH0-6	Deflection (in.)	0.120	0.214	0.335	0.482	–	–	–	–
SS0-6	Deflection Factor	0.003	0.0009	0.0022	0.0045	–	–	–	–
SP1-6	Load (lb/ft)	556	313	200	139	102	78	62	50
SH1-6	Deflection (in.)	0.126	0.224	0.349	0.503	0.685	0.895	1.132	1.398
SS1-6	Deflection Factor	0.0002	0.0007	0.0017	0.0036	0.0067	0.0115	0.0183	0.0280
SP3-6	Load (lb/ft)	833	469	300	208	153	117	93	75
SH3-6	Deflection (in.)	0.156	0.277	0.433	0.624	0.849	1.109	1.404	1.733
SS3-6	Deflection Factor	0.0002	0.0006	0.0014	0.0030	0.0055	0.0095	0.0152	0.0231
SP4-6	Load (lb/ft)	1289	725	464	322	237	181	143	116
SH4-6	Deflection (in.)	0.181	0.321	0.502	0.723	0.984	1.285	1.626	2.008
SS4-6	Deflection Factor	0.0001	0.0004	0.0011	0.0022	0.0042	0.0071	0.0114	0.0173

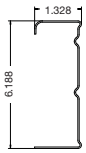
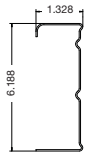
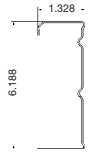
6” Straight Sections
Series 0-6, 1-6, 3-6, 4-6
Ladder, Ventilated and Solid Trough

Steel Cable Tray

SP0-6, SH0-6, SS0-6 SP1-6, SH1-6, SS1-6 SP3-6, SH3-6, SS3-6 SP4-6, SH4-6, SS4-6	
W (in.)	**Wl (in.)**
6	3.34
9	6.34
12	9.34
18	15.34
24	21.34
30	27.34
36	33.34
42	39.34

Technical Specifications

LOAD RATINGS
1.5 Safety factor. All tray sections will support an additional 200 lb concentrated load on any portion of tray (siderail, rung, etc.) above and beyond published load class.

SERIES	DIMENSIONS	SIDERAIL DESIGN FACTORS • 1 PAIR	CLASSIFICATIONS NEMA	CLASSIFICATIONS CSA	UL
SP0-6 **SH0-6** **SS0-6**		Ix = 3.54 in^4 Sx = 1.11 in^2 Area = 0.694 in^2	**12C**	**C/3M**	UL Cross Sectional Area : 0.70 in^2
SP1-6 **SH1-6** **SS1-6**		Ix = 4.44 in^4 Sx = 1.39 in^2 Area = 0.874 in^2	**20A**	**D/6M**	UL Cross Sectional Area : 0.70 in^2
SP3-6 **SH3-6** **SS3-6**		Ix = 5.373 in^4 Sx = 1.70 in^2 Area = 1.40 in^2	**20B**	**E/6M**	UL Cross Sectional Area : 1.00 in^2
SP4-6 **SH4-6** **SS4-6**		Ix = 7.173 in^4 Sx = 2.250 in^2 Area = 1.40 in^2	**20C**	**–**	UL Cross Sectional Area : 1.00 in^2