

Series 2, 3, 4, & 5 Steel - Straight Sections

6" NEMA VE 1 Loading Depth
7" Side Rail Height

Straight Section Part Numbering

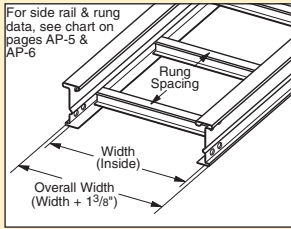
Prefix

Example: 378 P 09 - 24 - 240

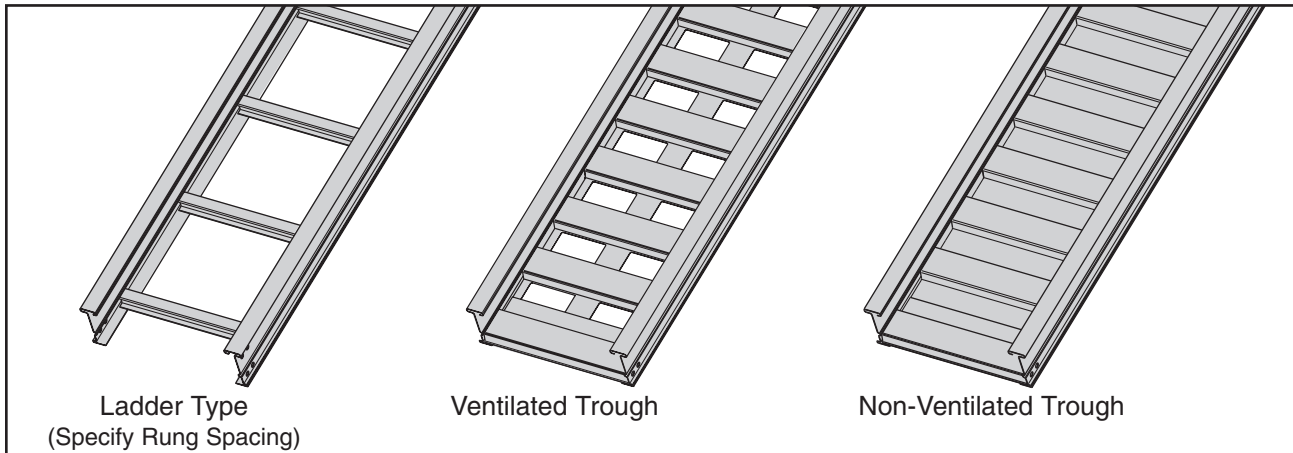
| Series | Material | *Type | *Width | Length |
|--------|-------------------------------------|--|--|--|
| ● 378 | ● P = Pre-Galvanized ● G = HDGAF | ● Ladder- ● 06 = 6" rung spacing ● 09 = 9" rung spacing ● 12 = 12" rung spacing | ● 06 = 6" ● 09 = 9" ● 12 = 12" ● 18 = 18" ● 24 = 24" ● 30 = 30" ● 36 = 36" | ● ① 144 = 12 ft. ● ② 240 = 20 ft. 378 ● ① 240 = 20 ft. ● ② 288 = 24 ft. 476 ● ① 240 = 20 ft. ● ② 288 = 24 ft. 574 |

① Primary Length.
② Secondary Length.

See page 39 for explanation of lengths.



See page 362 for additional rung options. *Special sizes available.



● Green = Fastest shipped items ● Black = Normal lead-time items ● Red = Normally long lead-time items

6" NEMA VE 1 Loading Depth 7" Side Rail Height

Values are based on simple beam tests per NEMA VE 1 on 36" wide cable tray with rungs spaced on 12" centers. Cable trays will support without collapse a 200 lb. (90.7 kg) concentrated load over and above published loads. Published load safety factor is 1.5. To convert 1.5 safety factor to 2.0, multiply published load by 0.75. To obtain mid-span deflection, multiply a load by the deflection multiplier. Cable tray must be supported on spans shorter than or equal to the length of the cable tray being installed.

Individual rungs will support without collapse a 200 lb. (90.7 kg) concentrated load applied at the mid-span of the rung, over and above the NEMA rated cable load with a 1.5 safety factor for highlighted NEMA spans and loads. See table on page 367 for rung capacities.

| B-Line Series | Side Rail Dimensions | NEMA, CSA & UL Classifications | Span ft | Load lbs/ft | Deflection Multiplier | Design Factors for Two Rails | Span meters | Load kg/m | Deflection Multiplier | Design Factors for Two Rails |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 378 | | NEMA: 20A, 16B CSA: D1-3m UL Cross-Sectional Area: 0.70 in ² | 8 | 319 | 0.0006 | Area=1.01 in ² Sx=1.77 in ³ Ix=6.90 in ⁴ | 2.4 | 474 | 0.009 | Area=6.52 cm ² Sx=29.01 cm ³ Ix=287.20 cm ⁴ |
| | | | 10 | 204 | 0.0014 | | 3.0 | 304 | 0.023 | |
| | | | 12 | 142 | 0.0028 | | 3.7 | 211 | 0.048 | |
| | | | 14 | 104 | 0.0052 | | 4.3 | 155 | 0.089 | |
| | | | 16 | 80 | 0.0089 | | 4.9 | 119 | 0.151 | |
| | | | 18 | 63 | 0.014 | | 5.5 | 94 | 0.242 | |
| | | | 20 | 51 | 0.022 | | 6.1 | 76 | 0.369 | |

| B-Line Series | Side Rail Dimensions | NEMA, CSA & UL Classifications | Span ft | Load lbs/ft | Deflection Multiplier | Design Factors for Two Rails | Span meters | Load kg/m | Deflection Multiplier | Design Factors for Two Rails |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 476 | | NEMA: 20B, 16C CSA: D1-6m UL Cross-Sectional Area: 1.00 in ² | 12 | 214 | 0.0019 | Area=1.22 in ² Sx=2.14 in ³ Ix=8.30 in ⁴ | 3.7 | 318 | 0.033 | Area=7.87 cm ² Sx=35.07 cm ³ Ix=345.47 cm ⁴ |
| | | | 16 | 120 | 0.0061 | | 4.9 | 179 | 0.105 | |
| | | | 18 | 95 | 0.010 | | 5.5 | 141 | 0.168 | |
| | | | 20 | 77 | 0.015 | | 6.1 | 115 | 0.255 | |
| | | | 22 | 64 | 0.022 | | 6.7 | 95 | 0.374 | |
| | | | 24 | 53 | 0.031 | | 7.3 | 80 | 0.529 | |

| B-Line Series | Side Rail Dimensions | NEMA, CSA & UL Classifications | Span ft | Load lbs/ft | Deflection Multiplier | Design Factors for Two Rails | Span meters | Load kg/m | Deflection Multiplier | Design Factors for Two Rails |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| 574 | | NEMA: 20C CSA: E-6m UL Cross-Sectional Area: 1.50 in ² | 12 | 361 | 0.0014 | Area=1.64 in ² Sx=2.87 in ³ Ix=11.10 in ⁴ | 3.7 | 537 | 0.025 | Area=10.58 cm ² Sx=47.03 cm ³ Ix=462.02 cm ⁴ |
| | | | 16 | 203 | 0.0046 | | 4.9 | 302 | 0.078 | |
| | | | 18 | 160 | 0.0073 | | 5.5 | 239 | 0.125 | |
| | | | 20 | 130 | 0.011 | | 6.1 | 193 | 0.191 | |
| | | | 22 | 107 | 0.016 | | 6.7 | 160 | 0.280 | |
| | | | 24 | 90 | 0.023 | | 7.3 | 134 | 0.396 | |

When cable trays are used in continuous spans, the deflection of the cable tray is reduced by as much as 50%. Design factors:
Ix = Moment of Inertia, Sx = Section Modulus.