

## How The Service Advisor Works

We know that your time is important! That's why the color-coding system in this catalog is designed to help you select products that fit your service needs. Products are marked to indicate the typical lead time for orders of 50 pieces or less.
Customer: How do I select my straight sections. covers, or fittings so that I get the quickest turnaround?
Service Advisor: Each part of our selection chart is shown in colors. If any section of a part number is a different color, the part will typically ship with the longer lead time represented by the colors.

- Green = Fastest shipped items
- Black = Normal lead-time items
- Red = Normally long lead-time items
Example: $\quad 34 \mathrm{~A} \quad$ VT $-24-244$

Part will have a normal lead time because of the VT bottom type.

## Series 2, 3, 4, \& 5 Aluminum - Straight Sections

## 3" NEMA VE 1 Loading Depth <br> 4" Side Rail Height

## Straight Section Part Numbering



See page APP-1 for additional rung options. *Special sizes available.


## Series 2, 3, 4, \& 5 Aluminum - Straight Sections

## 3" NEMA VE 1 Loading Depth 4" 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 . $(90.7 \mathrm{~kg})$ concentrated load over and above published loads. Published load safety factor is 1.5. To convert 1.5 safety factor to 2.0 , multiply the 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 $200 \mathrm{lb} .(90.7 \mathrm{~kg})$ 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.

| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | 4. | NEMA: 16A, 12C CSA: $277 \mathrm{~kg} / \mathrm{m} 3.0 \mathrm{~m}$ D-3m UL Cross-Sectional Area: 1.00 in $^{2}$ | 6 | 487* | 0.001 | $\begin{gathered} \text { Area }=1.05 \mathrm{in}^{2} \\ \mathrm{Sx}=1.34 \mathrm{in}^{3} \\ \mid \mathrm{x}=2.85 \mathrm{in}^{4} \end{gathered}$ | 1.8 | 725* | 0.017 | $\begin{aligned} & \text { Area }=6.77 \mathrm{~cm}^{2} \\ & \text { S } x=21.96 \mathrm{~cm}^{3} \\ & \mid x=118.63 \mathrm{~cm}^{4} \end{aligned}$ |
|  |  |  | 8 | 284 | 0.003 |  | 2.4 | 422 | 0.055 |  |
|  |  |  | 10 | 181 | 0.008 |  | 3.0 | 270 | 0.136 |  |
|  |  |  | 12 | 126 | 0.016 |  | 3.7 | 187 | 0.279 |  |
|  |  |  | 14 | 93 | 0.030 |  | 4.3 | 138 | 0.618 |  |
|  |  |  | 16 | 71 | 0.052 |  | 4.9 | 105 | 0.883 |  |

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

* When using 18 " rung spacing, load capacity is limited to $394 \mathrm{lbs} / \mathrm{ft}(586.27 \mathrm{~kg} / \mathrm{m})$ for 30 " tray width and $325 \mathrm{lbs} / \mathrm{ft}(483.6 \mathrm{~kg} / \mathrm{m})$ for 36 " tray width.

| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H24 | $\overbrace{4.19}^{-1.75}$ | NEMA: 20A CSA: $84 \mathrm{~kg} / \mathrm{m} 6.1 \mathrm{~m}$ D-6m <br> UL Cross-Sectional Area: 1.00 in $^{2}$ | 10 | 225 | 0.006 | $\begin{gathered} \text { Area }=1.32 \mathrm{in}^{2} \\ \mathrm{Sx}=1.57 \mathrm{in}^{3} \\ \mid \mathrm{x}=3.69 \mathrm{in}^{4} \end{gathered}$ | 3.0 | 330 | 0.106 | $\begin{aligned} & \text { Area }=8.52 \mathrm{~cm}^{2} \\ & \text { Sx }=25.73 \mathrm{~cm}^{3} \\ & \mid x=153.59 \mathrm{~cm}^{4} \end{aligned}$ |
|  |  |  | 12 | 156 | 0.013 |  | 3.7 | 226 | 0.222 |  |
|  |  |  | 14 | 115 | 0.023 |  | 4.3 | 171 | 0.400 |  |
|  |  |  | 16 | 88 | 0.040 |  | 4.9 | 129 | 0.693 |  |
|  |  |  | 18 | 70 | 0.064 |  | 5.5 | 103 | 1.093 |  |
|  |  |  | 20 | 56 | 0.098 |  | 6.1 | 83 | 1.682 |  |

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

| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34 |  | NEMA: 20B, 16C CSA: $112 \mathrm{~kg} / \mathrm{m} 6.0 \mathrm{~m}$ E-6m UL Cross-Sectional Area: 1.50 in $^{2}$ | 10 | 320 | 0.005 | $\begin{gathered} \text { Area }=1.82 \mathrm{in}^{2} \\ S x=2.10 \mathrm{in}^{3} \\ \mid x=4.98 \mathrm{in}^{4} \end{gathered}$ | 3.0 | 476 | 0.077 | $\begin{gathered} \text { Area }=11.74 \mathrm{~cm}^{2} \\ \mathrm{Sx}=34.41 \mathrm{~cm}^{3} \\ \mathrm{IX}=207.28 \mathrm{~cm}^{4} \end{gathered}$ |
|  |  |  | 12 | 222 | 0.009 |  | 3.7 | 331 | 0.160 |  |
|  |  |  | 14 | 163 | 0.017 |  | 4.3 | 243 | 0.296 |  |
|  |  |  | 16 | 125 | 0.030 |  | 4.9 | 186 | 0.505 |  |
|  |  |  | 18 | 99 | 0.047 |  | 5.5 | 147 | 0.810 |  |
|  |  |  | 20 | 80 | 0.072 |  | 6.1 | 119 | 1.234 |  |

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

