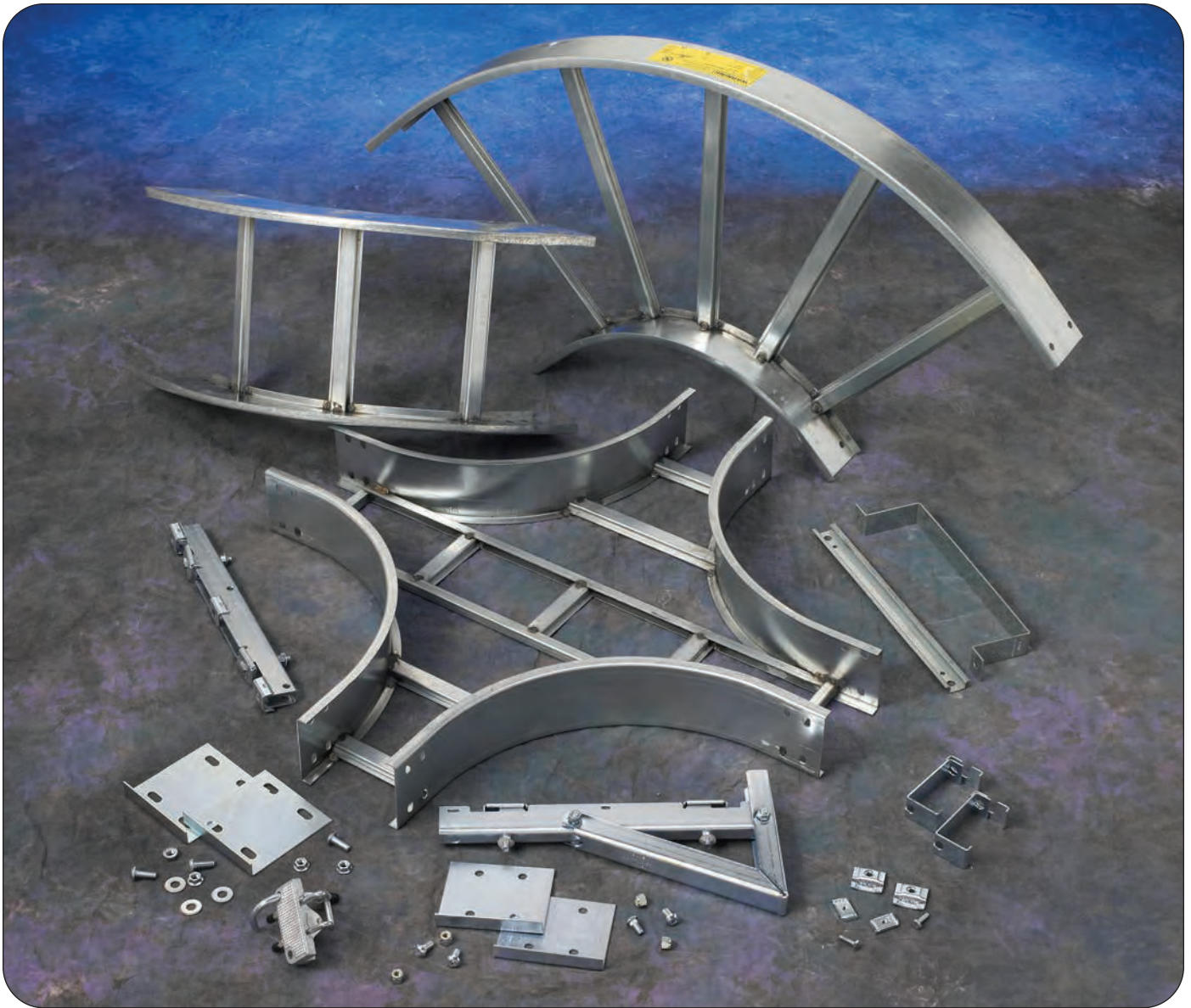




Series 1 Steel



### 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:**                    156G   09   -   24   -   144

●       ●       ●       ●

●       ●       ●       ●

**Part will have a long lead time because of the 156G material.**

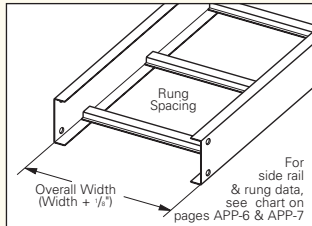
Changing the part number from 156G to 156P will change the coding to black for all sections and reduce lead time.

**3" NEMA VE 1 Loading Depth**  
Actual Loading Depth = 3.077"

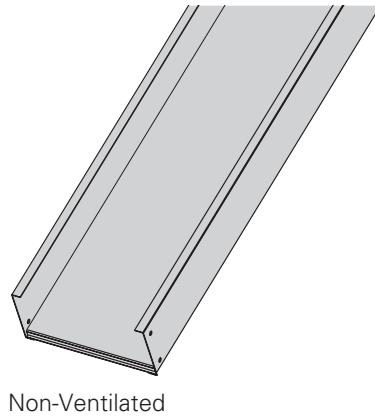
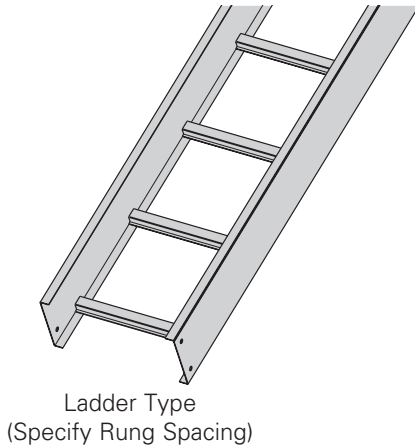
**Straight Section Part Numbering**

Example: <sup>Prefix</sup> **148 P 09 - 24 - 144**

- |                      |   |  |   |  |
|----------------------|---|--|---|--|
| <b>Series</b><br>148 | <b>Material</b><br>● <b>P</b> = Pre-Galvanized Steel<br>● <b>G</b> = Hot Dip Galvanized After Fabrication Steel | <b>Type</b><br>● <b>SB</b> = Solid Bottom<br>● <b>04</b> = Vented Bottom<br>● <b>06</b> = 6" rung spacing<br>● <b>09</b> = 9" rung spacing<br>● <b>12</b> = 12" rung spacing | <b>Width</b><br>● <b>06</b> = 6"<br>● <b>09</b> = 9"<br>● <b>12</b> = 12"<br>● <b>18</b> = 18"<br>● <b>24</b> = 24"<br>● <b>30</b> = 30"<br>● <b>36</b> = 36" | <b>Length</b><br>● ① <b>144</b> = 12 ft.<br>● ② <b>120</b> = 10 ft.<br><br>① Primary Length.<br>② Secondary Length.<br><br>See page C-23 for explanation of lengths. |
|----------------------|---|--|---|--|



See page APP-1 for additional rung options. \*SB available for all widths.



Values are based on simple beam tests per NEMA VE 1 on 36" wide cable tray with rungs spaced on 12" centers. The 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.

| 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 |
|------------------------------------|--------------------------------|---------|-------------|-----------------------|------------------------------|-------------|-----------|-----------------------|------------------------------|
|                                    | NEMA: 12A, 8C                  | 6       | 204*        | 0.0011                | Area = 0.510 in <sup>2</sup> | 1.8         | 304*      | 0.019                 | Area = 3.290 cm <sup>2</sup> |
|                                    | CSA: C1-3m                     | 8       | 115         | 0.0036                | Sx = 0.480 in <sup>3</sup>   | 2.4         | 171       | 0.061                 | Sx = 7.870 cm <sup>3</sup>   |
|                                    | UL Cross-Sectional             | 10      | 73          | 0.0087                | Ix = 0.890 in <sup>4</sup>   | 3.0         | 109       | 0.149                 | Ix = 37.04 cm <sup>4</sup>   |
|                                    | Area: 0.40 in <sup>2</sup>     | 12      | 51          | 0.0181                |                              | 3.7         | 76        | 0.309                 |                              |

\*When using 12" rung spacing load capacity is limited to 195 lbs/ft (290.16 kg/m) for 36" tray width. 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.

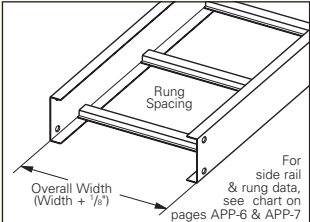
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

**4" NEMA VE 1 Loading Depth**  
Actual Loading Depth = 3.628"

### Straight Section Part Numbering

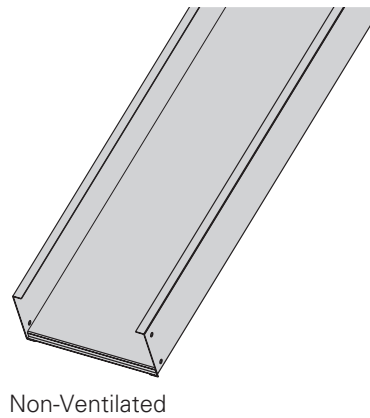
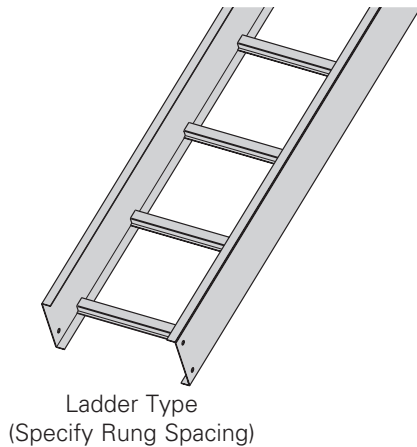
Prefix  
Example: **156 P 09 - 24 - 144**

|               |  |   |   |  |
|---------------|--|---|---|--|
| <b>Series</b> | <b>Material</b>  | <b>Type</b>   | <b>Width</b>  | <b>Length</b>  |
| <b>156</b>    | <ul style="list-style-type: none"> <li>● <b>P</b> = Pre-Galvanized Steel</li> <li>● <b>G</b> = Hot Dip Galvanized After Fabrication Steel</li> </ul> | <ul style="list-style-type: none"> <li>● <b>SB</b> = Solid Bottom</li> <li>● <b>04</b> = Vented Bottom</li> <li>● <b>06</b> = 6" rung spacing</li> <li>● <b>09</b> = 9" rung spacing</li> <li>● <b>12</b> = 12" rung spacing</li> </ul> | <ul style="list-style-type: none"> <li>● <b>06</b> = 6"</li> <li>● <b>09</b> = 9"</li> <li>● <b>12</b> = 12"</li> <li>● <b>18</b> = 18"</li> <li>● <b>24</b> = 24"</li> <li>● <b>30</b> = 30"</li> <li>● <b>36</b> = 36"</li> </ul> | <ul style="list-style-type: none"> <li>● ① <b>144</b> = 12 ft.</li> <li>● ② <b>120</b> = 10 ft.</li> </ul> <p>① Primary Length.<br/>② Secondary Length.</p> <p>See page C-23 for explanation of lengths.</p> |

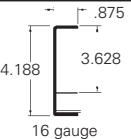


Overall Width (Width + 1/8")  
Rung Spacing  
For side rail & rung data, see chart on pages APP-6 & APP-7

See page APP-1 for additional rung options. \*SB available for all widths.



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 the published loads. The 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.

| B-Line Series<br>Slide Rail Dimensions  | NEMA, CSA & UL<br>Classifications   | Span<br>ft | Load<br>lbs/ft | Deflection<br>Multiplier | Design Factors<br>for Two Rails  | Span<br>meters | Load<br>kg/m | Deflection<br>Multiplier | Design Factors<br>for Two Rails  |
|---|---|------------|----------------|--------------------------|--|----------------|--------------|--------------------------|--|
| <b>156</b><br> | NEMA: 12B, 8C<br>CSA: C1-3m<br>UL Cross-Sectional<br>Area: 0.40 in <sup>2</sup> | 6          | 304*           | 0.0007                   | Area = 0.690 in <sup>2</sup><br>Sx = 0.724 in <sup>3</sup><br>Ix = 1.517 in <sup>4</sup> | 1.8            | 452*         | 0.011                    | Area = 4.390 cm <sup>2</sup><br>Sx = 11.860 cm <sup>3</sup><br>Ix = 63.140 cm <sup>4</sup> |
|   |   | 8          | 171            | 0.0021                   |  | 2.4            | 254          | 0.036                    |  |
|   |   | 10         | 109            | 0.0051                   |  | 3.0            | 163          | 0.087                    |  |
|   |   | 12         | 76             | 0.0011                   |  | 3.7            | 113          | 0.181                    |  |

\*When using 12" rung spacing, load capacity is limited to 234 lbs/ft (348.192 kg/m) for 30" tray width and 195 lbs/ft (290.16 kg/m) for 36" tray width. 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.

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

All dimensions in parentheses are millimeters unless otherwise specified.

**5" NEMA VE 1 Loading Depth**  
Actual Loading Depth = 4.628"

**Straight Section Part Numbering**

Example: <sup>Prefix</sup> **166 P 09 - 24 - 144**

**Series**  
166

**Material**  
● **P** = Pre-Galvanized Steel  
● **G** = Hot Dip Galvanized After Fabrication Steel

**Type**

● **SB** = Solid Bottom  
● **04** = Vented Bottom  
● **06** = 6" rung spacing  
● **09** = 9" rung spacing  
● **12** = 12" rung spacing

**Width**

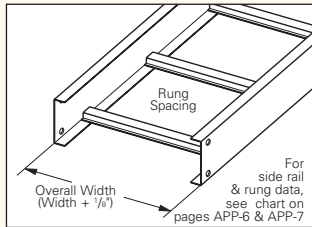
● **06** = 6"  
● **09** = 9"  
● **12** = 12"  
● **18** = 18"  
● **24** = 24"  
● **30** = 30"  
● **36** = 36"

**Length**

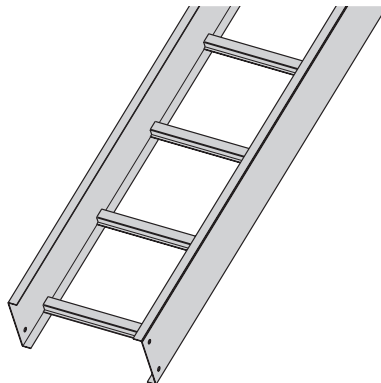
● ① **144** = 12 ft.  
● ② 120 = 10 ft.

Note  
① Primary Length.  
② Secondary Length.

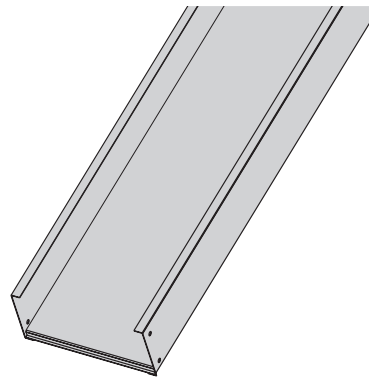
See page C-23 for explanation of lengths.



See page APP-1 for additional rung options. \*SB available for all widths.



Ladder Type  
(Specify Rung Spacing)



Non-Ventilated

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. The 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.

| 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   |
|------------------------------------|---|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|--|
|                                    | NEMA: 12B, 8C<br>CSA: C1-3m<br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 6       | 308*        | 0.0004                | Area = 0.770 in <sup>2</sup><br>Sx = 0.930 in <sup>3</sup><br>Ix = 2.400 in <sup>4</sup> | 1.8         | 458*      | 0.007                 | Area = 4.970 cm <sup>2</sup><br>Sx = 15.240 cm <sup>3</sup><br>Ix = 99.900 cm <sup>4</sup> |
|                                    |   | 8       | 173         | 0.0013                |  | 2.4         | 258       | 0.023                 |  |
|                                    |   | 10      | 111         | 0.0032                |  | 3.0         | 165       | 0.055                 |  |
|                                    |   | 12      | 77          | 0.0067                |  | 3.7         | 115       | 0.114                 |  |

\*When using 12" rung spacing, the load capacity is limited to 234 lbs/ft (348.192 kg/m) for 30" tray width and 195 lbs/ft (290.16 kg/m) for 36" tray width. 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.

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

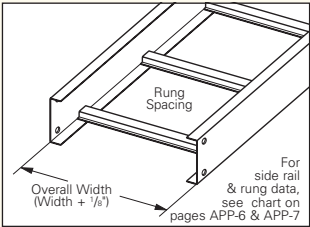
All dimensions in parentheses are millimeters unless otherwise specified.

**6" NEMA VE 1 Loading Depth**  
Actual Loading Depth = 5.628"

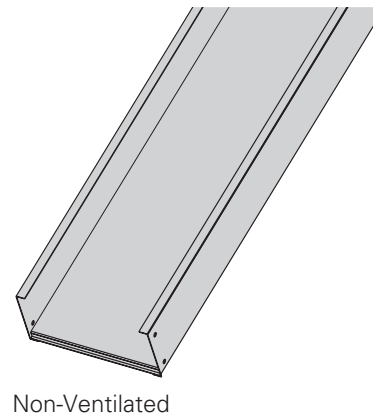
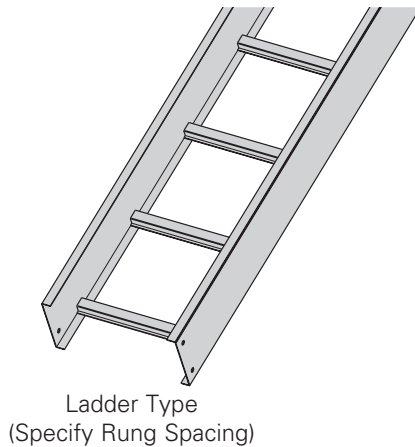
### Straight Section Part Numbering

Prefix  
Example: **176 P 09 - 24 - 144**

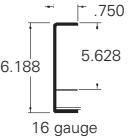
|                              |   |  |   |   |
|------------------------------|---|--|---|---|
| <p><b>Series</b><br/>176</p> | <p><b>Material</b></p> <ul style="list-style-type: none"> <li>● <b>P</b> = Pre-Galvanized Steel</li> <li>● <b>G</b> = Hot Dip Galvanized After Fabrication Steel</li> </ul> | <p><b>Type</b></p> <ul style="list-style-type: none"> <li>● <b>SB</b> = Solid Bottom</li> <li>● <b>04</b> = Vented Bottom</li> <li>● <b>06</b> = 6" rung spacing</li> <li>● <b>09</b> = 9" rung spacing</li> <li>● <b>12</b> = 12" rung spacing</li> </ul> | <p><b>Width</b></p> <ul style="list-style-type: none"> <li>● <b>06</b> = 6"</li> <li>● <b>09</b> = 9"</li> <li>● <b>12</b> = 12"</li> <li>● <b>18</b> = 18"</li> <li>● <b>24</b> = 24"</li> <li>● <b>30</b> = 30"</li> <li>● <b>36</b> = 36"</li> </ul> | <p><b>Length</b></p> <ul style="list-style-type: none"> <li>● ① <b>144</b> = 12 ft.</li> <li>● ② <b>120</b> = 10 ft.</li> </ul> <p>① Primary Length.<br/>② Secondary Length.</p> <p>See page C-23 for explanation of lengths.</p> |
|------------------------------|---|--|---|---|



See page APP-1 for additional rung options. \*SB available for all widths.



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. The 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.

| 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 |
|---|---|---------|-------------|-----------------------|------------------------------|-------------|-----------|-----------------------|------------------------------|
|  <p><b>176</b></p> | NEMA: 12B, 8C<br>CSA: 137 kg/m 3.7m<br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 8       | 194         | 0.0008                | Area = 0.890 in <sup>2</sup> | 2.4         | 458*      | 0.014                 | Area = 5.740 cm <sup>2</sup> |
|   |   | 10      | 124         | 0.0020                | Sx = 1.230 in <sup>3</sup>   | 3.0         | 258       | 0.035                 | Sx = 20.160 cm <sup>3</sup>  |
|   |   | 12      | 86          | 0.0042                | Ix = 3.800 in <sup>4</sup>   | 3.7         | 165       | 0.072                 | Ix = 158.200 cm <sup>4</sup> |

When cable 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.

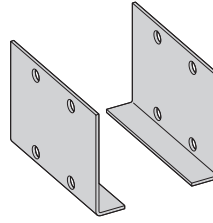
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 1 Steel - Accessories

## Standard (L-Shaped) Splice Plates

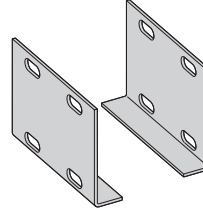
- One pair including hardware provided with each section.  
(Expansion splice quantity subtracted)
- Furnished in pairs with hardware.
- Prepackaged in pairs in a plastic bag, with hardware.
- 4-hole pattern L-shaped splice plates.
- L-shaped lay-in design.
- (\*) Insert **ZN** or **G**



| Tray Series | Catalog No.      |
|-------------|------------------|
| 148         | <b>9(*)-4004</b> |
| 156         | <b>9(*)-4005</b> |
| 166         | <b>9(*)-4006</b> |
| 176         | <b>9(*)-4007</b> |

## Expansion (L-Shaped) Splice Plates

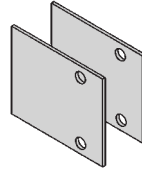
- Expansion plates allow for one inch expansion or contraction of the cable tray, or where expansion joints occur in the supporting structure.
- Bonding Jumpers are required on each side rail. Order Separately.
- L-shaped lay-in design.
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Tray Series | Catalog No.      |
|-------------|------------------|
| 148         | <b>9(*)-4014</b> |
| 156         | <b>9(*)-4015</b> |
| 166         | <b>9(*)-4016</b> |
| 176         | <b>9(*)-4017</b> |

## Universal Splice Plates

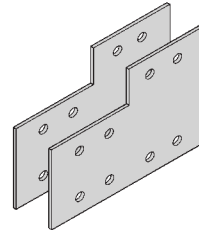
- Used to splice to existing cable tray systems.
- Furnished in pairs with hardware.
- (\*) Insert **P** or **G**



| Tray Series | Catalog No.          |
|-------------|----------------------|
| 148         | <b>9(*)-2004-1/2</b> |
| 156         | <b>9(*)-2005-1/2</b> |
| 166         | <b>9(*)-2006-1/2</b> |
| 176         | <b>9(*)-2007-1/2</b> |

## Step Down Splice Plates

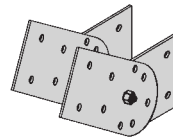
- These splice plates are offered for connecting cable tray sections having side rails of different heights.
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Tray Series       | Catalog No.      |
|-------------------|------------------|
| 156 to 148        | <b>9(*)-8044</b> |
| 166 to 156 or 148 | <b>9(*)-8045</b> |
| 176 to 156 or 148 | <b>9(*)-8046</b> |
| 176 to 166        | <b>9(*)-8060</b> |

## Vertical Adjustable Splice Plates

- These plates provide for changes in elevation that do not conform to standard vertical fittings.
- Bonding jumpers not required.
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**
- (\*\*\*) Insert **P** or **G**

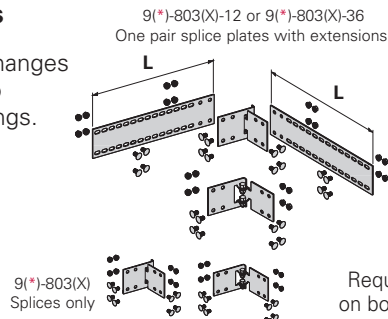


Requires supports within 24" on both sides, per NEMA VE 2.

| Tray Series | Catalog No.       |
|-------------|-------------------|
| 148         | <b>9(**)-7024</b> |
| 156         | <b>9(*)-8024</b>  |
| 166         | <b>9(*)-8025</b>  |
| 176         | <b>9(*)-8026</b>  |

## Horizontal Adjustable Splice Plates

- Offered to adjust a cable tray run for changes in direction in a horizontal plane that do not conform to standard horizontal fittings.
- Furnished in pairs with hardware.
- Bonding jumpers not required.
- (\*) Insert **ZN** or **G**
- (X) Insert 4 for series 148 or 156, 5 for series 166, or 6 for series 176



| Catalog No.           | Cable Tray End Cut | Tray Width | 'L' |
|-----------------------|--------------------|------------|-----|
| <b>9(*)-803(X)</b>    | Mitered            | Thru 36"   | N/A |
| <b>9(*)-803(X)-12</b> | Not mitered        | Thru 12"   | 16" |
| <b>9(*)-803(X)-36</b> | Not mitered        | Thru 36"   | 41" |

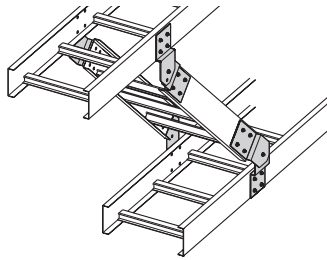
Requires supports within 24" on both sides, per NEMA VE 2.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Branch Pivot Connectors

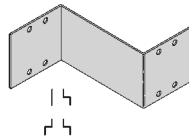
- Branch from existing cable tray runs at any point.
- Pivot to any required angle.
- UL Classified for grounding (bonding jumpers are not required).
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Tray Series | Catalog No.      |
|-------------|------------------|
| 156 to 148  | <b>9(*)-8244</b> |
| 166         | <b>9(*)-8245</b> |
| 176         | <b>9(*)-8246</b> |

## Offset Reducing Splice Plate

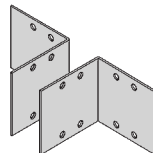
- This plate is used for joining cable trays having different widths. When used in pairs they form a straight reduction; when used singly with a standard splice plate they form an offset reduction.
- Furnished as one plate with hardware.
- (‡) Insert reduction
- (\*) Insert **P** or **G**



| Tray Series | Catalog No.          |
|-------------|----------------------|
| 148         | <b>9(*)-8064-(‡)</b> |
| 156         | <b>9(*)-8064-(‡)</b> |
| 166         | <b>9(*)-8065-(‡)</b> |
| 176         | <b>9(*)-8066-(‡)</b> |

## Tray to Box Splice Plates

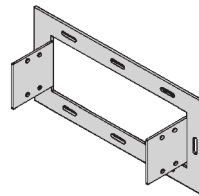
- Used to attach the end of a cable tray run to a distribution box or control panel.
- Furnished in pairs with hardware.
- (\*) Insert **P** or **G**



| Tray Series | Catalog No.      |
|-------------|------------------|
| 148         | <b>9(*)-8054</b> |
| 156         | <b>9(*)-8054</b> |
| 166         | <b>9(*)-8055</b> |
| 176         | <b>9(*)-8056</b> |

## Frame Type Box Connector

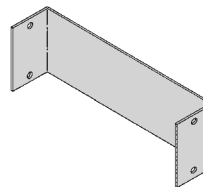
- Designed to attach the end of a cable tray run to a distribution cabinet or control center to help reinforce the box at the point of entry.
- Furnished with tray connection hardware.
- (‡) Insert tray width
- (\*) Insert **ZN** or **G**



| Tray Series | Catalog No.          |
|-------------|----------------------|
| 148         | <b>9(*)-8074-(‡)</b> |
| 156         | <b>9(*)-8074-(‡)</b> |
| 166         | <b>9(*)-8075-(‡)</b> |
| 176         | <b>9(*)-8076-(‡)</b> |

## Blind End

- This plate forms a closure for a dead end cable tray.
- Furnished as one plate with hardware.
- (‡) Insert tray width
- (\*) Insert **P** or **G**



| Tray Series | Catalog No.          |
|-------------|----------------------|
| 148         | <b>9(*)-8084-(‡)</b> |
| 156         | <b>9(*)-8084-(‡)</b> |
| 166         | <b>9(*)-8085-(‡)</b> |
| 176         | <b>9(*)-8086-(‡)</b> |

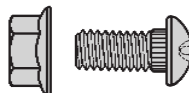
## Tray Hardware

### Pre-Galvanized Tray Hardware

**Catalog No.** ● **RNCB 3/8"-16 x 3/4" Znplt**  
Ribbed Neck Carriage Bolt ASTM A307 Grade A

**Catalog No.** ● **SFHN 3/8"-16 Znplt**  
Serrated Flange Hex Nut ASTM A563 Grade A

**Finish:** Zinc Plated ASTM B633, SC1



### Hot Dip Galvanized Tray Hardware

**Catalog No.** ● **RNCB 3/8"-16 x 3/4" CZ** Ribbed Neck Carriage Bolt Chromium Zinc ASTM F-1136-88

**Catalog No.** ● **SFHN 3/8"-16 CZ** Serrated Flange Hex Nut Chromium Zinc ASTM F-1136-88

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

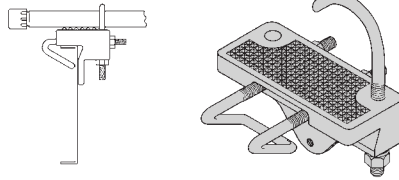
All dimensions in parentheses are millimeters unless otherwise specified.



# Series 1 Steel - Accessories

## Conduit to Tray Adaptor

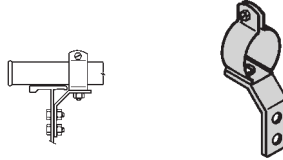
- For easy attachment of conduit terminating at a cable tray.
- Use on aluminum or steel cable trays.



| Conduit Size<br>in. (mm) | Catalog No.             |
|--------------------------|-------------------------|
| 1/2, 3/4 (15, 20)        | <b>9G-1159-1/2, 3/4</b> |
| 1, 1 1/4 (25, 32)        | <b>9G-1159-1, 1 1/4</b> |
| 1 1/2, 2 (40, 50)        | <b>9G-1159-1 1/2, 2</b> |
| 2 1/2, 3 (65, 80)        | <b>9G-1159-2 1/2, 3</b> |
| 3 1/2, 4 (90, 100)       | <b>9G-1159-3 1/2, 4</b> |

## Conduit to Tray Adaptor

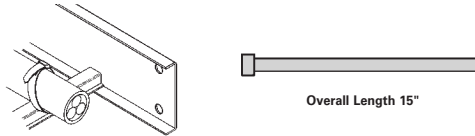
- Assembly required.
- Mounting hardware included.
- Conduit clamp included
- (‡) = Conduit size (1/2" thru 4")



| Catalog No.         |
|---------------------|
| <b>9ZN-1150-(‡)</b> |

## Cable Tie (Ladder Tray)

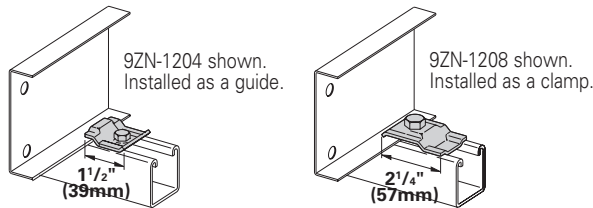
- Nylon ties provide easy attachment of cable to ladder rungs; maximum cable O.D. of 3" (76 mm).



| Catalog No.       |
|-------------------|
| <b>99-2125-15</b> |

## Cable Tray Clamp/Guide

- Features a no-twist design.
- Has four times the strength of the traditional design.
- Each side is labeled to ensure proper installation.
- Furnished in pairs, with or without hardware.



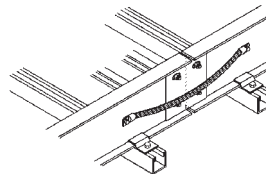
| Catalog No.      |                   | Overall Length<br>in. (mm) | Hardware Size | Finish |
|------------------|-------------------|----------------------------|---------------|--------|
| Without Hardware | With Hardware     |                            |               |        |
| <b>9ZN-1204</b>  | <b>9ZN-1204NB</b> | 1 1/2 38                   | 1/4"          | G90    |
| <b>9ZN-1208</b>  | <b>9ZN-1208NB</b> | 2 1/4 57                   | 3/8"          | G90    |

Patent # RE35479

## Bonding Jumper

Use at each expansion splice and where the cable tray is not mechanically/electrically continuous to ground. Sold individually.

- Hardware included.
- See table 392.7(B)(2) on page C-9 for amperage ratings required to match the UL cross-sectional area of the tray.
- 600 amp rating.
- Bonding jumper is 14 1/2" (368mm) long.



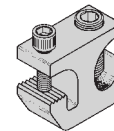
| Catalog No.  | Copper Wire Size |
|--------------|------------------|
| <b>99-N1</b> | #1               |



## Grounding Clamp

Eaton's B-Line series cable tray is UL® classified as to its suitability as an equipment grounding conductor. If a separate conductor for additional grounding capability is desired, we offer this clamp for bolting the conductor at least once to each tray section.

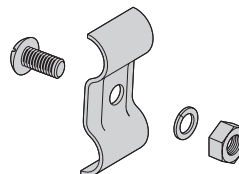
- Tin plated Aluminum clamp accepts #6 AWG to 250 MCM.



| Catalog No.    |
|----------------|
| <b>9A-2130</b> |

## Ground Wire Clamp

- Mechanically attaches grounding cables to cable tray.
- Hardware included.
- (\*) Insert **ZN** or **SS4**



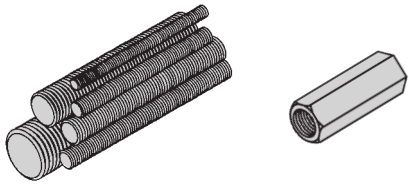
| Catalog No.      | Cable Size       |
|------------------|------------------|
| <b>9(*)-2351</b> | #1 thru 2/0      |
| <b>9(*)-2352</b> | 3/0 thru 250 MCM |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Threaded Rod (ATR) & Rod Coupling

- Loading based on safety factor 5.
- Standard Finish: Zinc plated

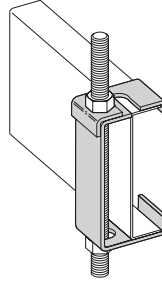


| Size   | Loading<br>lbs. (kN) | Threaded Rod<br>Catalog No. | Available Lengths<br>in. (mm)               | Coupling<br>Cat. No. |
|--------|----------------------|-----------------------------|---|----------------------|
| 3/8-16 | 730 (3.25)           | ● ATR 3/8 x Length          | 36, 72, 120, 144<br>(914, 1829, 3048, 3657) | ● B655-3/8           |
| 1/2-13 | 1350 (6.00)          | ● ATR 3/8 x Length          | 36, 72, 120, 144<br>(914, 1829, 3048, 3657) | ● B655-1/2           |

See B-Line series Strut Systems Catalog for other sizes and finishes.

## Hanger Rod Clamp

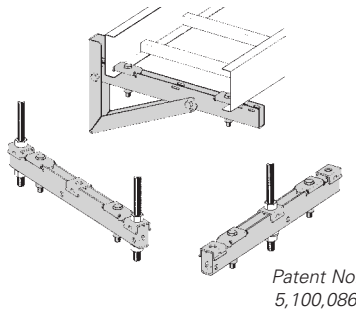
- For 1/2" ATR.
- Furnished in pairs.
- Order ATR and hex nuts separately.
- Two piece "J"-hanger design.
- 9ZN-1113 has 275 lbs./pair safety factor 3.
- 9ZN-532(X) has 1500 lbs./pair safety factor 3.



| Tray<br>Series | Catalog No. |
|----------------|-------------|
| 148            | ● 9ZN-1113  |
| 156            | ● 9ZN-5324  |
| 166            | ● 9ZN-5325  |
| 176            | ● 9ZN-5326  |

## Support Bracket

- Designed for center hung or trapeze supports.
- Used with ladder or vented bottom tray only.
- Can be purchased as a wall mounted bracket.
- Load capacity is 600 lbs. (272.1 kg), safety factor 3.
- All components are zinc plated.
- 1/2" threaded rod and 1/2" hex nuts not included.

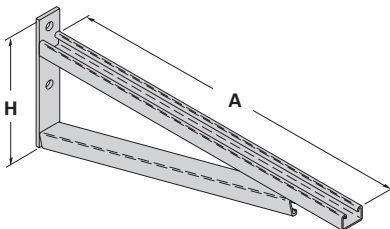


Patent No.  
5,100,086

| Catalog No.               |               | For<br>Cable Tray<br>Width<br>in. (mm) |
|---------------------------|---------------|--|
| Center Hung<br>or Trapeze | Wall<br>Mount |  |
| ● 9ZN-5106                | ● 9ZN-5106-WB | 6 (152)                                |
| ● 9ZN-5109                | ● 9ZN-5109-WB | 9 (226)                                |
| ● 9ZN-5112                | ● 9ZN-5112-WB | 12 (305)                               |
| ● 9ZN-5118                | ● 9ZN-5118-WB | 18 (452)                               |
| ● 9ZN-5124                | ● 9ZN-5124-WB | 24 (609)                               |

## Cantilever Bracket (12" - 42")

- Finishes available:  
● ZN ● GRN or ● HDG
- Safety Load Factor 2.5



Bottom brace is B42 channel on B494-24 and smaller and B22 channel on B494-30 and larger

| Catalog<br>No. | Uniform Load<br>lbs. (kN) | Tray Width<br>in. (mm) | 'A'<br>in. (mm) | 'H'<br>in. (mm)                      |
|----------------|---------------------------|------------------------|-----------------|--------------------------------------|
| ● B494-12      | 2500 (11.12)              | 6 & 9 (152 & 229)      | 12 (305)        | 8 <sup>3</sup> / <sub>4</sub> (222)  |
| ● B494-18      | 1700 (7.56)               | 12 (305)               | 18 (457)        | 8 <sup>3</sup> / <sub>4</sub> (222)  |
| ● B494-24      | 1300 (5.78)               | 18 (457)               | 24 (610)        | 8 <sup>3</sup> / <sub>4</sub> (222)  |
| ● B494-30      | 1600 (7.11)               | 24 (610)               | 30 (762)        | 11 <sup>1</sup> / <sub>4</sub> (286) |
| ● B494-36      | 1100 (4.89)               | 30 (762)               | 36 (914)        | 11 <sup>1</sup> / <sub>4</sub> (286) |
| ● B494-42      | 980 (4.36)                | 36 (914)               | 42 (1067)       | 16 (406)                             |

For more dimensional data see Strut Systems catalog

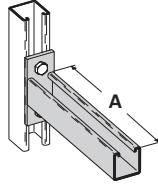
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 1 Steel - Accessories

## Cantilever Bracket

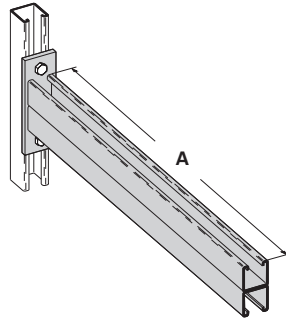
- Finishes available: **ZN** **GRN** **HDG** **SS4** or **SS6**
- Safety Load Factor 2.5



| Catalog No.    | Uniform Load |        | Tray Width |             | 'A' |         |
|----------------|--------------|--------|------------|-------------|-----|---------|
|                | lbs          | (kN)   | in.        | (mm)        | in. | (mm)    |
| <b>B409-12</b> | 960          | (4.27) | 6 & 9      | (152 & 229) | 12  | (304.8) |
| <b>B409-18</b> | 640          | (2.84) | 12         | (305)       | 18  | (457.2) |
| <b>B409-24</b> | 480          | (2.13) | 18         | (457)       | 24  | (609.6) |

## Cantilever Bracket

- Finishes available: **ZN** **GRN** **HDG** or **SS4**
- Safety Load Factor 2.5

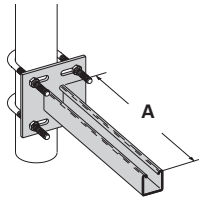


| Catalog No.    | Uniform Load |        | Tray Width |         | 'A' |          |
|----------------|--------------|--------|------------|---------|-----|----------|
|                | lbs          | (kN)   | in.        | (mm)    | in. | (mm)     |
| <b>B297-30</b> | 665          | (2.95) | 24         | (609.6) | 30  | (762.0)  |
| <b>B297-36</b> | 550          | (2.44) | 30         | (762.0) | 36  | (914.4)  |
| <b>B297-42</b> | 465          | (2.06) | 36         | (914.4) | 42  | (1066.8) |

## Underfloor Support (U-Bolts not included)

- Finishes available: **ZN**
- Safety Load Factor 2.5
- Order properly sized U-Bolts separately.

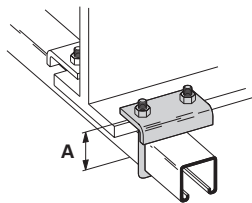
| U-Bolt Size | Fits Pipe O.D. |
|-------------|----------------|
| B501-3/4    | .841 - 1.050   |
| B501-1      | 1.051 - 1.315  |
| B501-1 1/4  | 1.316 - 1.660  |
| B501-1 1/2  | 1.661 - 1.900  |
| B501-2      | 1.901 - 2.375  |
| B501-2 1/2  | 2.376 - 2.875  |



| Catalog No.      | Uniform Load |        | Tray Width |             | 'A' |         |
|------------------|--------------|--------|------------|-------------|-----|---------|
|                  | lbs          | (kN)   | in.        | (mm)        | in. | (mm)    |
| <b>B409UF-12</b> | 800          | (3.55) | 6 & 9      | (152 & 229) | 12  | (304.8) |
| <b>B409UF-21</b> | 450          | (2.00) | 12 & 18    | (305 & 457) | 21  | (533.4) |

## Beam Clamp

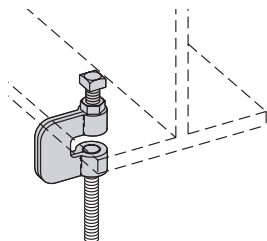
- Finishes available: **ZN** or **HDG**
- Sold in pieces with hardware.
- Design load when used in pairs. Safety Load Factor 5.0



| Catalog No.     | Design Load* |        | 'A'   |       |
|-----------------|--------------|--------|-------|-------|
|                 | lbs          | (kN)   | in.   | (mm)  |
| <b>B441-22</b>  | 1200         | (5.34) | 3 3/8 | (86)  |
| <b>B441-22A</b> | 1200         | (5.34) | 5     | (127) |

## Steel C-Clamp With Locknut

- Finishes available: **ZN** for 3/8 & 1/2
- ZN** for 5/8 & 3/4
- SS4** all sizes
- Safety Load Factor 5.0



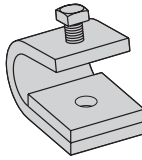
| Catalog Number   | Rod Size | Design Load |        |
|------------------|----------|-------------|--------|
|                  |          | lbs         | (kN)   |
| <b>B351L-3/8</b> | 3/8"-16  | 300         | (0.89) |
| <b>B351L-1/2</b> | 1/2"-13  | 380         | (1.69) |
| <b>B351L-5/8</b> | 5/8"-11  | 550         | (2.44) |
| <b>B351L-3/4</b> | 3/4"-10  | 630         | (2.80) |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Beam Clamp

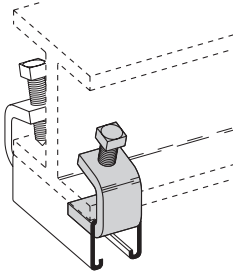
- Finishes available: **ZN** **GRN** or **HDG**
- Setscrew included.
- Sold in pieces.
- Design load when used in pairs.  
Safety Load Factor 5.0



| Cat. No.                | B210              | B210A             |
|-------------------------|-------------------|-------------------|
| <b>Design Load</b>      | 800 lbs. (3.56kN) | 300 lbs. (1.33kN) |
| <b>Tap Size</b>         | 1/2"-13           | 3/8"-16           |
| <b>Mat'l. Thickness</b> | 3/8" (9.5mm)      | 1/4" (6.4mm)      |

## Beam Clamp

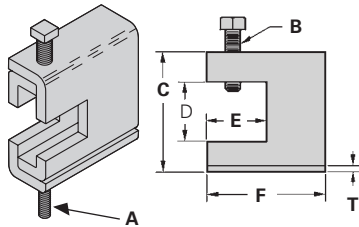
- Finishes available: **ZN** **GRN** or **HDG**
- Setscrew included.
- Sold in pieces.
- Design load when used in pairs.  
Safety Load Factor 5.0



| Cat. No.                  | B212-1/4          | B212-3/8           |
|---------------------------|-------------------|--------------------|
| <b>Design Load</b>        | 800 lbs. (3.56kN) | 1000 lbs. (4.45kN) |
| <b>Max. Flange Thick.</b> | 3/4" (19.0mm)     | 1 1/8" (28.6mm)    |
| <b>Mat'l. Thickness</b>   | 1/4" (6.4mm)      | 3/8" (9.5mm)       |

## B305 Thru B308 & B321 Series Beam Clamps

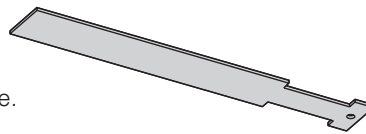
- Finishes available: **ZN** or **HDG**
- Setscrew included.
- Safety Load Factor 5.0



| Cat. No.      | A       | B       | C             | D              | E            | F            | T            | Design Load |
|---------------|---------|---------|---------------|----------------|--------------|--------------|--------------|-------------|
|               |         |         | in. (mm)      | in. (mm)       | in. (mm)     | in. (mm)     | in. (mm)     | lbs (kN)    |
| <b>B305</b>   | 3/8"-16 | 3/8"-16 | 2 5/16 (58.7) | 7/8 (22.2)     | 1 1/8 (28.6) | 2 1/2 (63.5) | 11 Ga. (3.0) | 600 (2.67)  |
| <b>B306</b>   | 3/8"-16 | 1/2"-13 | 2 7/16 (61.9) | 7/8 (22.2)     | 1 1/8 (28.6) | 2 1/2 (63.5) | 7 Ga. (4.5)  | 1100 (4.90) |
| <b>B307</b>   | 1/2"-13 | 1/2"-13 | 2 7/16 (61.9) | 7/8 (22.2)     | 1 1/8 (28.6) | 2 1/2 (63.5) | 7 Ga. (4.5)  | 1100 (4.90) |
| <b>B308</b>   | 1/2"-13 | 1/2"-13 | 2 3/16 (65.1) | 7/8 (22.2)     | 1 1/8 (28.6) | 2 1/2 (63.5) | 1/4 (6.3)    | 1500 (6.68) |
| <b>B321-1</b> | 3/8"-16 | 1/2"-13 | 3 3/16 (90.5) | 1 11/16 (42.8) | 1 5/8 (41.3) | 3 1/4 (82.5) | 1/4 (6.3)    | 1300 (5.79) |
| <b>B321-2</b> | 1/2"-13 | 1/2"-13 | 3 3/16 (90.5) | 1 11/16 (42.8) | 1 5/8 (41.3) | 3 1/4 (82.5) | 1/4 (6.3)    | 1400 (6.23) |

## B312 Anchor Strap

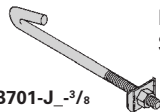
- Finishes available: **ZN** or **HDG**
- For a maximum beam thickness of 3/4".
- For thicker beams, step up one flange width size.



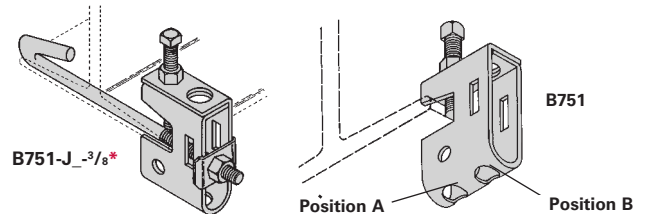
| Cat. No.       | Flange Width            |
|----------------|-------------------------|
|                | in. (mm)                |
| <b>B312-6</b>  | Up to 6 (up to 152.4)   |
| <b>B312-9</b>  | 6 - 9 (152.4 to 228.6)  |
| <b>B312-12</b> | 9 - 12 (228.6 to 304.8) |

## B751 Bottom Beam Clamp and Accessories

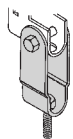
- Setscrew included.
- Finish available: ZN



Loading position A - 500 lbs.  
Loading position B - 300 lbs.  
Safety Load Factor 5.0



B753



B752

Provides a full 15° swivel in any direction. (State the desired rod size.)

| Assembly No.           | B751                     | B701J_                    | B752               | B753            |
|------------------------|--------------------------|---------------------------|--------------------|-----------------|
| Fits Flange Sizes      | Clamp, Setscrew & J-Hook | J-Hook, Clip & Square Nut | Swivel & Bolt Only | Swivel Nut Only |
| in. (mm)               |                          |                           |                    |                 |
| 4 - 5 7/8 (101 - 149)  | ● B751-J4-3/8*           | ● B701-J4-3/8             | ● B752             | ● B753-**       |
| 6 - 8 7/8 (152 - 225)  | ● B751-J6-3/8*           | ● B701-J6-3/8             | ● B752             | ● B753-**       |
| 9 - 11 7/8 (228 - 301) | ● B751-J9-3/8*           | ● B701-J9-3/8             | ● B752             | ● B753-**       |

\* Clamp Assembly complete with J-Hook Assembly. Setscrew included.

\*\* Insert 1/4, 3/8 or 1/2 for the desired rod size.

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

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 1 Steel - Accessories

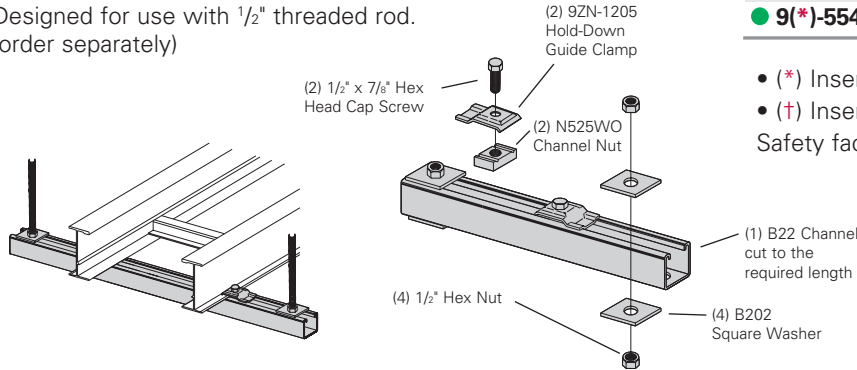
## Trapeze Support Kit

Trapeze kits provide the components required for a single trapeze support in one package. These kits are available in pre-galvanized steel with zinc-plated hardware or hot dip galvanized steel with 316 stainless steel hardware.

The SH channel provides the convenience of pre-punched slots, which eliminate the need for field drilling.

The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.

Designed for use with 1/2" threaded rod. (order separately)



| Catalog No.         | Tray Width<br>in. (mm) | Channel Length<br>in. (mm) | Uniform Load<br>lbs (kN) |
|---------------------|------------------------|----------------------------|--------------------------|
| ● 9(*)-5506-22SH(†) | 6 (152)                | 16 (406)                   | 1600 (7.11)              |
| ● 9(*)-5509-22SH(†) | 9 (229)                | 18 (457)                   | 1250 (5.56)              |
| ● 9(*)-5512-22SH(†) | 12 (305)               | 22 (559)                   | 1125 (5.00)              |
| ● 9(*)-5518-22SH(†) | 18 (457)               | 28 (711)                   | 865 (3.85)               |
| ● 9(*)-5524-22SH(†) | 24 (610)               | 34 (864)                   | 700 (3.11)               |
| ● 9(*)-5530-22SH(†) | 30 (762)               | 40 (1016)                  | 590 (2.62)               |
| ● 9(*)-5536-22SH(†) | 36 (914)               | 46 (1168)                  | 510 (2.27)               |
| ● 9(*)-5542-22SH(†) | 42 (1067)              | 52 (1321)                  | 450 (2.00)               |

- (\*) Insert **P** or **G**
- (†) Insert 3/8 for 3/8" threaded rod hardware. Safety factor of 3.0 on all loads.

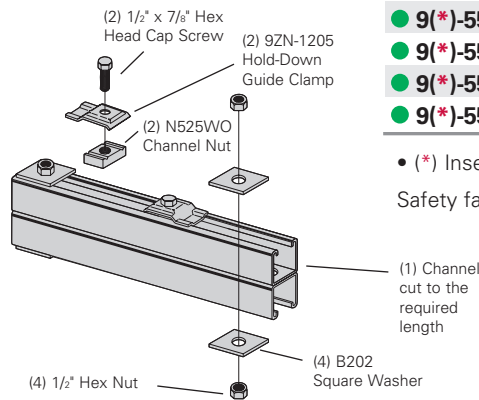
## Heavy Duty Trapeze Support Kit

Trapeze kits provide the components required for a single trapeze support in one package. These kits are available in Dura Green™ epoxy coated steel with zinc-plated hardware or hot dip galvanized steel with 316 stainless steel hardware.

The SH channel provides the convenience of pre-punched slots, which eliminates the need for field drilling.

The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.

Designed for use with 1/2" threaded rod. (order rod separately)

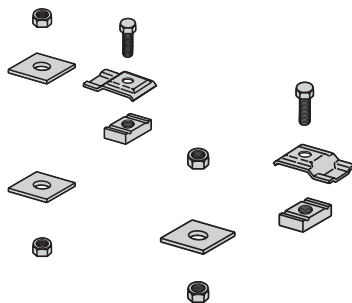


| Catalog No.       | Tray Width<br>in. (mm) | Channel Length<br>in. (mm) | Uniform Load<br>lbs (kN) |
|-------------------|------------------------|----------------------------|--------------------------|
| ● 9(*)-5506-22SHA | 6 (152)                | 16 (406)                   | 1350 (6.01)              |
| ● 9(*)-5509-22SHA | 9 (229)                | 18 (457)                   | 1350 (6.01)              |
| ● 9(*)-5512-22SHA | 12 (305)               | 22 (559)                   | 1350 (6.01)              |
| ● 9(*)-5518-22SHA | 18 (457)               | 28 (711)                   | 1350 (6.01)              |
| ● 9(*)-5524-22SHA | 24 (610)               | 34 (864)                   | 1350 (6.01)              |
| ● 9(*)-5530-22SHA | 30 (762)               | 40 (1016)                  | 1350 (6.01)              |
| ● 9(*)-5536-22SHA | 36 (914)               | 46 (1168)                  | 1350 (6.01)              |
| ● 9(*)-5542-22SHA | 42 (1067)              | 52 (1321)                  | 1350 (6.01)              |

- (\*) Insert **G** or **GRN**
- Safety factor of 3.0 on all loads.

## Trapeze Hardware Kit

- Kit sold in plastic bag.



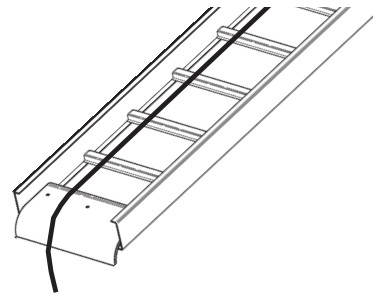
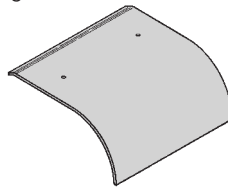
| Catalog No.                  |                               |
|------------------------------|-------------------------------|
| ● 9ZN-5500-1/2               | ● 9G-5500-1/2                 |
| (1) pr. 9ZN-1205             | (1) pr. 9G-1205               |
| (2) HHC Screw 1/2" x 7/8" ZN | (2) HHC Screw 1/2" x 7/8" SS6 |
| (2) N525 WO ZN               | (2) N525 WO SS6               |
| (4) B202 ZN 1/2" sq washer   | (4) B202 HDG 1/2" sq washer   |
| (4) HN 1/2" ZN               | (4) HN 1/2" SS6               |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Ladder Drop-Out

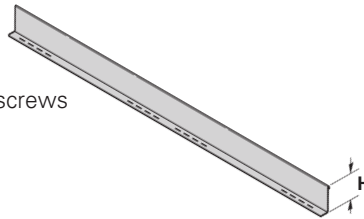
- This special designed, easy to install drop-out provides a 4" (101.6 mm) radius to protect cables exiting the cable tray from damage.
- Attaches to a ladder rung.
- Hardware included.
- (\*) Insert **P** or **G**
- (‡) Insert tray width



**Catalog No.**  
**9(\*)-1104T-‡**

## Straight Section

- Standard length: 120" (3 m) 144" (12 ft.).
- Order catalog number based on loading depth.
- Furnished with four #10 x 1/2" plated self-drilling screws and a 99-9982 splice.
- (\*) Insert **P** or **G**

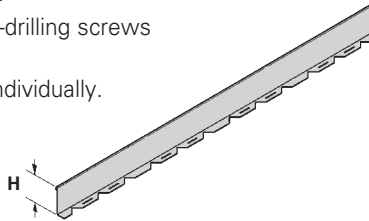


**Length =**  
144 for 12' or 120 for 10'

| Tray Series | Catalog No.          | H   |       |
|-------------|----------------------|-----|-------|
|             |                      | in. | (mm)  |
| 148         | <b>72(*)-Length</b>  | 2.8 | (58)  |
| 156         | <b>737(*)-Length</b> | 3.4 | (70)  |
| 166         | <b>747(*)-Length</b> | 4.4 | (91)  |
| 176         | <b>757(*)-Length</b> | 5.4 | (112) |

## Horizontal Bend

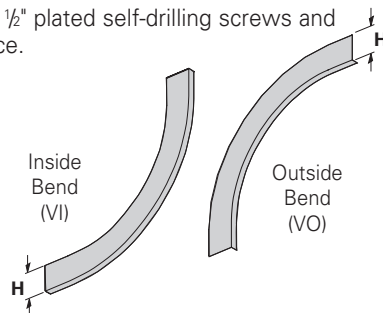
- Horizontal Bend Barriers are flexible in order to conform to any horizontal fitting radius. Cut to length.
- Order catalog number based on loading depth.
- Furnished with three #10 x 1/2" zinc plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- Standard length is 72" [6 ft.] (1829mm), sold individually.
- (\*) Insert **P** or **G**



| Tray Series | Catalog No.          | H   |       |
|-------------|----------------------|-----|-------|
|             |                      | in. | (mm)  |
| 148         | <b>72(*)-90HBFL</b>  | 2.8 | (58)  |
| 156         | <b>737(*)-90HBFL</b> | 3.4 | (70)  |
| 166         | <b>747(*)-90HBFL</b> | 4.4 | (91)  |
| 176         | <b>757(*)-90HBFL</b> | 5.4 | (112) |

## Vertical Bend Barriers

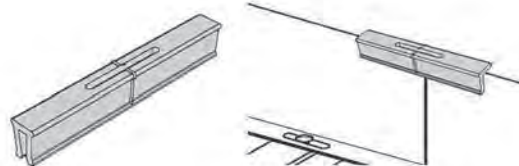
- Vertical Bend Barriers are preformed to conform to a specific vertical fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **P** or **G**
- (\*\*) Insert 30, 45, 60 or 90 for degrees
- (†) Insert 12, 24, or 36 for radius



| Tray Series | Catalog No.           |                       | H   |       |
|-------------|-----------------------|-----------------------|-----|-------|
|             | Inside Bend           | Outside Bend          | in. | (mm)  |
| 148         | <b>72(*)-(**VI)†</b>  | <b>72(*)-(**VO)†</b>  | 2.8 | (58)  |
| 156         | <b>737(*)-(**VI)†</b> | <b>737(*)-(**VO)†</b> | 3.4 | (70)  |
| 166         | <b>747(*)-(**VI)†</b> | <b>747(*)-(**VO)†</b> | 4.4 | (91)  |
| 176         | <b>757(*)-(**VI)†</b> | <b>757(*)-(**VO)†</b> | 5.4 | (112) |

## Barrier Strip Splice

- 2.85" (72.4mm) long
- Ribbed edge for increased rigidity and grip
- Comfort edge for ease of installation
- Slotted top window with center mark for accurate placement and inspection capability
- Patent pending



**Catalog No.**  
**● 99-9982**

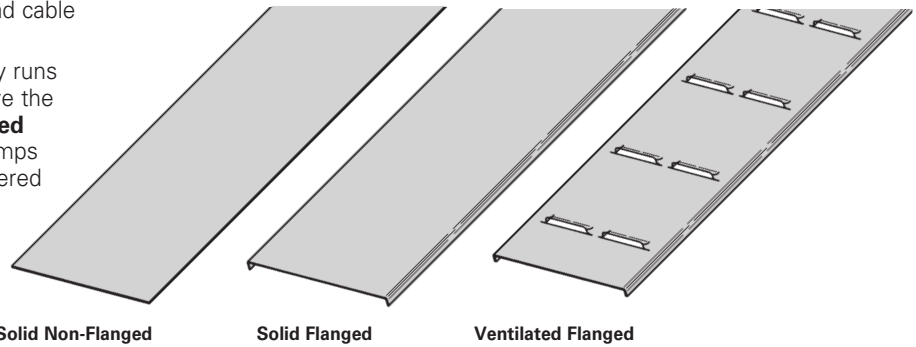
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

## Covers

**Solid covers** should be used when maximum enclosure of the cables is desired and no accumulation of heat is expected. **Ventilated covers** provide an overhead cable shield yet allow heat to escape.

We recommend that covers on vertical cable tray runs to a height of 6 ft. (1.83 m) to 8 ft. (2.44 m) above the floor to isolate both cables and personnel. **Flanged covers** have a .30 in. (7.6 mm) flange. Cover clamps are not included with the cover and must be ordered separately.



### Covers Part Numbering

Prefix  
Example: **80 1 P - 24 - 144**

#### Cover Type

- 80 = Solid
- 81 = Ventilated

#### Detail

- 1 = Flanged
- 9 = Non-Flanged

#### Material

- P = Pre-Galvanized
- G = HDGAF

#### Tray Width

- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

#### Item Description

For Straight Section Cover:

##### Pre-Galvanized Only:

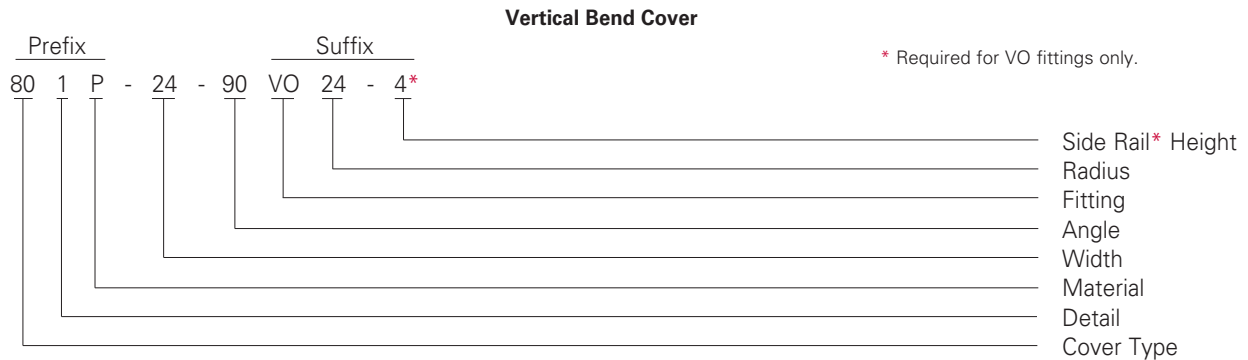
- 144 = 12 ft. (3.66 m)
- 120 = 10 ft. (3.05 m)

##### Pre-Galvanized & HDGAF

- 72 = 6 ft. (1.83 m)
- 60 = 5 ft. (1.52 m)

For fitting covers: Insert suffix of fitting to be covered. See example below.

### Example of Catalog Number for Fitting Cover:



### Quantity of Standard Cover Clamps Required

|                                     |        |
|-------------------------------------|--------|
| Straight Section 60" or 72" .....   | 4 pcs. |
| Straight Section 120" or 144" ..... | 6 pcs. |
| Horizontal/Vertical Bends .....     | 4 pcs. |
| Tees .....                          | 6 pcs. |
| Crosses .....                       | 8 pcs. |

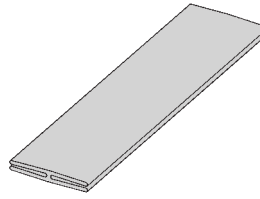
Note: When using the Heavy Duty Cover Clamp, only one-half the number of clamps stated above is required.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Cover Joint Strip

- Used to join covers
- Plastic
- † Insert tray width

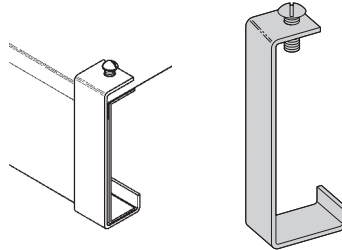


Catalog No.

● 99-9980-†

## Standard Cover Clamp

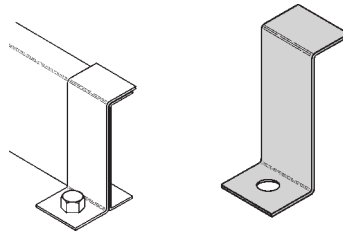
- Sold per piece
- For indoor service only



| Tray Series | Catalog No. |           |
|-------------|-------------|-----------|
|             | Znplt       | HDGAF     |
| 148         | ● 9ZN-9019  | ● 9G-9019 |
| 156         | ● 9ZN-9014  | ● 9G-9014 |
| 166         | ● 9ZN-9015  | ● 9G-9015 |
| 176         | ● 9ZN-9016  | ● 9G-9016 |

## Combination Hold Down & Cover Clamp

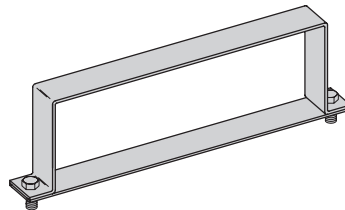
- Sold per piece
- For indoor service only



| Tray Series | Catalog No.    |           |
|-------------|----------------|-----------|
|             | Znplt/Pre-Galv | HDGAF     |
| 148         | ● 9ZN-9243     | ● 9G-9243 |
| 156         | ● 9P-9043      | ● 9G-9043 |
| 166         | ● 9P-9053      | ● 9G-9053 |
| 176         | ● 9P-9063      | ● 9G-9063 |

## Heavy Duty Cover Clamp

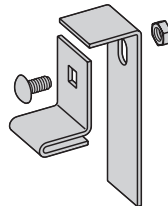
- † Insert tray width



| Tray Series | Catalog No. |             |
|-------------|-------------|-------------|
|             | Pre-Galv    | HDGAF       |
| 148         | ● 9P-†-9040 | ● 9G-†-9040 |
| 156         | ● 9P-†-9044 | ● 9G-†-9044 |
| 166         | ● 9P-†-9054 | ● 9G-†-9054 |
| 176         | ● 9P-†-9064 | ● 9G-†-9064 |

## Raised Cover Clamp

- For indoor service only.
- Sold per piece
- For use with flanged covers only.



| Tray Series | Catalog No. | Gap       |
|-------------|-------------|-----------|
|             |             | in. (mm)  |
| Series 1    | 9ZN-9101    | 1 (25.4)  |
|             | 9ZN-9102    | 2 (50.8)  |
|             | 9ZN-9103    | 3 (76.2)  |
|             | 9ZN-9104    | 4 (101.6) |

† Specify gap of 1", 2", 3" or 4".

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

All dimensions in parentheses are millimeters unless otherwise specified.



## Section 1- Acceptable Manufacturers

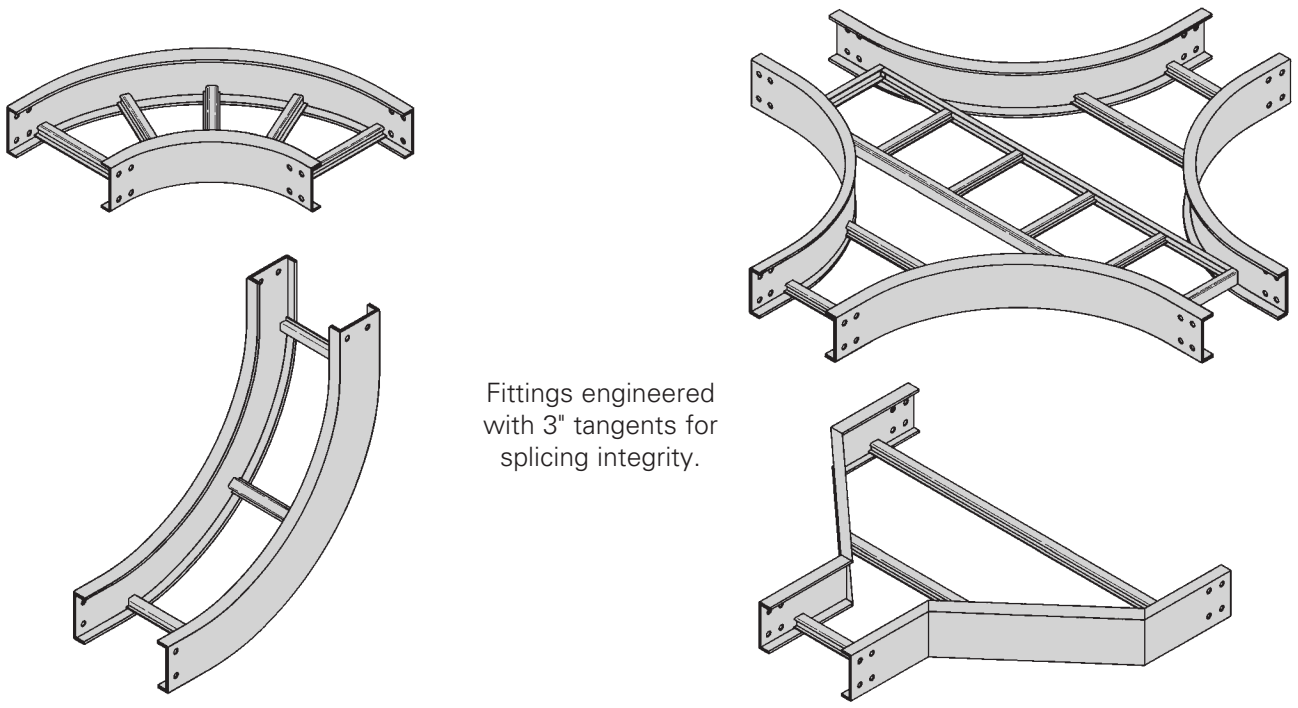
- 1.01 Manufacturer: Subject to compliance with these specifications, Eaton's B-Line series cable tray systems shall be as manufactured by Eaton.

## Section 2- Cable Tray Sections and Components

- 2.01 General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features. Cable tray shall be installed according to the latest revision of NEMA VE 2.
- 2.02 Pre-Galvanized Steel: Straight sections, fitting side rails, rungs, and covers shall be made from structural quality steel meeting the minimum mechanical properties and mill galvanized in accordance with ASTM A653 SS, Grade 33, coating designation G90. Hardware finish shall be electro-galvanized zinc per ASTM B633.
- 2.03 Hot dip Galvanized Steel: All side rails, covers, splice plates, and rungs shall be made from structural quality steel meeting the minimum mechanical properties of ASTM A1011 SS, Grade 33 for 14 gauge and heavier, ASTM A1008, Grade 33 Type 2 for 16 gauge and lighter, and shall be hot dip galvanized after fabrication in accordance with ASTM A123. Mill galvanized covers are not acceptable for hot dipped galvanized cable tray. Hardware finish shall be chromium zinc per ASTM F-1136-88.
- 2.04 Ladder Cable Trays shall consist of two longitudinal members (side rails) with transverse members (rungs) welded to the side rails. Rungs shall be spaced [6] [9] [12] inches apart. Rung spacing in radiused fittings shall be industry standard 9" and measured at the center of the tray's width. No portion of the rungs shall protrude below the bottom plane of the side rails.
- 2.06 Cable tray loading depth shall be [3] [4] [5] [6] inches per NEMA VE 1.
- 2.06 Straight sections shall be supplied in standard [12 foot] [10 foot (3 m)] lengths.
- 2.07 Cable tray widths shall be [6] [9] [12] [18] [24] [30] [36] inches or as shown on drawings.
- 2.08 Splice plates shall be L-shaped with 4 nuts and bolts per plate. The resistance of fixed splice connections between an adjacent section of tray shall not exceed 0.00033 ohm.
- 2.09 All fittings must have a minimum radius of [12] [24] inches.

## Section 3- Loading Capacities and Testing

- 3.01 Cable tray shall be capable of carrying a uniformly distributed load of \_\_\_\_\_ lbs./ft. on a \_\_\_\_\_ ft. support span with a safety factor of 1.5 when supported as a simple span and tested per NEMA VE 1 5.2. Cable tray shall be made to manufacturing tolerances as specified by NEMA.
- 3.02 Upon request, manufacturer shall provide test reports in accordance with the latest revision of NEMA VE 1 or CSA C22.2 No. 126.



Fittings engineered with 3" tangents for splicing integrity.

## Fittings Part Numbering

Example:  $\overset{\text{Prefix}}{1\ 4\ P} - 24 - 90\ HB\ 24$  (9" rung spacing is standard)

| Series | Height   | Material  | Width  | Angle  | Type  | Radius   |
|--------|--|---|--|--|---|--|
| 1      | <ul style="list-style-type: none"> <li>● 4 = 148</li> <li>● 5 = 156</li> <li>● 6 = 166</li> <li>● 7 = 176</li> </ul> | <ul style="list-style-type: none"> <li>● P = Pre-Galvanized</li> <li>● G = HDGAF</li> </ul> | <ul style="list-style-type: none"> <li>● 06 = 6" (152)</li> <li>● 09 = 9" (228)</li> <li>● 12 = 12" (305)</li> <li>● 18 = 18" (457)</li> <li>● 24 = 24" (609)</li> <li>● 30 = 30" (762)</li> <li>● 36 = 36" (914)</li> </ul> | <ul style="list-style-type: none"> <li>● 30 = 30°</li> <li>● 45 = 45°</li> <li>● 60 = 60°</li> <li>● 90 = 90°</li> </ul> | <ul style="list-style-type: none"> <li>● HB = Horizontal Bend</li> <li>● HT = Horizontal Tee</li> <li>● HX = Horizontal Cross</li> <li>● VI = Vertical Inside Bend</li> <li>● VO = Vertical Outside Bend</li> <li>● LR = Left Reducer</li> <li>● RR = Right Reducer</li> <li>● SR = Straight Reducer</li> </ul> | <ul style="list-style-type: none"> <li>● 12 = 12" (305)</li> <li>● 24 = 24" (609)</li> <li>● 36 = 36" (914)</li> </ul> |

For steel 4", 5", 6", 7" vented or non-ventilated add 04 or SB as shown below.

$\overset{\text{Prefix}}{15P04} - 24 - 90HB24$   
 Vented Bottom

$\overset{\text{Prefix}}{15PSB} - 24 - 90HB24$   
 Non-Ventilated

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

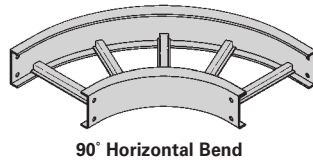
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 1 Steel - Fittings

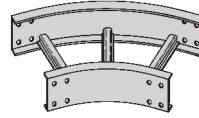
## Horizontal Bends 90° 60° 45° 30° (HB)

1 pair splice plates with hardware included.

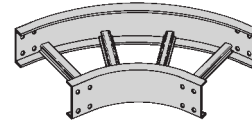
**Bottoms manufactured:**  
**Ladder = 9" Rung Spacing**  
**04 = 4" Rung Spacing**  
**SB = Flat sheet over 12" Rung Spacing**



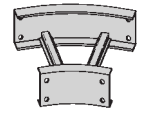
90° Horizontal Bend



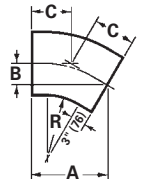
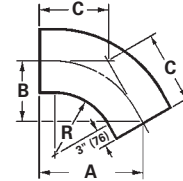
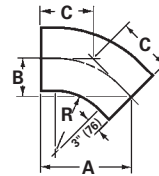
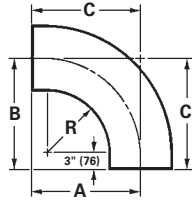
45° Horizontal Bend



60° Horizontal Bend



30° Horizontal Bend



| Bend Radius<br>R | Tray Width | 90° Horizontal Bend Dimensions |  |  |  | 60° Horizontal Bend Dimensions |  |                                       |  |
|------------------|------------|--------------------------------|--|--|--|--------------------------------|--|---------------------------------------|--|
|                  |            | Catalog No.                    | A                                      | B                                      | C                                      | Catalog No.                    | A                                      | B                                     | C                                      |
| in. (mm)         | in. (mm)   |                                | in. (mm)                               | in. (mm)                               | in. (mm)                               |                                | in. (mm)                               | in. (mm)                              | in. (mm)                               |
| 12 (305)         | 6 (152)    | <b>(Pre)-06-90HB12</b>         | 18 (457)                               | 18 (457)                               | 18 (457)                               | <b>(Pre)-06-60HB12</b>         | 17 <sup>1</sup> / <sub>2</sub> (445)   | 10 <sup>7</sup> / <sub>8</sub> (257)  | 11 <sup>11</sup> / <sub>16</sub> (297) |
|                  | 9 (228)    | <b>(Pre)-09-90HB12</b>         | 19 <sup>1</sup> / <sub>2</sub> (495)   | 19 <sup>1</sup> / <sub>2</sub> (495)   | 19 <sup>1</sup> / <sub>2</sub> (495)   | <b>(Pre)-09-60HB12</b>         | 18 <sup>13</sup> / <sub>16</sub> (478) | 10 <sup>7</sup> / <sub>8</sub> (276)  | 12 <sup>1</sup> / <sub>2</sub> (318)   |
|                  | 12 (305)   | <b>(Pre)-12-90HB12</b>         | 21 (533)                               | 21 (533)                               | 21 (533)                               | <b>(Pre)-12-60HB12</b>         | 20 <sup>1</sup> / <sub>16</sub> (510)  | 11 <sup>5</sup> / <sub>8</sub> (295)  | 13 <sup>3</sup> / <sub>8</sub> (340)   |
|                  | 18 (457)   | <b>(Pre)-18-90HB12</b>         | 24 (610)                               | 24 (610)                               | 24 (610)                               | <b>(Pre)-18-60HB12</b>         | 22 <sup>11</sup> / <sub>16</sub> (576) | 13 <sup>1</sup> / <sub>8</sub> (333)  | 15 <sup>1</sup> / <sub>8</sub> (384)   |
|                  | 24 (609)   | <b>(Pre)-24-90HB12</b>         | 27 (686)                               | 27 (686)                               | 27 (686)                               | <b>(Pre)-24-60HB12</b>         | 25 <sup>5</sup> / <sub>16</sub> (643)  | 14 <sup>5</sup> / <sub>8</sub> (372)  | 16 <sup>7</sup> / <sub>8</sub> (429)   |
|                  | 30 (762)   | <b>(Pre)-30-90HB12</b>         | 30 (762)                               | 30 (762)                               | 30 (762)                               | <b>(Pre)-30-60HB12</b>         | 27 <sup>7</sup> / <sub>8</sub> (708)   | 16 <sup>1</sup> / <sub>8</sub> (410)  | 18 <sup>9</sup> / <sub>16</sub> (472)  |
| 24 (609)         | 36 (914)   | <b>(Pre)-36-90HB12</b>         | 33 (838)                               | 33 (838)                               | 33 (838)                               | <b>(Pre)-36-60HB12</b>         | 30 <sup>1</sup> / <sub>2</sub> (775)   | 17 <sup>5</sup> / <sub>8</sub> (448)  | 20 <sup>5</sup> / <sub>16</sub> (516)  |
|                  | 6 (152)    | <b>(Pre)-06-90HB24</b>         | 30 (762)                               | 30 (762)                               | 30 (762)                               | <b>(Pre)-06-60HB24</b>         | 27 <sup>7</sup> / <sub>8</sub> (708)   | 16 <sup>1</sup> / <sub>8</sub> (410)  | 18 <sup>9</sup> / <sub>16</sub> (472)  |
|                  | 9 (228)    | <b>(Pre)-09-90HB24</b>         | 31 <sup>1</sup> / <sub>2</sub> (800)   | 31 <sup>1</sup> / <sub>2</sub> (800)   | 31 <sup>1</sup> / <sub>2</sub> (800)   | <b>(Pre)-09-60HB24</b>         | 29 <sup>3</sup> / <sub>16</sub> (741)  | 16 <sup>7</sup> / <sub>8</sub> (429)  | 19 <sup>7</sup> / <sub>16</sub> (494)  |
|                  | 12 (305)   | <b>(Pre)-12-90HB24</b>         | 33 (838)                               | 33 (838)                               | 33 (838)                               | <b>(Pre)-12-60HB24</b>         | 30 <sup>1</sup> / <sub>2</sub> (775)   | 17 <sup>5</sup> / <sub>8</sub> (448)  | 20 <sup>5</sup> / <sub>16</sub> (516)  |
|                  | 18 (457)   | <b>(Pre)-18-90HB24</b>         | 36 (914)                               | 36 (914)                               | 36 (914)                               | <b>(Pre)-18-60HB24</b>         | 33 <sup>1</sup> / <sub>16</sub> (840)  | 19 <sup>1</sup> / <sub>8</sub> (486)  | 22 <sup>1</sup> / <sub>16</sub> (560)  |
|                  | 24 (609)   | <b>(Pre)-24-90HB24</b>         | 39 (991)                               | 39 (991)                               | 39 (991)                               | <b>(Pre)-24-60HB24</b>         | 35 <sup>11</sup> / <sub>16</sub> (907) | 20 <sup>5</sup> / <sub>8</sub> (524)  | 23 <sup>13</sup> / <sub>16</sub> (605) |
| 24 (609)         | 30 (762)   | <b>(Pre)-30-90HB24</b>         | 42 (1067)                              | 42 (1067)                              | 42 (1067)                              | <b>(Pre)-30-60HB24</b>         | 38 <sup>1</sup> / <sub>4</sub> (972)   | 22 <sup>1</sup> / <sub>8</sub> (562)  | 25 <sup>1</sup> / <sub>2</sub> (648)   |
|                  | 36 (914)   | <b>(Pre)-36-90HB24</b>         | 45 (1143)                              | 45 (1143)                              | 45 (1143)                              | <b>(Pre)-36-60HB24</b>         | 40 <sup>7</sup> / <sub>8</sub> (1038)  | 23 <sup>5</sup> / <sub>8</sub> (600)  | 27 <sup>1</sup> / <sub>4</sub> (692)   |
|                  |            | 45° Horizontal Bend            |  |  |  | 30° Horizontal Bend            |  |                                       |  |
| 12 (305)         | 6 (152)    | <b>(Pre)-06-45HB12</b>         | 15 <sup>3</sup> / <sub>4</sub> (400)   | 6 <sup>1</sup> / <sub>2</sub> (165)    | 9 <sup>3</sup> / <sub>16</sub> (233)   | <b>(Pre)-06-30HB12</b>         | 13 <sup>1</sup> / <sub>8</sub> (333)   | 3 <sup>1</sup> / <sub>2</sub> (89)    | 7 (175)                                |
|                  | 9 (228)    | <b>(Pre)-09-45HB12</b>         | 16 <sup>13</sup> / <sub>16</sub> (427) | 6 <sup>15</sup> / <sub>16</sub> (176)  | 9 <sup>13</sup> / <sub>16</sub> (249)  | <b>(Pre)-09-30HB12</b>         | 13 <sup>7</sup> / <sub>8</sub> (352)   | 3 <sup>11</sup> / <sub>16</sub> (94)  | 7 <sup>7</sup> / <sub>16</sub> (189)   |
|                  | 12 (305)   | <b>(Pre)-12-45HB12</b>         | 17 <sup>7</sup> / <sub>8</sub> (454)   | 7 <sup>3</sup> / <sub>8</sub> (187)    | 10 <sup>7</sup> / <sub>16</sub> (265)  | <b>(Pre)-12-30HB12</b>         | 14 <sup>5</sup> / <sub>8</sub> (372)   | 3 <sup>15</sup> / <sub>16</sub> (100) | 7 <sup>13</sup> / <sub>16</sub> (198)  |
|                  | 18 (457)   | <b>(Pre)-18-45HB12</b>         | 20 (500)                               | 8 <sup>1</sup> / <sub>4</sub> (210)    | 11 <sup>11</sup> / <sub>16</sub> (297) | <b>(Pre)-18-30HB12</b>         | 16 <sup>1</sup> / <sub>8</sub> (410)   | 4 <sup>5</sup> / <sub>16</sub> (135)  | 8 <sup>5</sup> / <sub>8</sub> (219)    |
|                  | 24 (609)   | <b>(Pre)-24-45HB12</b>         | 22 <sup>1</sup> / <sub>16</sub> (560)  | 9 <sup>1</sup> / <sub>8</sub> (232)    | 12 <sup>15</sup> / <sub>16</sub> (329) | <b>(Pre)-24-30HB12</b>         | 17 <sup>5</sup> / <sub>8</sub> (448)   | 4 <sup>11</sup> / <sub>16</sub> (119) | 9 <sup>7</sup> / <sub>16</sub> (240)   |
|                  | 30 (762)   | <b>(Pre)-30-45HB12</b>         | 24 <sup>3</sup> / <sub>16</sub> (614)  | 10 (250)                               | 14 <sup>3</sup> / <sub>16</sub> (360)  | <b>(Pre)-30-30HB12</b>         | 19 <sup>1</sup> / <sub>8</sub> (486)   | 5 <sup>1</sup> / <sub>8</sub> (130)   | 10 <sup>1</sup> / <sub>4</sub> (260)   |
| 24 (609)         | 36 (914)   | <b>(Pre)-36-45HB12</b>         | 26 <sup>5</sup> / <sub>16</sub> (668)  | 10 <sup>15</sup> / <sub>16</sub> (278) | 15 <sup>7</sup> / <sub>16</sub> (392)  | <b>(Pre)-36-30HB12</b>         | 20 <sup>5</sup> / <sub>8</sub> (524)   | 5 <sup>1</sup> / <sub>2</sub> (140)   | 11 <sup>1</sup> / <sub>16</sub> (281)  |
|                  | 6 (152)    | <b>(Pre)-06-45HB24</b>         | 24 <sup>3</sup> / <sub>16</sub> (614)  | 10 (250)                               | 14 <sup>3</sup> / <sub>16</sub> (360)  | <b>(Pre)-06-30HB24</b>         | 19 <sup>1</sup> / <sub>8</sub> (486)   | 5 <sup>1</sup> / <sub>8</sub> (130)   | 10 <sup>1</sup> / <sub>4</sub> (260)   |
|                  | 9 (228)    | <b>(Pre)-09-45HB24</b>         | 25 <sup>1</sup> / <sub>4</sub> (641)   | 10 <sup>1</sup> / <sub>2</sub> (267)   | 14 <sup>13</sup> / <sub>16</sub> (376) | <b>(Pre)-09-30HB24</b>         | 19 <sup>7</sup> / <sub>8</sub> (505)   | 5 <sup>5</sup> / <sub>16</sub> (135)  | 10 <sup>5</sup> / <sub>8</sub> (270)   |
|                  | 12 (305)   | <b>(Pre)-12-45HB24</b>         | 26 <sup>5</sup> / <sub>16</sub> (668)  | 10 <sup>15</sup> / <sub>16</sub> (278) | 15 <sup>7</sup> / <sub>16</sub> (392)  | <b>(Pre)-12-30HB24</b>         | 20 <sup>5</sup> / <sub>8</sub> (524)   | 5 <sup>1</sup> / <sub>2</sub> (140)   | 11 <sup>1</sup> / <sub>16</sub> (281)  |
|                  | 18 (457)   | <b>(Pre)-18-45HB24</b>         | 28 <sup>7</sup> / <sub>16</sub> (722)  | 11 <sup>13</sup> / <sub>16</sub> (300) | 16 <sup>11</sup> / <sub>16</sub> (424) | <b>(Pre)-18-30HB24</b>         | 22 <sup>1</sup> / <sub>8</sub> (562)   | 5 <sup>15</sup> / <sub>16</sub> (151) | 11 <sup>13</sup> / <sub>16</sub> (300) |
|                  | 24 (609)   | <b>(Pre)-24-45HB24</b>         | 30 <sup>9</sup> / <sub>16</sub> (776)  | 12 <sup>11</sup> / <sub>16</sub> (322) | 17 <sup>15</sup> / <sub>16</sub> (456) | <b>(Pre)-24-30HB24</b>         | 23 <sup>5</sup> / <sub>8</sub> (600)   | 6 <sup>5</sup> / <sub>16</sub> (160)  | 12 <sup>5</sup> / <sub>8</sub> (321)   |
| 24 (609)         | 30 (762)   | <b>(Pre)-30-45HB24</b>         | 32 <sup>11</sup> / <sub>16</sub> (830) | 13 <sup>9</sup> / <sub>16</sub> (345)  | 19 <sup>1</sup> / <sub>8</sub> (486)   | <b>(Pre)-30-30HB24</b>         | 25 <sup>1</sup> / <sub>8</sub> (638)   | 6 <sup>3</sup> / <sub>4</sub> (172)   | 13 <sup>7</sup> / <sub>16</sub> (341)  |
|                  | 36 (914)   | <b>(Pre)-36-45HB24</b>         | 34 <sup>13</sup> / <sub>16</sub> (884) | 14 <sup>7</sup> / <sub>16</sub> (367)  | 20 <sup>3</sup> / <sub>8</sub> (518)   | <b>(Pre)-36-30HB24</b>         | 26 <sup>5</sup> / <sub>8</sub> (676)   | 7 <sup>1</sup> / <sub>8</sub> (181)   | 14 <sup>1</sup> / <sub>4</sub> (362)   |

**(Pre) See page H-18 for catalog number prefix.**

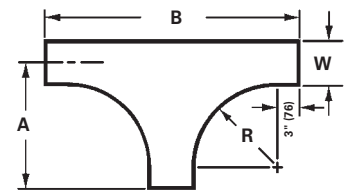
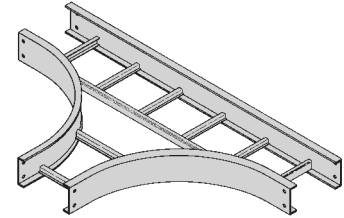
Width dimensions are to inside wall. Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

### Horizontal Tee (HT)

2 pair splice plates with hardware included.

| Bend Radius<br>R<br>in. (mm) | Tray Width<br>in. (mm) | Horizontal Tee Dimensions |               |               |
|------------------------------|------------------------|---------------------------|---------------|---------------|
|                              |                        | Catalog No.               | A<br>in. (mm) | B<br>in. (mm) |
| 12 (305)                     | 6 (152)                | (Prefix)-06-HT12          | 18 (457)      | 36 (914)      |
|                              | 9 (228)                | (Prefix)-09-HT12          | 19½ (495)     | 39 (991)      |
|                              | 12 (305)               | (Prefix)-12-HT12          | 21 (533)      | 42 (1067)     |
|                              | 18 (457)               | (Prefix)-18-HT12          | 24 (610)      | 48 (1219)     |
|                              | 24 (609)               | (Prefix)-24-HT12          | 27 (686)      | 54 (1372)     |
|                              | 30 (762)               | (Prefix)-30-HT12          | 30 (762)      | 60 (1524)     |
| 24 (609)                     | 36 (914)               | (Prefix)-36-HT12          | 33 (838)      | 66 (1676)     |
|                              | 6 (152)                | (Prefix)-06-HT24          | 30 (762)      | 60 (1524)     |
|                              | 9 (228)                | (Prefix)-09-HT24          | 31½ (800)     | 63 (1600)     |
|                              | 12 (305)               | (Prefix)-12-HT24          | 33 (838)      | 66 (1676)     |
|                              | 18 (457)               | (Prefix)-18-HT24          | 36 (914)      | 72 (1829)     |
|                              | 24 (609)               | (Prefix)-24-HT24          | 39 (991)      | 78 (1981)     |
| 30 (762)                     | 30 (762)               | (Prefix)-30-HT24          | 42 (1067)     | 84 (2134)     |
|                              | 36 (914)               | (Prefix)-36-HT24          | 45 (1143)     | 90 (2286)     |

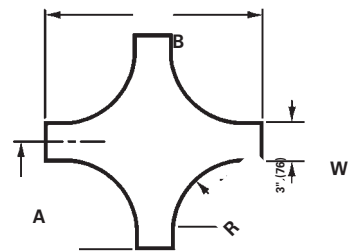
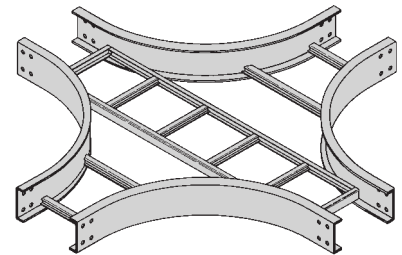


(Prefix) See page H-18 for catalog number prefix.

### Horizontal Cross (HX)

3 pair splice plates with hardware included.

| Bend Radius<br>R<br>in. (mm) | Tray Width<br>in. (mm) | Horizontal Cross Dimensions |               |               |
|------------------------------|------------------------|-----------------------------|---------------|---------------|
|                              |                        | Catalog No.                 | A<br>in. (mm) | B<br>in. (mm) |
| 12 (305)                     | 6 (152)                | (Prefix)-06-HX12            | 18 (457)      | 36 (914)      |
|                              | 9 (228)                | (Prefix)-09-HX12            | 19½ (495)     | 39 (991)      |
|                              | 12 (305)               | (Prefix)-12-HX12            | 21 (533)      | 42 (1067)     |
|                              | 18 (457)               | (Prefix)-18-HX12            | 24 (610)      | 48 (1219)     |
|                              | 24 (609)               | (Prefix)-24-HX12            | 27 (686)      | 54 (1372)     |
|                              | 30 (762)               | (Prefix)-30-HX12            | 30 (762)      | 60 (1524)     |
| 24 (609)                     | 36 (914)               | (Prefix)-36-HX12            | 33 (838)      | 66 (1676)     |
|                              | 6 (152)                | (Prefix)-06-HX24            | 30 (762)      | 60 (1524)     |
|                              | 9 (228)                | (Prefix)-09-HX24            | 31½ (800)     | 63 (1600)     |
|                              | 12 (305)               | (Prefix)-12-HX24            | 33 (838)      | 66 (1676)     |
|                              | 18 (457)               | (Prefix)-18-HX24            | 36 (914)      | 72 (1829)     |
|                              | 24 (609)               | (Prefix)-24-HX24            | 39 (991)      | 78 (1981)     |
| 30 (762)                     | 30 (762)               | (Prefix)-30-HX24            | 42 (1067)     | 84 (2134)     |
|                              | 36 (914)               | (Prefix)-36-HX24            | 45 (1143)     | 90 (2286)     |



(Prefix) See page H-18 for catalog number prefix.

Width dimensions are to inside wall. Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

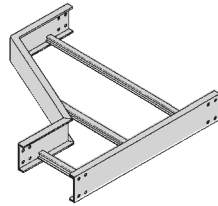
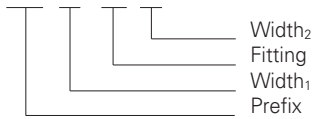
# Series 1 Steel - Fittings

## Reducers (LR, SR, RR)

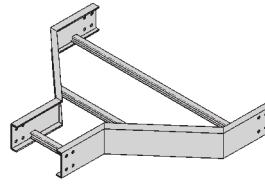
1 pair splice plates with hardware included.

### Reducer Part Numbering

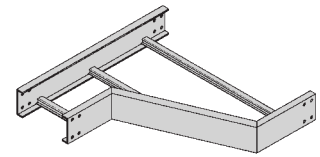
14P-24-RR18



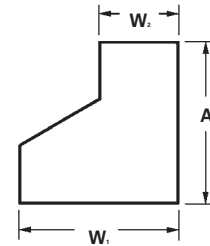
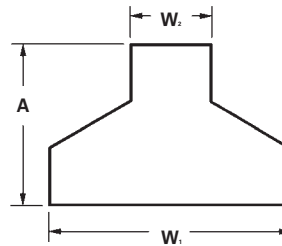
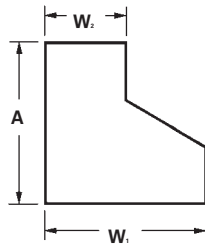
Left Reducer - LR



Straight Reducer - SR



Right Reducer - RR



| Tray Width     |                | Left Reducer - LR |  | Straight Reducer - SR |  | Right Reducer - RR |  |
|----------------|----------------|-------------------|--|-----------------------|--|--------------------|--|
| W <sub>1</sub> | W <sub>2</sub> | Catalog No.       | A                                      | Catalog No.           | A                                      | Catalog No.        | A                                      |
| in. (mm)       | in. (mm)       |                   | in. (mm)                               |                       | in. (mm)                               |                    | in. (mm)                               |
| 9 (228)        | 6 (152)        | (Prefix)-09-LR06  | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-09-SR06      | 8 <sup>7</sup> / <sub>8</sub> (225)    | (Prefix)-09-RR06   | 9 <sup>3</sup> / <sub>4</sub> (248)    |
| 12 (305)       | 6 (152)        | (Prefix)-12-LR06  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-12-SR06      | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-12-RR06   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
|                | 9 (228)        | (Prefix)-12-LR09  | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-12-SR09      | 8 <sup>7</sup> / <sub>8</sub> (225)    | (Prefix)-12-RR09   | 9 <sup>3</sup> / <sub>4</sub> (248)    |
| 18 (457)       | 6 (152)        | (Prefix)-18-LR06  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-18-SR06      | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-18-RR06   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                | 9 (228)        | (Prefix)-18-LR09  | 13 <sup>3</sup> / <sub>16</sub> (335)  | (Prefix)-18-SR09      | 10 <sup>5</sup> / <sub>8</sub> (270)   | (Prefix)-18-RR09   | 13 <sup>3</sup> / <sub>16</sub> (335)  |
|                | 12 (305)       | (Prefix)-18-LR12  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-18-SR12      | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-18-RR12   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 24 (609)       | 6 (152)        | (Prefix)-24-LR06  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-24-SR06      | 13 <sup>3</sup> / <sub>16</sub> (335)  | (Prefix)-24-RR06   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                | 9 (228)        | (Prefix)-24-LR09  | 16 <sup>11</sup> / <sub>16</sub> (424) | (Prefix)-24-SR09      | 12 <sup>3</sup> / <sub>8</sub> (314)   | (Prefix)-24-RR09   | 16 <sup>11</sup> / <sub>16</sub> (424) |
|                | 12 (305)       | (Prefix)-24-LR12  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-24-SR12      | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-24-RR12   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                | 18 (457)       | (Prefix)-24-LR18  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-24-SR18      | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-24-RR18   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 30 (762)       | 6 (152)        | (Prefix)-30-LR06  | 21 <sup>7</sup> / <sub>8</sub> (555)   | (Prefix)-30-SR06      | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-30-RR06   | 21 <sup>7</sup> / <sub>8</sub> (555)   |
|                | 9 (228)        | (Prefix)-30-LR09  | 20 <sup>1</sup> / <sub>8</sub> (511)   | (Prefix)-30-SR09      | 14 <sup>1</sup> / <sub>16</sub> (358)  | (Prefix)-30-RR09   | 20 <sup>1</sup> / <sub>8</sub> (511)   |
|                | 12 (305)       | (Prefix)-30-LR12  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-30-SR12      | 13 <sup>3</sup> / <sub>16</sub> (335)  | (Prefix)-30-RR12   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                | 18 (457)       | (Prefix)-30-LR18  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-30-SR18      | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-30-RR18   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                | 24 (609)       | (Prefix)-30-LR24  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-30-SR24      | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-30-RR24   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 36 (914)       | 6 (152)        | (Prefix)-36-LR06  | 25 <sup>5</sup> / <sub>16</sub> (643)  | (Prefix)-36-SR06      | 16 <sup>11</sup> / <sub>16</sub> (424) | (Prefix)-36-RR06   | 23 <sup>5</sup> / <sub>16</sub> (643)  |
|                | 9 (228)        | (Prefix)-36-LR09  | 23 <sup>9</sup> / <sub>16</sub> (598)  | (Prefix)-36-SR09      | 15 <sup>13</sup> / <sub>16</sub> (402) | (Prefix)-36-RR09   | 23 <sup>9</sup> / <sub>16</sub> (598)  |
|                | 12 (305)       | (Prefix)-36-LR12  | 21 <sup>7</sup> / <sub>8</sub> (555)   | (Prefix)-36-SR12      | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-36-RR12   | 21 <sup>7</sup> / <sub>8</sub> (555)   |
|                | 18 (457)       | (Prefix)-36-LR18  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-36-SR18      | 13 <sup>3</sup> / <sub>16</sub> (335)  | (Prefix)-36-RR18   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                | 24 (609)       | (Prefix)-36-LR24  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-36-SR24      | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-36-RR24   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                | 30 (762)       | (Prefix)-36-LR30  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-36-SR30      | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-36-RR30   | 11 <sup>1</sup> / <sub>2</sub> (292)   |

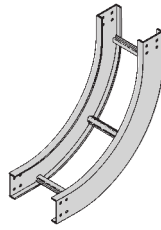
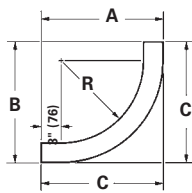
(Prefix) See page H-18 for catalog number prefix.

Width dimensions are to inside wall. Manufacturing tolerances apply to all dimensions.

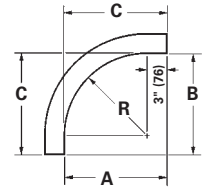
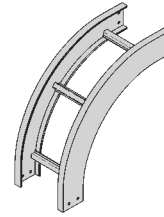
All dimensions in parentheses are millimeters unless otherwise specified.

**Vertical Bend 90° (VO, VI)**

1 pair splice plates with hardware included.



90° Vertical Inside



90° Vertical Outside

**90° Vertical Inside Bend (VI)**

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VI Dimensions [in. (mm)]                 |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|-------------------|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|
|                           |                   |                 | Series 14 Steel                          |  |  | Series 15 Steel                          |  |  | Series 16 Steel                          |  |  | Series 17 Steel                          |  |  |
|                           |                   |                 | A  | B  | C  | A  | B  | C  | A  | B  | C  | A  | B  | C  |
| 12 (305)                  | 6 (152)           | (Pre)-06-90VI12 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 9 (228)           | (Pre)-09-90VI12 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 12 (305)          | (Pre)-12-90VI12 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 18 (457)          | (Pre)-18-90VI12 | 18 <sup>7</sup> / <sub>16</sub><br>(468) | 18 <sup>7</sup> / <sub>16</sub><br>(468) | 18 <sup>7</sup> / <sub>16</sub><br>(468) | 19 <sup>3</sup> / <sub>16</sub><br>(487) | 19 <sup>3</sup> / <sub>16</sub><br>(487) | 19 <sup>3</sup> / <sub>16</sub><br>(487) | 20 <sup>3</sup> / <sub>16</sub><br>(513) | 20 <sup>3</sup> / <sub>16</sub><br>(513) | 20 <sup>3</sup> / <sub>16</sub><br>(513) | 21 <sup>3</sup> / <sub>16</sub><br>(538) | 21 <sup>3</sup> / <sub>16</sub><br>(538) | 21 <sup>3</sup> / <sub>16</sub><br>(538) |
|                           | 24 (609)          | (Pre)-24-90VI12 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 30 (762)          | (Pre)-30-90VI12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 9 (228)           | (Pre)-09-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 12 (305)          | (Pre)-12-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 18 (457)          | (Pre)-18-90VI24 | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 33 <sup>3</sup> / <sub>16</sub><br>(843) | 33 <sup>3</sup> / <sub>16</sub><br>(843) | 33 <sup>3</sup> / <sub>16</sub><br>(843) |
|                           | 24 (609)          | (Pre)-24-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 30 (762)          | (Pre)-30-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 9 (228)           | (Pre)-09-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 12 (305)          | (Pre)-12-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 18 (457)          | (Pre)-18-90VI24 | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 30 <sup>7</sup> / <sub>16</sub><br>(773) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 31 <sup>3</sup> / <sub>16</sub><br>(792) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 32 <sup>3</sup> / <sub>16</sub><br>(817) | 33 <sup>3</sup> / <sub>16</sub><br>(843) | 33 <sup>3</sup> / <sub>16</sub><br>(843) | 33 <sup>3</sup> / <sub>16</sub><br>(843) |
|                           | 24 (609)          | (Pre)-24-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | 30 (762)          | (Pre)-30-90VI24 |  |  |  |  |  |  |  |  |  |  |  |  |

**90° Vertical Outside Bend (VO)**

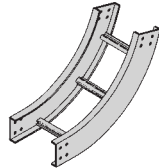
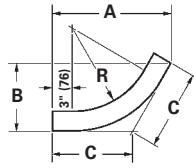
| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VO Dimensions [in. (mm)] |             |             |
|---------------------------|-------------------|-----------------|--------------------------|-------------|-------------|
|                           |                   |                 | All Series 1             |             |             |
|                           |                   |                 | A                        | B           | C           |
| 12 (305)                  | 6 (152)           | (Pre)-06-90VO12 |                          |             |             |
|                           | 9 (228)           | (Pre)-09-90VO12 |                          |             |             |
|                           | 12 (305)          | (Pre)-12-90VO12 |                          |             |             |
|                           | 18 (457)          | (Pre)-18-90VO12 | 15<br>(381)              | 15<br>(381) | 15<br>(381) |
|                           | 24 (609)          | (Pre)-24-90VO12 |                          |             |             |
|                           | 30 (762)          | (Pre)-30-90VO12 |                          |             |             |
| 24 (609)                  | 6 (152)           | (Pre)-06-90VO24 |                          |             |             |
|                           | 9 (228)           | (Pre)-09-90VO24 |                          |             |             |
|                           | 12 (305)          | (Pre)-12-90VO24 |                          |             |             |
|                           | 18 (457)          | (Pre)-18-90VO24 | 27<br>(686)              | 27<br>(686) | 27<br>(686) |
|                           | 24 (609)          | (Pre)-24-90VO24 |                          |             |             |
|                           | 30 (762)          | (Pre)-30-90VO24 |                          |             |             |
| 24 (609)                  | 6 (152)           | (Pre)-06-90VO24 |                          |             |             |
|                           | 9 (228)           | (Pre)-09-90VO24 |                          |             |             |
|                           | 12 (305)          | (Pre)-12-90VO24 |                          |             |             |
|                           | 18 (457)          | (Pre)-18-90VO24 | 27<br>(686)              | 27<br>(686) | 27<br>(686) |
|                           | 24 (609)          | (Pre)-24-90VO24 |                          |             |             |
|                           | 30 (762)          | (Pre)-30-90VO24 |                          |             |             |

(Pre) See page H-18 for catalog number prefix.  
Manufacturing tolerances apply to all dimensions.

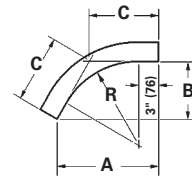
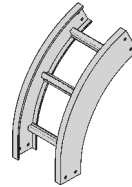
All dimensions in parentheses are millimeters unless otherwise specified.

## Vertical Bend 60° (VO, VI)

1 pair splice plates with hardware included.



60° Vertical Inside



60° Vertical Outside

### 60° Vertical Inside Bend (VI)

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VI Dimensions [in. (mm)]                 |  |   |   |   |   |   |  |   |   |   |  |
|---------------------------|-------------------|-----------------|--|--|---|---|---|---|---|--|---|---|---|--|
|                           |                   |                 | Series 14 Steel                          |  |   | Series 15 Steel                           |   |   | Series 16 Steel                         |  |   | Series 17 Steel                         |   |  |
|                           |                   |                 | A  | B  | C   | A   | B   | C                                       | A                                       | B  | C   | A                                       | B   | C  |
| 12 (305)                  | 6 (152)           | (Pre)-06-60VI12 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 9 (228)           | (Pre)-09-60VI12 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 12 (305)          | (Pre)-12-60VI12 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 18 (457)          | (Pre)-18-60VI12 | 18 <sup>1</sup> / <sub>16</sub><br>(459) | 10 <sup>7</sup> / <sub>16</sub><br>(265) | 12<br>(305)                               | 18 <sup>1</sup> / <sub>2</sub><br>(470)   | 10 <sup>11</sup> / <sub>16</sub><br>(271) | 12 <sup>3</sup> / <sub>8</sub><br>(314) | 19 <sup>3</sup> / <sub>8</sub><br>(492) | 11 <sup>3</sup> / <sub>16</sub><br>(284) | 12 <sup>15</sup> / <sub>16</sub><br>(328) | 20 <sup>1</sup> / <sub>4</sub><br>(514) | 11 <sup>11</sup> / <sub>16</sub><br>(297) | 13 <sup>1</sup> / <sub>2</sub><br>(343)  |
|                           | 24 (609)          | (Pre)-24-60VI12 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 30 (762)          | (Pre)-30-60VI12 |  |  |   |   |   |   |   |  |   |   |   |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 9 (228)           | (Pre)-09-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 12 (305)          | (Pre)-12-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 18 (457)          | (Pre)-18-60VI24 | 28 <sup>7</sup> / <sub>16</sub><br>(722) | 16 <sup>7</sup> / <sub>16</sub><br>(417) | 18 <sup>15</sup> / <sub>16</sub><br>(481) | 28 <sup>15</sup> / <sub>16</sub><br>(735) | 18 <sup>11</sup> / <sub>16</sub><br>(424) | 19 <sup>1</sup> / <sub>4</sub><br>(489) | 29 <sup>3</sup> / <sub>4</sub><br>(755) | 17 <sup>3</sup> / <sub>16</sub><br>(436) | 19 <sup>7</sup> / <sub>8</sub><br>(505)   | 30 <sup>5</sup> / <sub>8</sub><br>(778) | 17 <sup>11</sup> / <sub>16</sub><br>(449) | 20 <sup>7</sup> / <sub>16</sub><br>(519) |
|                           | 24 (609)          | (Pre)-24-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 30 (762)          | (Pre)-30-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |
|                           | 36 (914)          | (Pre)-36-60VI24 |  |  |   |   |   |   |   |  |   |   |   |  |

### 60° Vertical Outside Bend (VO)

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VO Dimensions [in. (mm)]                 |   |  |
|---------------------------|-------------------|-----------------|--|---|--|
|                           |                   |                 | All Series 1                             |   |  |
|                           |                   |                 | A  | B                                       | C  |
| 12 (305)                  | 6 (152)           | (Pre)-06-60VO12 |  |   |  |
|                           | 9 (228)           | (Pre)-09-60VO12 |  |   |  |
|                           | 12 (305)          | (Pre)-12-60VO12 |  |   |  |
|                           | 18 (457)          | (Pre)-18-60VO12 | 14 <sup>7</sup> / <sub>8</sub><br>(378)  | 8 <sup>5</sup> / <sub>8</sub><br>(219)  | 9 <sup>15</sup> / <sub>16</sub><br>(252) |
|                           | 24 (609)          | (Pre)-24-60VO12 |  |   |  |
|                           | 30 (762)          | (Pre)-30-60VO12 |  |   |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-60VO24 |  |   |  |
|                           | 9 (228)           | (Pre)-09-60VO24 |  |   |  |
|                           | 12 (305)          | (Pre)-12-60VO24 |  |   |  |
|                           | 18 (457)          | (Pre)-18-60VO24 | 25 <sup>5</sup> / <sub>16</sub><br>(643) | 14 <sup>5</sup> / <sub>8</sub><br>(371) | 16 <sup>7</sup> / <sub>8</sub><br>(428)  |
|                           | 24 (609)          | (Pre)-24-60VO24 |  |   |  |
|                           | 30 (762)          | (Pre)-30-60VO24 |  |   |  |
|                           | 36 (914)          | (Pre)-36-60VO24 |  |   |  |

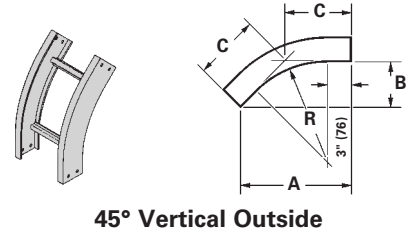
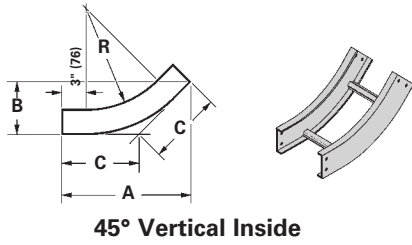
(Pre) See page H-18 for catalog number prefix.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

**Vertical Bend 45° (VO, VI)**

1 pair splice plates with hardware included.



**45° Vertical Inside Bend (VI)**

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VI Dimensions [in. (mm)]                  |  |  |  |   |   |   |   |  |   |   |  |
|---------------------------|-------------------|-----------------|---|--|--|--|---|---|---|---|--|---|---|--|
|                           |                   |                 | Series 14 Steel                           |  |  | Series 15 Steel                          |   |   | Series 16 Steel                         |   |  | Series 17 Steel                         |   |  |
|                           |                   |                 | A   | B  | C  | A  | B                                       | C   | A                                       | B   | C  | A                                       | B                                       | C  |
| 12 (305)                  | 6 (152)           | (Pre)-06-45VI12 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 9 (228)           | (Pre)-09-45VI12 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 12 (305)          | (Pre)-12-45VI12 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 18 (457)          | (Pre)-18-45VI12 | 16 <sup>3</sup> / <sub>16</sub><br>(411)  | 6 <sup>11</sup> / <sub>16</sub><br>(170) | 9 <sup>1</sup> / <sub>2</sub><br>(241)   | 16 <sup>9</sup> / <sub>16</sub><br>(420) | 6 <sup>7</sup> / <sub>8</sub><br>(174)  | 9 <sup>11</sup> / <sub>16</sub><br>(246)  | 17 <sup>1</sup> / <sub>4</sub><br>(438) | 7 <sup>3</sup> / <sub>16</sub><br>(182)   | 10 <sup>1</sup> / <sub>8</sub><br>(257)  | 18<br>(457)                             | 7 <sup>7</sup> / <sub>16</sub><br>(189) | 10 <sup>9</sup> / <sub>16</sub><br>(268) |
|                           | 24 (609)          | (Pre)-24-45VI12 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 30 (762)          | (Pre)-30-45VI12 |   |  |  |  |   |   |   |   |  |   |   |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-45VI24 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 9 (228)           | (Pre)-09-45VI24 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 12 (305)          | (Pre)-12-45VI24 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 18 (457)          | (Pre)-18-45VI24 | 24 <sup>11</sup> / <sub>16</sub><br>(627) | 10 <sup>3</sup> / <sub>16</sub><br>(259) | 14 <sup>7</sup> / <sub>16</sub><br>(367) | 25 <sup>1</sup> / <sub>16</sub><br>(792) | 10 <sup>3</sup> / <sub>8</sub><br>(792) | 14 <sup>11</sup> / <sub>16</sub><br>(373) | 25 <sup>3</sup> / <sub>4</sub><br>(654) | 10 <sup>11</sup> / <sub>16</sub><br>(271) | 15 <sup>1</sup> / <sub>16</sub><br>(382) | 26 <sup>1</sup> / <sub>2</sub><br>(673) | 11<br>(279)                             | 15 <sup>1</sup> / <sub>2</sub><br>(394)  |
|                           | 24 (609)          | (Pre)-24-45VI24 |   |  |  |  |   |   |   |   |  |   |   |  |
|                           | 30 (762)          | (Pre)-30-45VI24 |   |  |  |  |   |   |   |   |  |   |   |  |
| 36 (914)                  | (Pre)-36-45VI24   |                 |   |  |  |  |   |   |   |   |  |   |   |  |

**45° Vertical Outside Bend (VO)**

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VO Dimensions [in. (mm)]                 |  |   |
|---------------------------|-------------------|-----------------|--|--|---|
|                           |                   |                 | All Series 1                             |  |   |
|                           |                   |                 | A  | B                                      | C   |
| 12 (305)                  | 6 (152)           | (Pre)-06-45V012 |  |  |   |
|                           | 9 (228)           | (Pre)-09-45V012 |  |  |   |
|                           | 12 (305)          | (Pre)-12-45V012 |  |  |   |
|                           | 18 (457)          | (Pre)-18-45V012 | 13 <sup>5</sup> / <sub>8</sub><br>(346)  | 5 <sup>5</sup> / <sub>8</sub><br>(143) | 8<br>(203)                                |
|                           | 24 (609)          | (Pre)-24-45V012 |  |  |   |
|                           | 30 (762)          | (Pre)-30-45V012 |  |  |   |
| 24 (609)                  | 6 (152)           | (Pre)-06-45V024 |  |  |   |
|                           | 9 (228)           | (Pre)-09-45V024 |  |  |   |
|                           | 12 (305)          | (Pre)-12-45V024 |  |  |   |
|                           | 18 (457)          | (Pre)-18-45V024 | 22 <sup>1</sup> / <sub>16</sub><br>(560) | 9 <sup>1</sup> / <sub>8</sub><br>(232) | 12 <sup>15</sup> / <sub>16</sub><br>(328) |
|                           | 24 (609)          | (Pre)-24-45V024 |  |  |   |
|                           | 30 (762)          | (Pre)-30-45V024 |  |  |   |
| 36 (914)                  | (Pre)-36-45V024   |                 |  |  |   |

(Pre) See page H-18 for catalog number prefix.  
Manufacturing tolerances apply to all dimensions.

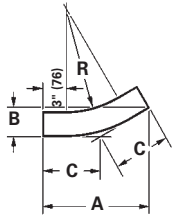
All dimensions in parentheses are millimeters unless otherwise specified.



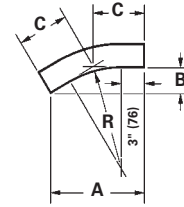
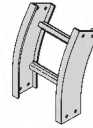
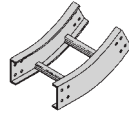
# Series 1 Steel - Fittings

## Vertical Bend 30° (VO, VI)

1 pair splice plates with hardware included.



30° Vertical Inside



30° Vertical Outside

### 30° Vertical Inside Bend (VI)

| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VI Dimensions [in. (mm)]                 |   |  |   |   |  |  |   |   |   |  |  |
|---------------------------|-------------------|-----------------|--|---|--|---|---|--|--|---|---|---|--|--|
|                           |                   |                 | Series 14 Steel                          |   |  | Series 15 Steel                           |   |  | Series 16 Steel                          |   |   | Series 17 Steel                           |  |  |
|                           |                   |                 | A  | B                                       | C  | A   | B                                       | C  | A  | B                                       | C   | A   | B  | C  |
| 12 (305)                  | 6 (152)           | (Pre)-06-30VI12 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 9 (228)           | (Pre)-09-30VI12 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 12 (305)          | (Pre)-12-30VI12 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 18 (457)          | (Pre)-18-30VI12 | 13 <sup>7</sup> / <sub>16</sub><br>(341) | 3 <sup>5</sup> / <sub>8</sub><br>(92)   | 7 <sup>3</sup> / <sub>16</sub><br>(182)  | 13 <sup>11</sup> / <sub>16</sub><br>(347) | 3 <sup>11</sup> / <sub>16</sub><br>(93) | 7 <sup>5</sup> / <sub>16</sub><br>(186)  | 14 <sup>3</sup> / <sub>16</sub><br>(360) | 3 <sup>13</sup> / <sub>16</sub><br>(97) | 7 <sup>5</sup> / <sub>8</sub><br>(193)    | 14 <sup>11</sup> / <sub>16</sub><br>(373) | 3 <sup>15</sup> / <sub>16</sub><br>(100) | 7 <sup>7</sup> / <sub>8</sub><br>(200)   |
|                           | 24 (609)          | (Pre)-24-30VI12 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 30 (762)          | (Pre)-30-30VI12 |  |   |  |   |   |  |  |   |   |   |  |  |
| 24 (609)                  | 6 (152)           | (Pre)-06-30VI24 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 9 (228)           | (Pre)-09-30VI24 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 12 (305)          | (Pre)-12-30VI24 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 18 (457)          | (Pre)-18-30VI24 | 19 <sup>7</sup> / <sub>16</sub><br>(494) | 5 <sup>3</sup> / <sub>16</sub><br>(132) | 10 <sup>7</sup> / <sub>16</sub><br>(265) | 19 <sup>11</sup> / <sub>16</sub><br>(500) | 5 <sup>5</sup> / <sub>16</sub><br>(135) | 10 <sup>9</sup> / <sub>16</sub><br>(268) | 20 <sup>3</sup> / <sub>16</sub><br>(513) | 5 <sup>7</sup> / <sub>16</sub><br>(138) | 10 <sup>13</sup> / <sub>16</sub><br>(274) | 20 <sup>11</sup> / <sub>16</sub><br>(525) | 5 <sup>9</sup> / <sub>16</sub><br>(141)  | 11 <sup>1</sup> / <sub>16</sub><br>(281) |
|                           | 24 (609)          | (Pre)-24-30VI24 |  |   |  |   |   |  |  |   |   |   |  |  |
|                           | 30 (762)          | (Pre)-30-30VI24 |  |   |  |   |   |  |  |   |   |   |  |  |
| 36 (914)                  | (Pre)-36-30VI24   |                 |  |   |  |   |   |  |  |   |   |   |  |  |

### 30° Vertical Outside Bend (VO)

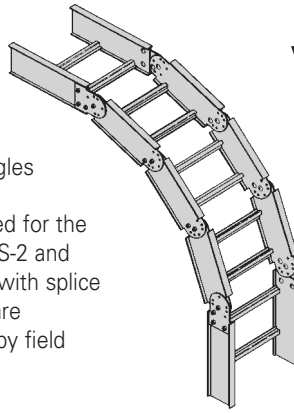
| Bend Radius R<br>in. (mm) | Width<br>in. (mm) | Catalog No.     | VO Dimensions [in. (mm)]                |  |   |
|---------------------------|-------------------|-----------------|---|--|---|
|                           |                   |                 | All Series 1                            |  |   |
|                           |                   |                 | A                                       | B  | C                                       |
| 12 (305)                  | 6 (152)           | (Pre)-06-30VO12 |   |  |   |
|                           | 9 (228)           | (Pre)-09-30VO12 |   |  |   |
|                           | 12 (305)          | (Pre)-12-30VO12 |   |  |   |
|                           | 18 (457)          | (Pre)-18-30VO12 | 11 <sup>5</sup> / <sub>8</sub><br>(295) | 3 <sup>1</sup> / <sub>8</sub><br>(79)    | 6 <sup>3</sup> / <sub>16</sub><br>(157) |
|                           | 24 (609)          | (Pre)-24-30VO12 |   |  |   |
|                           | 30 (762)          | (Pre)-30-30VO12 |   |  |   |
| 24 (609)                  | 6 (152)           | (Pre)-06-30VO24 |   |  |   |
|                           | 9 (228)           | (Pre)-09-30VO24 |   |  |   |
|                           | 12 (305)          | (Pre)-12-30VO24 |   |  |   |
|                           | 18 (457)          | (Pre)-18-30VO24 | 17 <sup>5</sup> / <sub>8</sub><br>(448) | 4 <sup>11</sup> / <sub>16</sub><br>(119) | 9 <sup>7</sup> / <sub>16</sub><br>(240) |
|                           | 24 (609)          | (Pre)-24-30VO24 |   |  |   |
|                           | 30 (762)          | (Pre)-30-30VO24 |   |  |   |
| 36 (914)                  | (Pre)-36-30VO24   |                 |   |  |   |

(Pre) See page H-18 for catalog number prefix.  
Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

## Vertical Bend Segments (VBS)

Adjustable Vertical Bends are made up of one or more vertical bend segments and can be used as a vertical inside (VI) or vertical outside (VO) bend. This design provides for vertical changes in direction with angles 45°, 60° and 90° for 12" (305 mm) or 24" (609 mm) radius. The chart below shows the number of segments required for the various combinations of angles and radii. The VBS-1, VBS-2 and VBS-3 include one, two or three segments respectively with splice plates and hardware. Holes for setting standard angles are pre-punched in each segment. Other angles can be set by field drilling another hole for the locking bolt.



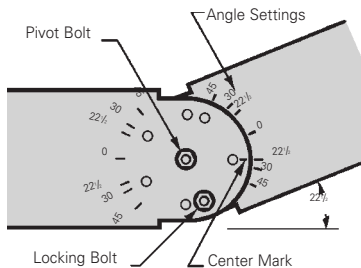
Available for **148P** and **148G** only.

| Nominal Bend Radius<br>in. (mm) | Catalog No.            | Dimensions                           |                                     |                                      |                                      |                                      |                                      |
|---------------------------------|------------------------|--------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
|                                 |                        | VO                                   |                                     |                                      | VI                                   |                                      |                                      |
|                                 |                        | A                                    | B                                   | R                                    | A                                    | B                                    | R                                    |
| 90° Vertical Inside or Outside  |                        |                                      |                                     |                                      |                                      |                                      |                                      |
| 12 (305)                        | <b>14(*)-(‡)-VBS-1</b> | 8 <sup>1</sup> / <sub>4</sub> (210)  | 8 <sup>1</sup> / <sub>4</sub> (210) | 6 <sup>1</sup> / <sub>2</sub> (165)  | 12 <sup>1</sup> / <sub>8</sub> (303) | 12 <sup>1</sup> / <sub>8</sub> (303) | 10 <sup>1</sup> / <sub>2</sub> (267) |
| 24 (609)                        | <b>14(*)-(‡)-VBS-3</b> | 24 (610)                             | 24 (610)                            | 22 <sup>1</sup> / <sub>4</sub> (565) | 27 <sup>7</sup> / <sub>8</sub> (708) | 27 <sup>7</sup> / <sub>8</sub> (708) | 26 <sup>1</sup> / <sub>4</sub> (667) |
| 60° Vertical Inside or Outside  |                        |                                      |                                     |                                      |                                      |                                      |                                      |
| 12 (305)                        | <b>14(*)-(‡)-VBS-1</b> | 11 <sup>3</sup> / <sub>4</sub> (298) | 6 <sup>1</sup> / <sub>2</sub> (165) | 12 (305)                             | 14 <sup>3</sup> / <sub>4</sub> (375) | 8 <sup>1</sup> / <sub>2</sub> (216)  | 16 (406)                             |
| 24 (609)                        | <b>14(*)-(‡)-VBS-2</b> | 11 <sup>3</sup> / <sub>4</sub> (298) | 6 <sup>1</sup> / <sub>2</sub> (165) | 12 (305)                             | 14 <sup>3</sup> / <sub>4</sub> (375) | 8 <sup>1</sup> / <sub>2</sub> (216)  | 16 (406)                             |
| 45° Vertical Inside or Outside  |                        |                                      |                                     |                                      |                                      |                                      |                                      |
| 12 (305)                        | <b>14(*)-(‡)-VBS-1</b> | 12 <sup>3</sup> / <sub>4</sub> (324) | 5 <sup>1</sup> / <sub>4</sub> (133) | 17 <sup>1</sup> / <sub>8</sub> (435) | 15 <sup>1</sup> / <sub>2</sub> (394) | 6 <sup>7</sup> / <sub>8</sub> (175)  | 21 (540)                             |
| 24 (609)                        | <b>14(*)-(‡)-VBS-1</b> | 12 <sup>3</sup> / <sub>4</sub> (324) | 5 <sup>1</sup> / <sub>4</sub> (133) | 17 <sup>1</sup> / <sub>8</sub> (435) | 15 <sup>1</sup> / <sub>2</sub> (394) | 6 <sup>7</sup> / <sub>8</sub> (175)  | 21 (540)                             |

**Notes:**

- (\*) Insert material type: P=Pre Galvanized, G=HDGAF
- (‡) Insert width 6, 9, 12, 18, 24, 30, 36

**Fitting Hole Pattern**



**Setting the Angle**

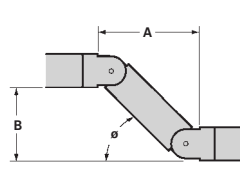
To find correct angle setting, divide angle of offset by the number of segments plus one. The result is equal to the angle setting stamped on the vertical bend segment and the splice plate. After inserting center pivot bolt, align the mark at the end of the segment or splice plate with the angle and insert locking bolt in the pre-punched hole.

**Example:** 90° bend, 24" radius requires 3 segments  
 3 segments + 1 = 4  
 90° divided by 4 = 22<sup>1</sup>/<sub>2</sub>°  
 Set all vertical segments at 22<sup>1</sup>/<sub>2</sub>°

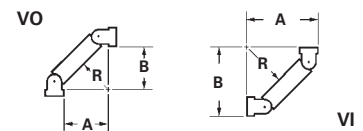
**Offset Dimensions**

One vertical bend segment can be used to complete a vertical offset. Offset dimensions are shown.

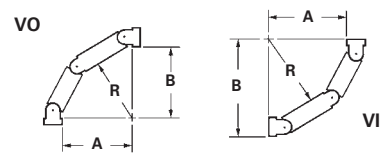
| Angle<br>θ                       | A<br>in. (mm)                        | B<br>in. (mm)                       |
|----------------------------------|--------------------------------------|-------------------------------------|
| 45°                              | 12 (305)                             | 8 <sup>1</sup> / <sub>2</sub> (216) |
| 30°                              | 14 (355)                             | 5 <sup>3</sup> / <sub>4</sub> (146) |
| 22 <sup>1</sup> / <sub>2</sub> ° | 14 <sup>1</sup> / <sub>4</sub> (362) | 5 (127)                             |



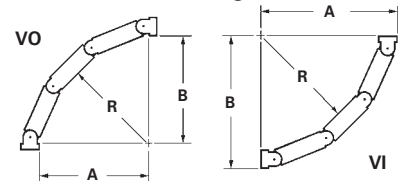
**VBS-1 (1 Segment)**



**VBS-2 (2 Segments)**



**VBS-3 (3 Segments)**



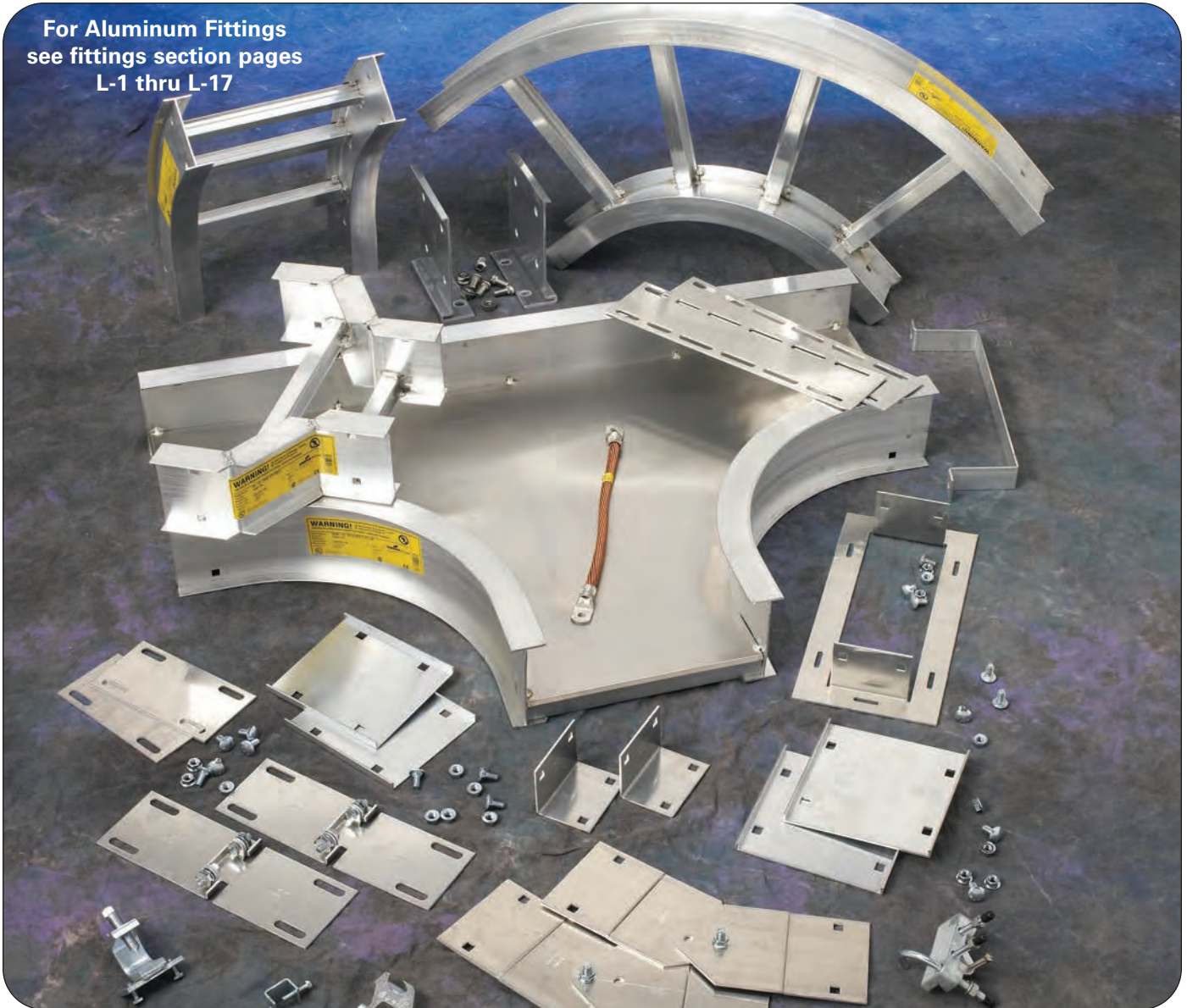
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.



Series 2, 3, 4, & 5 Aluminum

For Aluminum Fittings  
see fittings section pages  
L-1 thru L-17



### 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:**            34A    VT   -   24   -   144  
                                 ●        ●        ●        ●

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

**3" NEMA VE 1 Loading Depth  
4" Side Rail Height**

**Straight Section Part Numbering**

Example: <sup>Prefix</sup> **24 A 09 - 24 - 144**

**Series**

- 24
- H24
- 34

**Material**

- A = Aluminum

**\*Type**

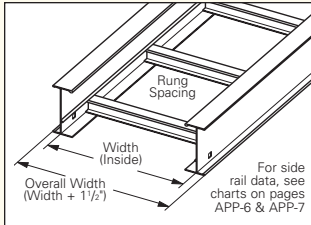
- SB = Solid Bottom
- 06 = 6" rung spacing
- 09 = 9" rung spacing
- 12 = 12" rung spacing

**\*Width**

- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

**Length**

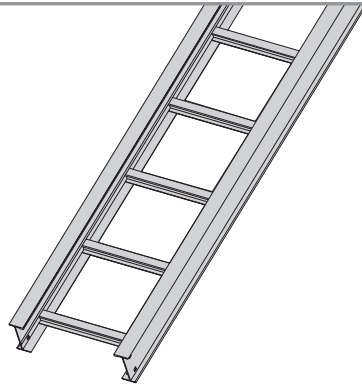
- ① 144 = 12 ft.      24
- ② 120 = 10 ft.      24
- ① 240 = 20 ft.      H24
- ② 144 = 12 ft.      H24
- ① 240 = 20 ft.      34
- ② 144 = 12 ft.      34



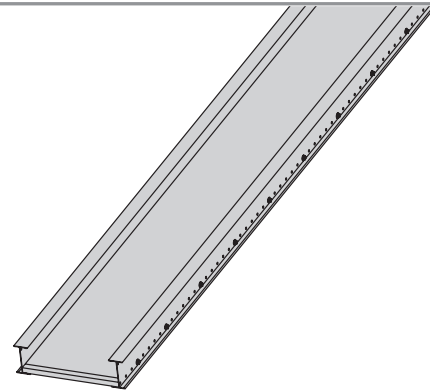
① Primary Length.  
② Secondary Length.

See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)



Solid Bottom

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

All dimensions in parentheses are millimeters unless otherwise specified.

### 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 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 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.

| 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            |                      | NEMA: 16A, 12C<br>CSA: 277 kg/m 3.0m<br>D-3m<br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 6       | 487*        | 0.001                 | Area = 1.05 in <sup>2</sup><br>Sx = 1.34 in <sup>3</sup><br>Ix = 2.85 in <sup>4</sup> | 1.8         | 725*      | 0.017                 | Area = 6.77 cm <sup>2</sup><br>Sx = 21.96 cm <sup>3</sup><br>Ix = 118.63 cm <sup>4</sup> |
|               |                      |  | 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 lbs/ft (586.27 kg/m) for 30" tray width and 325 lbs/ft (483.6 kg/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           |                      | NEMA: 20A<br>CSA: 84 kg/m 6.1m<br>D-6m<br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 10      | 225         | 0.006                 | Area = 1.32 in <sup>2</sup><br>Sx = 1.57 in <sup>3</sup><br>Ix = 3.69 in <sup>4</sup> | 3.0         | 330       | 0.106                 | Area = 8.52 cm <sup>2</sup><br>Sx = 25.73 cm <sup>3</sup><br>Ix = 153.59 cm <sup>4</sup> |
|               |                      |  | 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.

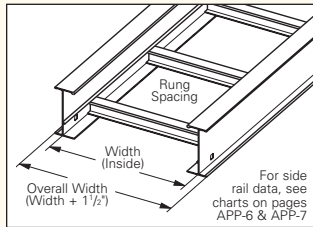
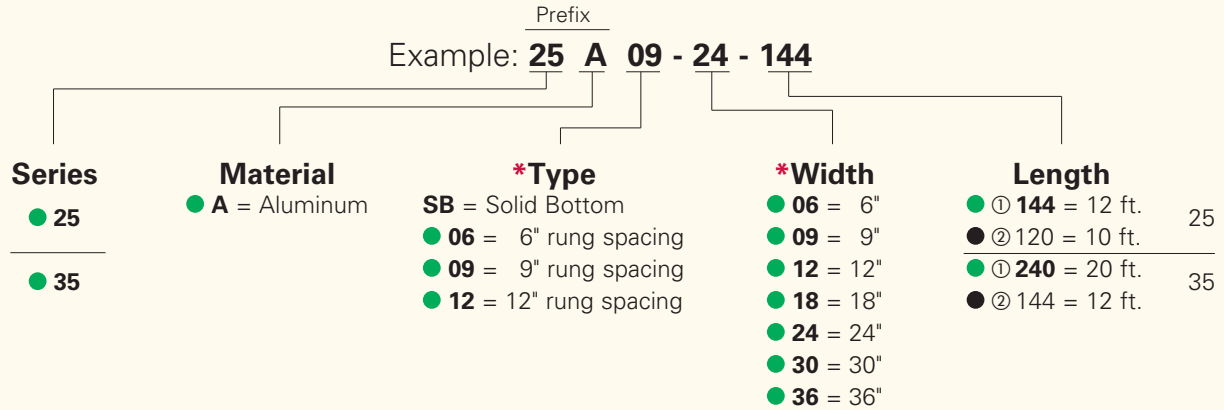
| B-Line Series | Side Rail Dimensions | NEMA, CSA & UL Classifications   | Span ft | Load lbs/ft | Deflection Multiplier | Design Factors for Two Rails  | Span meters | Load kg/m | Deflection Multiplier | Design Factors for Two Rails  |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| 34            |                      | NEMA: 20B, 16C<br>CSA: 112 kg/m 6.0m<br>E-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 10      | 320         | 0.005                 | Area = 1.82 in <sup>2</sup><br>Sx = 2.10 in <sup>3</sup><br>Ix = 4.98 in <sup>4</sup> | 3.0         | 476       | 0.077                 | Area = 11.74 cm <sup>2</sup><br>Sx = 34.41 cm <sup>3</sup><br>Ix = 207.28 cm <sup>4</sup> |
|               |                      |  | 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, Sx = Section Modulus.

All dimensions in parentheses are millimeters unless otherwise specified.

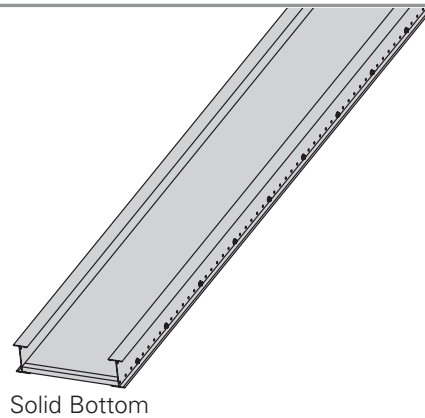
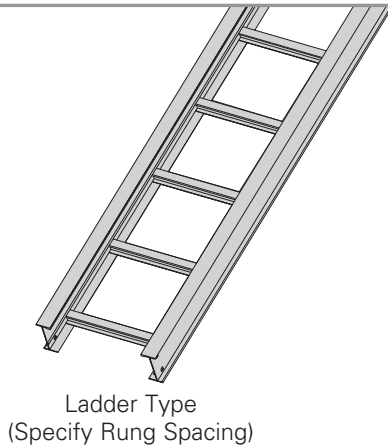
## 4" NEMA VE 1 Loading Depth 5" Side Rail Height

### Straight Section Part Numbering



① Primary Length.  
② Secondary Length.  
See page C-23 for explanation of lengths.

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



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

All dimensions in parentheses are millimeters unless otherwise specified.

### 4" NEMA VE 1 Loading Depth 5" 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.

| 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   |
|---------------|----------------------|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 25            |                      | NEMA: 20A, 12C<br>CSA: 67 kg/m 6.0m<br>D-6m<br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 10      | 200         | 0.0049                | Area = 1.24 in <sup>2</sup><br>Sx = 1.80 in <sup>3</sup><br>Ix = 4.62 in <sup>4</sup> | 3.0         | 298       | 0.083                 | Area = 8.00 cm <sup>2</sup><br>Sx = 29.50 cm <sup>3</sup><br>Ix = 192.30 cm <sup>4</sup> |
|               |                      |   | 12      | 139         | 0.010                 |   | 3.7         | 207       | 0.172                 |  |
|               |                      |   | 14      | 102         | 0.019                 |   | 4.3         | 152       | 0.319                 |  |
|               |                      |   | 16      | 78          | 0.032                 |   | 4.9         | 116       | 0.545                 |  |
|               |                      |   | 18      | 62          | 0.051                 |   | 5.5         | 92        | 0.873                 |  |
|               |                      |   | 20      | 50          | 0.078                 |   | 6.1         | 74        | 1.330                 |  |

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  |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| 35            |                      | NEMA: 20B, 16C<br>CSA: 112 kg/m 6.0m<br>E-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 10      | 310         | 0.0036                | Area = 1.67 in <sup>2</sup><br>Sx = 2.35 in <sup>3</sup><br>Ix = 6.37 in <sup>4</sup> | 3.0         | 461       | 0.060                 | Area = 10.77 cm <sup>2</sup><br>Sx = 38.51 cm <sup>3</sup><br>Ix = 265.14 cm <sup>4</sup> |
|               |                      |  | 12      | 215         | 0.0073                |   | 3.7         | 320       | 0.125                 |   |
|               |                      |  | 14      | 158         | 0.014                 |   | 4.3         | 235       | 0.232                 |   |
|               |                      |  | 16      | 121         | 0.023                 |   | 4.9         | 180       | 0.395                 |   |
|               |                      |  | 18      | 96          | 0.037                 |   | 5.5         | 142       | 0.633                 |   |
|               |                      |  | 20      | 77          | 0.057                 |   | 6.1         | 115       | 0.965                 |   |

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.

All dimensions in parentheses are millimeters unless otherwise specified.



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

Straight Section Part Numbering

Prefix  
Example: **26 A 09 - 24 - 144**

**Series**

● 26

● 36

● 46

● H46

● 56

**Material**

● A = Aluminum

**\*Type**

SB = Solid Bottom

● 06 = 6" rung spacing

● 09 = 9" rung spacing

● 12 = 12" rung spacing

**\*Width**

● 06 = 6"

● 09 = 9"

● 12 = 12"

● 18 = 18"

● 24 = 24"

● 30 = 30"

● 36 = 36"

42 = 42"†

48 = 48"†

**Length**

● ① 144 = 12 ft. 26

● ② 120 = 10 ft.

● ① 240 = 20 ft. 36

● ② 144 = 12 ft.

● ① 240 = 20 ft. 46

● ② 288 = 24 ft.

● ① 240 = 20 ft. H46

● ① 300 = 25 ft.

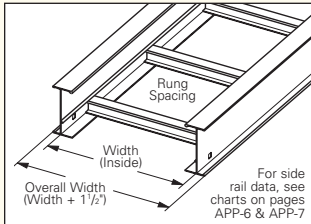
● ① 240 = 20 ft. 57

● ② 288 = 24 ft.

● ① 300 = 25 ft.

● ② 360 = 30 ft.

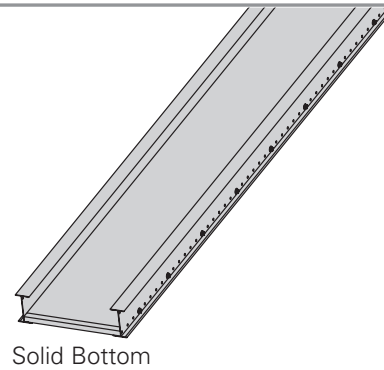
† For 56A only



① Primary Length.  
② Secondary Length.

See page C-23 for explanation of lengths.

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



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

All dimensions in parentheses are millimeters unless otherwise specified.

### 5" NEMA VE 1 Loading Depth 6" 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 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 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.

| 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   |
|---------------|----------------------|---|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|--|
| 26            |                      | NEMA: 20A, 16B<br>CSA: 67 kg/m 6.0m<br>D-6m<br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 10      | 204         | 0.0028                | Area = 1.41 in <sup>2</sup><br>Sx = 2.53 in <sup>3</sup><br>Ix = 7.915 in <sup>4</sup> | 3.0         | 304       | 0.049                 | Area = 9.10 cm <sup>2</sup><br>Sx = 41.46 cm <sup>3</sup><br>Ix = 329.45 cm <sup>4</sup> |
|               |                      |   | 12      | 142         | 0.006                 |  | 3.7         | 211       | 0.101                 |  |
|               |                      |   | 14      | 104         | 0.011                 |  | 4.3         | 155       | 0.186                 |  |
|               |                      |   | 16      | 80          | 0.019                 |  | 4.9         | 119       | 0.318                 |  |
|               |                      |   | 18      | 63          | 0.030                 |  | 5.5         | 94        | 0.509                 |  |
|               |                      |   | 20      | 51          | 0.045                 |  | 6.1         | 76        | 0.776                 |  |

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  |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| 36            |                      | NEMA: 20B, 16C<br>CSA: 112 kg/m 6.0m<br>E-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 12      | 233         | 0.0043                | Area = 1.81 in <sup>2</sup><br>Sx = 3.36 in <sup>3</sup><br>Ix = 10.85 in <sup>4</sup> | 3.7         | 347       | 0.073                 | Area = 11.68 cm <sup>2</sup><br>Sx = 55.06 cm <sup>3</sup><br>Ix = 451.61 cm <sup>4</sup> |
|               |                      |  | 14      | 171         | 0.008                 |  | 4.3         | 255       | 0.136                 |   |
|               |                      |  | 16      | 131         | 0.014                 |  | 4.9         | 195       | 0.232                 |   |
|               |                      |  | 18      | 104         | 0.022                 |  | 5.5         | 154       | 0.372                 |   |
|               |                      |  | 20      | 84          | 0.033                 |  | 6.1         | 125       | 0.566                 |   |
|               |                      |  | 22      | 69          | 0.049                 |  | 6.7         | 103       | 0.829                 |   |

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  |
|---------------|----------------------|---|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| 46            |                      | NEMA: 20C<br>CSA: 168 kg/m 6.1m<br>E-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 14      | 210         | 0.0071                | Area = 2.06 in <sup>2</sup><br>Sx = 3.59 in <sup>3</sup><br>Ix = 12.18 in <sup>4</sup> | 4.3         | 313       | 0.121                 | Area = 13.29 cm <sup>2</sup><br>Sx = 58.83 cm <sup>3</sup><br>Ix = 506.97 cm <sup>4</sup> |
|               |                      |   | 16      | 161         | 0.012                 |  | 4.9         | 239       | 0.207                 |   |
|               |                      |   | 18      | 127         | 0.019                 |  | 5.5         | 189       | 0.331                 |   |
|               |                      |   | 20      | 103         | 0.030                 |  | 6.1         | 153       | 0.505                 |   |
|               |                      |   | 22      | 85          | 0.043                 |  | 6.7         | 127       | 0.739                 |   |
|               |                      |   | 24      | 72          | 0.061                 |  | 7.3         | 106       | 1.046                 |   |

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  |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| H46           |                      | NEMA: 20C+<br>CSA: 131 kg/m 7.6m<br>E-6m<br>UL Cross-Sectional<br>Area: 2.00 in <sup>2</sup> | 16      | 261         | 0.0085                | Area = 2.95 in <sup>2</sup><br>Sx = 5.33 in <sup>3</sup><br>Ix = 17.30 in <sup>4</sup> | 4.9         | 388       | 0.145                 | Area = 19.03 cm <sup>2</sup><br>Sx = 87.34 cm <sup>3</sup><br>Ix = 720.08 cm <sup>4</sup> |
|               |                      |  | 18      | 206         | 0.014                 |  | 5.5         | 307       | 0.233                 |   |
|               |                      |  | 20      | 167         | 0.021                 |  | 6.1         | 248       | 0.355                 |   |
|               |                      |  | 22      | 138         | 0.030                 |  | 6.7         | 205       | 0.520                 |   |
|               |                      |  | 24      | 116         | 0.043                 |  | 7.3         | 173       | 0.737                 |   |
|               |                      |  | 25      | 88          | 0.051                 |  | 7.6         | 131       | 0.867                 |   |

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   |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|--|
| 56            |                      | NEMA: 20C+<br>CSA: 112 kg/m 9.1m<br>E-6m<br>UL Cross-Sectional<br>Area: 2.00 in <sup>2</sup> | 20      | 169         | 0.016                 | Area = 3.63 in <sup>2</sup><br>Sx = 6.12 in <sup>3</sup><br>Ix = 22.63 in <sup>4</sup> | 6.1         | 251       | 0.272                 | Area = 23.42 cm <sup>2</sup><br>Sx = 100.29 cm <sup>3</sup><br>Ix = 941.86 cm <sup>4</sup> |
|               |                      |  | 22      | 139         | 0.023                 |  | 6.7         | 208       | 0.398                 |  |
|               |                      |  | 24      | 117         | 0.033                 |  | 7.3         | 174       | 0.563                 |  |
|               |                      |  | 26      | 100         | 0.045                 |  | 7.9         | 149       | 0.776                 |  |
|               |                      |  | 28      | 86          | 0.061                 |  | 8.5         | 128       | 1.043                 |  |
|               |                      |  | 30      | 75          | 0.081                 |  | 9.1         | 112       | 1.375                 |  |

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.

All dimensions in parentheses are millimeters unless otherwise specified.

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

**Straight Section Part Numbering**

Example: <sup>Prefix</sup> **37 A 09 - 24 - 144**

**Series**

- 27
- 37
- 47
- H47†
- 57

**Material**

- A = Aluminum

**\*Type**

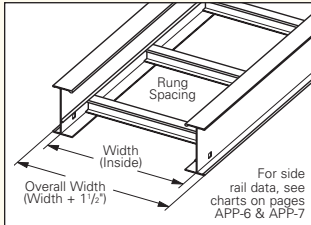
- SB = Solid Bottom
- 06 = 6" rung spacing
- 09 = 9" rung spacing
- 12 = 12" rung spacing

**\*Width**

- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

**Length**

- ① 144 = 12 ft. 27
- ② 120 = 10 ft.
- ① 240 = 20 ft. 37
- ② 144 = 12 ft.
- ① 240 = 20 ft. 47
- ② 288 = 24 ft.
- ① 240 = 20 ft. H47
- ② 300 = 25 ft.
- ① 360 = 30 ft. 57
- ② 300 = 25 ft.



† H47A & 57A only available in ladder type 9" and 12" rung spacing. See page APP-2.

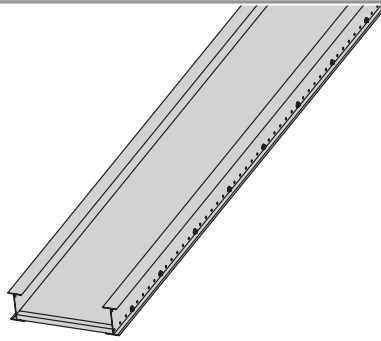
① Primary Length.  
② Secondary Length.

See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)



Solid Bottom



57A available in  
(9" & 12" rung spacing in  
12" to 36" widths)

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

All dimensions in parentheses are millimeters unless otherwise specified.

### 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 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 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.

| 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  |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| 27            |                      | NEMA: 12C<br>CSA: 68 kg/m 6.0m<br>D-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup>       | 10      | 177         | 0.006                 | Area = 1.63 in <sup>2</sup><br>Sx = 2.93 in <sup>3</sup><br>Ix = 11.28 in <sup>4</sup> | 3.0         | 269       | 0.033                 | Area = 10.52 cm <sup>2</sup><br>Sx = 48.01 cm <sup>3</sup><br>Ix = 469.51 cm <sup>4</sup>   |
|               |                      |  | 12      | 123         | 0.013                 |  | 3.7         | 177       | 0.073                 |   |
|               |                      |  | 14      | 90          | 0.023                 |  | 4.3         | 134       | 0.131                 |   |
|               |                      |  | 16      | 69          | 0.040                 |  | 4.9         | 101       | 0.227                 |   |
|               |                      |  | 18      | 54          | 0.064                 |  | 5.5         | 81        | 0.357                 |   |
|               |                      |  | 20      | 44          | 0.098                 |  | 6.1         | 67        | 0.534                 |   |
| 37            |                      | NEMA: 20B, 16C<br>CSA: 101 kg/m 6.1m<br>D-6m<br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 12      | 222         | 0.0035                | Area = 1.81 in <sup>2</sup><br>Sx = 3.77 in <sup>3</sup><br>Ix = 13.50 in <sup>4</sup> | 3.7         | 331       | 0.059                 | Area = 11.68 cm <sup>2</sup><br>Sx = 61.78 cm <sup>3</sup><br>Ix = 561.91 cm <sup>4</sup>   |
|               |                      |  | 14      | 163         | 0.0064                |  | 4.3         | 243       | 0.109                 |   |
|               |                      |  | 16      | 125         | 0.011                 |  | 4.9         | 186       | 0.186                 |   |
|               |                      |  | 18      | 99          | 0.017                 |  | 5.5         | 147       | 0.299                 |   |
|               |                      |  | 20      | 80          | 0.027                 |  | 6.1         | 119       | 0.455                 |   |
|               |                      |  | 22      | 66          | 0.039                 |  | 6.7         | 98        | 0.666                 |   |
| 47            |                      | NEMA: 20C<br>CSA: 142 kg/m 6.1m<br>E-6m<br>UL Cross-Sectional<br>Area: 2.00 in <sup>2</sup>      | 14      | 204         | 0.0048                | Area = 2.38 in <sup>2</sup><br>Sx = 4.94 in <sup>3</sup><br>Ix = 17.88 in <sup>4</sup> | 4.3         | 305       | 0.083                 | Area = 15.35 cm <sup>2</sup><br>Sx = 80.95 cm <sup>3</sup><br>Ix = 744.22 cm <sup>4</sup>   |
|               |                      |  | 16      | 156         | 0.0082                |  | 4.9         | 233       | 0.141                 |   |
|               |                      |  | 18      | 123         | 0.0132                |  | 5.5         | 184       | 0.225                 |   |
|               |                      |  | 20      | 100         | 0.0201                |  | 6.1         | 149       | 0.344                 |   |
|               |                      |  | 22      | 83          | 0.0295                |  | 6.7         | 123       | 0.503                 |   |
|               |                      |  | 24      | 69          | 0.0418                |  | 7.3         | 103       | 0.713                 |   |
| H47           |                      | NEMA: 20C+<br>CSA: 241 kg/m 6.1m<br>E-6m<br>UL Cross-Sectional<br>Area: 2.00 in <sup>2</sup>     | 16      | 233         | 0.0064                | Area = 3.04 in <sup>2</sup><br>Sx = 6.10 in <sup>3</sup><br>Ix = 22.91 in <sup>4</sup> | 4.9         | 346       | 0.110                 | Area = 19.61 cm <sup>2</sup><br>Sx = 99.96 cm <sup>3</sup><br>Ix = 953.59 cm <sup>4</sup>   |
|               |                      |  | 18      | 184         | 0.010                 |  | 5.4         | 274       | 0.176                 |   |
|               |                      |  | 20      | 149         | 0.016                 |  | 6.1         | 222       | 0.268                 |   |
|               |                      |  | 22      | 123         | 0.023                 |  | 6.7         | 183       | 0.393                 |   |
|               |                      |  | 24      | 103         | 0.033                 |  | 7.3         | 154       | 0.556                 |   |
|               |                      |  | 25      | 95          | 0.038                 |  | 7.6         | 142       | 0.655                 |   |
| 57            |                      | NEMA: 20C+<br>CSA: 151 kg/m 9.1m<br>E-6m<br>UL Cross-Sectional<br>Area: 2.00 in <sup>2</sup>     | 20      | 232         | 0.011                 | Area = 4.22 in <sup>2</sup><br>Sx = 7.73 in <sup>3</sup><br>Ix = 32.86 in <sup>4</sup> | 6.1         | 345       | 0.187                 | Area = 27.73 cm <sup>2</sup><br>Sx = 126.67 cm <sup>3</sup><br>Ix = 1367.74 cm <sup>4</sup> |
|               |                      |  | 22      | 192         | 0.016                 |  | 6.7         | 285       | 0.274                 |   |
|               |                      |  | 24      | 161         | 0.023                 |  | 7.3         | 240       | 0.388                 |   |
|               |                      |  | 26      | 136         | 0.031                 |  | 7.9         | 202       | 0.534                 |   |
|               |                      |  | 28      | 117         | 0.042                 |  | 8.5         | 174       | 0.718                 |   |
|               |                      |  | 30      | 102         | 0.055                 |  | 9.1         | 152       | 0.947                 |   |

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.

All dimensions in parentheses are millimeters unless otherwise specified.

## 6" NEMA VE 1 Loading Depth 8" Side Rail Height

### Straight Section Part Numbering

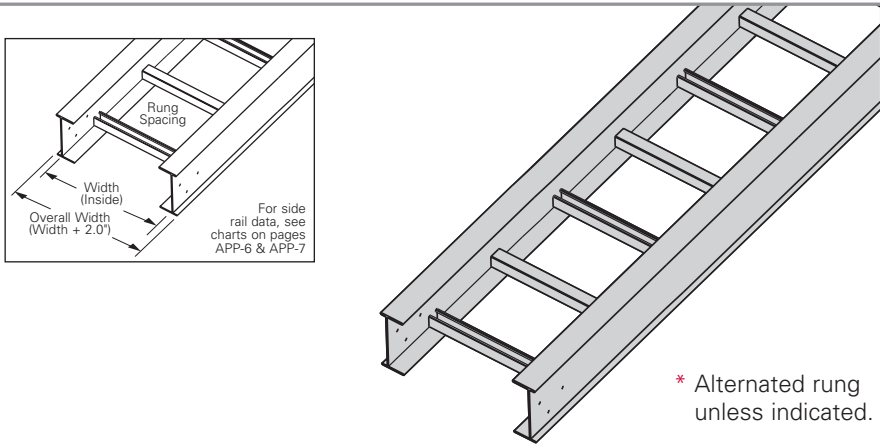
Prefix  
Example: **S8 A 09 - 24 - 144**

|               |                       |                                |                   |                         |
|---------------|-----------------------|--------------------------------|-------------------|-------------------------|
| <b>Series</b> | <b>Material</b>       | <b>*Type</b>                   | <b>*Width</b>     | <b>Length</b>           |
| ● <b>S8</b>   | ● <b>A</b> = Aluminum | <b>Ladder-</b>                 | ● <b>12</b> = 12" | ● <b>480</b> = 40 ft.   |
|               |                       | ● <b>09</b> = 9" rung spacing  | ● <b>18</b> = 18" | ● ① <b>360</b> = 30 ft. |
|               |                       | ● <b>12</b> = 12" rung spacing | ● <b>24</b> = 24" | ● ② <b>300</b> = 25 ft. |
|               |                       |                                | ● <b>30</b> = 30" |                         |
|               |                       |                                | ● <b>36</b> = 36" |                         |

① Primary Length.  
② Secondary Length.

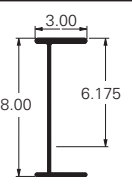
See page C-23 for explanation of lengths.

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



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 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 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.

| 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  |
|---------------|---|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| <b>S8A</b>    |  | NEMA: 20C+                                    | 20      | 363         | 0.007                 | Area=5.50 in <sup>2</sup><br>Sx=15.39 in <sup>3</sup><br>Ix=55.35 in <sup>4</sup> | 6.1         | 540       | 0.111                 | Area=35.48 cm <sup>2</sup><br>Sx=252.20 cm <sup>3</sup><br>Ix=2303.84 cm <sup>4</sup> |
|               |   | CSA: 240 kg/m 9.1m                            | 22      | 300         | 0.010                 |   | 6.7         | 446       | 0.163                 |   |
|               |   | UL Cross-Sectional Area: 2.00 in <sup>2</sup> | 24      | 252         | 0.013                 |   | 7.3         | 375       | 0.230                 |   |
|               |   |   | 26      | 215         | 0.019                 |   | 7.9         | 320       | 0.317                 |   |
|               |   |   | 28      | 185         | 0.025                 |   | 8.5         | 276       | 0.427                 |   |
|               |   |   | 30      | 161         | 0.033                 |   | 9.1         | 240       | 0.562                 |   |
| 40            | 101   | 0.146   | 12.2    | 151         | 2.488                 |   |             |           |                       |   |

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

All dimensions in parentheses are millimeters unless otherwise specified.

The following is a list of accessories and fittings that can be provided with S8A tray. For more information on these items, contact our Engineering Department.

## ● Fittings

### Horizontal Bends

- 30° Bends with 24", 36", or 48" radius
- 45° Bends with 24", 36", or 48" radius
- 60° Bends with 24", 36", or 48" radius
- 90° Bends with 24", 36", or 48" radius

### Horizontal Tees & Crosses

- With 24", 36", or 48" radius

### Vertical Outside Bends

- 30° Bends with 24", 36", or 48" radius
- 45° Bends with 24", 36", or 48" radius
- 60° Bends with 24", 36", or 48" radius
- 90° Bends with 24", 36", or 48" radius

### Vertical Inside Bends

- 30° Bends with 24", 36", or 48" radius
- 45° Bends with 24", 36", or 48" radius
- 60° Bends with 24", 36", or 48" radius
- 90° Bends with 24", 36", or 48" radius

### Reducing Fittings

## ● Accessories - (standard hardware is stainless steel Type 316)

**Splice Plate** - 9A-1008

**Expansion Splice Plate** - 9A-1018

**Horizontal Adjustable Splice Plate** - 9A-1038

**Vertical Adjustable Splice Plate** - 9A-1028

**Hold Down Clamps** - 9ZN-1281, 9G-1281, 9A-1281

**Guides** - S9ZN-1202, S9G-1202

**Step Down Splice Plate** -

9A-1048 = 8" to 4"

9A-1051 = 8" to 5"

9A-1050 = 8" to 6"

9A-1078 = 8" to 7"

**Other Accessories Include:**

**Offset Splice Plates**

**Blind Ends**

**Covers** - Standard aluminum cover number with S in front (Example: S807A40)

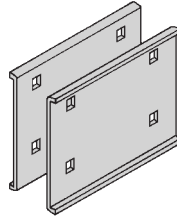
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Aluminum - Accessories

## Wedge Lock Splice Plates

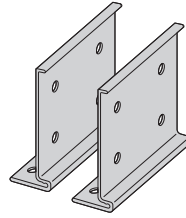
- Furnished in pairs with 1/4" hardware.
- Standard 4-hole pattern.
- Furnished in pairs, with hardware.
- One pair including hardware provided with each section. (Expansion splice quantity subtracted)
- Boxed in pairs with hardware.
- For field installation drill 13/32" hole.



| Catalog No. | Height<br>in. mm |
|-------------|------------------|
| ● 9A-1004   | 4 (101)          |
| ● 9A-1005   | 5 (127)          |
| ● 9A-1006   | 6 (152)          |
| ● 9A-1007   | 7 (178)          |

## H46A, H47A and 57A Mid-Span Splice

- Furnished in pairs with 1/4" hardware.
- Standard for H46A, H47A and 57A straight sections.
- Six bolt design 1/2" Stainless Steel Type 316 hardware standard.
- Available on ladder bottoms only. 09 and 12" rung spacing.
- Furnished in pairs with hardware.

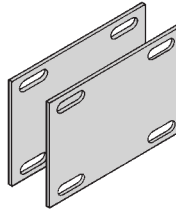


| Catalog No. | Tray<br>Series |
|-------------|----------------|
| ● 9A-6006   | H46A           |
| ● 9A-6007   | H47A, 57A      |

## Expansion Splice Plates

- Expansion plates allow for one inch expansion or contraction of the cable tray, or where expansion joints occur in the supporting structure.
- Furnished in pairs with hardware.
- **Bonding Jumpers are required on each siderail. Order Separately.**

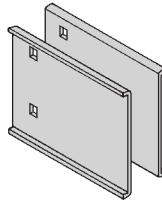
For heavy duty expansion splice plates see page APP-3.



| Catalog No. | Height<br>in. mm |
|-------------|------------------|
| ● 9A-1014   | 4 (101)          |
| ● 9A-1015   | 5 (127)          |
| ● 9A-1016   | 6 (152)          |
| ● 9A-1017   | 7 (178)          |

## Universal Splice Plates

- Furnished in pairs with 1/4" hardware.
- UL Classified.

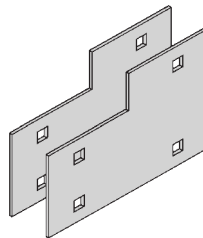


| Catalog No.   | Height<br>in. mm |
|---------------|------------------|
| ● 9A-1004-1/2 | 4 (101)          |
| ● 9A-1005-1/2 | 5 (127)          |
| ● 9A-1006-1/2 | 6 (152)          |
| ● 9A-1007-1/2 | 7 (178)          |

## Step Down Splice Plates

- These splice plates are offered for connecting cable tray sections having side rails of different heights.
- Furnished in pairs with hardware.

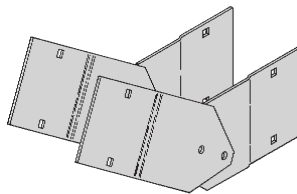
Requires supports within 24" on both sides, per NEMA VE 2.



| Catalog No. | Height<br>in. mm    |
|-------------|---------------------|
| ● 9A-1045   | 5 to 4 (127 to 101) |
| ● 9A-1046   | 6 to 4 (152 to 101) |
| ● 9A-1060   | 6 to 5 (152 to 127) |
| ● 9A-1047   | 7 to 4 (178 to 101) |
| ● 9A-1061   | 7 to 5 (178 to 127) |
| ● 9A-1062   | 7 to 6 (178 to 152) |

## Vertical Adjustable Splice Plates

- These plates provide for changes in elevation that do not conform to standard vertical fittings.
- Furnished in pairs with hardware.
- Bonding Jumpers not required.



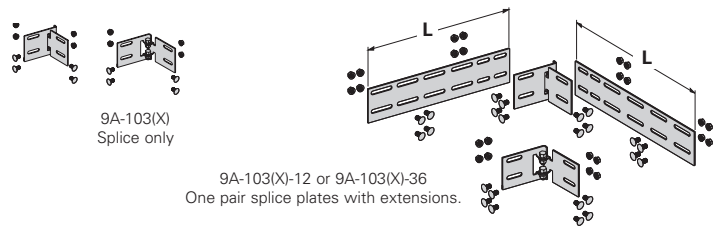
| Catalog No. | Height<br>in. mm |
|-------------|------------------|
| ● 9A-1024   | 4 (101)          |
| ● 9A-1025   | 5 (127)          |
| ● 9A-1026   | 6 (152)          |
| ● 9A-1027   | 7 (178)          |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Horizontal Adjustable Splice Plates

- Offered to adjust a cable tray run for changes in direction in a horizontal plane that do not conform to standard horizontal fittings.
- Furnished in pairs with hardware.
- Bonding jumpers **not** required.
- (X) Insert 4, 5, 6 or 7 for side rail height.

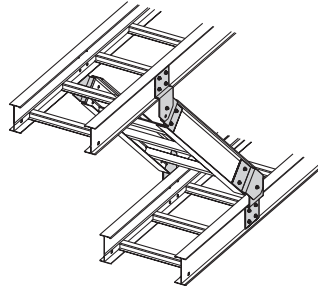


Requires supports within 24" on both sides, per NEMA VE 2.

| Catalog No.    | Cable Tray End Cut | Thru Tray Width<br>in. (mm) | 'L'<br>in. (mm) |
|----------------|--------------------|-----------------------------|-----------------|
| ● 9A-103(X)    | Mitered            | 36 (914)                    | N/A (NA)        |
| ● 9A-103(X)-12 | Not mitered        | 12 (305)                    | 16 (406)        |
| ● 9A-103(X)-36 | Not mitered        | 36 (914)                    | 41 (1041)       |

## Branch Pivot Connectors

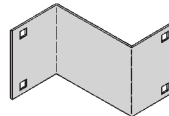
- Branch from existing cable tray runs at any point.
- Pivot to any required angle.
- UL Classified for grounding (bonding jumpers not required).
- Furnished in pairs with hardware.



| Catalog No. | Height<br>in. mm |
|-------------|------------------|
| ● 9A-2044   | 4 (101)          |
| ● 9A-2045   | 5 (127)          |
| ● 9A-2046   | 6 (152)          |
| ● 9A-2047   | 7 (178)          |

## Offset Reducing Splice Plate

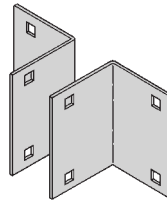
- This plate is used for joining cable trays having different widths. When used in pairs they form a straight reduction; when used singly with a standard splice plate, they form an offset reduction.
- Furnished as one plate with hardware.
- (‡) Insert reduction



| Catalog No.   | Height<br>in. mm |
|---------------|------------------|
| ● 9A-1064-(‡) | 4 (101)          |
| ● 9A-1065-(‡) | 5 (127)          |
| ● 9A-1066-(‡) | 6 (152)          |
| ● 9A-1067-(‡) | 7 (178)          |

## Tray to Box Splice Plates

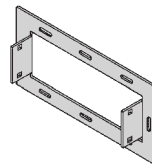
- Used to attach the end of a cable tray run to a distribution box or control panel.
- Furnished in pairs with hardware



| Catalog No. | Height<br>in. mm |
|-------------|------------------|
| ● 9A-1054   | 4 (101)          |
| ● 9A-1055   | 5 (127)          |
| ● 9A-1056   | 6 (152)          |
| ● 9A-1057   | 7 (178)          |

## Frame Type Box Connector

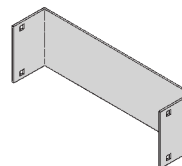
- Designed to attach the end of a cable tray run to a distribution cabinet or control center to help reinforce the box at the point of entry.
- Furnished with tray connection hardware.



| Catalog No.   | Height<br>in. mm |
|---------------|------------------|
| ● 9A-1074-(‡) | 4 (101)          |
| ● 9A-1075-(‡) | 5 (127)          |
| ● 9A-1076-(‡) | 6 (152)          |
| ● 9A-1077-(‡) | 7 (178)          |

## Blind End

- This plate forms a closure for a dead end cable tray.
- Furnished as one plate with hardware.
- (‡) Insert tray width



| Catalog No.   | Height<br>in. mm |
|---------------|------------------|
| ● 9A-1084-(‡) | 4 (101)          |
| ● 9A-1085-(‡) | 5 (127)          |
| ● 9A-1086-(‡) | 6 (152)          |
| ● 9A-1087-(‡) | 7 (178)          |

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

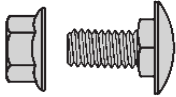
All dimensions in parentheses are millimeters unless otherwise specified.



# Series 2, 3, 4, & 5 Aluminum - Accessories

## Standard Tray Hardware (for field installation drill $13/32$ " hole)

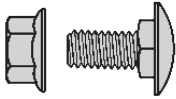
- Finish: Zinc Plated ASTM B633 SC1



| Catalog No.  | Description                                 |
|--|---|
| ● <b>SNCB <math>3/8</math>" x <math>3/4</math>" ZN</b> | Square Neck Carriage Bolt ASTM A307 Grade A |
| ● <b>SFHN <math>3/8</math>"-16 ZN</b>                  | Serrated Flange Hex Nut ASTM A563 Grade A   |

## Optional Tray Hardware (for field installation drill $13/32$ " hole)

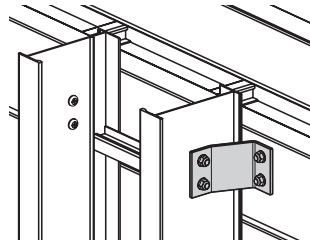
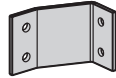
- To order 316 stainless steel hardware add SS6 suffix to catalog number - Example: 9A1004SS6



| Catalog No.   | Description  |
|---|--|
| ● <b>SNCB <math>3/8</math>" x <math>3/4</math>" SS6</b> | Square Neck Carriage Bolt AISI 316 Stainless Steel |
| ● <b>SFHN <math>3/8</math>"-16 SS6</b>                  | Serrated Flange Hex Nut AISI 316 Stainless Steel   |

## Cross Connector Bracket

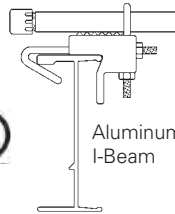
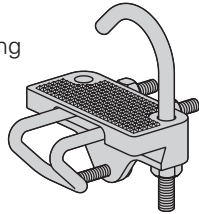
- For field connecting crossing section.
- Furnished in pairs with  $3/8$ " hardware.



| Catalog No.      |
|------------------|
| ● <b>9A-1240</b> |

## Conduit to Cable Tray Adaptor

- For easy attachment of conduit terminating at a cable tray.
- Use on aluminum or steel cable trays.

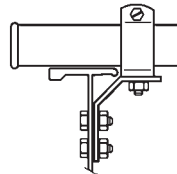


Aluminum I-Beam

| Catalog No.  | Conduit Size |           |
|--|--------------|-----------|
|  | in.          | mm        |
| ● <b>9G-1158-<math>1/2</math> &amp; <math>3/4</math></b> | $1/2, 3/4$   | (15, 20)  |
| ● <b>9G-1158-1 &amp; <math>1 1/4</math></b>              | 1, $1 1/4$   | (25, 32)  |
| ● <b>9G-1158-<math>1 1/2</math> &amp; 2</b>              | $1 1/2, 2$   | (40, 50)  |
| ● <b>9G-1158-<math>2 1/2</math> &amp; 3</b>              | $2 1/2, 3$   | (65, 80)  |
| ● <b>9G-1158-<math>3 1/2</math> &amp; 4</b>              | $3 1/2, 4$   | (90, 100) |

## Conduit to Cable Tray Adaptor

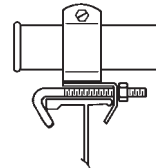
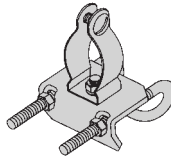
- Assembly required.
- Mounting hardware included.
- Conduit clamps provided.
- (‡) = Insert conduit size ( $1/2$ " thru 4").



| Catalog No.           |
|-----------------------|
| ● <b>9ZN-1150-(‡)</b> |

## Conduit to Cable Tray Adaptor

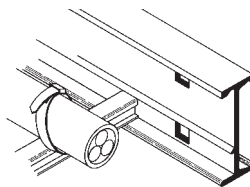
- Assembly required.
- Conduit clamps included.
- (‡) = Insert conduit size ( $1/2$ " thru 4").



| Catalog No.           |
|-----------------------|
| ● <b>9ZN-1155-(‡)</b> |

## Cable Tie (Ladder Tray)

- Nylon ties provide easy attachment of cable to ladder rungs; maximum cable O.D. is 3" (76mm).



Overall Length 15" (381mm)

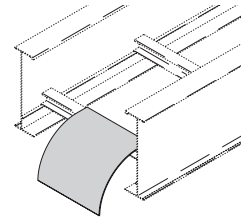
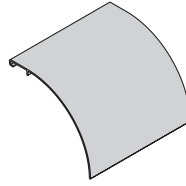
| Catalog No.         |
|---------------------|
| ● <b>99-2125-15</b> |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Ladder Drop-Out

- Specially-designed Ladder Drop-Outs provide a rounded surface with 4" (101 mm) radius to protect cable as it exits from the cable tray, preventing damage to insulation. The drop-out will attach to any desired rung.
- (‡) Insert tray width

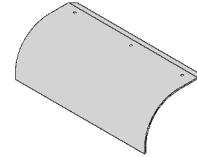


Catalog No.

● 9A-1104-(‡)

## Trough Drop-Out

- This device provides a rounded surface to protect cable as it exits from the cable tray.
- Hardware is included for bottom drop-out.
- (‡) Insert tray width



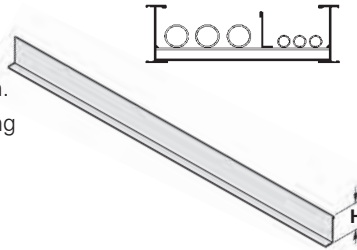
Trough-Type Drop-Out

Catalog No.

● 9A-1104T-(‡)

## Barrier - Straight Section

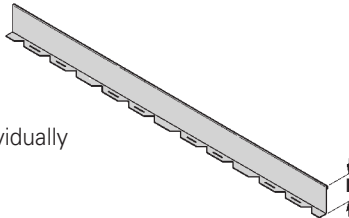
- Length: Insert 120 for [120" - 10 ft.] (3.0 m) or 144 for [144" - 12 ft.] (3.6 m)
- Order catalog number based on loading depth.
- Furnished with four #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.



| Catalog No.  | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|--------------|----------------------------|-----------------------------|
| ● 73A-Length | 4 (101)                    | 3 (76)                      |
| ● 74A-Length | 5 (127)                    | 4 (101)                     |
| ● 75A-Length | 6 (152)                    | 5 (127)                     |
| ● 76A-Length | 7 (178)                    | 6 (152)                     |

## Barrier - Horizontal Bend

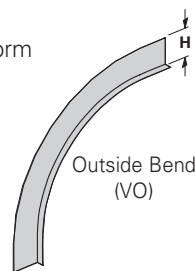
- Horizontal Bend Barriers are flexible in order to conform to any horizontal fitting radius. Can be cut to desired length.
- Standard length is 72" [6 ft.] (1.8 m) - sold individually
- Order catalog number based on loading depth.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.



| Catalog No.  | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|--------------|----------------------------|-----------------------------|
| ● 73A-90HBFL | 4 (101)                    | 3 (76)                      |
| ● 74A-90HBFL | 5 (127)                    | 4 (101)                     |
| ● 75A-90HBFL | 6 (152)                    | 5 (127)                     |
| ● 76A-90HBFL | 7 (178)                    | 6 (152)                     |

## Barrier - Vertical Outside Bend

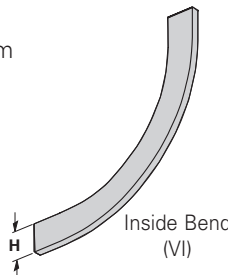
- Vertical Outside Bend Barriers are preformed to conform to a specific vertical outside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert 30, 45, 60 or 90 for degrees
- (†) Insert 12, 24, 36 or 48 for radius



| Catalog No.    | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|----------------|----------------------------|-----------------------------|
| ● 73A-(*)VO(†) | 4 (101)                    | 3 (76)                      |
| ● 74A-(*)VO(†) | 5 (127)                    | 4 (101)                     |
| ● 75A-(*)VO(†) | 6 (152)                    | 5 (127)                     |
| ● 76A-(*)VO(†) | 7 (178)                    | 6 (152)                     |

## Barrier - Vertical Inside Bend

- Vertical Inside Bend Barriers are preformed to conform to a specific vertical inside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert 30, 45, 60 or 90 for degrees
- (†) Insert 12, 24, 36 or 48 for radius



| Catalog No.    | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|----------------|----------------------------|-----------------------------|
| ● 73A-(*)VI(†) | 4 (101)                    | 3 (76)                      |
| ● 74A-(*)VI(†) | 5 (127)                    | 4 (101)                     |
| ● 75A-(*)VI(†) | 6 (152)                    | 5 (127)                     |
| ● 76A-(*)VI(†) | 7 (178)                    | 6 (152)                     |

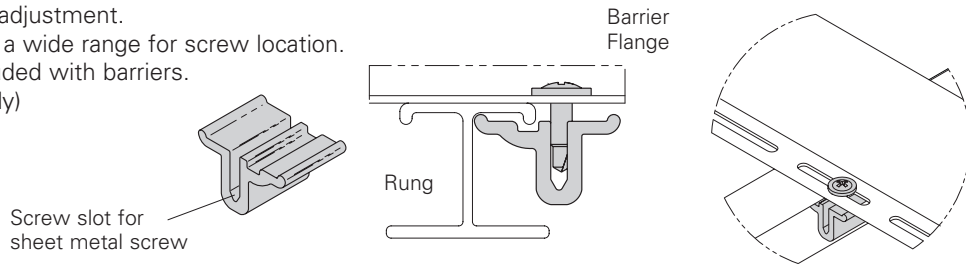
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Aluminum - Accessories

## Barrier Strip Clip

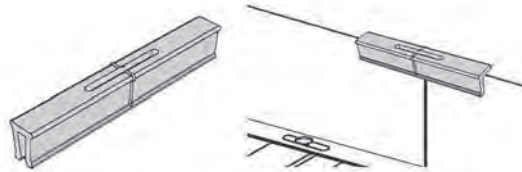
- Provides attachment to rung.
- Allows for installed barrier adjustment.
- Asymmetrical clip provides a wide range for screw location.
- Barrier strip clips not included with barriers.  
(Must be ordered separately)



**Catalog No.**  
● 9A-RBC

## Barrier Strip Splice

- 2.85" (72.4mm) long
- Ribbed edge for increased rigidity and grip
- Comfort edge for ease of installation
- Slotted top window with center mark for accurate placement and inspection capability
- Patent pending

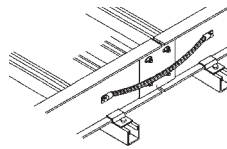


**Catalog No.**  
● 99-9982

## Bonding Jumper

Use at each expansion splice and where the cable tray is not mechanically/electrically continuous to ground. Sold individually.

- Hardware included.
- See table 392.6(B)(2) on page CTS-9 for amperage ratings required to match the UL cross-sectional area of the tray.
- See tray loading chart for UL cross-sectional area.
- Bonding jumper is 14 1/2" (368mm) long.

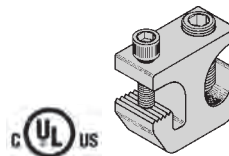


| Catalog No. | Copper Wire Size | Ampacity |
|-------------|------------------|----------|
| ● 99-N1     | #1               | 600      |
| ● 99-40     | 4/0              | 1600     |
| ● 99-1620   | 250 MCM          | 2000     |

## Grounding Clamp

Eaton's B-Line series cable tray is UL® classified as to its suitability as an equipment grounding conductor. If a separate conductor for additional grounding capability is desired, B-Line offers this clamp for bolting the conductor at least once to each cable tray section.

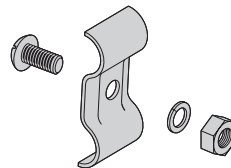
- Accepts #6 AWG to 250 MCM.



| Catalog No. | Material            |
|-------------|---------------------|
| ● 9A-2130   | Tin Plated Aluminum |

## Ground Wire Clamp

- Mechanically attaches grounding cables to cable tray.
- Hardware included.
- (\*) Insert **ZN** or **SS4**

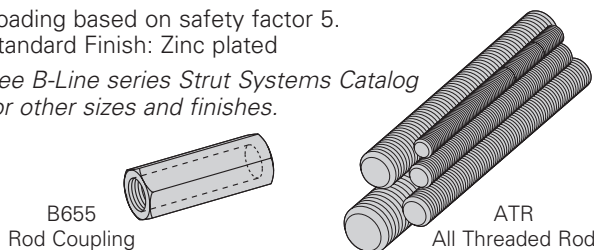


| Catalog No. | Material         |
|-------------|------------------|
| 9(*)-2351   | #1 thru 2/0      |
| 9(*)-2352   | 3/0 thru 250 MCM |

## Thread Rod (ATR) & Rod Couplings

Loading based on safety factor 5.  
Standard Finish: Zinc plated

See B-Line series Strut Systems Catalog for other sizes and finishes.



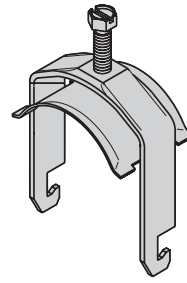
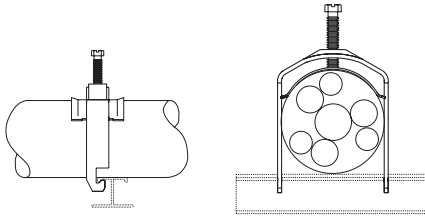
| Size                    | Catalog No.         | Available Length     | Loading   |
|-------------------------|---------------------|----------------------|-----------|
| <b>All Threaded Rod</b> |                     |                      |           |
| 3/8"-16                 | ● ATR 3/8" x Length | 36", 72", 120", 144" | 730 lbs.  |
| 1/2"-13                 | ● ATR 1/2" x Length | 36", 72", 120", 144" | 1350 lbs. |
| <b>Rod Coupling</b>     |                     |                      |           |
| 3/8"-16                 | ● B655-3/8"         | NA                   | 730 lbs.  |
| 1/2"-13                 | ● B655-1/2"         | NA                   | 1350 lbs. |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Stainless Steel Cable Clamp 'P'

- Fits with series 2, 3, & 4 rungs.
- Attaches to rung at any point.
- 14 gauge Type 316 stainless steel material to minimize corrosion and induction heating.
- Plated steel and aluminum also available.

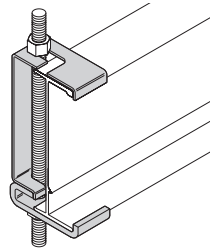


Refer to Section CF  
Cable Fixing

| Catalog No.      | Cable Size    |                 |
|------------------|---------------|-----------------|
|                  | in.           | mm              |
| ● <b>BP081SS</b> | .250 - .840   | (6.4 - 21.3)    |
| ● <b>BP110SS</b> | .810 - 1.100  | (20.6 - 28.0)   |
| ● <b>BP135SS</b> | .850 - 1.350  | (21.6 - 34.8)   |
| ● <b>BP175SS</b> | 1.250 - 1.750 | (31.8 - 44.5)   |
| ● <b>BP205SS</b> | 1.550 - 2.050 | (39.4 - 52.1)   |
| ● <b>BP250SS</b> | 2.000 - 2.500 | (50.8 - 63.5)   |
| ● <b>BP300SS</b> | 2.500 - 3.000 | (63.5 - 76.2)   |
| ● <b>BP325SS</b> | 2.750 - 3.250 | (69.9 - 82.6)   |
| ● <b>BP375SS</b> | 3.250 - 3.750 | (82.6 - 95.3)   |
| ● <b>BP425SS</b> | 3.750 - 4.250 | (95.3 - 108.0)  |
| ● <b>BP475SS</b> | 4.250 - 4.750 | (108.0 - 120.7) |

## Hanger Rod Clamp

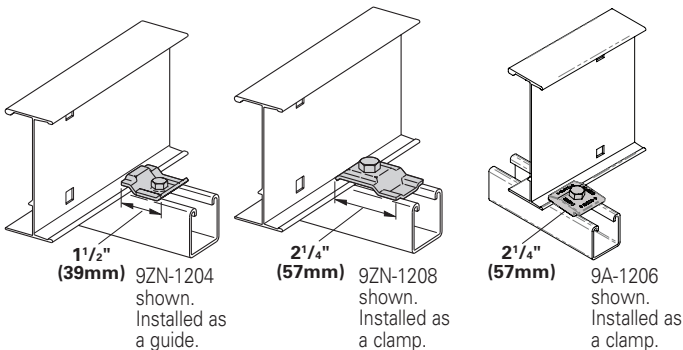
- For 1/2" ATR.
- Furnished in pairs.
- Order ATR and hex nuts separately.
- Two-piece "J"-hanger design.
- 1500 lbs./pair capacity safety factor 3.
- (\*) Insert **ZN** or **G**



| Catalog No.      | Height |       |
|------------------|--------|-------|
|                  | in.    | mm    |
| <b>9(*)-5324</b> | 4      | (101) |
| <b>9(*)-5325</b> | 5      | (127) |
| <b>9(*)-5326</b> | 6      | (152) |
| <b>9(*)-5327</b> | 7      | (178) |

## Cable Tray Clamp/Guide

- Features a no-twist design.
- Has four times the strength of the traditional design.
- Each side is labeled to ensure proper installation.
- Furnished in pairs, with or without hardware.
- Not recommended for vertical support.



| Catalog No.        |                     | Overall Length in. (mm) | Hardware Size in. | Finish |
|--------------------|---------------------|-------------------------|-------------------|--------|
| Without Hardware   | With Hardware       |                         |                   |        |
| ● <b>9ZN-1204</b>  | ● <b>9ZN-1204NB</b> | 1 1/2 (38)              | 1/4"              | G90    |
| ● <b>9ZN-1208</b>  | ● <b>9ZN-1208NB</b> | 2 1/4 (57)              | 3/8"              | G90    |
| ● <b>9A-1206</b>   | ● <b>9A-1206NB</b>  | 2 1/4 (57)              | 3/8"              | Alum.  |
| ● <b>9A-1205</b>   | —                   | 2 1/4 (57)              | 1/2"              | Alum.  |
| ● <b>9G-1205</b>   | —                   | 2 1/4 (57)              | 1/2"              | HDGAF  |
| ● <b>9SS6-1205</b> | —                   | 2 1/4 (57)              | 1/2"              | 316SS  |
| ● <b>9ZN-1205</b>  | —                   | 2 1/4 (57)              | 1/2"              | G90    |

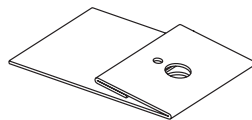
Note: For heavy duty or vertical applications see 9(\*)-1241 or 9(\*)-1242 page HAT-20

## Isolator Pad

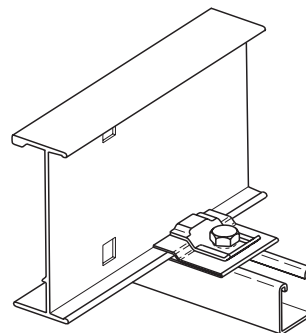
- Use as a friction reducer and/or as a dissimilar metal isolator barrier.
- UV resistant HDPE.
- Temperature range: -100 to 160° F.
- Designed to use with 9(\*)-1205 or 9(\*)-1208 clamp/guide.
- Color - White.



Isolation pad shown as when used with a guide.



Isolation pad shown with top flange doubled under for clamp application.



Catalog No.

● **99-PE34**

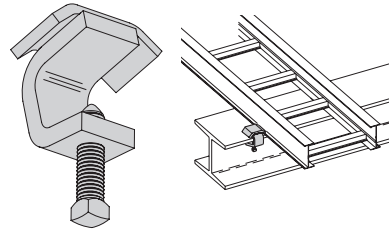
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Aluminum - Accessories

## Cable Tray Clamp

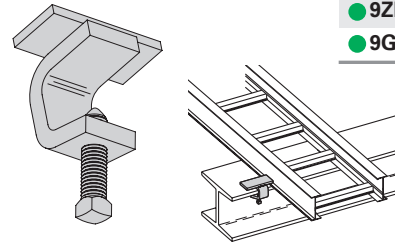
- Hold-down clamps for single or double cable tray runs.
- No drilling of support I-beam or channel is required.
- Sold in pieces - two clamps are required per tray.
- Maximum beam flange thickness 1<sup>1</sup>/<sub>8</sub>" (28.58 mm).



| Catalog No.  | Finish |
|--------------|--------|
| ● 9ZN-1249HD | Znplt  |
| ● 9G-1249HD  | HDGAF  |

## Cable Tray Guide

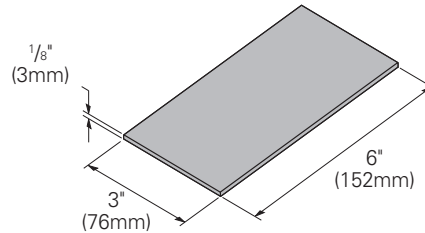
- Expansion guide for single or double cable tray runs.
- Guide allows for longitudinal movement of the cable tray.
- No field drilling of support I-beam or channel is required.
- Guides are required on both sides of cable tray to prevent lateral movement - can be placed on either the inside or outside flange of cable tray.
- Guides are sold in pieces - two guides are required per tray.
- Maximum flange thickness 1<sup>1</sup>/<sub>8</sub>" (28.58 mm).



| Catalog No. | Finish |
|-------------|--------|
| ● 9ZN-1249  | Znplt  |
| ● 9G-1249   | HDGAF  |

## Nylon Pad

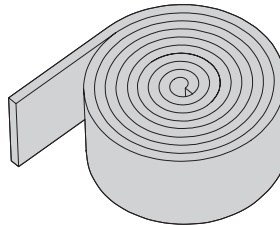
- Use for friction reduction.
- Hardness: Shore D80.
- Low friction coefficient.
- UV resistant.
- Excellent weatherability.
- UL - 94HB.



| Catalog No. |
|-------------|
| ● 99-PE36   |

## Neoprene Roll

- Use for material isolation.
- 1<sup>1</sup>/<sub>8</sub>" x 2" x 25' roll.
- Hardness: Shore A60.
- Good weatherability.



| Catalog No. |
|-------------|
| ● 99-NP300  |

## DURA-BLOK™ Rooftop Support Bases with B22 Channel

- Designed as a superior rooftop support for cable tray,
- UV resistant and approved for most roofing material or other flat surfaces.
- Can be used with any of B-Line series cable tray clamps and guides.
- Ultimate Load Capacity: 1,000 lbs. (uniform load)



| Catalog No. | Height x Width x Length<br>in. (mm)                         |
|-------------|---|
| ● DB10-28   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 28.0 (143 x 152 x 711)  |
| ● DB10-36   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 36.0 (143 x 152 x 914)  |
| ● DB10-42   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 42.0 (143 x 152 x 1067) |
| ● DB10-50   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 50.0 (143 x 152 x 1270) |
| ● DB10-60   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 60.0 (143 x 152 x 1524) |



LEEDS credit available, base made from 100% recycled material.

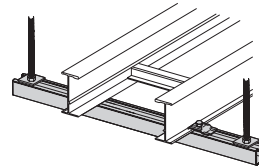
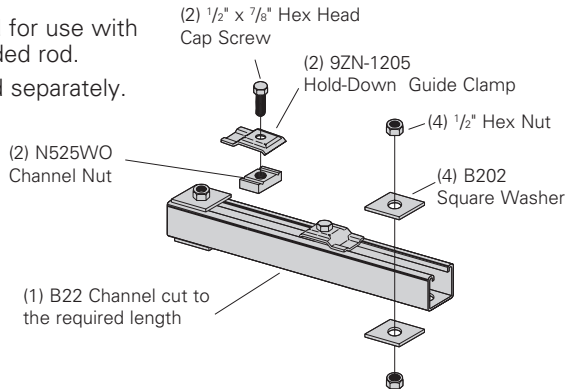
General Note: Consult roofing manufacturer or engineer for roof load capacity. The weakest point may be the insulation board beneath the rubber membrane.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Trapeze Support Kit

- Eaton's B-Line series trapeze kits provide the components required for a single trapeze support in one package. These kits are available in pre-galvanized steel with zinc-plated hardware, hot dip galvanized steel with 316 stainless steel hardware, or DURA GREEN™ painted steel with zinc-plated hardware.
- The SH channel provides the convenience of pre-punched slots, which eliminate the need for field drilling.
- The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod.

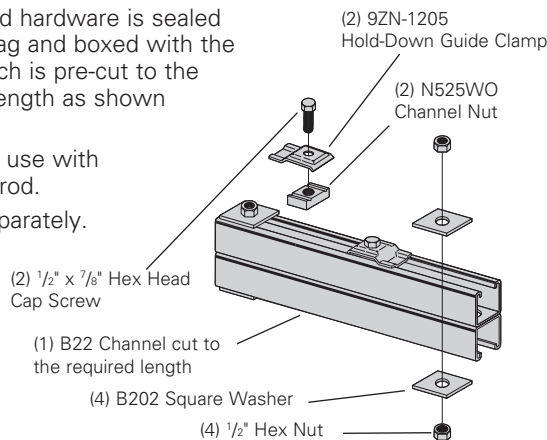


| Catalog No.         | Tray Width<br>in. mm | Channel Length<br>in. mm | Uniform Load<br>lbs kN |
|---------------------|----------------------|--------------------------|------------------------|
| ● 9(*)-5506-22SH(†) | 6 (152)              | 16 (406)                 | 1350 (6.00)            |
| ● 9(*)-5509-22SH(†) | 9 (229)              | 18 (457)                 | 1250 (5.56)            |
| ● 9(*)-5512-22SH(†) | 12 (305)             | 22 (559)                 | 1125 (5.00)            |
| ● 9(*)-5518-22SH(†) | 18 (457)             | 28 (711)                 | 865 (3.85)             |
| ● 9(*)-5524-22SH(†) | 24 (610)             | 34 (864)                 | 700 (3.11)             |
| ● 9(*)-5530-22SH(†) | 30 (762)             | 40 (1016)                | 590 (2.62)             |
| ● 9(*)-5536-22SH(†) | 36 (914)             | 46 (1168)                | 510 (2.27)             |
| ● 9(*)-5542-22SH(†) | 42 (1067)            | 52 (1321)                | 450 (2.00)             |

- (\*) Insert **P** **G** or **GRN**
  - (†) Insert 3/8 for 3/8" threaded rod hardware.
- Safety factor of 3.0 on all loads.

## Heavy Duty Trapeze Support Kit

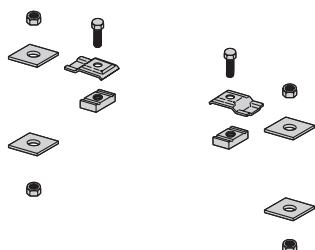
- Eaton's B-Line series trapeze kits provide the components required for a single trapeze support in one package. These kits are available in pre-galvanized steel with zinc-plated hardware, hot dip galvanized steel with 316 stainless steel hardware, or DURA GREEN™ painted steel with zinc-plated hardware.
- The SH channel provides the convenience of pre-punched slots, which eliminates the need for field drilling.
- The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod.



| Catalog No.       | Tray Width<br>in. mm | Channel Length<br>in. mm | Uniform Load<br>lbs kN |
|-------------------|----------------------|--------------------------|------------------------|
| ● 9(*)-5506-22SHA | 6 (152)              | 16 (406)                 | 1350 (6.00)            |
| ● 9(*)-5509-22SHA | 9 (229)              | 18 (457)                 | 1350 (6.00)            |
| ● 9(*)-5512-22SHA | 12 (305)             | 22 (559)                 | 1350 (6.00)            |
| ● 9(*)-5518-22SHA | 18 (457)             | 28 (711)                 | 1350 (6.00)            |
| ● 9(*)-5524-22SHA | 24 (610)             | 34 (864)                 | 1350 (6.00)            |
| ● 9(*)-5530-22SHA | 30 (762)             | 40 (1016)                | 1350 (6.00)            |
| ● 9(*)-5536-22SHA | 36 (914)             | 46 (1168)                | 1350 (6.00)            |
| ● 9(*)-5542-22SHA | 42 (1067)            | 52 (1321)                | 1350 (6.00)            |

- (\*) Insert **P** **G** or **GRN**
- Safety factor of 3.0 on all loads.

## Trapeze Hardware Kit



| Catalog No.    | ● 9ZN-5500-1/2  | ● 9G-5500-1/2  |
|----------------|---|--|
| In plastic bag | 1 pr. 9ZN-1205<br>2 HHC Screw 1/2 x 7/8 ZN<br>2 N525 WO ZN<br>4 B202 ZN 1/2" sq washer<br>4 HN 1/2 ZN | 1 pr. 9G-1205<br>2 HHC Screw 1/2 x 7/8 SS6<br>2 N525 WO SS6<br>4 B202 HDG 1/2" sq washer<br>4 HN 1/2 SS6 |

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

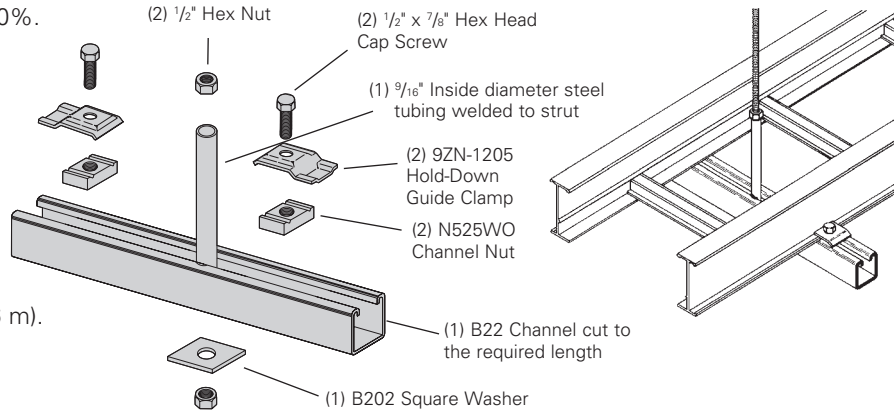
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Aluminum - Accessories

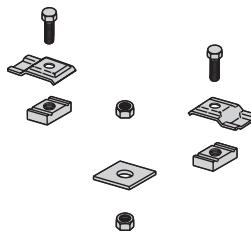
## Center Hung Tray Support

- Center Hung Cable Tray Support allows cable to be laid-in from both sides.
- Eliminates costly cable pulling and field cutting of cable tray supports. Labor costs are dramatically reduced.
- Required hardware and threaded rod material for trapeze assemblies are reduced by up to 50%.
- Designed for use with 1/2" threaded rod. (Order rod separately)
- Use with all aluminum and steel cable trays through 24" width.
- Load capacity is 700 lbs. (311kN) per support. Safety factor of 3.0. Eccentric loading is not to exceed a 60% vs. 40% load differential.
- The maximum recommended unsupported span length is 144"/12 ft. (3.66 m).
- Hardware shown is furnished.
- Finish available: Zinc Plated

| Catalog No. | Tray Width  |                 | Channel Length |       |
|-------------|-------------|-----------------|----------------|-------|
|             | in.         | (mm)            | in.            | (mm)  |
| ● 9ZN-5212  | 6", 9", 12" | (152, 228, 305) | 18"            | (457) |
| ● 9ZN-5224  | 18", 24"    | (457, 609)      | 30"            | (762) |



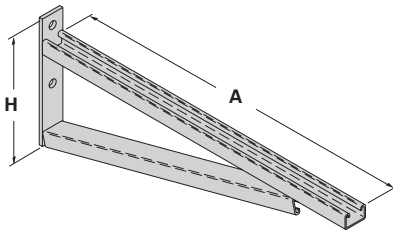
## Center Hung Support Hardware Kit



| Catalog No.    | 9ZN-5200  |
|----------------|---|
| In plastic bag | 1 pr. 9ZN-1205<br>2 HHC Screw 1/2 x 7/8 ZN<br>2 N525 WO ZN<br>1 B202 ZN 1/2" sq washer<br>4 HN 1/2 ZN |

## Bracket (12" - 48")

- (\*) Insert available finish: **ZN** **GRN** or **HDG**
- Safety Load Factor 2.5



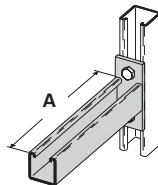
Bottom brace is B42 channel on B494-24 and smaller and B22 channel on B494-30 and larger

| Catalog No. | Uniform Load<br>lbs (kN) | Tray Width |             | 'A' |        | 'H'    |       |
|-------------|--------------------------|------------|-------------|-----|--------|--------|-------|
|             |                          | in.        | (mm)        | in. | (mm)   | in.    | (mm)  |
| ● B494-12   | 2500 (11.12)             | 6 & 9      | (152 & 229) | 12  | (305)  | 8 3/4  | (222) |
| ● B494-18   | 1700 (7.56)              | 12         | (305)       | 18  | (457)  | 8 3/4  | (222) |
| ● B494-24   | 1300 (5.78)              | 18         | (457)       | 24  | (610)  | 8 3/4  | (222) |
| B494-30     | 1600 (7.11)              | 24         | (610)       | 30  | (762)  | 11 1/4 | (286) |
| B494-36     | 1100 (4.89)              | 30         | (762)       | 36  | (914)  | 11 1/4 | (286) |
| B494-42     | 980 (4.36)               | 36         | (914)       | 42  | (1067) | 16     | (406) |
| B494-48     | 980 (4.36)               | 42         | (1067)      | 48  | (1219) | 16     | (406) |

For more dimensional data see Strut Systems catalog

## Cantilever Bracket

- (\*) Insert available finish: **ZN** **GRN** **HDG** **SS4** or **SS6**
- Safety Load Factor 2.5



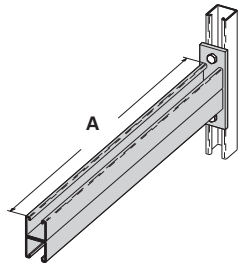
| Catalog No. | Uniform Load |        | Tray Width |             | 'A' |       |
|-------------|--------------|--------|------------|-------------|-----|-------|
|             | lbs          | kN     | in.        | mm          | in. | mm    |
| B409-12     | 960          | (4.27) | 6 & 9      | (152 & 229) | 12  | (305) |
| B409-18     | 640          | (2.84) | 12         | (305)       | 18  | (457) |
| B409-24     | 480          | (2.13) | 18         | (457)       | 24  | (610) |

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## Cantilever Bracket

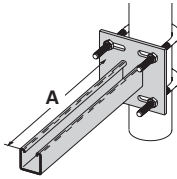
- (\*) Insert available finish: **ZN** **GRN** **HDG** or **SS4**
- Safety Load Factor 2.5



| Catalog No.    | Uniform Load |        | Tray Width |             | 'A' |        |
|----------------|--------------|--------|------------|-------------|-----|--------|
|                | lbs          | kN     | in.        | mm          | in. | mm     |
| <b>B297-12</b> | 1660         | (7.38) | 6 & 9      | (152 & 229) | 12  | (305)  |
| <b>B297-18</b> | 1100         | (4.89) | 12         | (305)       | 18  | (457)  |
| <b>B297-24</b> | 835          | (3.71) | 18         | (457)       | 24  | (610)  |
| <b>B297-30</b> | 665          | (2.93) | 24         | (610)       | 30  | (762)  |
| <b>B297-36</b> | 550          | (2.44) | 30         | (762)       | 36  | (914)  |
| <b>B297-42</b> | 465          | (2.06) | 36         | (914)       | 42  | (1067) |

## Underfloor Support (U-Bolts not included)

- Finishes available: **ZN**
- Safety Load Factor 2.5

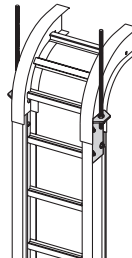
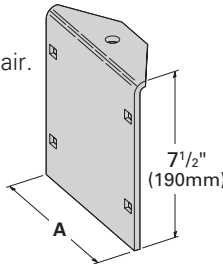


| U-Bolt Size | Fits Pipe O.D. |
|-------------|----------------|
| B501-3/4    | .841 - 1.050   |
| B501-1      | 1.051 - 1.315  |
| B501-1 1/4  | 1.316 - 1.660  |
| B501-1 1/2  | 1.661 - 1.900  |
| B501-2      | 1.901 - 2.375  |
| B501-2 1/2  | 2.376 - 2.875  |

| Catalog No.      | Uniform Load |        | Tray Width |             | 'A' |       |
|------------------|--------------|--------|------------|-------------|-----|-------|
|                  | lbs          | (kN)   | in.        | (mm)        | in. | (mm)  |
| <b>B409UF-12</b> | 800          | (3.56) | 6 & 9      | (152 & 229) | 12  | (305) |
| <b>B409UF-21</b> | 450          | (2.00) | 12 & 18    | (305 & 457) | 21  | (533) |

## Vertical Hanger Splice Plates

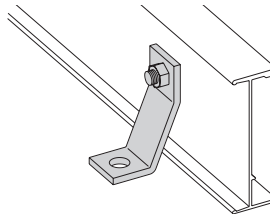
- Design load is 1500 lbs (6.67kN) per pair.
- Safety Factor of 2.5
- Furnished in pairs.
- Hole size: 9/16" (14mm) for 1/2" threaded rod.



| Catalog No.      | Outside Cable Tray Ht. | 'A'  |          |
|------------------|------------------------|------|----------|
|                  |                        | in.  | (mm)     |
| ● <b>9A-1224</b> | 4"                     | 3.84 | (97.54)  |
| ● <b>9A-1225</b> | 5"                     | 4.73 | (120.14) |
| ● <b>9A-1226</b> | 6"                     | 5.84 | (148.34) |
| ● <b>9A-1227</b> | 7"                     | 6.84 | (173.74) |

## Heavy Duty Hold Down Bracket

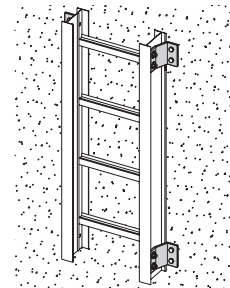
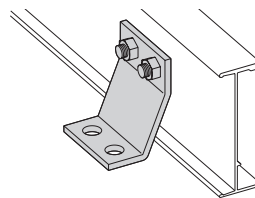
- Design load is 2000 lbs (8.89kN) per pair.
- Two bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided.
- 3/8" support attachment hardware **not** provided.
- (\*) Insert **ZN** **SS4** or **SS6**
- Recommended for support of vertical trays.



| Catalog No.      |
|------------------|
| <b>9(*)-1241</b> |

## Heavy Duty Hold Down Bracket

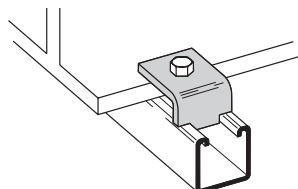
- Design load is 4000 lbs (17.79kN) per pair.
- Four bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided
- 3/8" support attachment hardware **not** provided.
- (\*) Insert **ZN** **SS4** or **SS6**
- Recommended for support of vertical trays.



| Catalog No.      |
|------------------|
| <b>9(*)-1242</b> |

## Beam Clamp

- Finishes available: **ZN** **GRN** **HDG** or **SS4**
- Sold in pieces.
- Design load is 1200 lbs (5.34kN) per pair.
- Safety Load Factor 5.0.
- Order HHCS and Channel Nuts separately.



| Catalog No. |
|-------------|
| <b>B355</b> |

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

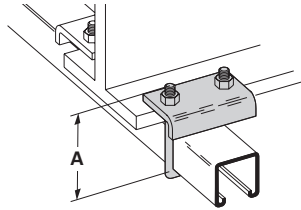
All dimensions in parentheses are millimeters unless otherwise specified.



# Series 2, 3, 4, & 5 Aluminum - Accessories

## Beam Clamp

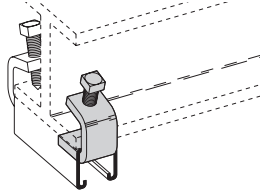
- Finishes available: **ZN** or **HDG**
- Sold in pieces.
- \*Design load when used in pairs.  
Safety Load Factor 5.0



| Catalog No.     | Design Load<br>lbs (kN) | 'A'<br>in. (mm)                    |
|-----------------|-------------------------|------------------------------------|
| <b>B441-22</b>  | 1200 (5.34)             | 3 <sup>3</sup> / <sub>8</sub> (86) |
| <b>B441-22A</b> | 1200 (5.34)             | 5 (127)                            |

## Beam Clamp

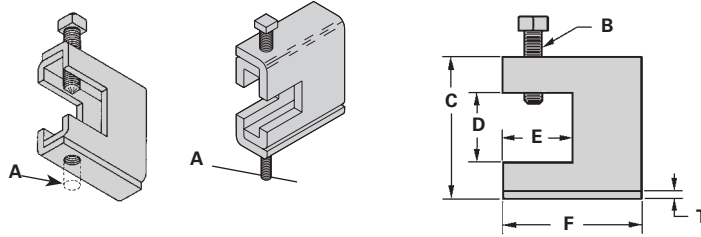
- Finishes available: **ZN** or **HDG**
- Sold in pieces.
- \*Design load when used in pairs.  
Safety Load Factor 5.0



| Catalog No.              | B212-1/4          | B212-3/8            |
|--------------------------|-------------------|---------------------|
| <b>Design Load *</b>     | 600 lbs. (2.67kN) | 1000 lbs. (4.45 kN) |
| <b>Max. Flange Thick</b> | 3/4" (19 mm)      | 1 1/8" (28.6 mm)    |
| <b>Mat'l. Thickness</b>  | 1/4" (6.3 mm)     | 3/8" (9.5 mm)       |

## B305 Thru B308 & B321 Series Beam Clamps

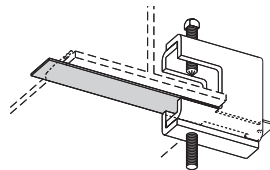
- Finishes available: **ZN** or **HDG**
- Setscrew included.
- Safety Load Factor 5.0



| Catalog No.   | Rod Size A | B       | C<br>in. (mm)                         | D<br>in. (mm)                          | E<br>in. (mm)                        | F<br>in. (mm) | T<br>in. (mm) | Design Load<br>lbs (kN) |
|---------------|------------|---------|---------------------------------------|--|--------------------------------------|---------------|---------------|-------------------------|
| <b>B305</b>   | 3/8"-16    | 3/8"-16 | 2 <sup>5</sup> / <sub>16</sub> (58.7) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 11 Ga. (3.0)  | 600 (2.67)              |
| <b>B306</b>   | 3/8"-16    | 1/2"-13 | 2 <sup>7</sup> / <sub>16</sub> (61.9) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 7 Ga. (4.5)   | 1100 (4.90)             |
| <b>B307</b>   | 1/2"-13    | 1/2"-13 | 2 <sup>7</sup> / <sub>16</sub> (61.9) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 7 Ga. (4.5)   | 1100 (4.90)             |
| <b>B308</b>   | 1/2"-13    | 1/2"-13 | 2 <sup>9</sup> / <sub>16</sub> (65.1) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 1/4 (6.3)     | 1500 (6.68)             |
| <b>B321-1</b> | 3/8"-16    | 1/2"-13 | 3 <sup>9</sup> / <sub>16</sub> (90.5) | 1 <sup>11</sup> / <sub>16</sub> (42.9) | 1 <sup>5</sup> / <sub>8</sub> (41.3) | 3 1/4 (82.5)  | 1/4 (6.3)     | 1300 (5.79)             |
| <b>B321-2</b> | 1/2"-13    | 1/2"-13 | 3 <sup>9</sup> / <sub>16</sub> (90.5) | 1 <sup>11</sup> / <sub>16</sub> (42.9) | 1 <sup>5</sup> / <sub>8</sub> (41.3) | 3 1/4 (82.5)  | 1/4 (6.3)     | 1400 (6.23)             |

## Anchor Strap - for B305 thru B308 & B321 Series

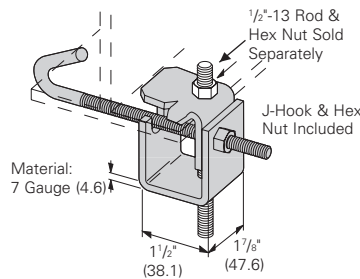
- Finish available: **ZN**
- For a maximum beam thickness of 3/4" (19mm).
- For thicker beams, step up one flange width size.



| Catalog No.    | Flange Width<br>in. (mm) |
|----------------|--------------------------|
| <b>B312-6</b>  | Up to 6 (Up to 152)      |
| <b>B312-9</b>  | 6 - 9 (152 to 228)       |
| <b>B312-12</b> | 9 - 12 (228 to 305)      |

## Beam Clamp

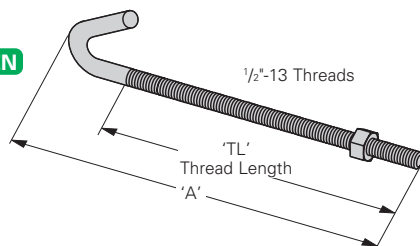
- Finish available: **ZN**
- Design Load 500 lbs. (2.22 kN)
- Safety Load Factor 5.0
- Recommended torque:  
'J'-Hook Nut 125 In.-Lbs. (14.1 kN/m)
- Maximum flange thickness  
of 3/4" (19mm).



| Catalog No.     | For Flange Width<br>in. (mm) | Wt./C<br>lbs (kg) |
|-----------------|------------------------------|-------------------|
| <b>B750-J4</b>  | 3 - 6 (76.2 - 152.4)         | 109 (49.4)        |
| <b>B750-J6</b>  | 5 - 9 (127.0 - 228.6)        | 124 (56.2)        |
| <b>B750-J9</b>  | 8 - 12 (203.2 - 304.8)       | 135 (61.2)        |
| <b>B750-J12</b> | 11 - 15 (279.4 - 381.0)      | 147 (66.7)        |

## 'J'-Hook

- Finishes available: **ZN**
- Hex Nut included.

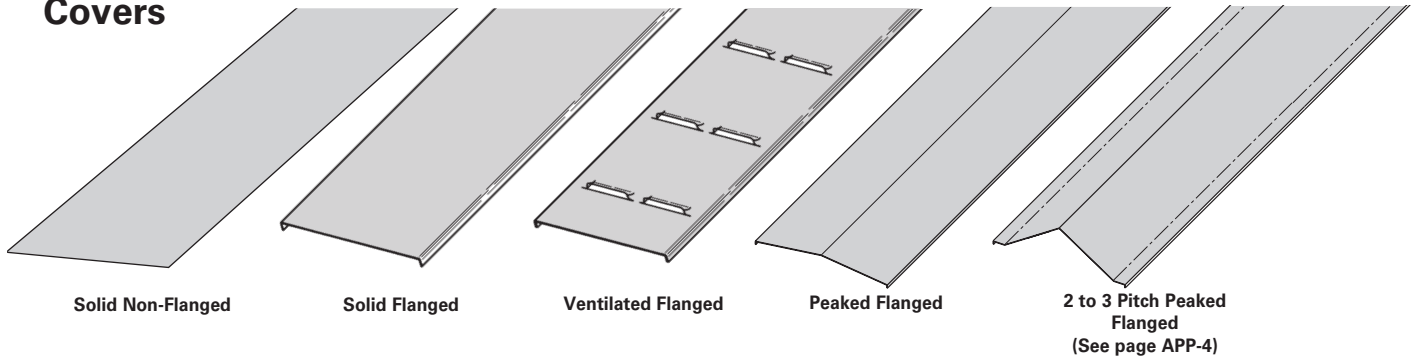


| Catalog No.     | 'A'<br>in. (mm) | 'TL'<br>in. (mm) | Wt./C<br>lbs (kg) |
|-----------------|-----------------|------------------|-------------------|
| <b>B700-J4</b>  | 8 1/2 (215.9)   | 5 (127.0)        | 44 (19.9)         |
| <b>B700-J6</b>  | 11 1/2 (292.1)  | 6 (152.4)        | 53 (24.0)         |
| <b>B700-J9</b>  | 12 1/4 (368.3)  | 6 (152.4)        | 63 (28.6)         |
| <b>B700-J12</b> | 17 1/2 (444.5)  | 6 (152.4)        | 78 (35.4)         |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Covers



**A full range of covers is available for straight sections and fittings.**

**Solid covers** should be used when maximum enclosure of the cable is desired and no accumulation of heat is expected.

**Ventilated covers** provide an overhead cable shield, yet allow heat to escape.

We recommend that covers be placed on vertical cable tray runs to a height of 6 ft. (1.83 m) to 8 ft. (2.44 m) above the floor to isolate both cables and personnel. **Flanged covers** have a 1/2 in. (13 mm) flange. Cover clamps are not included with the cover and must be ordered separately. All **peaked covers** are flanged. Standard peaked covers have 1/2" peak. Special purpose peaked covers, having a 2 to 3 pitch, provide additional slope and material thickness. The 2 to 3 pitch fitting covers are of multiple piece, welded construction.

## Aluminum Cover Part Numbering

Example: <sup>Prefix</sup> **80 7 A - 24 - 144**

### Cover Type

- 80 = Solid
- 81 = Ventilated
- 82 = Peaked

### Detail

- 6 = Non-Flanged (80 & 81 type only)
- 7 = Flange

### Material

- A = Aluminum

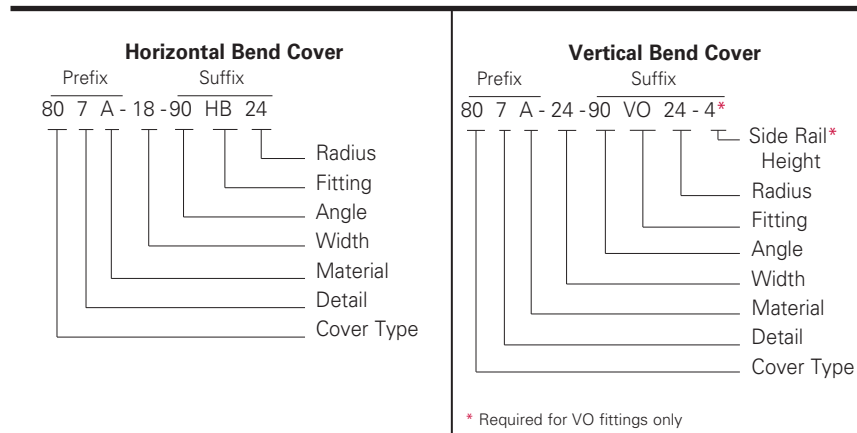
### Tray Width

- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

### Item Description

- For Straight Section Cover:
- 144 = 12 ft. (3.66 m)
  - 120 = 10 ft. (3.05 m)
  - 72 = 6 ft. (1.83 m)
  - 60 = 5 ft. (1.52 m)
- For fitting covers: Insert suffix of fitting to be covered. See example below.

## Examples of Catalog Numbers for Fitting Covers:



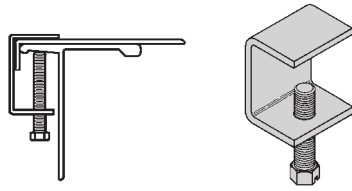
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Aluminum - Accessories

## Standard Cover Clamp

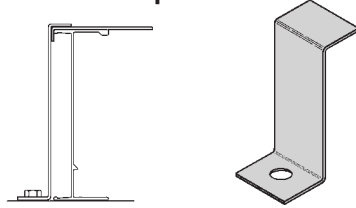
- For indoor service only.
- Setscrew included.
- Sold per piece.



| Tray Type | Catalog No. | Side Rail Height |
|-----------|-------------|------------------|
| Aluminum  | ● 9ZN-9012  | All Sizes        |
|           | ● 9A-9012   |                  |

## Combination Cover and Hold Down Clamp

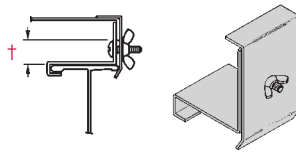
- Sold per piece.
- For indoor service only.



| Tray Type | Catalog No. | Side Rail Height<br>in. (mm) |
|-----------|-------------|------------------------------|
| Aluminum  | ● 9A-9043   | 4 (101)                      |
|           | ● 9A-9053   | 5 (127)                      |
|           | ● 9A-9063   | 6 (152)                      |
|           | ● 9A-9073   | 7 (78)                       |

## Raised Cover Clamp

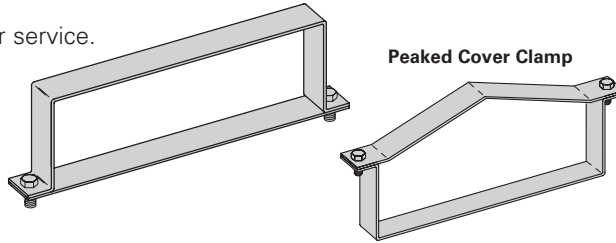
- For indoor service only.
- For use with flanged covers only.
- † Specify gap of 1", 2", 3" or 4".



| Tray Type | Catalog No.  | Side Rail Height |
|-----------|--------------|------------------|
| Aluminum  | ● 9ZN-9112-† | 4 & 5 Deep       |
|           | ● 9ZN-9113-† | 6 & 7 Deep       |

## Heavy Duty Cover Clamp

- Recommended for outdoor service.
- (±) Insert tray width
- † Add P to Catalog No. for peaked cover clamp.



| Catalog No.    | Side Rail Height<br>in. mm |
|----------------|----------------------------|
| ● 9A-(±)-9044† | 4 (101)                    |
| ● 9A-(±)-9054† | 5 (127)                    |
| ● 9A-(±)-9064† | 6 (152)                    |
| ● 9A-(±)-9074† | 7 (178)                    |

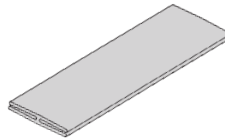
## Quantity of Standard Cover Clamps Required

Notes:  
When using the Heavy Duty Cover Clamp, only on-half the number of clamps stated above is required.  
Additional clamps may be necessary in extreme wind applications.

|                               |        |
|-------------------------------|--------|
| Straight Section 60" or 72"   | 4 pcs. |
| Straight Section 120" or 144" | 6 pcs. |
| Horizontal/Vertical Bends     | 4 pcs. |
| Tees                          | 6 pcs. |
| Crosses                       | 8 pcs. |

## Cover Joint Strip

- Used to join covers
- Plastic
- (±) Insert tray width



| Catalog No.   |
|---------------|
| ● 99-9980-(±) |

## Cable Cleats

(see pages N-1 thru N-5) Standard

Trefoil  
Cable  
Cleats



Single  
Cable  
Cleats



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

All dimensions in parentheses are millimeters unless otherwise specified.

## Section 1- Acceptable Manufacturers

- 1.01 Manufacturer: Subject to compliance with these specifications, Eaton's B-Line series cable tray systems shall be as manufactured by Eaton.

## Section 2- Cable Tray Sections and Components

- 2.01 General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features. Cable tray shall be installed according to the latest revision of NEMA VE 2.
- 2.02 Materials and Finish: Straight section and fitting side rails and rungs shall be extruded from Aluminum Association Alloy 6063. All fabricated parts shall be made from Aluminum Association Alloy 5052.
- 2.03 Ladder Cable Trays shall consist of two longitudinal members (side rails) with transverse members (rungs) welded to the side rails. Rungs shall be spaced [6] [9] [12] inches apart. Rung spacing in radiused fittings shall be industry standard 9" and measured at the center of the tray's width. Each rung must be capable of supporting a 200 lb. concentrated load at the center of the cable tray over and above the cable load with a safety factor of 1.5.
- 2.04 Cable tray loading depth shall be [3] [4] [5] [6] inches per NEMA VE 1.
- 2.05 Straight sections shall have side rails fabricated as I-beams. Straight sections shall be supplied in standard [12 foot] [24 foot] [10 foot (3 m)] [20 foot (6 m)] lengths.
- 2.06 Cable tray widths shall be [6] [9] [12] [18] [24] [30] [36] inches or as shown on drawings.
- 2.06 Splice plates shall be the Wedge-Lock design with 4 nuts and bolts per plate. The resistance of fixed splice connections between an adjacent section of tray shall not exceed 0.00033 ohm.
- 2.08 All fittings must have a minimum radius of [12] [24] [36] [48] inches.

## Section 3- Loading Capacities and Testing

- 3.01 Cable tray shall be capable of carrying a uniformly distributed load of \_\_\_\_\_ lbs./ft. on a \_\_\_\_\_ ft. support span with a safety factor of 1.5 when supported as a simple span and tested per NEMA VE 1 5.2. In addition to the uniformly distributed load the cable tray shall support 200 lbs. concentrated load at mid-point of span. Load and safety factors specified are applicable to both the side rails and rung capacities. Cable tray shall be made to manufacturing tolerances as specified by NEMA.
- 3.02 Upon request, manufacturer shall provide test reports in accordance with the latest revision of NEMA VE 1 or CSA C22.2 No. 126.

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

Series 2, 3, 4, & 5 Steel





### 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:**            258G   12   -   24   -   144

●       ●       ●       ●

●       ●       ●       ●

**Part will have a long lead time because of the 258G material.**

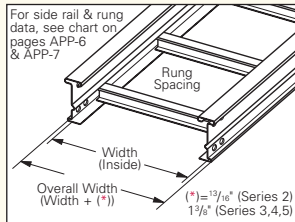
Changing the part number from 258G to 258P will change the coding to black and reduce lead time.

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

### Straight Section Part Numbering

Prefix  
Example: **248 P 09 - 24 - 144**

| Series | Material                            | *Type  | *Width   | Length   |
|--------|-------------------------------------|--|--|--|
| ● 248  | ● P = Pre-Galvanized<br>● G = HDGAF | SB = Solid Bottom<br>● 06 = 6" rung spacing<br>● 09 = 9" rung spacing<br>● 12 = 12" rung spacing | ● 06 = 6"<br>● 09 = 9"<br>● 12 = 12"<br>● 18 = 18"<br>● 24 = 24"<br>● 30 = 30"<br>● 36 = 36" | ● ① 144 = 12 ft. 248<br>● ② 120 = 10 ft.<br>● ① 240 = 20 ft. 346<br>● ② 144 = 12 ft.<br>● ① 240 = 20 ft. 444<br>● ② 288 = 24 ft. |



① Primary Length.  
② Secondary Length.

See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)

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

All dimensions in parentheses are millimeters unless otherwise specified.

## 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 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.

| 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  |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| 248           |                      | NEMA: 16A, 12C<br>CSA: D1-3m<br><br>UL Cross-Sectional<br>Area: 0.40 in <sup>2</sup> | 6       | 412*        | 0.0007                | Area = 0.62 in <sup>2</sup><br>Sx = 0.64 in <sup>3</sup><br>Ix = 1.43 in <sup>4</sup> | 1.8         | 613*      | 0.012                 | Area = 4.00 cm <sup>2</sup><br>Sx = 10.49 cm <sup>3</sup><br>Ix = 59.52 cm <sup>4</sup> |
|               |                      |  | 8       | 232         | 0.0022                |   | 2.4         | 345       | 0.038                 |   |
|               |                      |  | 10      | 148         | 0.0054                |   | 3.0         | 221       | 0.093                 |   |
|               |                      |  | 12      | 103         | 0.011                 |   | 3.7         | 153       | 0.192                 |   |
|               |                      |  | 14      | 76          | 0.021                 |   | 4.3         | 113       | 0.356                 |   |
|               |                      |  | 16      | 58          | 0.036                 |   | 4.9         | 86        | 0.607                 |   |

| 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  |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| 346           |                      | NEMA: 20A, 16B<br>CSA: D1-6m<br><br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 10      | 252         | 0.0036                | Area = 0.89 in <sup>2</sup><br>Sx = 0.96 in <sup>3</sup><br>Ix = 2.22 in <sup>4</sup> | 3.0         | 375       | 0.060                 | Area = 5.74 cm <sup>2</sup><br>Sx = 15.73 cm <sup>3</sup><br>Ix = 92.40 cm <sup>4</sup> |
|               |                      |  | 12      | 175         | 0.0072                |   | 3.7         | 260       | 0.124                 |   |
|               |                      |  | 14      | 129         | 0.013                 |   | 4.3         | 191       | 0.229                 |   |
|               |                      |  | 16      | 98          | 0.023                 |   | 4.9         | 146       | 0.391                 |   |
|               |                      |  | 18      | 78          | 0.037                 |   | 5.5         | 116       | 0.626                 |   |
|               |                      |  | 20      | 63          | 0.056                 |   | 6.1         | 94        | 0.955                 |   |

| 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   |
|---------------|----------------------|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 444           |                      | NEMA: 20B, 16C<br>CSA: E-3m<br><br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 12      | 253         | 0.0055                | Area = 1.19 in <sup>2</sup><br>Sx = 1.27 in <sup>3</sup><br>Ix = 2.94 in <sup>4</sup> | 3.7         | 376       | 0.093                 | Area = 7.68 cm <sup>2</sup><br>Sx = 20.81 cm <sup>3</sup><br>Ix = 122.37 cm <sup>4</sup> |
|               |                      |   | 16      | 142         | 0.027                 |   | 4.9         | 212       | 0.295                 |  |
|               |                      |   | 18      | 112         | 0.028                 |   | 5.5         | 167       | 0.473                 |  |
|               |                      |   | 20      | 91          | 0.042                 |   | 6.1         | 135       | 0.721                 |  |
|               |                      |   | 22      | 75          | 0.062                 |   | 6.7         | 112       | 1.055                 |  |
|               |                      |   | 24      | 63          | 0.088                 |   | 7.3         | 94        | 1.495                 |  |

\*When using 18" rung spacing, load capacity is limited to 394 lbs/ft (586.272 kg/m) for 30" cable tray width and 325 lbs/ft (483.6 kg/m) for 36" cable tray width. 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.

All dimensions in parentheses are millimeters unless otherwise specified.

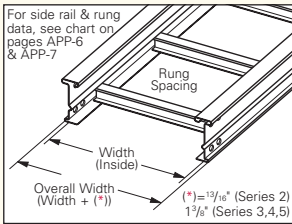


## 4" NEMA VE 1 Loading Depth 5" Side Rail Height

### Straight Section Part Numbering

Prefix  
Example: **258 P 09 - 24 - 144**

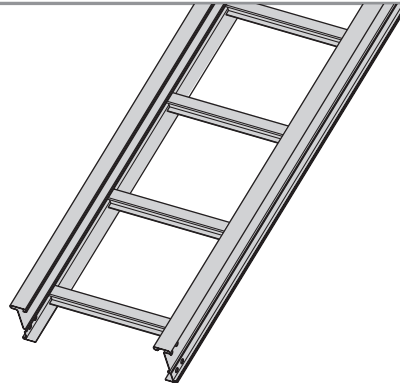
| Series | Material                            | *Type  | *Width   | Length   |
|--------|-------------------------------------|--|--|--|
| ● 258  | ● P = Pre-Galvanized<br>● G = HDGAF | SB = Solid Bottom<br>● 06 = 6" rung spacing<br>● 09 = 9" rung spacing<br>● 12 = 12" rung spacing | ● 06 = 6"<br>● 09 = 9"<br>● 12 = 12"<br>● 18 = 18"<br>● 24 = 24"<br>● 30 = 30"<br>● 36 = 36" | ● ① 144 = 12 ft.<br>● ② 120 = 10 ft.<br>● ① 240 = 20 ft.<br>● ② 144 = 12 ft.<br>● ① 240 = 20 ft.<br>● ② 288 = 24 ft. |
| ● 356  |                                     |  |  | 258<br>356   |
| ● 454  |                                     |  |  | 454  |



① Primary Length.  
② Secondary Length.

See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)

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

All dimensions in parentheses are millimeters unless otherwise specified.

## 4" NEMA VE 1 Loading Depth 5" 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.

| 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   |
|---------------|----------------------|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>258</b>    |                      | NEMA: 16A, <b>12C</b><br>CSA: D1-3m<br><br>UL Cross-Sectional<br>Area: 0.40 in <sup>2</sup> | 6       | 436*        | 0.0004                | Area = 0.71 in <sup>2</sup><br>Sx = 0.89 in <sup>3</sup><br>Ix = 2.44 in <sup>4</sup> | 1.8         | 649*      | 0.007                 | Area = 4.58 cm <sup>2</sup><br>Sx = 14.58 cm <sup>3</sup><br>Ix = 101.56 cm <sup>4</sup> |
|               |                      |   | 8       | 245         | 0.0013                |   | 2.4         | 365       | 0.022                 |  |
|               |                      |   | 10      | 157         | 0.0032                |   | 3.0         | 234       | 0.054                 |  |
|               |                      |   | 12      | 109         | 0.0066                |   | 3.7         | 162       | 0.113                 |  |
|               |                      |   | 14      | 80          | 0.012                 |   | 4.3         | 119       | 0.209                 |  |
|               |                      |   | 16      | 61          | 0.021                 |   | 4.9         | 91        | 0.356                 |  |

| 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>356</b>    |                      | NEMA: 20A, 16C<br>CSA: D1-6m<br><br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 10      | 276         | 0.0021                | Area = 1.00 in <sup>2</sup><br>Sx = 1.31 in <sup>3</sup><br>Ix = 3.73 in <sup>4</sup> | 3.0         | 411       | 0.036                 | Area = 6.45 cm <sup>2</sup><br>Sx = 21.47 cm <sup>3</sup><br>Ix = 155.25 cm <sup>4</sup> |
|               |                      |  | 12      | 192         | 0.0043                |   | 3.7         | 285       | 0.074                 |  |
|               |                      |  | 14      | 141         | 0.0080                |   | 4.3         | 210       | 0.136                 |  |
|               |                      |  | 16      | 108         | 0.014                 |   | 4.9         | 160       | 0.233                 |  |
|               |                      |  | 18      | 85          | 0.022                 |   | 5.5         | 127       | 0.373                 |  |
|               |                      |  | 20      | 69          | 0.033                 |   | 6.1         | 103       | 0.568                 |  |

| 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>454</b>    |                      | NEMA: 20C<br>CSA: E-6m<br><br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 12      | 294         | 0.0032                | Area = 1.34 in <sup>2</sup><br>Sx = 1.75 in <sup>3</sup><br>Ix = 4.96 in <sup>4</sup> | 3.7         | 438       | 0.055                 | Area = 8.65 cm <sup>2</sup><br>Sx = 28.68 cm <sup>3</sup><br>Ix = 206.45 cm <sup>4</sup> |
|               |                      |  | 16      | 166         | 0.010                 |   | 4.9         | 246       | 0.175                 |  |
|               |                      |  | 18      | 131         | 0.016                 |   | 5.5         | 195       | 0.280                 |  |
|               |                      |  | 20      | 106         | 0.026                 |   | 6.1         | 158       | 0.427                 |  |
|               |                      |  | 22      | 88          | 0.037                 |   | 6.7         | 130       | 0.625                 |  |
|               |                      |  | 24      | 74          | 0.052                 |   | 7.3         | 110       | 0.886                 |  |

\*When using 18" rung spacing, load capacity is limited to 394 lbs/ft (586.272 kg/m) for 30" cable tray width and 325 lbs/ft (483.6 kg/m) for 36" cable tray width. 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.

All dimensions in parentheses are millimeters unless otherwise specified.

## 5" NEMA VE 1 Loading Depth 6" Side Rail Height

### Straight Section Part Numbering

Prefix  
Example: **268 P 09 - 24 - 144**

#### Series

- 268
- 366
- 464

#### Material

- P = Pre-Galvanized
- G = HDGAF

#### \*Type

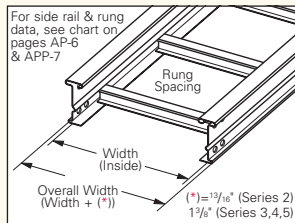
- SB = Solid Bottom
- 06 = 6" rung spacing
- 09 = 9" rung spacing
- 12 = 12" rung spacing

#### \*Width

- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

#### Length

- ① 144 = 12 ft.     268
- ② 120 = 10 ft.
- ① 240 = 20 ft.     366
- ② 144 = 12 ft.
- ① 240 = 20 ft.     464
- ② 288 = 24 ft.



- ① Primary Length.
- ② Secondary Length.

See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)

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

All dimensions in parentheses are millimeters unless otherwise specified.

## 5" NEMA VE 1 Loading Depth 6" 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.

| 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 268           |                      | NEMA: 16A, 12C<br>CSA: D1-3m<br><br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 6       | 440*        | 0.0003                | Area = 0.80 in <sup>2</sup><br>Sx = 1.18 in <sup>3</sup><br>Ix = 3.81 in <sup>4</sup> | 1.8         | 655*      | 0.005                 | Area = 5.16 cm <sup>2</sup><br>Sx = 19.34 cm <sup>3</sup><br>Ix = 158.58 cm <sup>4</sup> |
|               |                      |  | 8       | 248         | 0.0008                |   | 2.4         | 368       | 0.014                 |  |
|               |                      |  | 10      | 158         | 0.0020                |   | 3.0         | 236       | 0.035                 |  |
|               |                      |  | 12      | 110         | 0.0042                |   | 3.7         | 164       | 0.072                 |  |
|               |                      |  | 14      | 81          | 0.0078                |   | 4.3         | 120       | 0.134                 |  |
|               |                      |  | 16      | 62          | 0.013                 |   | 4.9         | 92        | 0.228                 |  |

| 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   |
|---------------|----------------------|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 366           |                      | NEMA: 20B, 16C<br>CSA: E-6m<br><br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 10      | 300         | 0.0014                | Area = 1.11 in <sup>2</sup><br>Sx = 1.71 in <sup>3</sup><br>Ix = 5.74 in <sup>4</sup> | 3.0         | 446       | 0.023                 | Area = 7.16 cm <sup>2</sup><br>Sx = 28.02 cm <sup>3</sup><br>Ix = 238.92 cm <sup>4</sup> |
|               |                      |   | 12      | 208         | 0.0028                |   | 3.7         | 310       | 0.048                 |  |
|               |                      |   | 14      | 153         | 0.0052                |   | 4.3         | 228       | 0.089                 |  |
|               |                      |   | 16      | 117         | 0.0089                |   | 4.9         | 174       | 0.151                 |  |
|               |                      |   | 18      | 93          | 0.014                 |   | 5.5         | 138       | 0.242                 |  |
|               |                      |   | 20      | 75          | 0.022                 |   | 6.1         | 112       | 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| 464           |                      | NEMA: 20C<br>CSA: E-6m<br><br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 12      | 342*        | 0.002                 | Area = 1.49 in <sup>2</sup><br>Sx = 2.27 in <sup>3</sup><br>Ix = 7.65 in <sup>4</sup> | 3.7         | 508*      | 0.035                 | Area = 9.61 cm <sup>2</sup><br>Sx = 37.36 cm <sup>3</sup><br>Ix = 318.42 cm <sup>4</sup> |
|               |                      |  | 16      | 192         | 0.007                 |   | 4.9         | 286       | 0.113                 |  |
|               |                      |  | 18      | 152         | 0.011                 |   | 5.5         | 226       | 0.182                 |  |
|               |                      |  | 20      | 123         | 0.016                 |   | 6.1         | 183       | 0.277                 |  |
|               |                      |  | 22      | 102         | 0.024                 |   | 6.7         | 151       | 0.406                 |  |
|               |                      |  | 24      | 85          | 0.034                 |   | 7.3         | 127       | 0.574                 |  |

\*When using 18" rung spacing, load capacity is limited to 394 lbs/ft (586.272 kg/m) for 30" cable tray width and 325 lbs/ft (483.6 kg/m) for 36" cable tray width. 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.

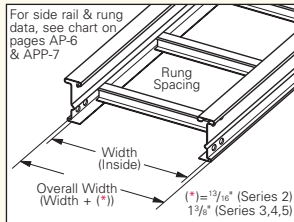
All dimensions in parentheses are millimeters unless otherwise specified.

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

### Straight Section Part Numbering

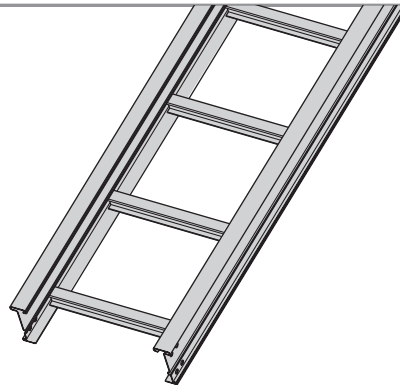
Prefix  
Example: **378 P 09 - 24 - 144**

| Series | Material                            | *Type  | *Width   | Length   |                   |
|--------|-------------------------------------|--|--|--|-------------------|
| ● 378  | ● P = Pre-Galvanized<br>● G = HDGAF | SB = Solid Bottom<br>● 06 = 6" rung spacing<br>● 09 = 9" rung spacing<br>● 12 = 12" rung spacing | ● 06 = 6"<br>● 09 = 9"<br>● 12 = 12"<br>● 18 = 18"<br>● 24 = 24"<br>● 30 = 30"<br>● 36 = 36" | ● ① 144 = 12 ft.<br>● ② 120 = 10 ft.<br>● ① 240 = 20 ft.<br>● ② 144 = 12 ft.<br>● ① 240 = 20 ft.<br>● ② 288 = 24 ft. | 378<br>476<br>574 |



① Primary Length.  
② Secondary Length.  
See page C-23 for explanation of lengths.

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



Ladder Type  
(Specify Rung Spacing)

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

All dimensions in parentheses are millimeters unless otherwise specified.

## 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.

| 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>378</b>    |                      | NEMA: 20A, 16B<br>CSA: D1-3m<br><br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 8       | 319         | 0.0006                | Area = 1.01 in <sup>2</sup><br>Sx = 1.77 in <sup>3</sup><br>Ix = 6.90 in <sup>4</sup> | 2.4         | 474       | 0.009                 | Area = 6.52 cm <sup>2</sup><br>Sx = 29.01 cm <sup>3</sup><br>Ix = 287.20 cm <sup>4</sup> |
|               |                      |  | 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   |
|---------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>476</b>    |                      | NEMA: 20B, 16C<br>CSA: D1-6m<br><br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 12      | 214         | 0.0019                | Area = 1.22 in <sup>2</sup><br>Sx = 2.14 in <sup>3</sup><br>Ix = 8.30 in <sup>4</sup> | 3.7         | 318       | 0.033                 | Area = 7.87 cm <sup>2</sup><br>Sx = 35.07 cm <sup>3</sup><br>Ix = 345.47 cm <sup>4</sup> |
|               |                      |  | 16      | 129         | 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  |
|---------------|----------------------|--|---------|-------------|-----------------------|--|-------------|-----------|-----------------------|---|
| <b>574</b>    |                      | NEMA: 20C<br>CSA: E-6m<br><br>UL Cross-Sectional<br>Area: 1.50 in <sup>2</sup> | 12      | 361         | 0.0014                | Area = 1.64 in <sup>2</sup><br>Sx = 2.87 in <sup>3</sup><br>Ix = 11.10 in <sup>4</sup> | 3.7         | 537       | 0.025                 | Area = 10.58 cm <sup>2</sup><br>Sx = 47.03 cm <sup>3</sup><br>Ix = 462.02 cm <sup>4</sup> |
|               |                      |  | 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.

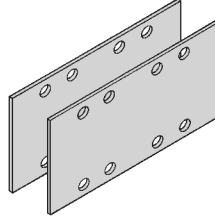
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Splice Plates

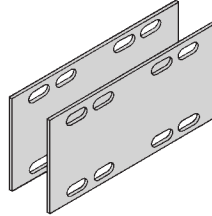
- Standard 8-hole pattern for all steel splice plates.
- Furnished in pairs with hardware.
- One pair including hardware provided with straight section. (Expansion splice quantity subtracted)
- Boxed in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-8004   | 4      | (101) |
| 9(*)-8005   | 5      | (127) |
| 9(*)-8006   | 6      | (152) |
| 9(*)-8007   | 7      | (178) |

## Expansion Splice Plates

- Expansion plates allow for one inch expansion or contraction of the cable tray, or where expansion joints occur in the support structure.
- Furnished in pairs with hardware.
- Bonding Jumpers are required on each siderail. Order Separately.
- (\*) Insert **ZN** or **G**

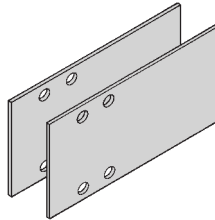


For heavy duty expansion splice plates see page APP-3.

| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-8014   | 4      | (101) |
| 9(*)-8015   | 5      | (127) |
| 9(*)-8016   | 6      | (152) |
| 9(*)-8017   | 7      | (178) |

## Universal Splice Plates

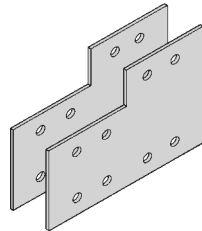
- Used to splice to existing cable tray systems.
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Catalog No.    | Height |       |
|----------------|--------|-------|
|                | in.    | mm    |
| 9(*)-8004-1/2  | 4      | (101) |
| 9(*)-8005-1/2  | 5      | (127) |
| 9(*)-8006 -1/2 | 6      | (152) |
| 9(*)-8007 -1/2 | 7      | (178) |

## Step Down Splice Plates

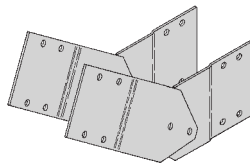
- These splice plates are offered for connecting cable tray sections having side rails of different heights.
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



| Catalog No. | Height |              |
|-------------|--------|--------------|
|             | in.    | mm           |
| 9(*)-8045   | 5 to 4 | (127 to 101) |
| 9(*)-8046   | 6 to 4 | (152 to 101) |
| 9(*)-8060   | 6 to 5 | (152 to 127) |
| 9(*)-8047   | 7 to 4 | (178 to 101) |
| 9(*)-8061   | 7 to 5 | (178 to 127) |
| 9(*)-8062   | 7 to 6 | (178 to 152) |

## Vertical Adjustable Splice Plates

- These plates provide for changes in elevation that do not conform to standard vertical fittings.
- Furnished in pairs with hardware.
- **Bonding Jumpers not required.**
- (\*) Insert **G** or **P**

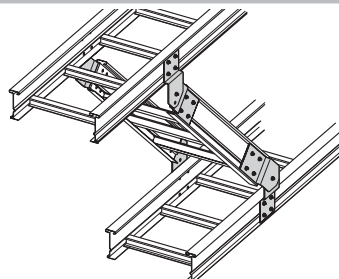


Requires supports within 24" on both sides, per NEMA VE 2.

| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-8024   | 4      | (101) |
| 9(*)-8025   | 5      | (127) |
| 9(*)-8026   | 6      | (152) |
| 9(*)-8027   | 7      | (178) |

## Branch Pivot Connectors

- Branch from existing cable tray runs at any point.
- Pivot to any required angle.
- UL Classified for grounding (bonding jumpers not required).
- Furnished in pairs with hardware.
- (\*) Insert **ZN** or **G**



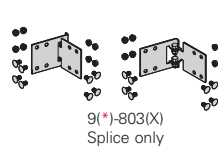
| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-8244   | 4      | (101) |
| 9(*)-8245   | 5      | (127) |
| 9(*)-8246   | 6      | (152) |
| 9(*)-8247   | 7      | (178) |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Horizontal Adjustable Splice Plates

- Offered to adjust a cable tray run for changes in direction in a horizontal plane that do not conform to standard horizontal fittings.
- Furnished in pairs with hardware.
- Bonding jumpers **not** required.
- (\*) Insert **ZN** or **G**
- (X) Insert 4, 5, 6 or 7 for side rail height.



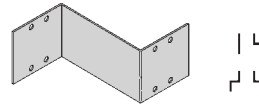
9(\*)-803(X)-12 or 9(\*)-803(X)-36  
One pair splice plates with extensions.

| Catalog No.    | Cable Tray End Cut | Thru Tray Width |       | 'L'      |
|----------------|--------------------|-----------------|-------|----------|
|                |                    | in.             | (mm)  | in. (mm) |
| 9(*)-803(X)    | Mitered            | 36              | (914) | N/A (NA) |
| 9(*)-803(X)-12 | Not mitered        | 12              | (305) | 16 (406) |
| 9(*)-803(X)-36 | Not mitered        | 36              | (914) | 41(1041) |

Requires supports within 24" on both sides, per NEMA VE 2.

## Offset Reducing Splice Plate

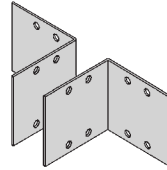
- This plate is used for joining cable trays having different widths. When used in pairs they form a straight reduction; when used singly with a standard splice plate, they form an offset reduction.
- Furnished as one plate with hardware.
- (‡) Insert reduction
- (\*) Insert **G** or **P**



| Catalog No.   | Height |       |
|---------------|--------|-------|
|               | in.    | mm    |
| 9(*)-8064-(‡) | 4      | (101) |
| 9(*)-8065-(‡) | 5      | (127) |
| 9(*)-8066-(‡) | 6      | (152) |
| 9(*)-8067-(‡) | 7      | (178) |

## Tray to Box Splice Plates

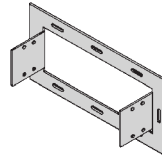
- Used to attach the end of a cable tray run to a distribution box or control panel.
- Furnished in pairs with hardware.
- (\*) Insert **G** or **P**



| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-8054   | 4      | (101) |
| 9(*)-8055   | 5      | (127) |
| 9(*)-8056   | 6      | (152) |
| 9(*)-8057   | 7      | (178) |

## Frame Type Box Connector

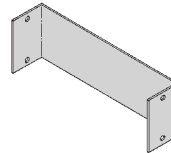
- Designed to attach the end of a cable tray run to a distribution cabinet or control center to help reinforce the box at the point of entry.
- Furnished with tray connection hardware.
- (\*) Insert **ZN** or **G**
- (‡) Insert tray width



| Catalog No.   | Height |       |
|---------------|--------|-------|
|               | in.    | mm    |
| 9(*)-8074-(‡) | 4      | (101) |
| 9(*)-8075-(‡) | 5      | (127) |
| 9(*)-8076-(‡) | 6      | (152) |
| 9(*)-8077-(‡) | 7      | (178) |

## Blind End

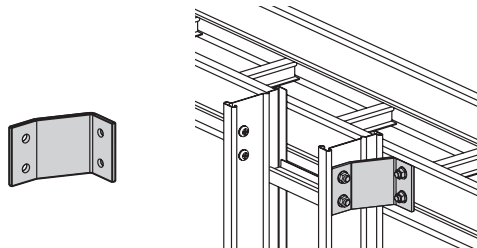
- This plate forms a closure for a dead end cable tray.
- Furnished as one plate with hardware.
- (\*) Insert **G** or **P**
- (‡) Insert tray width



| Catalog No.   | Height |       |
|---------------|--------|-------|
|               | in.    | mm    |
| 9(*)-8084-(‡) | 4      | (101) |
| 9(*)-8085-(‡) | 5      | (127) |
| 9(*)-8086-(‡) | 6      | (152) |
| 9(*)-8087-(‡) | 7      | (178) |

## Cross Connector Bracket

- For field connecting crossing section.
- Furnished in pairs with 3/8" hardware.
- (\*) Insert **ZN** or **G**



| Catalog No. |
|-------------|
| 9(*)-1240   |

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

All dimensions in parentheses are millimeters unless otherwise specified.

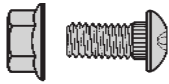


# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Standard Tray Hardware (for field installation drill $1\frac{3}{32}$ " hole)

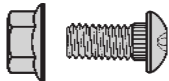
- Finishes: [ZN] Zinc Plated ASTM B633 SC1 for pre-galvanized tray [CZ] Chromium Zinc Plated F1136-88 Grade A for hot dip galvanized tray



| Catalog No.                                 | Description                                     |
|---|---|
| ● RNCB $\frac{3}{8}$ " x $\frac{3}{4}$ " ZN | Ribbed Neck Carriage Bolt ASTM A307 Grade A     |
| ● SFHN $\frac{3}{8}$ "-16 ZN                | Serrated Flange Hex Nut ASTM A563 Grade A       |
| ● RNCB $\frac{3}{8}$ " x $\frac{3}{4}$ " CZ | Ribbed Neck Carriage Bolt ASTM F1136-88 Grade 3 |
| ● SFHN $\frac{3}{8}$ "-16 CZ                | Serrated Flange Hex Nut ASTM F1136-88 Grade A   |

## Optional Tray Hardware (for field installation drill $1\frac{3}{32}$ " hole)

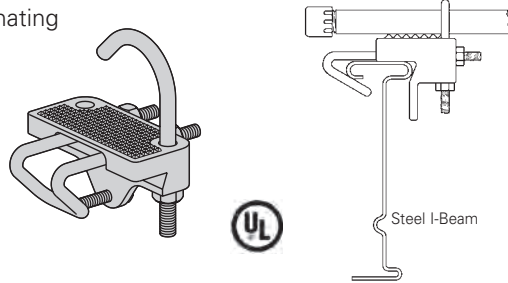
- To order 316 stainless steel hardware add SS6 suffix to catalog number - Example: 9G-8004SS6



| Catalog No.                                  | Description  |
|--|--|
| ● RNCB $\frac{3}{8}$ " x $\frac{3}{4}$ " SS6 | Ribbed Neck Carriage Bolt AISI 316 Stainless Steel |
| ● SFHN $\frac{3}{8}$ "-16 SS6                | Serrated Flange Hex Nut AISI 316 Stainless Steel   |

## Conduit to Cable Tray Adaptor

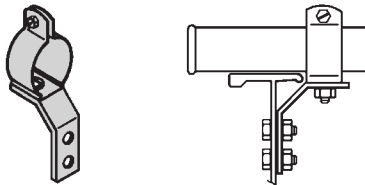
- For easy attachment of conduit terminating at a cable tray.
- Use on aluminum or steel cable trays.



| Catalog No.                              | Conduit Size                  |           |
|--|-------------------------------|-----------|
|  | in.                           | mm        |
| ● 9G-1158- $\frac{1}{2}$ & $\frac{3}{4}$ | $\frac{1}{2}$ , $\frac{3}{4}$ | (15, 20)  |
| ● 9G-1158-1 & $1\frac{1}{4}$             | 1, $1\frac{1}{4}$             | (25, 32)  |
| ● 9G-1158- $1\frac{1}{2}$ & 2            | $1\frac{1}{2}$ , 2            | (40, 50)  |
| ● 9G-1158- $2\frac{1}{2}$ & 3            | $2\frac{1}{2}$ , 3            | (65, 80)  |
| ● 9G-1158- $3\frac{1}{2}$ & 4            | $3\frac{1}{2}$ , 4            | (90, 100) |

## Conduit to Cable Tray Adaptor

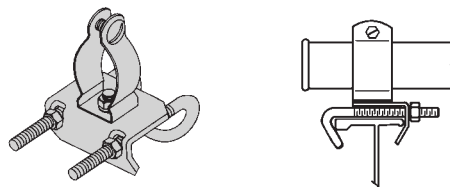
- Assembly required.
- Mounting hardware included.
- Conduit clamps provided.
- (+) = Insert conduit size ( $\frac{1}{2}$ " thru 4").



| Catalog No.    |
|----------------|
| ● 9ZN-1150-(+) |

## Conduit to Cable Tray Adaptor

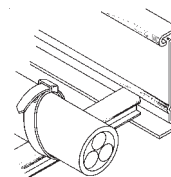
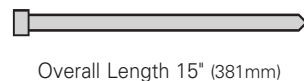
- Assembly required.
- Conduit clamps included.
- (+) = Insert conduit size ( $\frac{1}{2}$ " thru 4").



| Catalog No.    |
|----------------|
| ● 9ZN-1155-(+) |

## Cable Tie (Ladder Tray)

- Nylon ties provide easy attachment of cable to ladder rungs; maximum cable O.D. is 3" (76mm).



| Catalog No.  |
|--------------|
| ● 99-2125-15 |

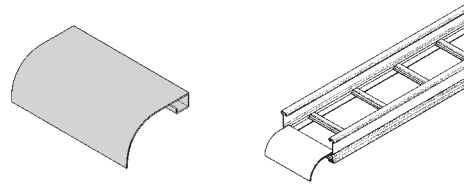
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

## Ladder Drop-Out

- Specially-designed Ladder Drop-Outs provide a rounded surface with 4" (101 mm) radius to protect cable as it exits from the cable tray, preventing damage to insulation. The drop-out will attach to any desired rung.

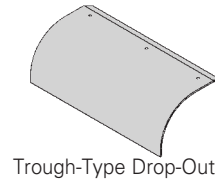
- (\*) Insert **P** or **G**
- (‡) Insert tray width



| Catalog No.   |
|---------------|
| 9(*)-1104-(‡) |

## Trough Drop-Out

- These devices provide a rounded surface to protect cable as it exits.
- Hardware is included.
- (\*) Insert **P** or **G**
- (‡) Insert tray width

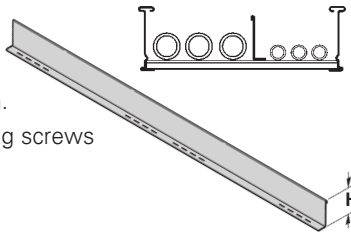


Trough-Type Drop-Out

| Catalog No.    |
|----------------|
| 9(*)-1104T-(‡) |

## Barrier - Straight Section

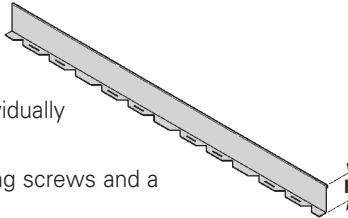
- Length: Insert 120 for [120" - 10 ft.] (3.0 m) or 144 for [144" - 12 ft.] (3.6 m)
- Order catalog number based on loading depth.
- Furnished with four #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **P** or **G**



| Catalog No.  | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|--------------|----------------------------|-----------------------------|
| 73(*)-Length | 4 (101)                    | 3 (76)                      |
| 74(*)-Length | 5 (127)                    | 4 (101)                     |
| 75(*)-Length | 6 (152)                    | 5 (127)                     |
| 76(*)-Length | 7 (178)                    | 6 (152)                     |

## Barrier - Horizontal Bend

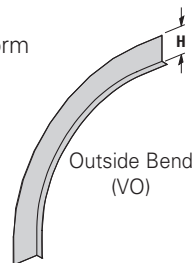
- Horizontal Bend Barriers are flexible in order to conform to any horizontal fitting radius. Can be cut to desired length.
- Standard length is 72" [6 ft.] (1.8 m) - sold individually
- Order catalog number based on loading depth.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **P** or **G**



| Catalog No.  | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|--------------|----------------------------|-----------------------------|
| 73(*)-90HBFL | 4 (101)                    | 3 (76)                      |
| 74(*)-90HBFL | 5 (127)                    | 4 (101)                     |
| 75(*)-90HBFL | 6 (152)                    | 5 (127)                     |
| 76(*)-90HBFL | 7 (178)                    | 6 (152)                     |

## Barrier - Vertical Outside Bend

- Vertical Outside Bend Barriers are preformed to conform to a specific vertical outside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **P** or **G**
- (\*\*) Insert 30, 45, 60 or 90 for degrees
- (†) Insert 12, 24, 36 or 48 for radius

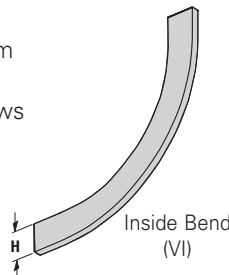


Outside Bend (VO)

| Catalog No.     | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|-----------------|----------------------------|-----------------------------|
| 73(*)-(**)VO(†) | 4 (101)                    | 3 (76)                      |
| 74(*)-(**)VO(†) | 5 (127)                    | 4 (101)                     |
| 75(*)-(**)VO(†) | 6 (152)                    | 5 (127)                     |
| 76(*)-(**)VO(†) | 7 (178)                    | 6 (152)                     |

## Barrier - Vertical Inside Bend

- Vertical Inside Bend Barriers are preformed to conform to a specific vertical inside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **P** or **G**
- (\*\*) Insert 30, 45, 60 or 90 for degrees
- (†) Insert 12, 24, 36 or 48 for radius



Inside Bend (VI)

| Catalog No.     | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|-----------------|----------------------------|-----------------------------|
| 73(*)-(**)VI(†) | 4 (101)                    | 3 (76)                      |
| 74(*)-(**)VI(†) | 5 (127)                    | 4 (101)                     |
| 75(*)-(**)VI(†) | 6 (152)                    | 5 (127)                     |
| 76(*)-(**)VI(†) | 7 (178)                    | 6 (152)                     |

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

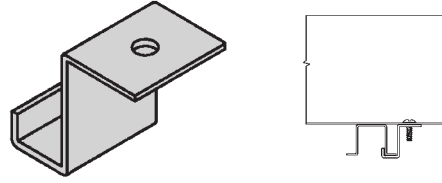
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Barrier Strip Clip

- Zinc plated steel barrier clip fastens to either aluminum or steel ladder rung.
- Furnished with one #10 x 1/2" zinc plated self-drilling screw.

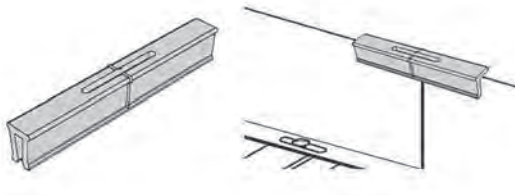


**Catalog No.**

● 9ZN-9002

## Barrier Strip Splice

- 2.85" (72.4mm) long
- Ribbed edge for increased rigidity and grip
- Comfort edge for ease of installation
- Slotted top window with center mark for accurate placement and inspection capability
- Patent pending



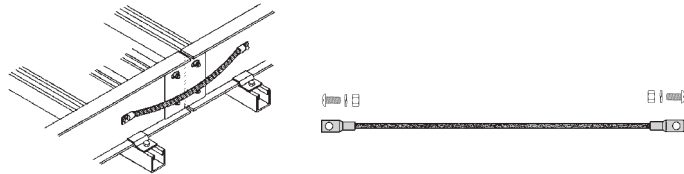
**Catalog No.**

● 99-9982

## Bonding Jumper

Use at each expansion splice and where the cable tray is not mechanically/electrically continuous to ground. Sold individually.

- Hardware included.
- See table 392.7(B)(2) on page CTS-9 for amperage ratings required to match the UL cross-sectional area of the tray.
- See tray loading chart for UL cross-sectional area.
- Bonding jumper is 14 1/2" (368mm) long.

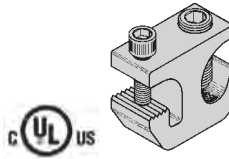


| Catalog No. | Copper Wire Size | Ampacity |
|-------------|------------------|----------|
| ● 99-N1     | #1               | 600      |

## Grounding Clamp

B-Line series cable tray is UL® classified as to its suitability as an equipment grounding conductor. If a separate conductor for additional grounding capability is desired, we offer this clamp for bolting the conductor at least once to each cable tray section.

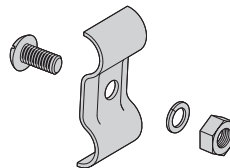
- Accepts #6 AWG to 250 MCM.



| Catalog No. | Material            |
|-------------|---------------------|
| ● 9A-2130   | Tin Plated Aluminum |

## Ground Wire Clamp

- Mechanically attaches grounding cables to cable tray.
- Hardware included.
- (\*) Insert **ZN** or **SS4**



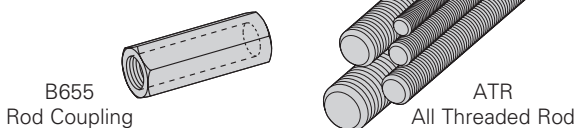
| Catalog No. | Material         |
|-------------|------------------|
| 9(*)-2351   | #1 thru 2/0      |
| 9(*)-2352   | 3/0 thru 250 MCM |

## Thread Rod (ATR) & Rod Couplings

Loading based on safety factor 5.

Standard Finish: Zinc plated

See B-Line series Strut Systems Catalog for other sizes and finishes.



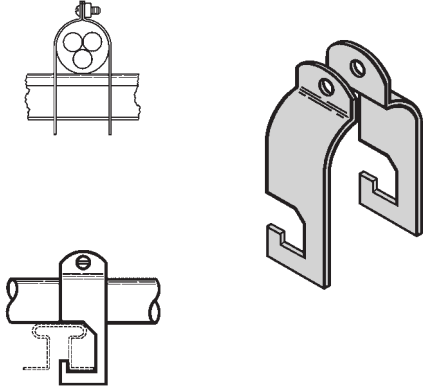
| Size                    | Catalog No.         | Available Length     | Loading   |
|-------------------------|---------------------|----------------------|-----------|
| <b>All Threaded Rod</b> |                     |                      |           |
| 3/8"-16                 | ● ATR 3/8" x Length | 36", 72", 120", 144" | 730 lbs.  |
| 1/2"-13                 | ● ATR 1/2" x Length | 36", 72", 120", 144" | 1350 lbs. |
| <b>Rod Coupling</b>     |                     |                      |           |
| 3/8"-16                 | ● B655-3/8"         | NA                   | 730 lbs.  |
| 1/2"-13                 | ● B655-1/2"         | NA                   | 1350 lbs. |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Stainless Steel Cable Clamp

- Fits with series 2, 3, 4 & 5 standard steel rungs.
- Shipped flat. Field form around the cable at the time of installation.

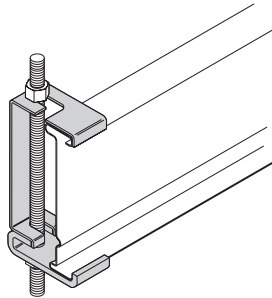


Refer to Section CF  
Cable Fixing

| Catalog No. | Cable Size  |             |
|-------------|-------------|-------------|
|             | in.         | mm          |
| ● 9SS4-4050 | 0.50 - 0.75 | (13 - 19)   |
| ● 9SS4-4075 | 0.75 - 1.00 | (19 - 25)   |
| ● 9SS4-4100 | 1.00 - 1.25 | (25 - 32)   |
| ● 9SS4-4125 | 1.25 - 1.50 | (32 - 38)   |
| ● 9SS4-4150 | 1.50 - 1.75 | (38 - 45)   |
| ● 9SS4-4175 | 1.75 - 2.00 | (45 - 51)   |
| ● 9SS4-4200 | 2.00 - 2.25 | (51 - 57)   |
| ● 9SS4-4225 | 2.25 - 2.50 | (57 - 64)   |
| ● 9SS4-4250 | 2.50 - 2.75 | (64 - 70)   |
| ● 9SS4-4275 | 2.75 - 3.00 | (70 - 76)   |
| ● 9SS4-4300 | 3.00 - 3.25 | (76 - 82)   |
| ● 9SS4-4325 | 3.25 - 3.50 | (82 - 89)   |
| ● 9SS4-4350 | 3.50 - 3.75 | (89 - 95)   |
| ● 9SS4-4375 | 3.75 - 4.00 | (95 - 100)  |
| ● 9SS4-4400 | 4.00 - 4.25 | (100 - 106) |
| ● 9SS4-4425 | 4.25 - 4.50 | (106 - 113) |
| ● 9SS4-4450 | 4.50 - 4.75 | (113 - 121) |
| ● 9SS4-4475 | 4.75 - 5.00 | (121 - 125) |

## Hanger Rod Clamp

- For 1/2" ATR.
- Furnished in pairs.
- Order ATR and hex nuts separately.
- Two-piece "J"-hanger design.
- 1500 lbs./pair capacity safety factor 3.
- (\*) Insert **ZN** or **G**

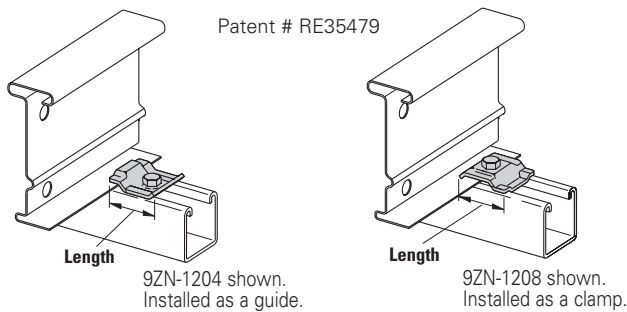


| Catalog No. | Height |       |
|-------------|--------|-------|
|             | in.    | mm    |
| 9(*)-5324   | 4      | (101) |
| 9(*)-5325   | 5      | (127) |
| 9(*)-5326   | 6      | (152) |
| 9(*)-5327   | 7      | (178) |

## Cable Tray Clamp/Guide

- Features a no-twist design.
- Has four times the strength of the traditional design.
- Each side is labeled to ensure proper installation.
- Furnished in pairs, with or without hardware.
- Not recommended for vertical support.

Note: For heavy duty or vertical applications see 9(\*)-1241 or 9(\*)-1242 page HAT-20



When installing this device as an expansion guide on the outside flange of *Steel Side Rail*, use the Catalog No. **B202** Square Washer in order to properly elevate the guide.

| Catalog No.      |               | Overall Length<br>in. (mm) | Hardware Size<br>in. | Finish |
|------------------|---------------|----------------------------|----------------------|--------|
| Without Hardware | With Hardware |                            |                      |        |
| ● 9ZN-1204       | ● 9ZN-1204NB  | 1 1/2 (38)                 | 1/4"                 | G90    |
| ● 9ZN-1208       | ● 9ZN-1208NB  | 2 1/4 (57)                 | 3/8"                 | G90    |
| ● 9A-1205        | —             | 2 1/4 (57)                 | 1/2"                 | Alum.  |
| ● 9G-1205        | —             | 2 1/4 (57)                 | 1/2"                 | HDGAF  |
| ● 9SS6-1205      | —             | 2 1/4 (57)                 | 1/2"                 | 316SS  |
| ● 9ZN-1205       | —             | 2 1/4 (57)                 | 1/2"                 | G90    |

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

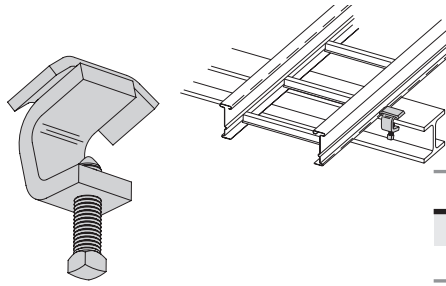
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Cable Tray Clamp

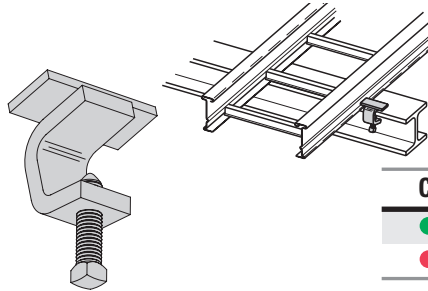
- Hold-down clamps for single or double cable tray runs.
- No drilling of support I-beam or channel is required.
- Sold in pieces - two clamps are required per tray.
- Maximum beam flange thickness 1 1/8" (28.58 mm).



| Catalog No.  | Finish |
|--------------|--------|
| ● 9ZN-1249HD | Znplt  |
| ● 9G-1249HD  | HDGAF  |

## Cable Tray Guide

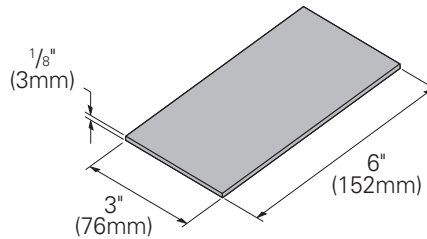
- Expansion guide for single or double cable tray runs.
- Guide allows for longitudinal movement of the cable tray.
- No field drilling of support I-beam or channel is required.
- Guides are required on both sides of cable tray to prevent lateral movement - can be placed on either the inside or outside flange of cable tray.
- Guides are sold in pieces - two guides are required per tray.
- Maximum flange thickness 1 1/8" (28.58 mm).



| Catalog No. | Finish |
|-------------|--------|
| ● 9ZN-1249  | Znplt  |
| ● 9G-1249   | HDGAF  |

## Nylon Pad

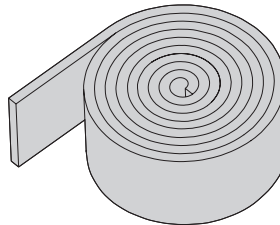
- Use for friction reduction.
- Hardness: Shore D80.
- Low friction coefficient.
- UV resistant.
- Excellent weatherability.
- UL - 94HB.



| Catalog No. |
|-------------|
| ● 99-PE36   |

## Neoprene Roll

- Use for material isolation.
- 1/8" x 2" x 25' roll.
- Hardness: Shore A60.
- Good weatherability.



| Catalog No. |
|-------------|
| ● 99-NP300  |

## DURA-BLOK™ Rooftop Support Bases with B22 Channel

- Designed as a superior rooftop support for cable tray,
- UV resistant and approved for most roofing material or other flat surfaces.
- Can be used with any of B-Line series cable tray clamps and guides.
- Ultimate Load Capacity: 1,000 lbs. (uniform load)



| Catalog No. | Height x Width x Length |                    |
|-------------|-------------------------|--------------------|
|             | in.                     | (mm)               |
| ● DB10-28   | 5 5/8 x 6 x 28.0        | (143 x 152 x 711)  |
| ● DB10-36   | 5 5/8 x 6 x 36.0        | (143 x 152 x 914)  |
| ● DB10-42   | 5 5/8 x 6 x 42.0        | (143 x 152 x 1067) |
| ● DB10-50   | 5 5/8 x 6 x 50.0        | (143 x 152 x 1270) |
| ● DB10-60   | 5 5/8 x 6 x 60.0        | (143 x 152 x 1524) |

LEEDS credit available, base made from 100% recycled material.

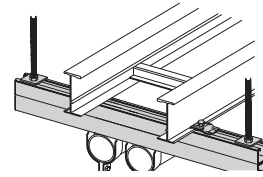
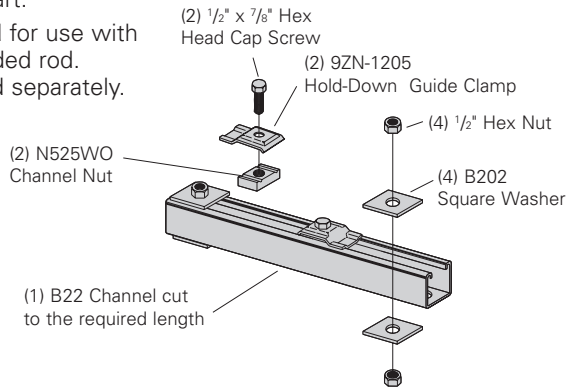
General Note: Consult roofing manufacturer or engineer for roof load capacity. The weakest point may be the insulation board beneath the rubber membrane.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Trapeze Support Kit

- Eaton's B-Line series trapeze kits provide the components required for a single trapeze support in one package. These kits are available in pre-galvanized steel with zinc-plated hardware, hot dip galvanized steel with 316 stainless steel hardware, or DURA GREEN™ painted steel with zinc-plated hardware.
- The SH channel provides the convenience of pre-punched slots, which eliminate the need for field drilling.
- The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod. Order rod separately.

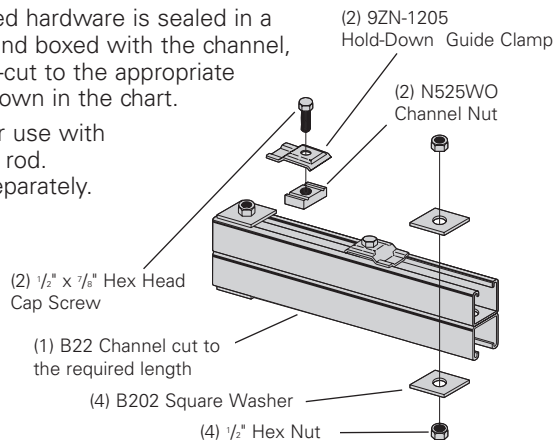


| Catalog No.       | Tray Width |        | Channel Length |        | Uniform Load |        |
|-------------------|------------|--------|----------------|--------|--------------|--------|
|                   | in.        | mm     | in.            | mm     | lbs          | kN     |
| 9(*)-5506-22SH(†) | 6          | (152)  | 16             | (406)  | 1350         | (6.00) |
| 9(*)-5509-22SH(†) | 9          | (229)  | 18             | (457)  | 1250         | (5.56) |
| 9(*)-5512-22SH(†) | 12         | (305)  | 22             | (559)  | 1125         | (5.00) |
| 9(*)-5518-22SH(†) | 18         | (457)  | 28             | (711)  | 865          | (3.85) |
| 9(*)-5524-22SH(†) | 24         | (610)  | 34             | (864)  | 700          | (3.11) |
| 9(*)-5530-22SH(†) | 30         | (762)  | 40             | (1016) | 590          | (2.62) |
| 9(*)-5536-22SH(†) | 36         | (914)  | 46             | (1168) | 510          | (2.27) |
| 9(*)-5542-22SH(†) | 42         | (1067) | 52             | (1321) | 450          | (2.00) |

- (\*) Insert **P** **G** or **GRN**
  - (†) Insert 3/8" for 3/8" threaded rod hardware.
- Safety factor of 3.0 on all loads.

## Heavy Duty Trapeze Support Kit

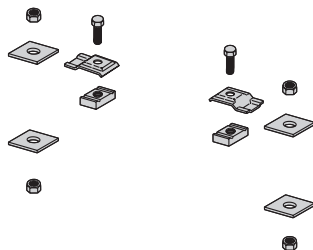
- Eaton's B-Line series trapeze kits provide the components required for a single trapeze support in one package. These kits are available in pre-galvanized steel with zinc-plated hardware, hot dip galvanized steel with 316 stainless steel hardware, or DURA GREEN™ painted steel with zinc-plated hardware.
- The SH channel provides the convenience of pre-punched slots, which eliminates the need for field drilling.
- The illustrated hardware is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod. Order rod separately.



| Catalog No.     | Tray Width |        | Channel Length |        | Uniform Load |        |
|-----------------|------------|--------|----------------|--------|--------------|--------|
|                 | in.        | mm     | in.            | mm     | lbs          | kN     |
| 9(*)-5506-22SHA | 6          | (152)  | 16             | (406)  | 1350         | (6.00) |
| 9(*)-5509-22SHA | 9          | (229)  | 18             | (457)  | 1350         | (6.00) |
| 9(*)-5512-22SHA | 12         | (305)  | 22             | (559)  | 1350         | (6.00) |
| 9(*)-5518-22SHA | 18         | (457)  | 28             | (711)  | 1350         | (6.00) |
| 9(*)-5524-22SHA | 24         | (610)  | 34             | (864)  | 1350         | (6.00) |
| 9(*)-5530-22SHA | 30         | (762)  | 40             | (1016) | 1350         | (6.00) |
| 9(*)-5536-22SHA | 36         | (914)  | 46             | (1168) | 1350         | (6.00) |
| 9(*)-5542-22SHA | 42         | (1067) | 52             | (1321) | 1350         | (6.00) |

- (\*) Insert **P** **G** or **GRN**
- Safety factor of 3.0 on all loads.

## Trapeze Hardware Kit



| Catalog No.           | 9ZN-5500-1/2  | 9G-5500-1/2  |
|-----------------------|---|--|
| <b>In plastic bag</b> | 1 pr. 9ZN-1205<br>2 HHC Screw 1/2 x 7/8 ZN<br>2 N525 WO ZN<br>4 B202 ZN 1/2" sq washer<br>4 HN 1/2 ZN | 1 pr. 9G-1205<br>2 HHC Screw 1/2 x 7/8 SS6<br>2 N525 WO SS6<br>4 B202 HDG 1/2" sq washer<br>4 HN 1/2 SS6 |

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

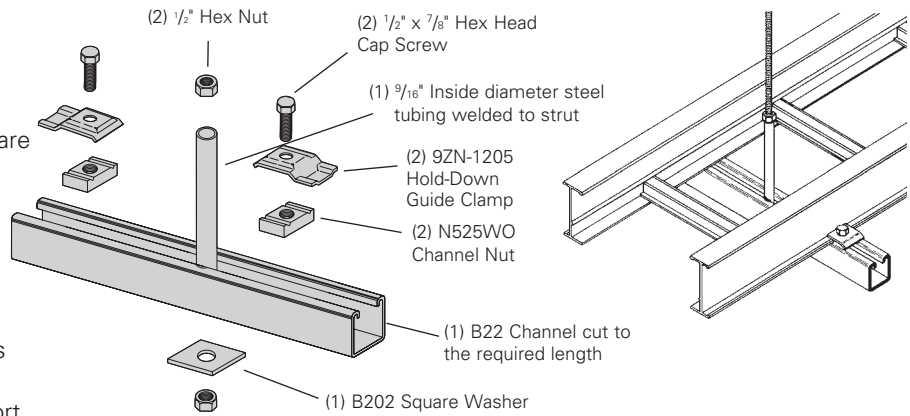
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

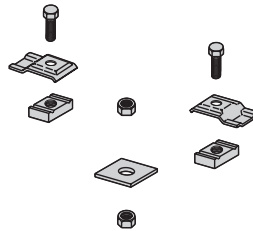
## Center Hung Tray Support

- Center Hung Cable Tray Support allows cable to be laid-in from both sides.
- Eliminates costly cable pulling and field cutting of cable tray supports. Labor costs are dramatically reduced.
- Required hardware and threaded rod material for trapeze assemblies are reduced by up to 50%.
- Designed for use with 1/2" threaded rod. (Order rod separately)
- Use with all aluminum and steel cable trays through 24" width.
- Load capacity is 700 lbs. (311kN) per support. Safety factor of 3.0. Eccentric loading is not to exceed a 60% vs. 40% load differential.
- The maximum recommended unsupported span length is 144"/12 ft. (3.66 m).
- Hardware shown is furnished.
- Finish available: Zinc Plated



| Catalog No. | Tray Width  |                 | Channel Length |       |
|-------------|-------------|-----------------|----------------|-------|
|             | in.         | (mm)            | in.            | (mm)  |
| ● 9ZN-5212  | 6", 9", 12" | (152, 228, 305) | 18"            | (457) |
| ● 9ZN-5224  | 18", 24"    | (457, 609)      | 30"            | (762) |

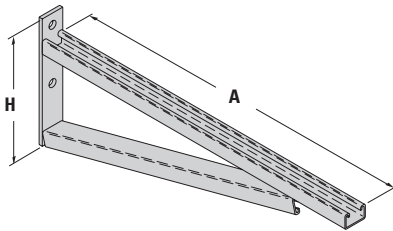
## Center Hung Support Hardware Kit



| Catalog No.    | ● 9ZN-5200  |
|----------------|---|
| In plastic bag | 1 pr. 9ZN-1205<br>2 HHC Screw 1/2 x 7/8 ZN<br>2 N525 WO ZN<br>1 B202 ZN 1/2" sq washer<br>4 HN 1/2 ZN |

## Bracket (12" - 48")

- (\*) Insert available finish: **ZN** **GRN** or **HDG**
- Safety Load Factor 2.5



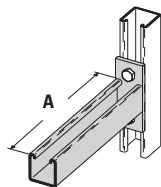
Bottom brace is B42 channel on B494-24 and smaller and B22 channel on B494-30 and larger

| Catalog No. | Uniform Load<br>lbs (kN) | Tray Width |             | 'A' |        | 'H'                            |       |
|-------------|--------------------------|------------|-------------|-----|--------|--------------------------------|-------|
|             |                          | in.        | (mm)        | in. | (mm)   | in.                            | (mm)  |
| ● B494-12   | 2500 (11.12)             | 6 & 9      | (152 & 229) | 12  | (305)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| ● B494-18   | 1700 (7.56)              | 12         | (305)       | 18  | (457)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| ● B494-24   | 1300 (5.78)              | 18         | (457)       | 24  | (610)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| B494-30     | 1600 (7.11)              | 24         | (610)       | 30  | (762)  | 11 <sup>1</sup> / <sub>4</sub> | (286) |
| B494-36     | 1100 (4.89)              | 30         | (762)       | 36  | (914)  | 11 <sup>1</sup> / <sub>4</sub> | (286) |
| B494-42     | 980 (4.36)               | 36         | (914)       | 42  | (1067) | 16                             | (406) |
| B494-48     | 980 (4.36)               | 42         | (1067)      | 48  | (1219) | 16                             | (406) |

For more dimensional data see Strut Systems catalog

## Cantilever Bracket

- (\*) Insert available finish: **ZN** **GRN** or **HDG**
- Safety Load Factor 2.5



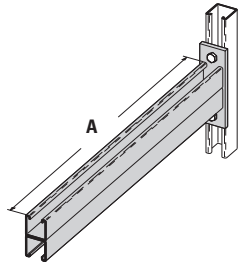
| Catalog No. | Uniform Load<br>lbs kN | Tray Width |             | 'A' |       |
|-------------|------------------------|------------|-------------|-----|-------|
|             |                        | in.        | mm          | in. | mm    |
| B409-12     | 960 (4.27)             | 6 & 9      | (152 & 229) | 12  | (305) |
| B409-18     | 640 (2.84)             | 12         | (305)       | 18  | (457) |
| B409-24     | 480 (2.13)             | 18         | (457)       | 24  | (610) |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Cantilever Bracket

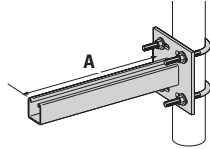
- (\*) Insert available finish: **ZN** **GRN** or **HDG**
- Safety Load Factor 2.5



| Catalog No.    | Uniform Load |        | Tray Width |             | 'A' |        |
|----------------|--------------|--------|------------|-------------|-----|--------|
|                | lbs          | kN     | in.        | mm          | in. | mm     |
| <b>B297-12</b> | 1660         | (7.38) | 6 & 9      | (152 & 229) | 12  | (305)  |
| <b>B297-18</b> | 1100         | (4.89) | 12         | (305)       | 18  | (457)  |
| <b>B297-24</b> | 835          | (3.71) | 18         | (457)       | 24  | (610)  |
| <b>B297-30</b> | 665          | (2.93) | 24         | (610)       | 30  | (762)  |
| <b>B297-36</b> | 550          | (2.44) | 30         | (762)       | 36  | (914)  |
| <b>B297-42</b> | 465          | (2.06) | 36         | (914)       | 42  | (1067) |

## Underfloor Support (U-Bolts not included)

- Finishes available: **ZN**
- Safety Load Factor 2.5

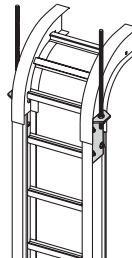
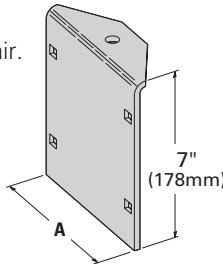


| U-Bolt Size       | Fits Pipe O.D. |
|-------------------|----------------|
| <b>B501-3/4</b>   | .841 - 1.050   |
| <b>B501-1</b>     | 1.051 - 1.315  |
| <b>B501-1 1/4</b> | 1.316 - 1.660  |
| <b>B501-1 1/2</b> | 1.661 - 1.900  |
| <b>B501-2</b>     | 1.901 - 2.375  |
| <b>B501-2 1/2</b> | 2.376 - 2.875  |

| Catalog No.      | Uniform Load |        | Tray Width |             | 'A' |       |
|------------------|--------------|--------|------------|-------------|-----|-------|
|                  | lbs          | (kN)   | in.        | (mm)        | in. | (mm)  |
| <b>B409UF-12</b> | 800          | (3.56) | 6 & 9      | (152 & 229) | 12  | (305) |
| <b>B409UF-21</b> | 450          | (2.00) | 12 & 18    | (305 & 457) | 21  | (533) |

## Vertical Hanger Splice Plates

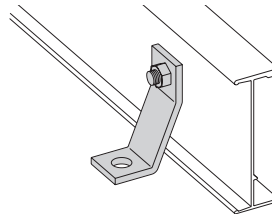
- Design load is 1500 lbs (6.67kN) per pair.
- Safety Factor of 2.5
- Furnished in pairs.
- Hole size: 9/16" (14mm) for 1/2" threaded rod.
- (\*) Insert **ZN** or **G**



| Catalog No.        | Outside Cable Tray Ht. | 'A'  |          |
|--------------------|------------------------|------|----------|
|                    |                        | in.  | (mm)     |
| ● <b>9(*)-8224</b> | 4"                     | 3.84 | (97.54)  |
| ● <b>9(*)-8225</b> | 5"                     | 4.73 | (120.14) |
| ● <b>9(*)-8226</b> | 6"                     | 5.84 | (148.34) |
| ● <b>9(*)-8227</b> | 7"                     | 6.84 | (173.74) |

## Heavy Duty Hold Down Bracket

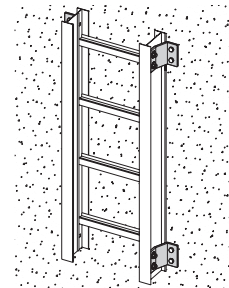
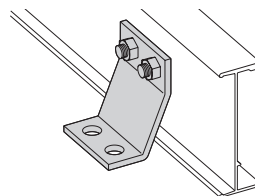
- Design load is 2000 lbs (8.89kN) per pair.
- Two bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided.
- 3/8" support attachment hardware **not** provided.
- (\*) Insert **ZN** or **G**
- Recommended for support of vertical trays.



| Catalog No.      |
|------------------|
| <b>9(*)-1241</b> |

## Heavy Duty Hold Down Bracket

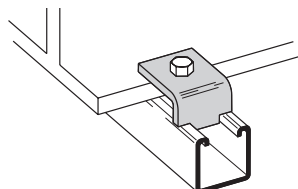
- Design load is 4000 lbs (17.79kN) per pair.
- Four bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided
- 3/8" support attachment hardware **not** provided.
- (\*) Insert **ZN** or **G**
- Recommended for support of vertical trays.



| Catalog No.      |
|------------------|
| <b>9(*)-1242</b> |

## Beam Clamp

- Finishes available: **ZN** **GRN** **HDG** or **SS4**
- Sold in pieces.
- Design load is 1200 lbs (5.34kN) per pair.
- Safety Load Factor 5.0.
- Order HHCS and Channel Nuts separately.



| Catalog No. |
|-------------|
| <b>B355</b> |

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

All dimensions in parentheses are millimeters unless otherwise specified.

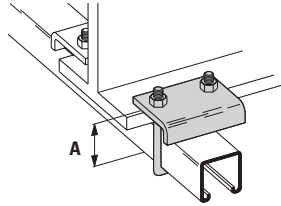


# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Beam Clamp

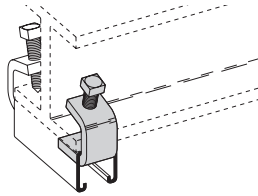
- Finishes available: **ZN** or **HDG**
- Sold in pieces.
- \*Design load when used in pairs. Safety Load Factor 5.0



| Catalog No. | Design Load<br>lbs (kN) | 'A'<br>in. (mm)                    |
|-------------|-------------------------|------------------------------------|
| B441-22     | 1200 (5.34)             | 3 <sup>3</sup> / <sub>8</sub> (86) |
| B441-22A    | 1200 (5.34)             | 5 (127)                            |

## Beam Clamp

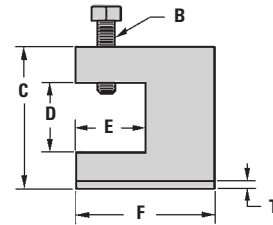
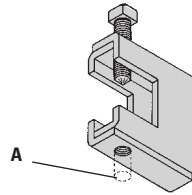
- Finishes available: **ZN** **GRN** or **HDG**
- Sold in pieces.
- \*Design load when used in pairs. Safety Load Factor 5.0



| Catalog No.       | B212-1/4          | B212-3/8            |
|-------------------|-------------------|---------------------|
| Design Load *     | 600 lbs. (2.67kN) | 1000 lbs. (4.45 kN) |
| Max. Flange Thick | 3/4" (19 mm)      | 1 1/8" (28.6 mm)    |
| Mat'l. Thickness  | 1/4" (6.3 mm)     | 3/8" (9.5 mm)       |

## B305 Thru B308 & B321 Series Beam Clamps

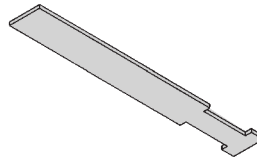
- Finishes available: **ZN** or **HDG**
- Setscrew included.
- Safety Load Factor 5.0



| Catalog No. | Rod Size A | B       | C<br>in. (mm)                         | D<br>in. (mm)                          | E<br>in. (mm)                        | F<br>in. (mm) | T<br>in. (mm) | Design Load<br>lbs (kN) |
|-------------|------------|---------|---------------------------------------|--|--------------------------------------|---------------|---------------|-------------------------|
| B305        | 3/8"-16    | 3/8"-16 | 2 <sup>5</sup> / <sub>16</sub> (58.7) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 11 Ga. (3.0)  | 600 (2.67)              |
| B306        | 3/8"-16    | 1/2"-13 | 2 <sup>7</sup> / <sub>16</sub> (61.9) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 7 Ga. (4.5)   | 1100 (4.90)             |
| B307        | 1/2"-13    | 1/2"-13 | 2 <sup>7</sup> / <sub>16</sub> (61.9) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 7 Ga. (4.5)   | 1100 (4.90)             |
| B308        | 1/2"-13    | 1/2"-13 | 2 <sup>9</sup> / <sub>16</sub> (65.1) | 7/8 (22.2)                             | 1 1/8 (28.6)                         | 2 1/2 (63.5)  | 1/4 (6.3)     | 1500 (6.68)             |
| B321-1      | 3/8"-16    | 1/2"-13 | 3 <sup>9</sup> / <sub>16</sub> (90.5) | 1 <sup>11</sup> / <sub>16</sub> (42.9) | 1 <sup>5</sup> / <sub>8</sub> (41.3) | 3 1/4 (82.5)  | 1/4 (6.3)     | 1300 (5.79)             |
| B321-2      | 1/2"-13    | 1/2"-13 | 3 <sup>9</sup> / <sub>16</sub> (90.5) | 1 <sup>11</sup> / <sub>16</sub> (42.9) | 1 <sup>5</sup> / <sub>8</sub> (41.3) | 3 1/4 (82.5)  | 1/4 (6.3)     | 1400 (6.23)             |

## Anchor Strap - for B305 thru B308 & B321 Series

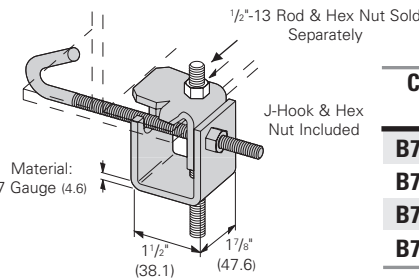
- Finish available: **ZN**
- For a maximum beam thickness of 3/4" (19mm).
- For thicker beams, step up one flange width size.



| Catalog No. | Flange Width<br>in. (mm) |
|-------------|--------------------------|
| B312-6      | Up to 6 (Up to 152)      |
| B312-9      | 6 - 9 (152 to 228)       |
| B312-12     | 9 - 12 (228 to 305)      |

## Beam Clamp

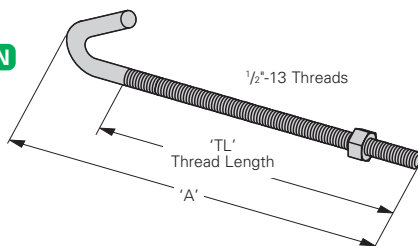
- Finish available: **ZN**
- Design Load 500 lbs. (2.22 kN)
- Safety Load Factor 5.0
- Recommended torque: 'J'-Hook Nut 125 In.-Lbs. (14.1 kN/m)
- Maximum flange thickness of 3/4" (19mm).



| Catalog No. | For Flange Width<br>in. (mm) | Wt./C<br>lbs (kg) |
|-------------|------------------------------|-------------------|
| B750-J4     | 3 - 6 (76.2 - 152.4)         | 109 (49.4)        |
| B750-J6     | 5 - 9 (127.0 - 228.6)        | 124 (56.2)        |
| B750-J9     | 8 - 12 (203.2 - 304.8)       | 135 (61.2)        |
| B750-J12    | 11 - 15 (279.4 - 381.0)      | 147 (66.7)        |

## 'J'-Hook

- Finishes available: **ZN**
- Hex Nut included.

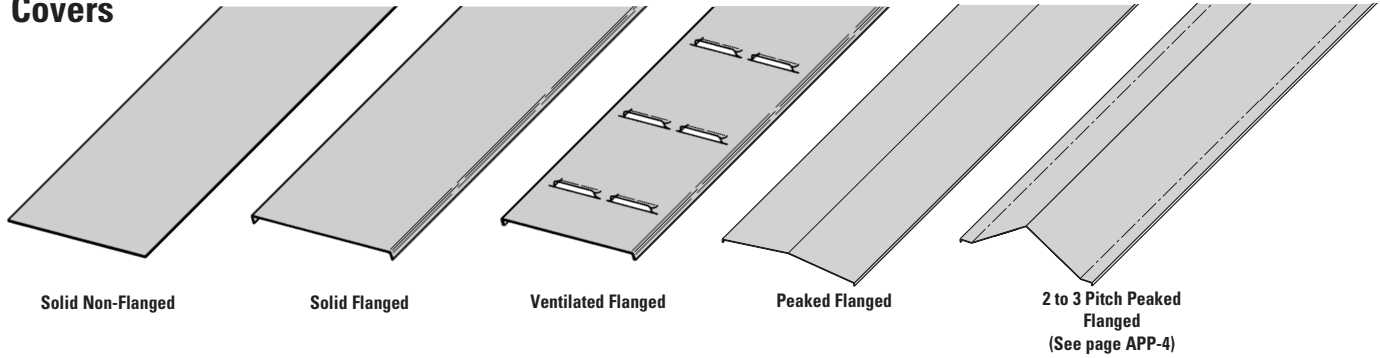


| Catalog No. | 'A'<br>in. (mm) | 'TL'<br>in. (mm) | Wt./C<br>lbs (kg) |
|-------------|-----------------|------------------|-------------------|
| B700-J4     | 8 1/2 (215.9)   | 5 (127.0)        | 44 (19.9)         |
| B700-J6     | 11 1/2 (292.1)  | 6 (152.4)        | 53 (24.0)         |
| B700-J9     | 12 1/4 (368.3)  | 6 (152.4)        | 63 (28.6)         |
| B700-J12    | 17 1/2 (444.5)  | 6 (152.4)        | 78 (35.4)         |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Covers



**A full range of covers is available for straight sections and fittings.**

**Solid covers** should be used when maximum enclosure of the cable is desired and no accumulation of heat is expected.

**Ventilated covers** provide an overhead cable shield, yet allow heat to escape.

We recommend that covers be placed on vertical cable tray runs to a height of 6 ft. (1.83 m) to 8 ft. (2.44 m) above the floor to isolate both cables and personnel. **Flanged covers** have a 1/2 in. (13 mm) flange. Cover clamps are not included with the cover and must be ordered separately. All **peaked covers** are flanged. Standard peaked covers have 1/2" peak. Special purpose peaked covers, having a 2 to 3 pitch, provide additional slope and material thickness. The 2 to 3 pitch fitting covers are of multiple piece, welded construction.

## Steel Cover Part Numbering

Example: <sup>Prefix</sup> **80 2 P - 24 - 144**

### Cover Type

- 80 = Solid
- 81 = Ventilated
- 82 = Peaked

### Detail

- 2 = Flanged Steel (248, 258, 268 straight sections and all fittings)
- 3 = Flanged Steel (all straight sections except 248, 258, 268)
- 4 = Non-Flanged Steel (80 & 81 type only)

### Material

- P = Pre-Galvanized (Not available in Type 83)
- G = HDGAF

### Tray Width

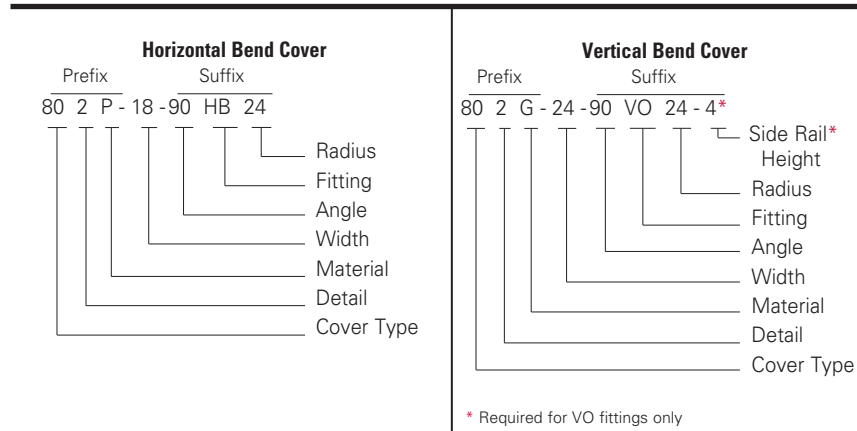
- 06 = 6"
- 09 = 9"
- 12 = 12"
- 18 = 18"
- 24 = 24"
- 30 = 30"
- 36 = 36"

### Item Description

- For Straight Section Cover:
- **Pre-Galvanized Only**
  - 144 = 12 ft. (3.66 m)
  - 120 = 10 ft. (3.05 m)
  - **Pre-Galvanized & HDGAF**
  - 72 = 6 ft. (1.83 m)
  - 60 = 5 ft. (1.52 m)

For fitting covers: Insert suffix of fitting to be covered. See example below.

### Examples of Catalog Numbers for Fitting Covers:



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

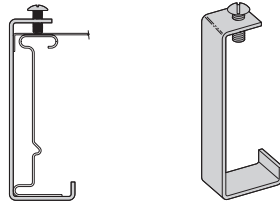
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 Steel - Accessories

Series 2, 3, 4, & 5 Steel

## Standard Cover Clamp

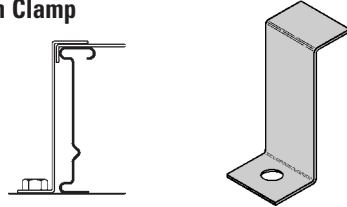
- For indoor service only.
- Screw included.
- Sold per piece.
- (\*) Insert **ZN** or **G**



| Tray Type | Catalog No.      | Side Rail Height<br>in. (mm) |
|-----------|------------------|------------------------------|
| Steel     | <b>9(*)-9014</b> | 4 (101)                      |
|           | <b>9(*)-9015</b> | 5 (127)                      |
|           | <b>9(*)-9016</b> | 6 (152)                      |
|           | <b>9(*)-9017</b> | 7 (78)                       |

## Combination Cover and Hold Down Clamp

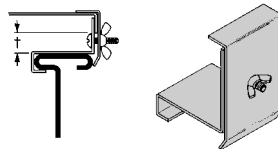
- Sold per piece.
- For indoor service only.
- (\*) Insert **P** or **G**



| Tray Type | Catalog No.      | Side Rail Height<br>in. (mm) |
|-----------|------------------|------------------------------|
| Steel     | <b>9(*)-9043</b> | 4 (101)                      |
|           | <b>9(*)-9053</b> | 5 (127)                      |
|           | <b>9(*)-9063</b> | 6 (152)                      |
|           | <b>9(*)-9073</b> | 7 (78)                       |

## Raised Cover Clamp

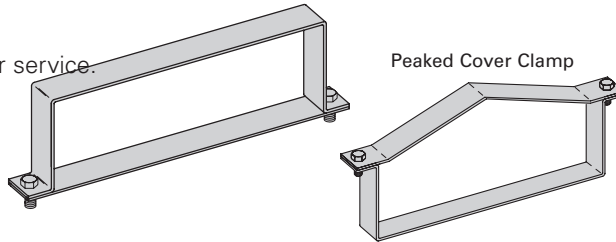
- For indoor service only.
- For use with flanged covers only.
- † Specify gap of 1", 2", 3" or 4".



| Tray Type           | Catalog No.  | Tray Type |
|---------------------|--|-----------|
| ● <b>9ZN-9114-†</b> | Series 2 Steel Straight Section                            |           |
| ● <b>9ZN-9115-†</b> | Series 3 & 4 Steel Straight Section                        |           |
| ● <b>9ZN-910†</b>   | All Steel Fittings (Also Series 1 Steel Straight Sections) |           |

## Heavy Duty Cover Clamp

- Recommended for outdoor service.
- (±) Insert tray width
- † Add P to Catalog No. for peaked cover clamp.
- (\*) Insert **P** or **G**



| Catalog No.           | Side Rail Height<br>in. mm |
|-----------------------|----------------------------|
| <b>9(*)-(±)-9044†</b> | 4 (101)                    |
| <b>9(*)-(±)-9054†</b> | 5 (127)                    |
| <b>9(*)-(±)-9064†</b> | 6 (152)                    |
| <b>9(*)-(±)-9074†</b> | 7 (178)                    |

## Quantity of Standard Cover Clamps Required

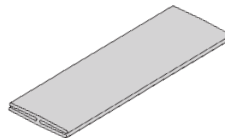
Notes:

When using the Heavy Duty Cover Clamp, only on-half the number of clamps stated above is required.  
Additional clamps may be necessary in extreme wind applications.

|                                     |        |
|-------------------------------------|--------|
| Straight Section 60" or 72" .....   | 4 pcs. |
| Straight Section 120" or 144" ..... | 6 pcs. |
| Horizontal/Vertical Bends .....     | 4 pcs. |
| Tees .....                          | 6 pcs. |
| Crosses .....                       | 8 pcs. |

## Cover Joint Strip

- Used to join covers
- Plastic
- (±) Insert tray width



| Catalog No.          |
|----------------------|
| ● <b>99-9980-(±)</b> |

## Cable Cleats

(see pages O-1 thru O-5) Standard

**Trefoil  
Cable  
Cleats**



**Single  
Cable  
Cleats**



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

All dimensions in parentheses are millimeters unless otherwise specified.

## Section 1- Acceptable Manufacturers

- 1.01 Manufacturer: Subject to compliance with these specifications, Eaton's B-Line series cable tray systems shall be as manufactured by Eaton.

## Section 2- Cable Tray Sections and Components

- 2.01 General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features. Cable tray shall be installed according to the latest revision of NEMA VE 2.
- 2.02 Pre-Galvanized Steel: Straight sections, fitting side rails, rungs, and covers shall be made from structural quality steel meeting the minimum mechanical properties and mill galvanized in accordance with ASTM A653 SS, Grade 33, coating designation G90. Hardware finish shall be electrogalvanized zinc per ASTM B633.
- 2.03 Hot Dip Galvanized Steel: All side rails, covers, splice plates, and rungs shall be made from structural quality steel meeting the minimum mechanical properties of ASTM A1011 SS, Grade 33 for 14 gauge and heavier, ASTM A1008, Grade 33 Type 2 for 16 gauge and lighter, and shall be hot dip galvanized after fabrication in accordance with ASTM A123. Mill galvanized covers are not acceptable for hot dip galvanized cable tray. Hardware finish shall be chromium zinc per ASTM F-1136-88.
- 2.04 Ladder Cable Trays shall consist of two longitudinal members (side rails) with transverse members (rungs) welded to the side rails. Rungs shall be spaced [6] [9] [12] inches apart. Rung spacing in radiused fittings shall be industry standard 9" and measured at the center of the tray's width. No portion of the rungs shall protrude below the bottom plane of the side rails. Each rung must be capable of supporting a 200 lb. concentrated load at the center of the cable tray over and above the cable load with a safety factor of 1.5.
- 2.05 Cable tray loading depth shall be [3] [4] [5] [6] inches per NEMA VE 1.
- 2.06 Straight sections shall have side rails fabricated as I-beams. Straight sections shall be supplied in standard [12 foot] [24 foot] [10 foot (3 m)] [20 foot (6 m)] lengths.
- 2.07 Cable tray widths shall be [6] [9] [12] [18] [24] [30] [36] inches or as shown on drawings.
- 2.08 Splice plates shall be manufactured of high strength steel, meeting the minimum mechanical properties of ASTM A1011 HSLAS, Grade 50, Class 1 and be secured with 8 nuts and bolts per plate. The resistance of fixed splice connections between an adjacent section of tray shall not exceed 0.00033 ohm.
- 2.09 All fittings must have a minimum radius of [12] [24] [36] [48] inches.

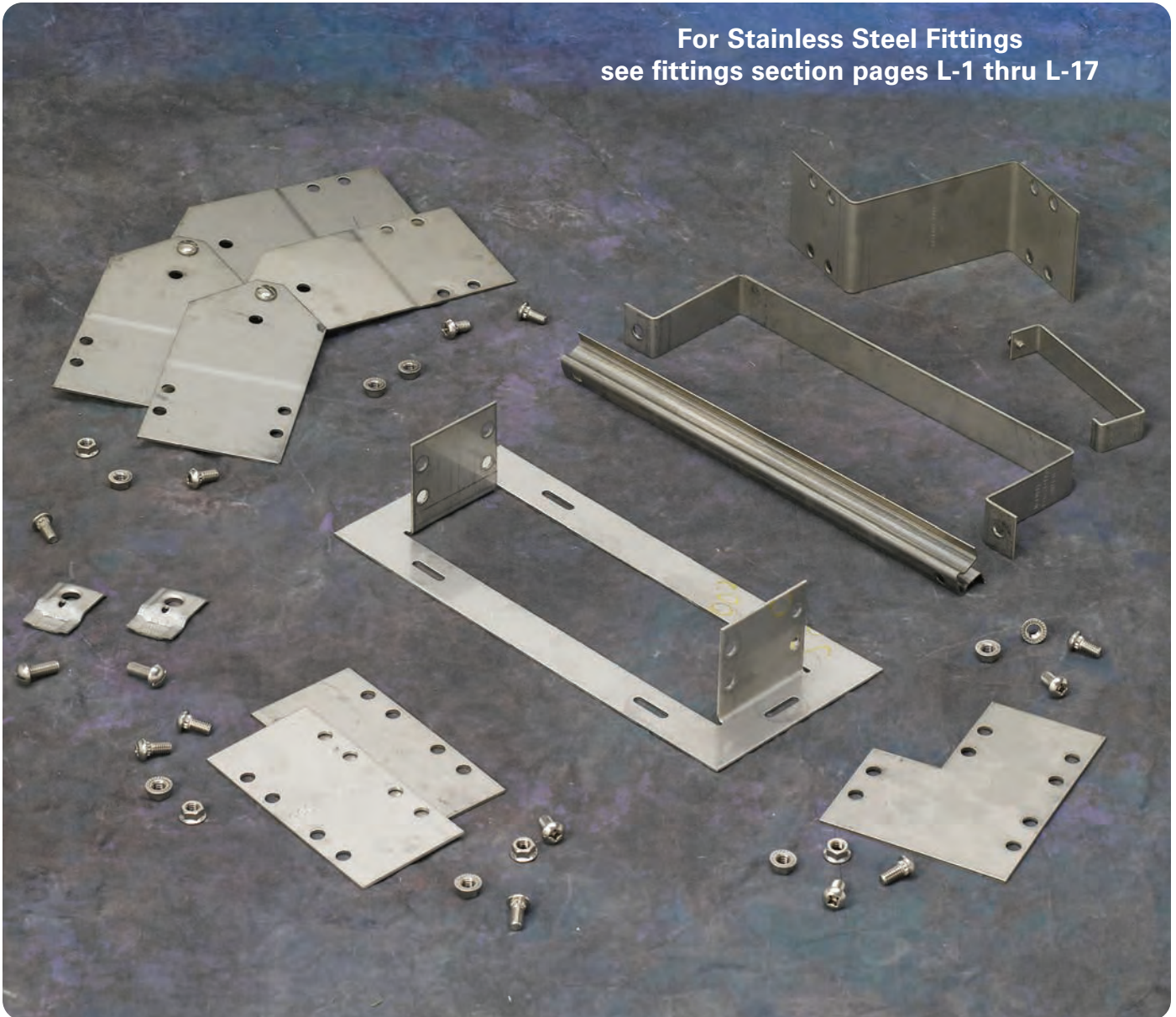
## Section 3- Loading Capacities and Testing

- 3.01 Cable tray shall be capable of carrying a uniformly distributed load of \_\_\_\_\_ lbs./ft. on a \_\_\_\_\_ ft. support span with a safety factor of 1.5 when supported as a simple span and tested per NEMA VE 1 5.2. In addition to the uniformly distributed load the cable tray shall support 200 lbs. concentrated load at mid-point of span. Load and safety factors specified are applicable to both the side rails and rung capacities. Cable tray shall be made to manufacturing tolerances as specified by NEMA.
- 3.02 Upon request, manufacturer shall provide test reports in accordance with the latest revision of NEMA VE 1 or CSA C22.2 No. 126.



Series 3 & 4 Stainless Steel

For Stainless Steel Fittings  
see fittings section pages L-1 thru L-17



Series 3 & 4 Stainless Steel

### 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:**            348SS4 09 - 12 - 144

●            ●            ●            ●

**Part will have a long lead time.**

3" NEMA VE 1 Loading Depth  
4" Side Rail Height

Straight Section Part Numbering

Prefix  
Example: **348 SS6 09 - 24 - 144**

Series

● **348**

Material

- **SS4** = 304 Stainless Steel
- **SS6** = 316 Stainless Steel

\*Type

- **SB** = Solid Bottom
- **06** = 4" rung spacing
- **06** = 6" rung spacing
- **09** = 9" rung spacing
- **12** = 12" rung spacing

\*Width

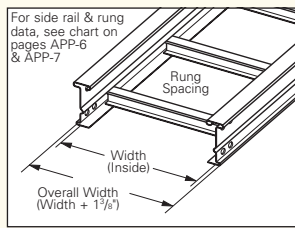
- **06** = 6"
- **09** = 9"
- **12** = 12"
- **18** = 18"
- **24** = 24"
- **30** = 30"
- **36** = 36"

Length

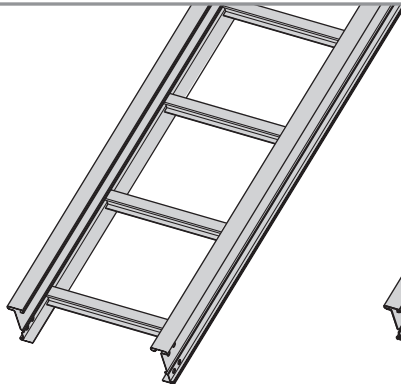
- ① **144** = 12 ft. 348
- ② **120** = 10 ft.

Notes:  
① Primary Length.  
② Secondary Length.  
See page C-23 for explanation of lengths.

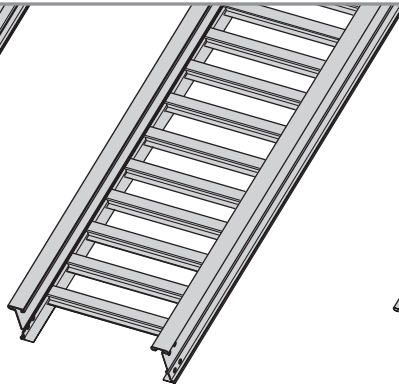
Passivation available see page C-2.



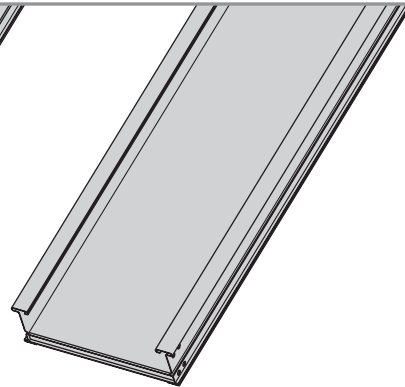
See page APP-1 for additional rung options. \*Special sizes available.



Ladder Type  
(Specify Rung Spacing)



Vented Bottom



Solid Bottom

Values are based on simple beam tests per NEMA VE 1 on 36" wide cable tray 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 being installed.

| 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  |
|----------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|---|
| <b>348 SS†</b> |                      | NEMA: 16A, 12C<br>CSA: C1-3m<br>UL Cross-Sectional<br>Area: 0.40 in <sup>2</sup> | 10      | 180         | 0.0042                | Area = 0.74 in <sup>2</sup><br>Sx = 0.79 in <sup>3</sup><br>Ix = 1.85 in <sup>4</sup> | 3.0         | 268       | 0.072                 | Area = 4.77 cm <sup>2</sup><br>Sx = 12.95 cm <sup>3</sup><br>Ix = 77.00 cm <sup>4</sup> |
|                |                      |  | 12      | 125         | 0.009                 |   | 3.7         | 186       | 0.148                 |   |
|                |                      |  | 14      | 92          | 0.016                 |   | 4.3         | 137       | 0.275                 |   |
|                |                      |  | 16      | 70          | 0.027                 |   | 4.9         | 105       | 0.469                 |   |
|                |                      |  | 18      | 56          | 0.044                 |   | 5.5         | 83        | 0.752                 |   |
|                |                      |  | 20      | 45          | 0.067                 |   | 6.1         | 67        | 1.145                 |   |

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. † Insert 4 for 304 stainless steel or 6 for 316 stainless steel.

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

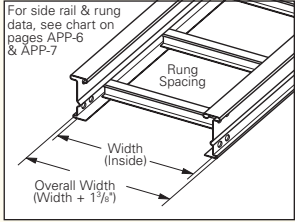
All dimensions in parentheses are millimeters unless otherwise specified.

4" NEMA VE 1 Loading Depth  
5" Side Rail Height

Straight Section Part Numbering

Prefix  
Example: **358 SS6 09 - 24 - 144**

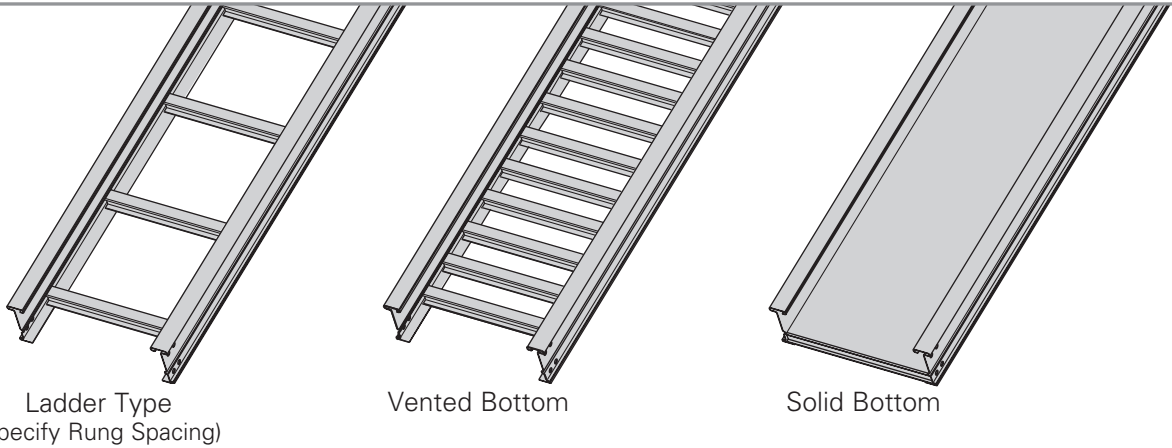
|  |  |  |   |  |
|--|--|--|---|--|
| <p><b>Series</b></p> <p>● <b>358</b></p> | <p><b>Material</b></p> <p>● <b>SS4</b> = 304<br/>Stainless Steel</p> <p>● <b>SS6</b> = 316<br/>Stainless Steel</p> | <p><b>*Type</b></p> <p>● <b>SB</b> = Solid Bottom</p> <p>● <b>06</b> = 4" rung spacing</p> <p>● <b>06</b> = 6" rung spacing</p> <p>● <b>09</b> = 9" rung spacing</p> <p>● <b>12</b> = 12" rung spacing</p> | <p><b>*Width</b></p> <p>● <b>06</b> = 6"</p> <p>● <b>09</b> = 9"</p> <p>● <b>12</b> = 12"</p> <p>● <b>18</b> = 18"</p> <p>● <b>24</b> = 24"</p> <p>● <b>30</b> = 30"</p> <p>● <b>36</b> = 36"</p> | <p><b>Length</b></p> <p>● ① <b>144</b> = 12 ft. 358</p> <p>● ② <b>120</b> = 10 ft.</p> <p>Notes:<br/>① Primary Length.<br/>② Secondary Length.</p> <p>See page C-23 for explanation of lengths.</p> <p>Passivation available see page C-2.</p> |
|--|--|--|---|--|



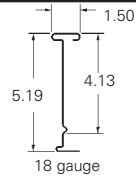
For side rail & rung data, see chart on pages APP-6 & APP-7

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

Series 3 & 4 Stainless Steel



Values are based on simple beam tests per NEMA VE 1 on 36" wide cable tray 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 being installed.

| 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   |
|----------------|---|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>358 SS†</b> |  | NEMA: <b>20A</b> , 16B<br>CSA: 89kg/m 6.1m<br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 10      | 248         | 0.0025                | Area = 0.83 in <sup>2</sup><br>Sx = 1.09 in <sup>3</sup><br>Ix = 3.10 in <sup>4</sup> | 3.0         | 369       | 0.043                 | Area = 5.35 cm <sup>2</sup><br>Sx = 17.86 cm <sup>3</sup><br>Ix = 129.03 cm <sup>4</sup> |
|                |   |  | 12      | 172         | 0.0052                |   | 3.7         | 256       | 0.089                 |  |
|                |   |  | 14      | 127         | 0.010                 |   | 4.3         | 188       | 0.164                 |  |
|                |   |  | 16      | 97          | 0.016                 |   | 4.9         | 144       | 0.280                 |  |
|                |   |  | 18      | 77          | 0.026                 |   | 5.5         | 114       | 0.448                 |  |
|                |   |  | 20      | 62          | 0.040                 |   | 6.1         | 92        | 0.684                 |  |

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. † Insert 4 for 304 stainless steel or 6 for 316 stainless steel.

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

All dimensions in parentheses are millimeters unless otherwise specified.

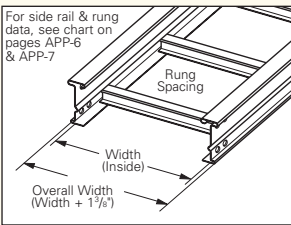


5" NEMA VE 1 Loading Depth  
6" Side Rail Height

Straight Section Part Numbering

Prefix  
Example: **368 SS6 09 - 24 - 144**

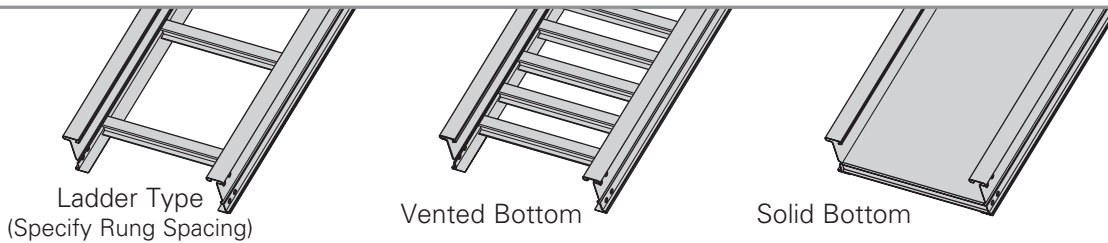
- |               |                                       |                                |                   |                             |
|---------------|---------------------------------------|--------------------------------|-------------------|-----------------------------|
| <b>Series</b> | <b>Material</b>                       | <b>*Type</b>                   | <b>*Width</b>     | <b>Length</b>               |
| ● <b>368</b>  | ● <b>SS4</b> = 304<br>Stainless Steel | ● <b>SB</b> = Solid Bottom     | ● <b>06</b> = 6"  | ● ① <b>144</b> = 12 ft. 368 |
| ● <b>464</b>  | ● <b>SS6</b> = 316<br>Stainless Steel | ● <b>04</b> = 4" rung spacing  | ● <b>09</b> = 9"  | ● ② <b>120</b> = 10 ft.     |
|               |                                       | ● <b>06</b> = 6" rung spacing  | ● <b>12</b> = 12" | ● ① <b>144</b> = 12 ft. 464 |
|               |                                       | ● <b>09</b> = 9" rung spacing  | ● <b>18</b> = 18" | ● ② <b>120</b> = 10 ft.     |
|               |                                       | ● <b>12</b> = 12" rung spacing | ● <b>24</b> = 24" |                             |
|               |                                       |                                | ● <b>30</b> = 30" |                             |
|               |                                       |                                | ● <b>36</b> = 36" |                             |



Notes:  
① Primary Length.  
② Secondary Length.  
See page C-23 for explanation of lengths.  
Passivation available see page C-2.

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

Series 3 & 4 Stainless Steel



Values are based on simple beam tests per NEMA VE 1 on 36" wide cable tray 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 being installed.

| 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   |
|----------------|----------------------|--|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>368 SS†</b> |                      | NEMA: 20A, 16B<br>CSA: D1-3m<br>UL Cross-Sectional<br>Area: 0.70 in <sup>2</sup> | 10      | 236         | 0.0016                | Area = 0.92 in <sup>2</sup><br>Sx = 1.41 in <sup>3</sup><br>Ix = 4.77 in <sup>4</sup> | 3.0         | 351       | 0.028                 | Area = 5.94 cm <sup>2</sup><br>Sx = 23.11 cm <sup>3</sup><br>Ix = 198.54 cm <sup>4</sup> |
|                |                      |  | 12      | 164         | 0.0034                |   | 3.7         | 244       | 0.058                 |  |
|                |                      |  | 14      | 120         | 0.0062                |   | 4.3         | 179       | 0.107                 |  |
|                |                      |  | 16      | 92          | 0.011                 |   | 4.9         | 137       | 0.182                 |  |
|                |                      |  | 18      | 73          | 0.017                 |   | 5.5         | 108       | 0.291                 |  |
|                |                      |  | 20      | 59          | 0.026                 |   | 6.1         | 88        | 0.444                 |  |

| 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   |
|----------------|----------------------|---|---------|-------------|-----------------------|---|-------------|-----------|-----------------------|--|
| <b>464 SS†</b> |                      | NEMA: 20C+<br>CSA: E-6m<br>UL Cross-Sectional<br>Area: 1.00 in <sup>2</sup> | 12      | 342         | 0.002                 | Area = 1.49 in <sup>2</sup><br>Sx = 2.28 in <sup>3</sup><br>Ix = 7.65 in <sup>4</sup> | 3.7         | 508       | 0.036                 | Area = 9.61 cm <sup>2</sup><br>Sx = 37.36 cm <sup>3</sup><br>Ix = 318.42 cm <sup>4</sup> |
|                |                      |   | 16      | 192         | 0.007                 |   | 4.9         | 286       | 0.113                 |  |
|                |                      |   | 18      | 152         | 0.011                 |   | 5.5         | 226       | 0.182                 |  |
|                |                      |   | 20      | 123         | 0.016                 |   | 6.1         | 183       | 0.277                 |  |
|                |                      |   | 22      | 102         | 0.024                 |   | 6.7         | 151       | 0.406                 |  |
|                |                      |   | 24      | 85          | 0.034                 |   | 7.3         | 127       | 0.574                 |  |

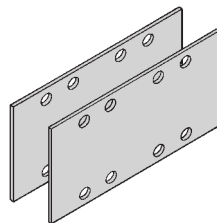
When cable trays are used in continuous spans, the deflection of the cable tray is reduced by as much as 50%. Design factors: Ix = Moment of Inertia, Sx = Section Modulus. † Insert 4 for 304 stainless steel or 6 for 316 stainless steel.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Splice Plates

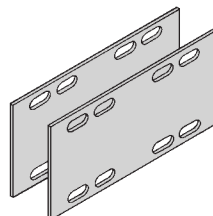
- Standard 8-hole pattern for all steel splice plates.
- Furnished in pairs with hardware.
- One pair including hardware provided with straight section. (Expansion splice quantity subtracted).
- Boxed in pairs with hardware.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.      | Height<br>in. mm |
|------------------|------------------|
| <b>9(*)-8004</b> | 4 (101)          |
| <b>9(*)-8005</b> | 5 (127)          |
| <b>9(*)-8006</b> | 6 (152)          |

## Expansion Splice Plates

- Expansion plates allow for one inch expansion or contraction of the cable tray or where expansion joints occur in the support structure.
- Furnished in pairs with hardware.
- Bonding jumpers are required on each side rail. Order separately.
- (\*) Insert **SS4** or **SS6**.

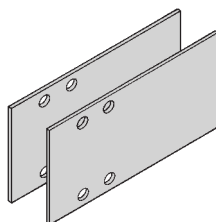


For heavy duty expansion splice plates see page APP-3.

| Catalog No.      | Height<br>in. mm |
|------------------|------------------|
| <b>9(*)-8014</b> | 4 (101)          |
| <b>9(*)-8015</b> | 5 (127)          |
| <b>9(*)-8016</b> | 6 (152)          |

## Universal Splice Plates

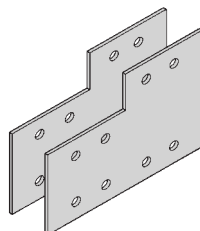
- Used to splice to existing cable tray systems.
- Furnished in pairs with hardware.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.          | Height<br>in. mm |
|----------------------|------------------|
| <b>9(*)-8004-1/2</b> | 4 (101)          |
| <b>9(*)-8005-1/2</b> | 5 (127)          |
| <b>9(*)-8006-1/2</b> | 6 (152)          |

## Step Down Splice Plates

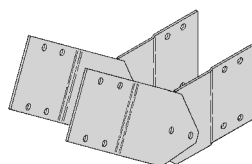
- These splice plates are offered for connecting cable tray sections having side rails of different heights.
- Furnished in pairs with hardware.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.      | Height<br>in. mm    |
|------------------|---------------------|
| <b>9(*)-8045</b> | 5 to 4 (127 to 101) |
| <b>9(*)-8046</b> | 6 to 4 (152 to 101) |
| <b>9(*)-8060</b> | 6 to 5 (152 to 127) |

## Vertical Adjustable Splice Plates

- These plates provide for changes in elevation that do not conform to standard vertical fittings.
- Furnished in pairs with hardware.
- Bonding jumpers not required.
- (\*) Insert **SS4** or **SS6**.

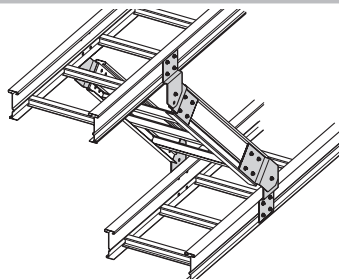


Requires supports within 24" on both sides, per NEMA VE 2.

| Catalog No.      | Height<br>in. mm |
|------------------|------------------|
| <b>9(*)-8024</b> | 4 (101)          |
| <b>9(*)-8025</b> | 5 (127)          |
| <b>9(*)-8026</b> | 6 (152)          |

## Branch Pivot Connectors

- Branch from existing cable tray runs at any point.
- Pivot to any required angle.
- UL Classified for grounding (bonding jumpers not required).
- Furnished in pairs with hardware.
- (\*) Insert **SS4** or **SS6**.



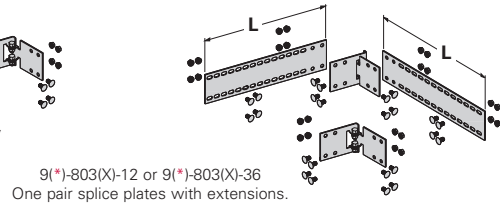
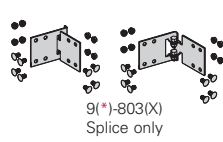
| Catalog No.      | Height<br>in. mm |
|------------------|------------------|
| <b>9(*)-8244</b> | 4 (101)          |
| <b>9(*)-8245</b> | 5 (127)          |
| <b>9(*)-8246</b> | 6 (152)          |

# Series 3 & 4 Stainless Steel - Accessories

## Horizontal Adjustable Splice Plates

- Used to adjust a cable tray run for changes in direction in a horizontal plane that do not conform to standard horizontal fittings.
- Furnished in pairs with hardware.
- Bonding jumpers **not** required.
- (\*) Insert **SS4** or **SS6**.
- (X) Insert 4, 5, 6 or 7 for side rail height.

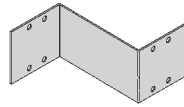
| Catalog No.           | Cable Tray End Cut | Thru Tray Width<br>in. (mm) | 'L'<br>in. (mm) |
|-----------------------|--------------------|-----------------------------|-----------------|
| <b>9(*)-803(X)</b>    | Mitered            | 36 (914)                    | N/A (NA)        |
| <b>9(*)-803(X)-12</b> | Not mitered        | 12 (305)                    | 16 (406)        |
| <b>9(*)-803(X)-36</b> | Not mitered        | 36 (914)                    | 41 (1041)       |



Requires supports within 24" on both sides per NEMA VE 2.

## Offset Reducing Splice Plate

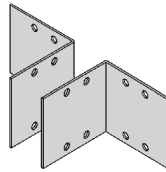
- This plate is used for joining cable trays having different widths. When used in pairs, they form a straight reduction. When used singly with a standard splice plate, they form an offset reduction.
- Furnished as one plate with hardware.
- (‡) Insert reduction
- (\*) Insert **SS4** or **SS6**.



| Catalog No.        | Height<br>in. mm |
|--------------------|------------------|
| <b>9(*)-8064-‡</b> | 4 (101)          |
| <b>9(*)-8065-‡</b> | 5 (127)          |
| <b>9(*)-8066-‡</b> | 6 (152)          |

## Tray to Box Splice Plates

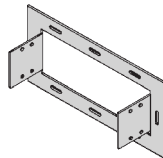
- Used to attach the end of a cable tray run to a distribution box or control panel.
- Furnished in pairs with hardware.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.      | Height<br>in. mm |
|------------------|------------------|
| <b>9(*)-8054</b> | 4 (101)          |
| <b>9(*)-8055</b> | 5 (127)          |
| <b>9(*)-8056</b> | 6 (152)          |

## Frame Type Box Connector

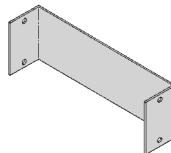
- Used to attach the end of a cable tray run to a distribution cabinet or control center. Helps reinforce the box at the point of entry.
- Furnished with tray connection hardware.
- (\*) Insert **SS4** or **SS6**.
- (‡) Insert tray width.



| Catalog No.        | Height<br>in. mm |
|--------------------|------------------|
| <b>9(*)-8074-‡</b> | 4 (101)          |
| <b>9(*)-8075-‡</b> | 5 (127)          |
| <b>9(*)-8076-‡</b> | 6 (152)          |

## Blind End

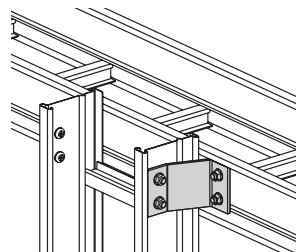
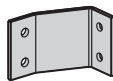
- This plate forms a closure for a dead end cable tray.
- Furnished as one plate with hardware.
- (\*) Insert **SS4** or **SS6**.
- (‡) Insert tray width.



| Catalog No.        | Height<br>in. mm |
|--------------------|------------------|
| <b>9(*)-8084-‡</b> | 4 (101)          |
| <b>9(*)-8085-‡</b> | 5 (127)          |
| <b>9(*)-8086-‡</b> | 6 (152)          |

## Cross Connector Bracket

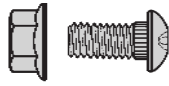
- For field connecting crossing section.
- Furnished in pairs with <sup>3</sup>/<sub>8</sub>" hardware.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.      |
|------------------|
| <b>9(*)-1240</b> |

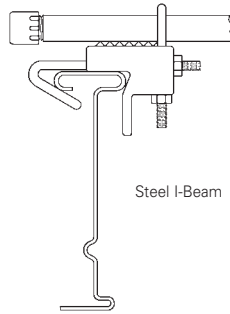
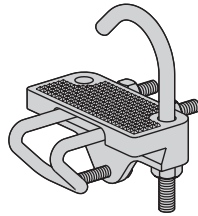
## Standard Tray Hardware (for field installation drill $1\frac{3}{32}$ " hole)

| Catalog No.                                  | Description  |
|--|--|
| ● RNCB $\frac{3}{8}$ " x $\frac{3}{4}$ " SS6 | Ribbed Neck Carriage Bolt AISI 316 Stainless Steel |
| ● SFHN $\frac{3}{8}$ "-16 SS6                | Serrated Flange Hex Nut AISI 316 Stainless Steel   |



## Conduit to Cable Tray Adaptor

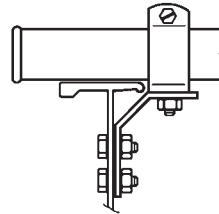
- For easy attachment of conduit termination on a cable tray.
- Use on aluminum or steel cable trays.



| Catalog No.                              | Conduit Size                  |           |
|--|-------------------------------|-----------|
|  | in.                           | mm        |
| ● 9G-1158- $\frac{1}{2}$ & $\frac{3}{4}$ | $\frac{1}{2}$ , $\frac{3}{4}$ | (15, 20)  |
| ● 9G-1158-1 & $1\frac{1}{4}$             | 1, $1\frac{1}{4}$             | (25, 32)  |
| ● 9G-1158- $1\frac{1}{2}$ & 2            | $1\frac{1}{2}$ , 2            | (40, 50)  |
| ● 9G-1158- $2\frac{1}{2}$ & 3            | $2\frac{1}{2}$ , 3            | (65, 80)  |
| ● 9G-1158- $3\frac{1}{2}$ & 4            | $3\frac{1}{2}$ , 4            | (90, 100) |

## Conduit to Cable Tray Adaptor

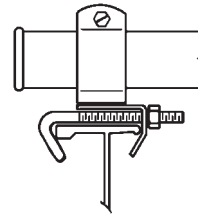
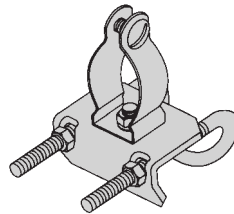
- Assembly required.
- Mounting hardware included.
- Conduit clamps provided.
- (‡) = Insert conduit size ( $\frac{1}{2}$ " thru 4").



| Catalog No.     |
|-----------------|
| ● 9SS4-1150-(‡) |

## Conduit to Cable Tray Adaptor

- Assembly required.
- Conduit clamps included.
- (‡) = Insert conduit size ( $\frac{1}{2}$ " thru 4").



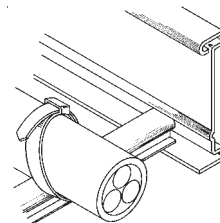
| Catalog No.     |
|-----------------|
| ● 9SS4-1155-(‡) |

## Cable Tie (Ladder Tray)

- Nylon ties provide easy attachment of cable to ladder rungs.
- Maximum cable O.D. is 3" (76mm).



Overall Length 15" (381mm)



| Catalog No.  |
|--------------|
| ● 99-2125-15 |

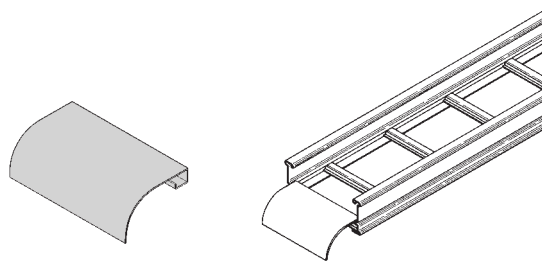
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 3 & 4 Stainless Steel - Accessories

## Ladder Drop-Out

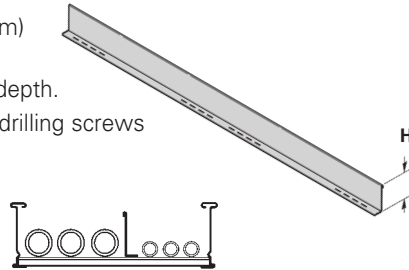
- Provide a rounded surface with 4" (101 mm) radius to help protect cable as it exits from the cable tray.
- Helps prevent damage to insulation.
- Attaches to any rung in the cable tray.
- (\*) Insert **SS4** or **SS6**.
- (‡) Insert tray width.



| Catalog No.            |
|------------------------|
| ● <b>9(*)-1104-(‡)</b> |

## Barrier - Straight Section

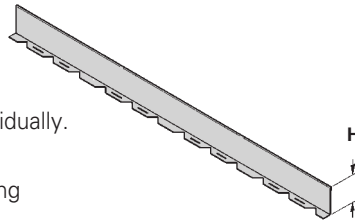
- Length: Insert 120 for [120" - 10 ft.] (3.0 m) or 144 for [144" - 12 ft.] (3.6 m)
- Order catalog number based on loading depth.
- Furnished with four #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.         | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|---------------------|----------------------------|-----------------------------|
| <b>73(*)-Length</b> | 4 (101)                    | 3 (76)                      |
| <b>74(*)-Length</b> | 5 (127)                    | 4 (101)                     |
| <b>75(*)-Length</b> | 6 (152)                    | 5 (127)                     |

## Barrier - Horizontal Bend

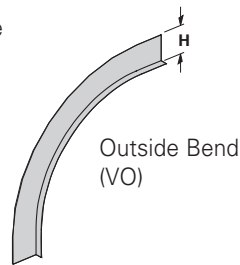
- Flexible to help conform to any horizontal fitting radius.
- Can be cut to desired length.
- Standard length is 72" [6 ft.] (1.8 m); sold individually.
- Order catalog number based on loading depth.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.         | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|---------------------|----------------------------|-----------------------------|
| <b>73(*)-90HBFL</b> | 4 (101)                    | 3 (76)                      |
| <b>74(*)-90HBFL</b> | 5 (127)                    | 4 (101)                     |
| <b>75(*)-90HBFL</b> | 6 (152)                    | 5 (127)                     |

## Barrier - Vertical Outside Bend

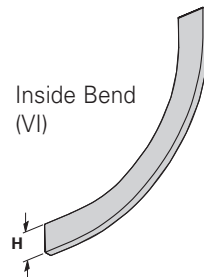
- For use to help conform to a specific vertical outside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **SS4** or **SS6**.
- (\*\*) Insert 30, 45, 60 or 90 for degrees.
- (‡) Insert 12, 24, 36 or 48 for radius.



| Catalog No.             | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|-------------------------|----------------------------|-----------------------------|
| <b>73(*)-(**)-VO(‡)</b> | 4 (101)                    | 3 (76)                      |
| <b>74(*)-(**)-VO(‡)</b> | 5 (127)                    | 4 (101)                     |
| <b>75(*)-(**)-VO(‡)</b> | 6 (152)                    | 5 (127)                     |

## Barrier - Vertical Inside Bend

- Vertical Inside Bend Barriers are preformed to conform to a specific vertical inside bend fitting.
- Furnished with three #10 x 1/2" plated self-drilling screws and a 99-9982 Barrier Strip Splice.
- (\*) Insert **SS4** or **SS6**.
- (\*\*) Insert 30, 45, 60 or 90 for degrees.
- (‡) Insert 12, 24, 36 or 48 for radius.



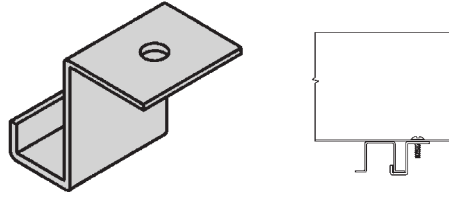
| Catalog No.             | Side Rail Height<br>in. mm | Loading Depth 'H'<br>in. mm |
|-------------------------|----------------------------|-----------------------------|
| <b>73(*)-(**)-VI(‡)</b> | 4 (101)                    | 3 (76)                      |
| <b>74(*)-(**)-VI(‡)</b> | 5 (127)                    | 4 (101)                     |
| <b>75(*)-(**)-VI(‡)</b> | 6 (152)                    | 5 (127)                     |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Barrier Strip Clip

- Barrier clip fastens to either aluminum or steel ladder rung.
- Furnished with one #10 x 1/2" zinc plated self-drilling screw.
- (\*) Insert **SS4** or **SS6**.

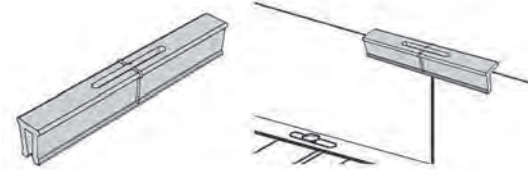


Catalog No.

9(\*)-9002

## Barrier Strip Splice

- 2.85" (72.4mm) long
- Ribbed edge for increased rigidity and grip
- Comfort edge for ease of installation
- Slotted top window with center mark for accurate placement and inspection capability
- Patent pending



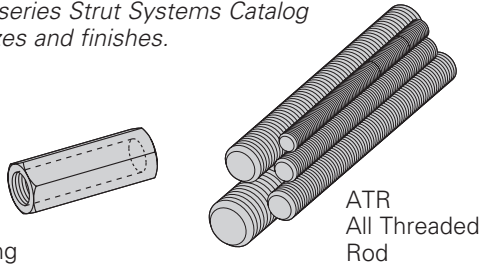
Catalog No.

● 99-9982

## Thread Rod (ATR) & Rod Couplings

- Loading based on safety factor 5.
- Standard Finish: SS4 or SS6.

See B-Line series Strut Systems Catalog for other sizes and finishes.



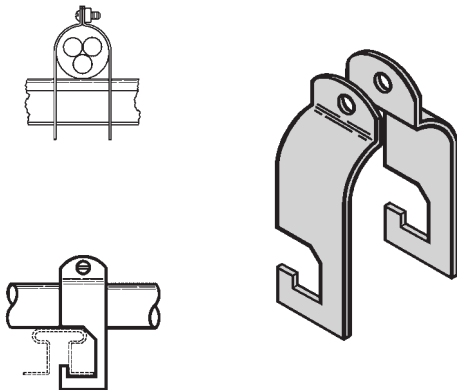
B655  
Rod Coupling

ATR  
All Threaded  
Rod

| Size                    | Catalog No.         | Available Length     | Loading   |
|-------------------------|---------------------|----------------------|-----------|
| <b>All Threaded Rod</b> |                     |                      |           |
| 3/8"-16                 | ● ATR 3/8" x Length | 36", 72", 120", 144" | 730 lbs.  |
| 1/2"-13                 | ● ATR 1/2" x Length | 36", 72", 120", 144" | 1350 lbs. |
| <b>Rod Coupling</b>     |                     |                      |           |
| 3/8"-16                 | ● B655-3/8"         | NA                   | 730 lbs.  |
| 1/2"-13                 | ● B655-1/2"         | NA                   | 1350 lbs. |

## Stainless Steel Cable Clamp

- Fits with series 2, 3, 4 & 5 standard steel rungs.
- See cable cleats section of the cable tray catalog for more information.
- Field form around the cable at the time of installation.
- Shipped flat.



| Catalog No. | Cable Size  |             |
|-------------|-------------|-------------|
|             | in.         | mm          |
| ● 9SS4-4050 | 0.50 - 0.75 | (13 - 19)   |
| ● 9SS4-4075 | 0.75 - 1.00 | (19 - 25)   |
| ● 9SS4-4100 | 1.00 - 1.25 | (25 - 32)   |
| ● 9SS4-4125 | 1.25 - 1.50 | (32 - 38)   |
| ● 9SS4-4150 | 1.50 - 1.75 | (38 - 45)   |
| ● 9SS4-4175 | 1.75 - 2.00 | (45 - 51)   |
| ● 9SS4-4200 | 2.00 - 2.25 | (51 - 57)   |
| ● 9SS4-4225 | 2.25 - 2.50 | (57 - 64)   |
| ● 9SS4-4250 | 2.50 - 2.75 | (64 - 70)   |
| ● 9SS4-4275 | 2.75 - 3.00 | (70 - 76)   |
| ● 9SS4-4300 | 3.00 - 3.25 | (76 - 82)   |
| ● 9SS4-4325 | 3.25 - 3.50 | (82 - 89)   |
| ● 9SS4-4350 | 3.50 - 3.75 | (89 - 95)   |
| ● 9SS4-4375 | 3.75 - 4.00 | (95 - 100)  |
| ● 9SS4-4400 | 4.00 - 4.25 | (100 - 106) |
| ● 9SS4-4425 | 4.25 - 4.50 | (106 - 113) |
| ● 9SS4-4450 | 4.50 - 4.75 | (113 - 121) |
| ● 9SS4-4475 | 4.75 - 5.00 | (121 - 125) |

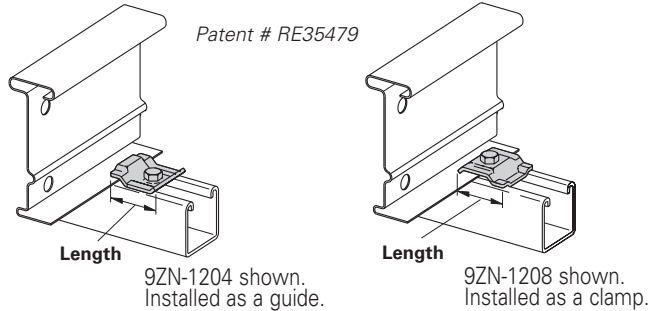
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 3 & 4 Stainless Steel - Accessories

## Cable Tray Clamp/Guide

- Features a no-twist design.
- Has four times the strength of the traditional design.
- Each side is labeled to ensure proper installation.
- Furnished in pairs without hardware.
- Not recommended for vertical support.



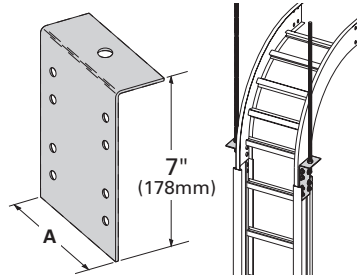
| Catalog No.      |               | Overall Length<br>in. (mm) | Hardware Size<br>in. | Finish |
|------------------|---------------|----------------------------|----------------------|--------|
| Without Hardware | With Hardware |                            |                      |        |
| ● 9SS6-1205      | —             | 2 1/4 (57)                 | 1/2"                 | 316SS  |

When installing this device as an expansion guide on the outside flange of *Steel Side Rail*, use the Catalog No. **B202** Square Washer in order to properly elevate the guide.

Note: For heavy duty or vertical applications see 9(\*)-1241 or 9(\*)-1242 page HAT-20

## Vertical Hanger Splice Plates

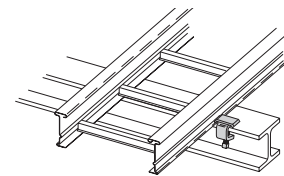
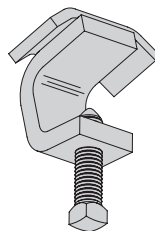
- Design load is 1500 lbs (6.67kN) per pair.
- Safety Factor of 2.5.
- Furnished in pairs.
- Hole size: 9/16" (14mm) for 1/2" threaded rod.
- (\*) Insert **SS4** or **SS6**.



| Catalog No. | Outside Cable Tray Ht. | 'A'<br>in. (mm) |
|-------------|------------------------|-----------------|
| 9(*)-8224   | 4"                     | 3.84 (97.54)    |
| 9(*)-8225   | 5"                     | 4.73 (120.14)   |
| 9(*)-8226   | 6"                     | 5.84 (148.34)   |
| 9(*)-8227   | 7"                     | 6.84 (173.74)   |

## Cable Tray Clamp

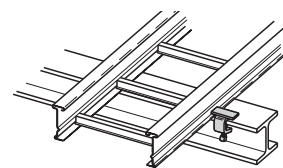
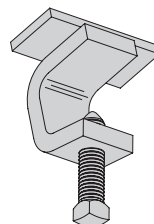
- Hold-down clamps for single or double cable tray runs.
- No drilling of support I-beam or channel is required.
- Sold in pieces; two clamps are required per tray.
- Maximum beam flange thickness 1 1/8" (28.58 mm).
- (\*) Insert **SS4** or **SS6**.



| Catalog No.   | Finish |
|---------------|--------|
| ● 9SS4-1249HD | 304SS  |
| ● 9SS6-1249HD | 316SS  |

## Cable Tray Guide

- Expansion guide for single or double cable tray runs.
- Guide allows for longitudinal movement of the cable tray.
- No field drilling of support I-beam or channel is required.
- Guides are required on both sides of cable tray to prevent lateral movement; can be placed on either the inside or outside flange of cable tray.
- Guides are sold in pieces - two guides are required per tray.
- Maximum flange thickness 1 1/8" (28.58 mm).
- (\*) Insert **SS4** or **SS6**.



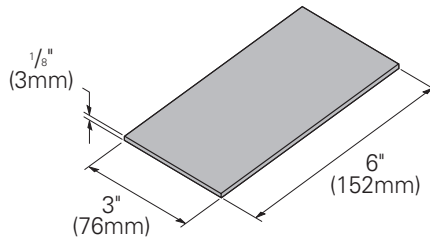
| Catalog No. | Finish |
|-------------|--------|
| ● 9SS4-1249 | 304SS  |
| ● 9SS6-1249 | 316SS  |

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Nylon Pad

- Use for friction reduction.
- Hardness: Shore D80.
- Low friction coefficient.
- UV resistant.
- Excellent weatherability.
- UL - 94HB.

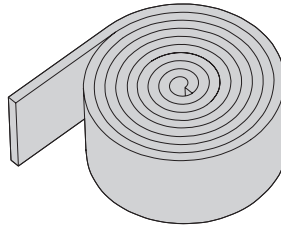


Catalog No.

● 99-PE36

## Neoprene Roll

- Use for material isolation.
- 1/8" x 2" x 25' roll.
- Hardness: Shore A60.
- Good weatherability.



Catalog No.

● 99-NP300

## DURA-BLOK™ Rooftop Support Bases with B22 Channel

- Designed as a superior rooftop support for cable tray.
- UV resistant and approved for most roofing material or other flat surfaces.
- Can be used with any of B-Line series cable tray clamps and guides.
- Ultimate Load Capacity: 1,000 lbs. (uniform load).

| Catalog No. | Height x Width x Length                  |                    |
|-------------|--|--------------------|
|             | in.                                      | (mm)               |
| ● DB10-28   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 28.0 | (143 x 152 x 711)  |
| ● DB10-36   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 36.0 | (143 x 152 x 914)  |
| ● DB10-42   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 42.0 | (143 x 152 x 1067) |
| ● DB10-50   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 50.0 | (143 x 152 x 1270) |
| ● DB10-60   | 5 <sup>5</sup> / <sub>8</sub> x 6 x 60.0 | (143 x 152 x 1524) |



LEEDS credit available, base made from 100% recycled material.

General Note: Consult roofing manufacturer or engineer for roof load capacity. The weakest point may be the insulation board beneath the rubber membrane.



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

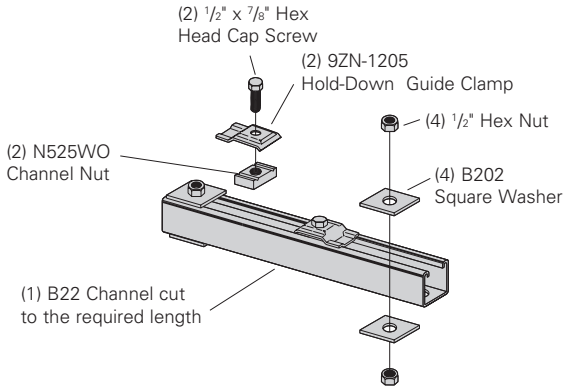
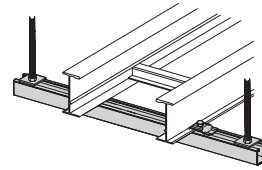
All dimensions in parentheses are millimeters unless otherwise specified.



# Series 3 & 4 Stainless Steel - Accessories

## Trapeze Support Kit

- Kit includes components for a single trapeze support in one package.
- The SH channel provides the convenience of pre-punched slots, which helps eliminate the need for field drilling.
- The illustrated hardware is (shown below) sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod. **Order rod separately.**
- Available in type 304 or Type 316 stainless steel.



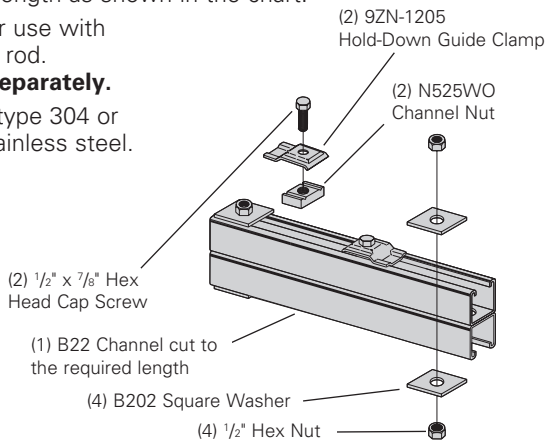
| Catalog No.         | Tray Width |        | Channel Length |        | Uniform Load |        |
|---------------------|------------|--------|----------------|--------|--------------|--------|
|                     | in.        | mm     | in.            | mm     | lbs          | kN     |
| ● 9(*)-5506-22SH(†) | 6          | (152)  | 16             | (406)  | 1350         | (6.00) |
| ● 9(*)-5509-22SH(†) | 9          | (229)  | 18             | (457)  | 1250         | (5.56) |
| ● 9(*)-5512-22SH(†) | 12         | (305)  | 22             | (559)  | 1125         | (5.00) |
| ● 9(*)-5518-22SH(†) | 18         | (457)  | 28             | (711)  | 865          | (3.85) |
| ● 9(*)-5524-22SH(†) | 24         | (610)  | 34             | (864)  | 700          | (3.11) |
| ● 9(*)-5530-22SH(†) | 30         | (762)  | 40             | (1016) | 590          | (2.62) |
| ● 9(*)-5536-22SH(†) | 36         | (914)  | 46             | (1168) | 510          | (2.27) |
| ● 9(*)-5542-22SH(†) | 42         | (1067) | 52             | (1321) | 450          | (2.00) |

- (\*) Insert **SS4** or **SS6**.
  - (†) Insert 3/8" for 3/8" threaded rod hardware.
- Safety factor of 3.0 on all loads.

Series 3 & 4 Stainless Steel

## Heavy Duty Trapeze Support Kit

- Kit includes components for a single trapeze support in one package.
- The SH channel provides the convenience of pre-punched slots, which helps eliminates the need for field drilling.
- The illustrated hardware (shown below) is sealed in a plastic bag and boxed with the channel, which is pre-cut to the appropriate length as shown in the chart.
- Designed for use with 1/2" threaded rod.
- **Order rod separately.**
- Available in type 304 or Type 316 stainless steel.

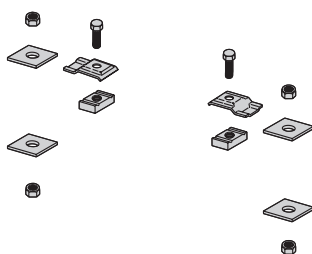


| Catalog No.       | Tray Width |        | Channel Length |        | Uniform Load |        |
|-------------------|------------|--------|----------------|--------|--------------|--------|
|                   | in.        | mm     | in.            | mm     | lbs          | kN     |
| ● 9(*)-5506-22SHA | 6          | (152)  | 16             | (406)  | 1350         | (6.00) |
| ● 9(*)-5509-22SHA | 9          | (229)  | 18             | (457)  | 1350         | (6.00) |
| ● 9(*)-5512-22SHA | 12         | (305)  | 22             | (559)  | 1350         | (6.00) |
| ● 9(*)-5518-22SHA | 18         | (457)  | 28             | (711)  | 1350         | (6.00) |
| ● 9(*)-5524-22SHA | 24         | (610)  | 34             | (864)  | 1350         | (6.00) |
| ● 9(*)-5530-22SHA | 30         | (762)  | 40             | (1016) | 1350         | (6.00) |
| ● 9(*)-5536-22SHA | 36         | (914)  | 46             | (1168) | 1350         | (6.00) |
| ● 9(*)-5542-22SHA | 42         | (1067) | 52             | (1321) | 1350         | (6.00) |

- (\*) Insert **SS4** or **SS6**.
- Safety factor of 3.0 on all loads.

## Trapeze Hardware Kit

- Hardware shipped in plastic bag.



| Description                | Catalog No.               |                           |
|----------------------------|---------------------------|---------------------------|
|                            | ● 9SS4-5500-1/2           | ● 9SS6-5500-1/2           |
| Items included in the kit. | 1 pr. 9SS6-1205           | 1 pr. SS6-1205            |
|                            | 2 HHC Screw 1/2 x 7/8 SS4 | 2 HHC Screw 1/2 x 7/8 SS6 |
|                            | 2 N525 WO SS6             | 2 N525 WO SS6             |
|                            | 4 B202 SS4 1/2" sq washer | 4 B202 SS6 1/2" sq washer |
|                            | 4 HN 1/2" SS4             | 4 HN 1/2" SS6             |

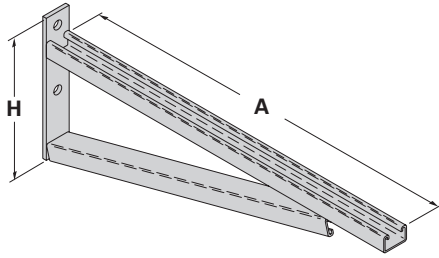
● Green = Fastest shipped items   ● Black = Normal lead-time items   ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

## Bracket (12"- 42")

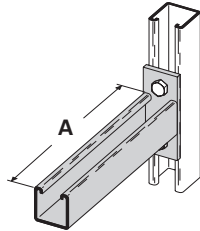
- Bottom brace is B42 channel on B494-24 and smaller and B22 channel on B494-30 and larger.
- For more dimensional data see Strut Systems catalog.
- Safety Load Factor 2.5.
- (\*) Insert available finish: **SS4** or **SS6**.
- Safety Load Factor 2.5.

| Catalog No.    | Uniform Load |         | Tray Width |             | 'A' |        | 'H'                            |       |
|----------------|--------------|---------|------------|-------------|-----|--------|--------------------------------|-------|
|                | lbs          | (kN)    | in.        | (mm)        | in. | (mm)   | in.                            | (mm)  |
| <b>B494-12</b> | 2500         | (11.12) | 6 & 9      | (152 & 229) | 12  | (305)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| <b>B494-18</b> | 1700         | (7.56)  | 12         | (305)       | 18  | (457)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| <b>B494-24</b> | 1300         | (5.78)  | 18         | (457)       | 24  | (610)  | 8 <sup>3</sup> / <sub>4</sub>  | (222) |
| <b>B494-30</b> | 1600         | (7.11)  | 24         | (610)       | 30  | (762)  | 11 <sup>1</sup> / <sub>4</sub> | (286) |
| <b>B494-36</b> | 1100         | (4.89)  | 30         | (762)       | 36  | (914)  | 11 <sup>1</sup> / <sub>4</sub> | (286) |
| <b>B494-42</b> | 980          | (4.36)  | 36         | (914)       | 42  | (1067) | 16                             | (406) |
| <b>B494-48</b> | 980          | (4.36)  | 42         | (1067)      | 48  | (1219) | 16                             | (406) |



## Cantilever Bracket

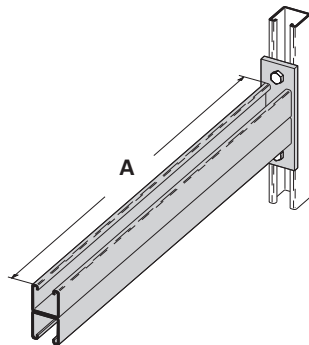
- (\*) Insert available finish: **SS4** or **SS6**.
- Safety Load Factor 2.5.



| Catalog No.       | Uniform Load |        | Tray Width |             | 'A' |       |
|-------------------|--------------|--------|------------|-------------|-----|-------|
|                   | lbs          | kN     | in.        | mm          | in. | mm    |
| <b>B409-12(*)</b> | 960          | (4.27) | 6 & 9      | (152 & 229) | 12  | (305) |
| <b>B409-18(*)</b> | 640          | (2.84) | 12         | (305)       | 18  | (457) |
| <b>B409-24(*)</b> | 480          | (2.13) | 18         | (457)       | 24  | (610) |

## Cantilever Bracket

- (\*) Insert available finish: **SS4** or **SS6**.
- Safety Load Factor 2.5.



| Catalog No.       | Uniform Load |        | Tray Width |             | 'A' |        |
|-------------------|--------------|--------|------------|-------------|-----|--------|
|                   | lbs          | kN     | in.        | mm          | in. | mm     |
| <b>B297-12(*)</b> | 1660         | (7.38) | 6 & 9      | (152 & 229) | 12  | (305)  |
| <b>B297-18(*)</b> | 1100         | (4.89) | 12         | (305)       | 18  | (457)  |
| <b>B297-24(*)</b> | 835          | (3.71) | 18         | (457)       | 24  | (610)  |
| <b>B297-30(*)</b> | 665          | (2.93) | 24         | (610)       | 30  | (762)  |
| <b>B297-36(*)</b> | 550          | (2.44) | 30         | (762)       | 36  | (914)  |
| <b>B297-42(*)</b> | 465          | (2.06) | 36         | (914)       | 42  | (1067) |

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

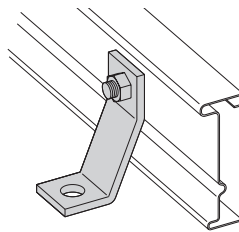
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 3 & 4 Stainless Steel - Accessories

Series 3 & 4 Stainless Steel

## Heavy Duty Hold Down Bracket

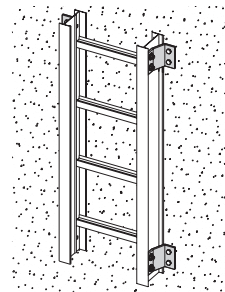
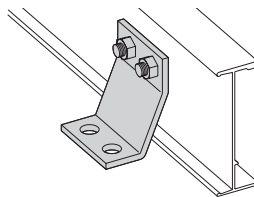
- Design load is 2000 lbs (8.89kN) per pair.
- Two bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided.
- 3/8" support attachment hardware **not** provided.
- Recommended for support of vertical trays.
- (\*) Insert **SS4** or **SS6**.



**Catalog No.**  
**9(\*)-1241**

## Heavy Duty Hold Down Bracket

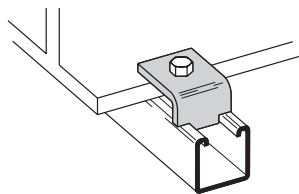
- Design load is 4000 lbs (17.79kN) per pair.
- Four bolt design.
- Sold in pairs.
- 3/8" cable tray attachment hardware provided.
- 3/8" support attachment hardware **not** provided.
- Recommended for support of vertical trays.
- (\*) Insert **SS4** or **SS6**.



**Catalog No.**  
**9(\*)-1242**

## Beam Clamp

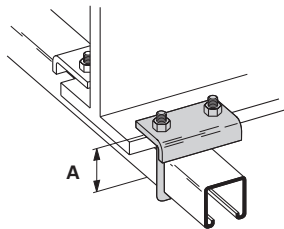
- Sold in pieces.
- Design load is 1200 lbs (5.34kN) per pair.
- Safety Load Factor 5.0.
- Order HHCS and Channel Nuts separately.
- Finishes available: **SS4**.



**Catalog No.**  
**B355SS4**

## Beam Clamp

- Sold in pieces.
- (\*) Insert **SS4** or **SS6**.

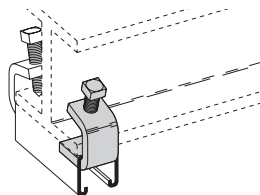


| Catalog No.        | Design Load<br>lbs (kN) | 'A'<br>in. (mm)                    |
|--------------------|-------------------------|------------------------------------|
| <b>B441-22(*)</b>  | 1200 (5.34)             | 3 <sup>3</sup> / <sub>8</sub> (86) |
| <b>B441-22A(*)</b> | 1200 (5.34)             | 5 (127)                            |

\*Design load when used in pairs.  
Safety Load Factor 5.0.

## Beam Clamp

- Sold in pieces.
- Finishes available: **SS4**.



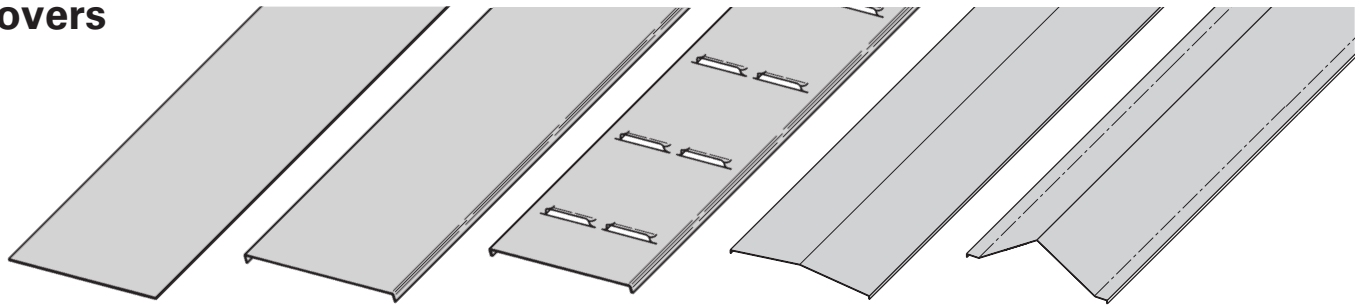
| Description              | Catalog No.        |                     |
|--------------------------|--------------------|---------------------|
|                          | <b>B212-1/4SS4</b> | <b>B212-3/8SS6</b>  |
| <b>Design Load *</b>     | 600 lbs. (2.67kN)  | 1000 lbs. (4.45 kN) |
| <b>Max. Flange Thick</b> | 3/4" (19 mm)       | 1 1/8" (28.6 mm)    |
| <b>Mat'l. Thickness</b>  | 1/4" (6.3 mm)      | 3/8" (9.5 mm)       |

\*Design load when used in pairs.  
Safety Load Factor 5.0.

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

All dimensions in parentheses are millimeters unless otherwise specified.

## Covers



Solid Non-Flanged

Solid Flanged

Ventilated Flanged

Peaked Flanged

2 to 3 Pitch Peaked Flanged  
(See page APP-4)

**A full range of covers is available for straight sections and fittings.**

**Solid covers** should be used when maximum enclosure of the cable is desired and no accumulation of heat is expected.

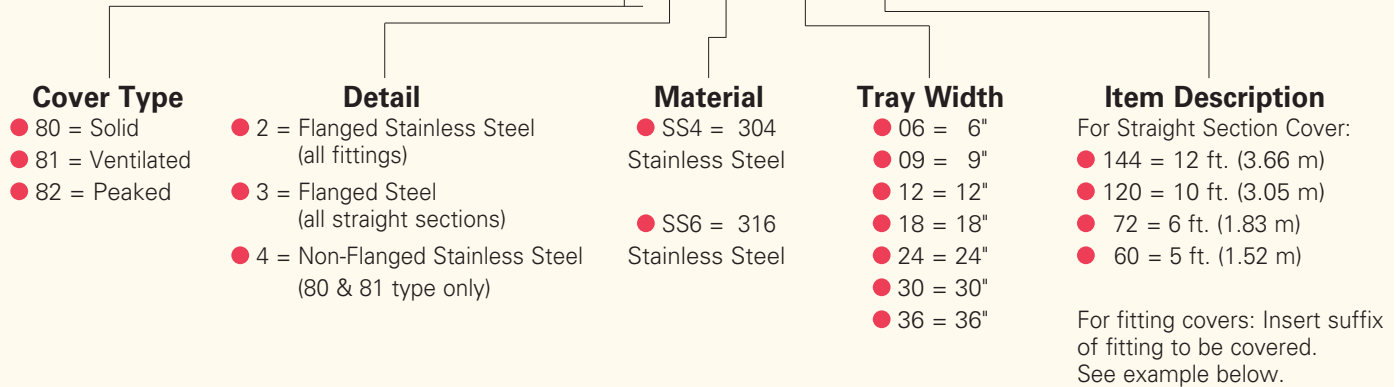
**Ventilated covers** provide an overhead cable shield yet allow heat to escape.

We recommend that covers be placed on vertical cable tray runs to a height of 6 ft. (1.83 m) to 8 ft. (2.44 m) above the floor to isolate both cables and personnel. **Flanged covers** have a 1/2 in. (13 mm) flange. Cover clamps are not included with the cover and must be ordered separately. All **peaked covers** are flanged. Standard peaked covers have 1/2" peak. Special purpose peaked covers, having a 2 to 3 pitch, provide additional slope and material thickness. The 2 to 3 pitch fitting covers are of multiple piece, welded construction.

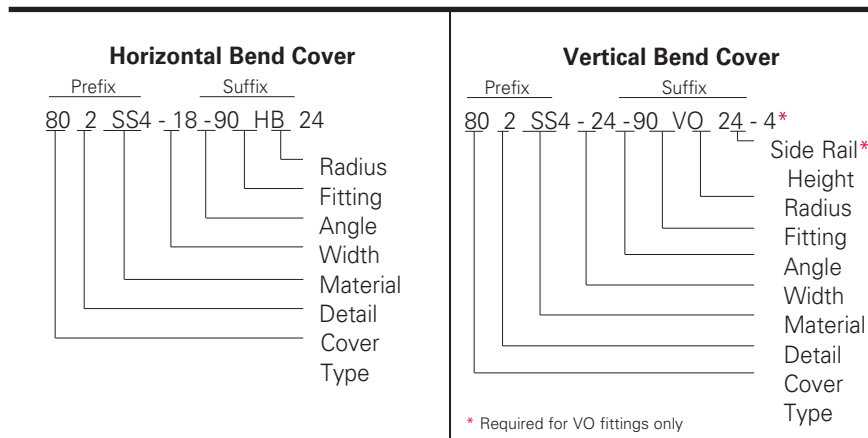
Series 3 & 4 Stainless Steel

## Steel Cover Part Numbering

Example: **80 2 SS4 - 24 - 144**



### Examples of Catalog Numbers for Fitting Covers:



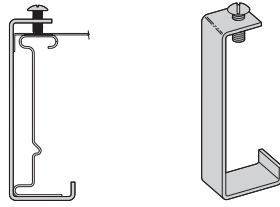
● Green = Fastest shipped items    ● Black = Normal lead-time items    ● Red = Normally long lead-time items

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 3 & 4 Stainless Steel - Accessories

## Standard Cover Clamp

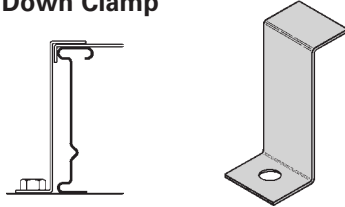
- For indoor service only.
- Screw included.
- Sold per piece.



| Tray Type       | Catalog No.      | Side Rail Height<br>in. (mm) |
|-----------------|------------------|------------------------------|
| Stainless Steel | <b>9SS6-9014</b> | 4 (101)                      |
|                 | <b>9SS6-9015</b> | 5 (127)                      |
|                 | <b>9SS6-9016</b> | 6 (152)                      |

## Combination Cover and Hold Down Clamp

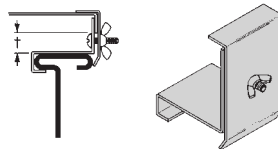
- Sold per piece.
- For indoor service only.
- (\*) Insert **SS4** or **SS6**.



| Tray Type       | Catalog No.      | Side Rail Height<br>in. (mm) |
|-----------------|------------------|------------------------------|
| Stainless Steel | <b>9(*)-9043</b> | 4 (101)                      |
|                 | <b>9(*)-9053</b> | 5 (127)                      |
|                 | <b>9(*)-9063</b> | 6 (152)                      |

## Raised Cover Clamp

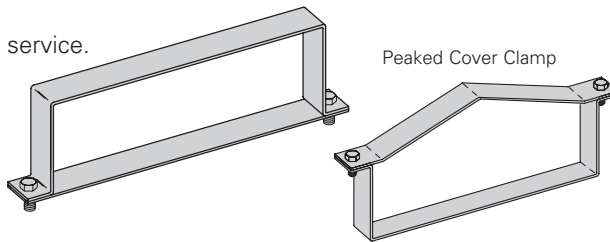
- For indoor service only.
- For use with flanged covers only.  
† Specify gap of 1", 2", 3" or 4".
- (\*) Insert **SS4** or **SS6**.



| Tray Type            | Catalog No.  | Tray Type |
|----------------------|--|-----------|
| ● <b>9(*)-9115-†</b> | Series 3 & 4 Steel Straight Section                        |           |
| ● <b>9(*)-910†</b>   | All Steel Fittings (Also Series 1 Steel Straight Sections) |           |

## Heavy Duty Cover Clamp

- Recommended for outdoor service.
- (±) Insert tray width  
† Add P to Catalog No. for peaked cover clamp.
- (\*) Insert **SS4** or **SS6**.



| Catalog No.           | Side Rail Height<br>in. mm |
|-----------------------|----------------------------|
| <b>9(*)-(±)-9044†</b> | 4 (101)                    |
| <b>9(*)-(±)-9054†</b> | 5 (127)                    |
| <b>9(*)-(±)-9064†</b> | 6 (152)                    |

## Quantity of Standard Cover Clamps Required

Notes:

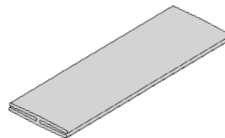
When using the Heavy Duty Cover Clamp, only on-half the number of clamps stated above is required.

Additional clamps may be necessary in extreme wind applications.

|                                     |        |
|-------------------------------------|--------|
| Straight Section 60" or 72" .....   | 4 pcs. |
| Straight Section 120" or 144" ..... | 6 pcs. |
| Horizontal/Vertical Bends .....     | 4 pcs. |
| Tees .....                          | 6 pcs. |
| Crosses .....                       | 8 pcs. |

## Cover Joint Strip

- Used to join covers.
- Plastic.
- (±) Insert tray width.



| Catalog No.          |
|----------------------|
| ● <b>99-9980-(±)</b> |

## Cable Cleats

- For additional information, see pages N-1 to N-5 in this catalog.

Trefoil Cable Cleats



Single Cable Cleats



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

All dimensions in parentheses are millimeters unless otherwise specified.

## Section 1- Acceptable Manufacturers

- 1.01 Manufacturer: Subject to compliance with these specifications, Eaton's B-Line series cable tray systems shall be as manufactured by Eaton.

## Section 2- Cable Tray Sections and Components

- 2.01 General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features. Cable tray shall be installed according to the latest revision of NEMA VE 2.
- 2.02 Stainless Steel: Straight section and fitting side rails and rungs shall be made of AISI Type [304] [316] stainless steel. Transverse members (rungs) or corrugated bottoms shall be welded to the side rails with Type 316 stainless steel welding wire. Hardware shall be AISI Type 316 stainless steel.
- 2.03 Ladder Cable Trays shall consist of two longitudinal members (side rails) with transverse members (rungs) welded to the side rails. Rungs shall be spaced [6] [9] [12] inches apart. Rung spacing in radiused fittings shall be industry standard 9" and measured at the center of the tray's width. Each rung must be capable of supporting a 200 lb. concentrated load at the center of the cable tray with a safety factor of 1.5.
- 2.04 Cable tray loading depth shall be [3] [4] [5] inches per NEMA VE 1.
- 2.05 Straight sections shall be fabricated as I-beams. Straight sections shall be supplied in standard [12 foot] [24 foot] [10 foot (3 m)] [20 foot (6 m)] lengths.
- 2.06 Cable tray widths shall be [6] [9] [12] [18] [24] [30] [36] inches or as shown on drawings.
- 2.07 Splice plates shall be manufactured of high strength steel and be secured with 8 nuts and bolts per plate. The resistance of fixed splice connections between an adjacent section of tray shall not exceed 0.00033 ohm.
- 2.08 All fittings must have a minimum radius of [12] [24] [36] [48] inches.

## Section 3- Loading Capacities and Testing

- 3.01 Cable tray shall be capable of carrying a uniformly distributed load of \_\_\_\_\_ lbs./ft. on a \_\_\_\_\_ ft. support span with a safety factor of 1.5 when supported as a simple span and tested per NEMA VE 1 5.2. In addition to the uniformly distributed load the cable tray shall support 200 lbs. concentrated load at mid-point of span. Load and safety factors specified are applicable to both the side rails and rung capacities. Cable tray shall be made to manufacturing tolerances as specified by NEMA.
- 3.02 Upon request, manufacturer shall provide test reports in accordance with the latest revision of NEMA VE 1 or CSA C22.2 No. 126.



Series 2, 3, 4, & 5 Fittings



### 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 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:**                    5    G   - 09   - 90   HB   24

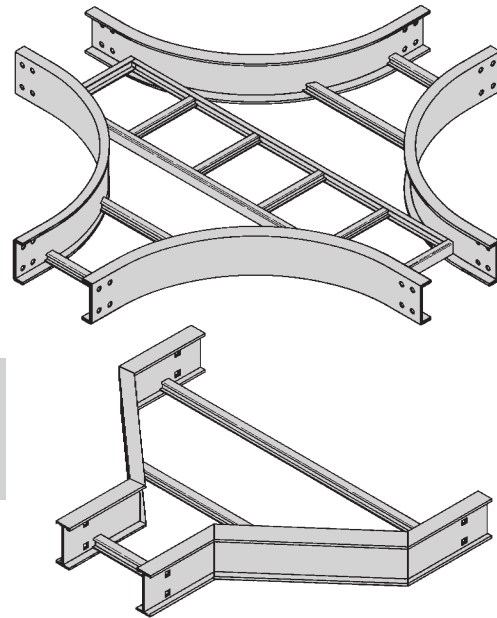
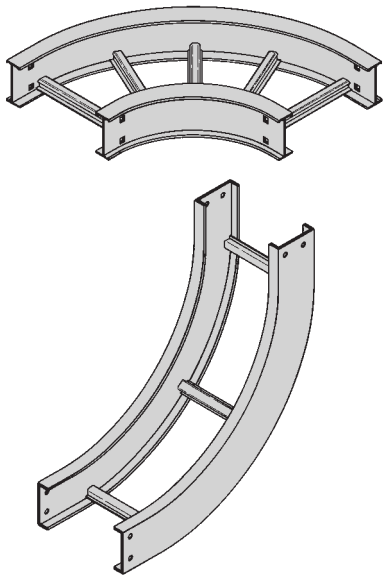
●     ●     ●     ●     ●     ●

**Part will have a long lead time because of the G material.**

Changing the part number from G to A or P will change the coding to black and reduce lead time.



# Series 2, 3, 4, & 5 - Fittings



Fittings engineered with 3" tangents for splicing integrity.

## Fittings Part Numbering

Example: **4 A - 24 - 90 HB 24** (9" rung spacing is standard)

| Side Rail Height | Material                    | Width            | Angle      | Type                            | Radius            |
|------------------|-----------------------------|------------------|------------|---------------------------------|-------------------|
| ● 4 = 4" (101)   | ● A = Aluminum              | ● 06 = 6" (152)  | ● 30 = 30° | ● HB = Horizontal Bend          | ● 12 = 12" (305)  |
| ● 5 = 5" (127)   | ● G = HDGAF                 | ● 09 = 9" (228)  | ● 45 = 45° | ● HT = Horizontal Tee           | ● 24 = 24" (609)  |
| ● 6 = 6" (152)   | ● P = Pre-Galvanized        | ● 12 = 12" (305) | ● 60 = 60° | ● HX = Horizontal Cross         | ● 36 = 36" (914)  |
| ● 7 = 7" (178)   | ● SS4 = 304 Stainless Steel | ● 18 = 18" (457) | ● 90 = 90° | ● VI = Vertical Inside Bend     | ● 48 = 48" (1219) |
|                  | ● SS6 = 316 Stainless Steel | ● 24 = 24" (609) |            | ● VO = Vertical Outside Bend    |                   |
|                  |                             | ● 30 = 30" (762) |            | ● VT = Vertical Tee             |                   |
|                  |                             | ● 36 = 36" (914) |            | ● VTU = Vertical Tee, Up        |                   |
|                  |                             |                  |            | ● HYR = Horizontal Wye, Right   |                   |
|                  |                             |                  |            | ● HYL = Horizontal Wye, Left    |                   |
|                  |                             |                  |            | ● CSF = Cable Support Fitting   |                   |
|                  |                             |                  |            | ● LR = Left Reducer Fitting     |                   |
|                  |                             |                  |            | ● RR = Right Reducer Fitting    |                   |
|                  |                             |                  |            | ● SR = Straight Reducer Fitting |                   |

See page APP-2 for 6" fittings with 9A-6006 and 9A-6007 splice plates.

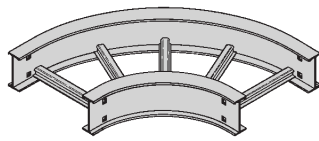
### For flat Solid Bottom: Available 6" and Wider

Prefix  
**5PSB - 24 - 90HB24**  
 Solid Bottom

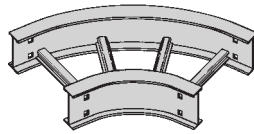
Note: Horizontal crosses and tees 30" or wider, with a radius of 36" or larger, will be of two-piece construction.

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

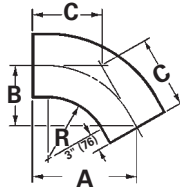
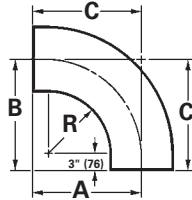
All dimensions in parentheses are millimeters unless otherwise specified.



90° Horizontal Bend



60° Horizontal Bend



**Horizontal Bend 90° 60° (HB)**

1 pair splice plates with hardware included.

**Bottoms manufactured:**

- Ladder = 9" Rung Spacing
- VT & 04 = 4" Rung Spacing
- ST & SB = Flat sheet over 12" Rung Spacing

| Bend Radius R<br>in. (mm) | Tray Width<br>in. (mm) | 90° Horizontal Bend Dimensions |                                       |                                       |                                       | 60° Horizontal Bend Dimensions        |   |   |  |
|---------------------------|------------------------|--------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---|---|--|
|                           |                        | Catalog No.                    | A<br>in. (mm)                         | B<br>in. (mm)                         | C<br>in. (mm)                         | Catalog No.                           | A<br>in. (mm)                           | B<br>in. (mm)                           | C<br>in. (mm)                          |
| 12 (305)                  | 6 (152)                | (Pre)-06-90HB12                | 18 (457)                              | 18 (457)                              | 18 (457)                              | (Pre)-06-60HB12                       | 17 <sup>1</sup> / <sub>2</sub> (445)    | 10 <sup>1</sup> / <sub>8</sub> (257)    | 11 <sup>11</sup> / <sub>16</sub> (297) |
|                           | 9 (228)                | (Pre)-09-90HB12                | 19 <sup>1</sup> / <sub>2</sub> (495)  | 19 <sup>1</sup> / <sub>2</sub> (495)  | 19 <sup>1</sup> / <sub>2</sub> (495)  | (Pre)-09-60HB12                       | 18 <sup>3</sup> / <sub>16</sub> (478)   | 10 <sup>7</sup> / <sub>8</sub> (276)    | 12 <sup>1</sup> / <sub>2</sub> (318)   |
|                           | 12 (305)               | (Pre)-12-90HB12                | 21 (533)                              | 21 (533)                              | 21 (533)                              | (Pre)-12-60HB12                       | 20 <sup>1</sup> / <sub>16</sub> (510)   | 11 <sup>5</sup> / <sub>8</sub> (295)    | 13 <sup>3</sup> / <sub>8</sub> (340)   |
|                           | 18 (457)               | (Pre)-18-90HB12                | 24 (610)                              | 24 (610)                              | 24 (610)                              | (Pre)-18-60HB12                       | 22 <sup>11</sup> / <sub>16</sub> (576)  | 13 <sup>3</sup> / <sub>8</sub> (333)    | 15 <sup>1</sup> / <sub>8</sub> (384)   |
|                           | 24 (609)               | (Pre)-24-90HB12                | 27 (686)                              | 27 (686)                              | 27 (686)                              | (Pre)-24-60HB12                       | 25 <sup>5</sup> / <sub>16</sub> (643)   | 14 <sup>5</sup> / <sub>8</sub> (372)    | 16 <sup>7</sup> / <sub>8</sub> (429)   |
|                           | 30 (762)               | (Pre)-30-90HB12                | 30 (762)                              | 30 (762)                              | 30 (762)                              | (Pre)-30-60HB12                       | 27 <sup>7</sup> / <sub>8</sub> (708)    | 16 <sup>1</sup> / <sub>8</sub> (410)    | 18 <sup>9</sup> / <sub>16</sub> (472)  |
|                           | 36 (914)               | (Pre)-36-90HB12                | 33 (838)                              | 33 (838)                              | 33 (838)                              | (Pre)-36-60HB12                       | 30 <sup>1</sup> / <sub>2</sub> (775)    | 17 <sup>5</sup> / <sub>8</sub> (448)    | 20 <sup>5</sup> / <sub>16</sub> (516)  |
| 42 (1067)                 | (Pre)-42-90HB12        | 36 (914)                       | 36 (914)                              | 36 (914)                              | (Pre)-42-60HB12                       | 33 <sup>1</sup> / <sub>16</sub> 840   | 19 <sup>1</sup> / <sub>8</sub> (486)    | 22 <sup>1</sup> / <sub>16</sub> (560)   |  |
| 24 (610)                  | 6 (152)                | (Pre)-06-90HB24                | 30 (762)                              | 30 (762)                              | 30 (762)                              | (Pre)-06-60HB24                       | 27 <sup>7</sup> / <sub>8</sub> (708)    | 16 <sup>1</sup> / <sub>8</sub> (410)    | 18 <sup>9</sup> / <sub>16</sub> (472)  |
|                           | 9 (228)                | (Pre)-09-90HB24                | 31 <sup>1</sup> / <sub>2</sub> (800)  | 31 <sup>1</sup> / <sub>2</sub> (800)  | 31 <sup>1</sup> / <sub>2</sub> (800)  | (Pre)-09-60HB24                       | 29 <sup>9</sup> / <sub>16</sub> (741)   | 16 <sup>7</sup> / <sub>8</sub> (429)    | 19 <sup>7</sup> / <sub>16</sub> (494)  |
|                           | 12 (305)               | (Pre)-12-90HB24                | 33 (838)                              | 33 (838)                              | 33 (838)                              | (Pre)-12-60HB24                       | 30 <sup>1</sup> / <sub>2</sub> (775)    | 17 <sup>5</sup> / <sub>8</sub> (448)    | 20 <sup>5</sup> / <sub>16</sub> (516)  |
|                           | 18 (457)               | (Pre)-18-90HB24                | 36 (914)                              | 36 (914)                              | 36 (914)                              | (Pre)-18-60HB24                       | 33 <sup>1</sup> / <sub>16</sub> (708)   | 19 <sup>1</sup> / <sub>8</sub> (486)    | 22 <sup>1</sup> / <sub>16</sub> (560)  |
|                           | 24 (609)               | (Pre)-24-90HB24                | 39 (991)                              | 39 (991)                              | 39 (991)                              | (Pre)-24-60HB24                       | 35 <sup>11</sup> / <sub>16</sub> (907)  | 20 <sup>5</sup> / <sub>8</sub> (524)    | 23 <sup>3</sup> / <sub>16</sub> (605)  |
|                           | 30 (762)               | (Pre)-30-90HB24                | 42 (1067)                             | 42 (1067)                             | 42 (1067)                             | (Pre)-30-60HB24                       | 38 <sup>1</sup> / <sub>4</sub> (972)    | 22 <sup>1</sup> / <sub>8</sub> (564)    | 25 <sup>1</sup> / <sub>2</sub> (648)   |
|                           | 36 (914)               | (Pre)-36-90HB24                | 45 (1143)                             | 45 (1143)                             | 45 (1143)                             | (Pre)-36-60HB24                       | 40 <sup>7</sup> / <sub>8</sub> (1038)   | 23 <sup>3</sup> / <sub>8</sub> (600)    | 27 <sup>1</sup> / <sub>4</sub> (692)   |
| 42 (1067)                 | (Pre)-42-90HB24        | 48 (1219)                      | 48 (1219)                             | 48 (1219)                             | (Pre)-42-60HB24                       | 43 <sup>1</sup> / <sub>2</sub> (1105) | 25 <sup>1</sup> / <sub>8</sub> (638)    | 29 (737)                                |  |
| 36 (914)                  | 6 (152)                | (Pre)-06-90HB36                | 42 (1067)                             | 42 (1067)                             | (1067) (1067)                         | (Pre)-06-60HB36                       | 38 <sup>1</sup> / <sub>4</sub> (971)    | 22 <sup>1</sup> / <sub>8</sub> (562)    | 25 <sup>1</sup> / <sub>2</sub> (648)   |
|                           | 9 (228)                | (Pre)-09-90HB36                | 43 <sup>1</sup> / <sub>2</sub> (1105) | 43 <sup>1</sup> / <sub>2</sub> (1105) | 43 <sup>1</sup> / <sub>2</sub> (1105) | (Pre)-09-60HB36                       | 39 <sup>9</sup> / <sub>16</sub> (1005)  | 22 <sup>7</sup> / <sub>8</sub> (581)    | 26 <sup>3</sup> / <sub>8</sub> (670)   |
|                           | 12 (305)               | (Pre)-12-90HB36                | 45 (1143)                             | 45 (1143)                             | 45 (1143)                             | (Pre)-12-60HB36                       | 40 <sup>7</sup> / <sub>8</sub> (1038)   | 23 <sup>3</sup> / <sub>8</sub> (600)    | 27 <sup>1</sup> / <sub>4</sub> (692)   |
|                           | 18 (457)               | (Pre)-18-90HB36                | 48 (1219)                             | 48 (1219)                             | 48 (1219)                             | (Pre)-18-60HB36                       | 43 <sup>1</sup> / <sub>2</sub> (1105)   | 25 <sup>1</sup> / <sub>8</sub> (638)    | 29 (737)                               |
|                           | 24 (609)               | (Pre)-24-90HB36                | 51 (1295)                             | 51 (1295)                             | 51 (1295)                             | (Pre)-24-60HB36                       | 46 <sup>1</sup> / <sub>16</sub> (1170)  | 26 <sup>5</sup> / <sub>8</sub> (676)    | 30 <sup>11</sup> / <sub>16</sub> (780) |
|                           | 30 (762)               | (Pre)-30-90HB36                | 54 (1372)                             | 54 (1372)                             | 54 (1372)                             | (Pre)-30-60HB36                       | 48 <sup>1</sup> / <sub>16</sub> (1237)  | 28 <sup>3</sup> / <sub>8</sub> (714)    | 32 <sup>7</sup> / <sub>16</sub> (824)  |
|                           | 36 (914)               | (Pre)-36-90HB36                | 57 (1448)                             | 57 (1448)                             | 57 (1448)                             | (Pre)-36-60HB36                       | 51 <sup>1</sup> / <sub>4</sub> (1302)   | 29 <sup>5</sup> / <sub>8</sub> (753)    | 34 <sup>3</sup> / <sub>16</sub> (869)  |
| 42 (1067)                 | (Pre)-42-90HB36        | 60 (1524)                      | 60 (1524)                             | 60 (1524)                             | (Pre)-42-60HB36                       | 53 <sup>7</sup> / <sub>8</sub> (1368) | 31 <sup>1</sup> / <sub>8</sub> (791)    | 35 <sup>15</sup> / <sub>16</sub> (913)  |  |
| 48 (1220)                 | 6 (152)                | (Pre)-06-90HB48                | 54 (1372)                             | 54 (1372)                             | 54 (1372)                             | (Pre)-06-60HB48                       | 48 <sup>1</sup> / <sub>16</sub> (1221)  | 28 <sup>3</sup> / <sub>8</sub> (715)    | 32 <sup>11</sup> / <sub>16</sub> (830) |
|                           | 9 (228)                | (Pre)-09-90HB48                | 55 <sup>1</sup> / <sub>2</sub> (1410) | 55 <sup>1</sup> / <sub>2</sub> (1410) | 55 <sup>1</sup> / <sub>2</sub> (1410) | (Pre)-09-60HB48                       | 49 <sup>15</sup> / <sub>16</sub> (1268) | 28 <sup>7</sup> / <sub>8</sub> (734)    | 33 <sup>5</sup> / <sub>16</sub> (846)  |
|                           | 12 (305)               | (Pre)-12-90HB48                | 57 (1448)                             | 57 (1448)                             | 57 (1448)                             | (Pre)-12-60HB48                       | 51 <sup>1</sup> / <sub>4</sub> (1302)   | 29 <sup>5</sup> / <sub>8</sub> (753)    | 34 <sup>3</sup> / <sub>16</sub> (869)  |
|                           | 18 (457)               | (Pre)-18-90HB48                | 60 (1524)                             | 60 (1524)                             | 60 (1524)                             | (Pre)-18-60HB48                       | 53 <sup>7</sup> / <sub>8</sub> (1368)   | 31 <sup>1</sup> / <sub>8</sub> (737)    | 35 <sup>15</sup> / <sub>16</sub> (913) |
|                           | 24 (609)               | (Pre)-24-90HB48                | 63 (1600)                             | 63 (1600)                             | 63 (1600)                             | (Pre)-24-60HB48                       | 56 <sup>7</sup> / <sub>16</sub> (1434)  | 32 <sup>5</sup> / <sub>8</sub> (829)    | 37 <sup>3</sup> / <sub>8</sub> (956)   |
|                           | 30 (762)               | (Pre)-30-90HB48                | 66 (1676)                             | 66 (1676)                             | 66 (1676)                             | (Pre)-30-60HB48                       | 59 <sup>1</sup> / <sub>16</sub> (1500)  | 34 <sup>1</sup> / <sub>8</sub> (867)    | 39 <sup>3</sup> / <sub>8</sub> (1000)  |
|                           | 36 (914)               | (Pre)-36-90HB48                | 69 (1753)                             | 69 (1753)                             | 69 (1753)                             | (Pre)-36-60HB48                       | 61 <sup>11</sup> / <sub>16</sub> (1567) | 35 <sup>5</sup> / <sub>8</sub> (905)    | 41 <sup>1</sup> / <sub>8</sub> (1045)  |
| 42 (1067)                 | (Pre)-42-90HB48        | 72 (1829)                      | 72 (1829)                             | 72 (1829)                             | (Pre)-42-60HB48                       | 64 <sup>1</sup> / <sub>4</sub> (1632) | 37 <sup>1</sup> / <sub>8</sub> (943)    | 42 <sup>13</sup> / <sub>16</sub> (1087) |  |

Series 2, 3, 4, & 5 Fittings

**(PRE) = Prefix. See page L-3 for catalog number prefix.**

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

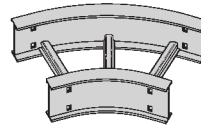
# Series 2, 3, 4, & 5 - Fittings

## Horizontal Bend 45° 30° (HB)

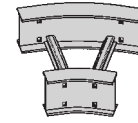
1 pair splice plates with hardware included.

### Bottoms manufactured:

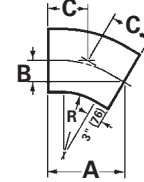
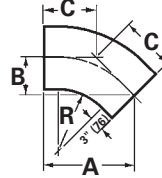
- Ladder = 9" Rung Spacing
- VT & 04 = 4" Rung Spacing
- ST & SB = Flat sheet over 12" Rung Spacing



45° Horizontal Bend



30° Horizontal Bend



| Bend Radius R<br>in. (mm) | Tray Width<br>in. (mm) | 45° Horizontal Bend                     |   |  |  | 30° Horizontal Bend                   |                                       |  |  |
|---------------------------|------------------------|---|---|--|--|---------------------------------------|---------------------------------------|--|--|
|                           |                        | Catalog No.                             | A<br>in. (mm)                           | B<br>in. (mm)                          | C<br>in. (mm)                          | Catalog No.                           | A<br>in. (mm)                         | B<br>in. (mm)                          | C<br>in. (mm)                          |
| 12 (305)                  | 6 (152)                | (Pre)-06-45HB12                         | 15 <sup>3</sup> / <sub>4</sub> (400)    | 6 <sup>1</sup> / <sub>2</sub> (165)    | 9 <sup>3</sup> / <sub>16</sub> (233)   | (Pre)-06-30HB12                       | 13 <sup>1</sup> / <sub>8</sub> (333)  | 3 <sup>1</sup> / <sub>2</sub> (89)     | 7 (179)                                |
|                           | 9 (228)                | (Pre)-09-45HB12                         | 16 <sup>13</sup> / <sub>16</sub> (427)  | 6 <sup>15</sup> / <sub>16</sub> (176)  | 9 <sup>13</sup> / <sub>16</sub> (249)  | (Pre)-09-30HB12                       | 13 <sup>7</sup> / <sub>8</sub> (352)  | 3 <sup>11</sup> / <sub>16</sub> (94)   | 7 <sup>7</sup> / <sub>16</sub> (189)   |
|                           | 12 (305)               | (Pre)-12-45HB12                         | 17 <sup>7</sup> / <sub>8</sub> (454)    | 7 <sup>3</sup> / <sub>8</sub> (187)    | 10 <sup>7</sup> / <sub>16</sub> (265)  | (Pre)-12-30HB12                       | 14 <sup>5</sup> / <sub>8</sub> (372)  | 3 <sup>15</sup> / <sub>16</sub> (100)  | 7 <sup>13</sup> / <sub>16</sub> (198)  |
|                           | 18 (457)               | (Pre)-18-45HB12                         | 20 (508)                                | 8 <sup>1</sup> / <sub>4</sub> (210)    | 11 <sup>11</sup> / <sub>16</sub> (297) | (Pre)-18-30HB12                       | 16 <sup>1</sup> / <sub>8</sub> (410)  | 4 <sup>5</sup> / <sub>16</sub> (135)   | 8 <sup>5</sup> / <sub>8</sub> (219)    |
|                           | 24 (609)               | (Pre)-24-45HB12                         | 22 <sup>1</sup> / <sub>16</sub> (560)   | 9 <sup>1</sup> / <sub>8</sub> (232)    | 12 <sup>15</sup> / <sub>16</sub> (329) | (Pre)-24-30HB12                       | 17 <sup>5</sup> / <sub>8</sub> (448)  | 4 <sup>11</sup> / <sub>16</sub> (119)  | 9 <sup>7</sup> / <sub>16</sub> (240)   |
|                           | 30 (762)               | (Pre)-30-45HB12                         | 24 <sup>3</sup> / <sub>16</sub> (614)   | 10 (254)                               | 14 <sup>3</sup> / <sub>16</sub> (360)  | (Pre)-30-30HB12                       | 19 <sup>1</sup> / <sub>8</sub> (486)  | 5 <sup>1</sup> / <sub>8</sub> (130)    | 10 <sup>1</sup> / <sub>4</sub> (260)   |
|                           | 36 (914)               | (Pre)-36-45HB12                         | 26 <sup>5</sup> / <sub>16</sub> (668)   | 10 <sup>15</sup> / <sub>16</sub> (278) | 15 <sup>7</sup> / <sub>16</sub> (392)  | (Pre)-36-30HB12                       | 20 <sup>5</sup> / <sub>8</sub> (524)  | 5 <sup>1</sup> / <sub>2</sub> (140)    | 11 <sup>1</sup> / <sub>16</sub> (281)  |
| 42 (1067)                 | (Pre)-42-45HB12        | 28 <sup>7</sup> / <sub>16</sub> (722)   | 11 <sup>13</sup> / <sub>16</sub> (300)  | 16 <sup>11</sup> / <sub>16</sub> (424) | (Pre)-42-30HB12                        | 22 <sup>1</sup> / <sub>8</sub> (562)  | 5 <sup>15</sup> / <sub>16</sub> (151) | 11 <sup>13</sup> / <sub>16</sub> (300) |  |
| 24 (610)                  | 6 (152)                | (Pre)-06-45HB24                         | 24 <sup>3</sup> / <sub>16</sub> (614)   | 10 (254)                               | 14 <sup>3</sup> / <sub>16</sub> (360)  | (Pre)-06-30HB24                       | 19 <sup>1</sup> / <sub>8</sub> (486)  | 5 <sup>1</sup> / <sub>8</sub> (130)    | 10 <sup>1</sup> / <sub>4</sub> (260)   |
|                           | 9 (228)                | (Pre)-09-45HB24                         | 25 <sup>1</sup> / <sub>4</sub> (641)    | 10 <sup>1</sup> / <sub>2</sub> (267)   | 14 <sup>13</sup> / <sub>16</sub> (376) | (Pre)-09-30HB24                       | 19 <sup>7</sup> / <sub>8</sub> (505)  | 5 <sup>5</sup> / <sub>16</sub> (135)   | 10 <sup>5</sup> / <sub>8</sub> (270)   |
|                           | 12 (305)               | (Pre)-12-45HB24                         | 26 <sup>5</sup> / <sub>16</sub> (668)   | 10 <sup>15</sup> / <sub>16</sub> (278) | 15 <sup>7</sup> / <sub>16</sub> (392)  | (Pre)-12-30HB24                       | 20 <sup>5</sup> / <sub>8</sub> (524)  | 5 <sup>1</sup> / <sub>2</sub> (140)    | 11 <sup>1</sup> / <sub>16</sub> (281)  |
|                           | 18 (457)               | (Pre)-18-45HB24                         | 28 <sup>7</sup> / <sub>16</sub> (722)   | 11 <sup>13</sup> / <sub>16</sub> (300) | 16 <sup>11</sup> / <sub>16</sub> (424) | (Pre)-18-30HB24                       | 22 <sup>1</sup> / <sub>8</sub> (562)  | 5 <sup>15</sup> / <sub>16</sub> (151)  | 11 <sup>13</sup> / <sub>16</sub> (300) |
|                           | 24 (609)               | (Pre)-24-45HB24                         | 30 <sup>9</sup> / <sub>16</sub> (766)   | 12 <sup>11</sup> / <sub>16</sub> (322) | 17 <sup>15</sup> / <sub>16</sub> (456) | (Pre)-24-30HB24                       | 23 <sup>5</sup> / <sub>8</sub> (600)  | 6 <sup>5</sup> / <sub>16</sub> (160)   | 12 <sup>5</sup> / <sub>8</sub> (321)   |
|                           | 30 (762)               | (Pre)-30-45HB24                         | 32 <sup>11</sup> / <sub>16</sub> (830)  | 13 <sup>9</sup> / <sub>16</sub> (344)  | 19 <sup>1</sup> / <sub>8</sub> (486)   | (Pre)-30-30HB24                       | 25 <sup>1</sup> / <sub>8</sub> (638)  | 6 <sup>3</sup> / <sub>4</sub> (172)    | 13 <sup>7</sup> / <sub>16</sub> (341)  |
|                           | 36 (914)               | (Pre)-36-45HB24                         | 34 <sup>13</sup> / <sub>16</sub> (884)  | 14 <sup>7</sup> / <sub>16</sub> (367)  | 20 <sup>3</sup> / <sub>8</sub> (518)   | (Pre)-36-30HB24                       | 26 <sup>5</sup> / <sub>8</sub> (676)  | 7 <sup>1</sup> / <sub>8</sub> (181)    | 14 <sup>1</sup> / <sub>4</sub> (362)   |
| 42 (1067)                 | (Pre)-42-45HB24        | 36 <sup>15</sup> / <sub>16</sub> (938)  | 15 <sup>5</sup> / <sub>16</sub> (389)   | 21 <sup>5</sup> / <sub>8</sub> (549)   | (Pre)-42-30HB24                        | 28 <sup>1</sup> / <sub>8</sub> (715)  | 7 <sup>1</sup> / <sub>2</sub> (191)   | 15 <sup>1</sup> / <sub>16</sub> (383)  |  |
| 36 (914)                  | 6 (152)                | (Pre)-06-45HB36                         | 32 <sup>11</sup> / <sub>16</sub> (830)  | 13 <sup>9</sup> / <sub>16</sub> (344)  | 19 <sup>1</sup> / <sub>8</sub> (486)   | (Pre)-06-30HB36                       | 25 <sup>1</sup> / <sub>8</sub> (638)  | 6 <sup>3</sup> / <sub>4</sub> (171)    | 13 <sup>7</sup> / <sub>16</sub> (341)  |
|                           | 9 (228)                | (Pre)-09-45HB36                         | 33 <sup>3</sup> / <sub>4</sub> (857)    | 14 (356)                               | 19 <sup>3</sup> / <sub>4</sub> (502)   | (Pre)-09-30HB36                       | 25 <sup>7</sup> / <sub>8</sub> (657)  | 6 <sup>15</sup> / <sub>16</sub> (176)  | 13 <sup>3</sup> / <sub>8</sub> (352)   |
|                           | 12 (305)               | (Pre)-12-45HB36                         | 34 <sup>13</sup> / <sub>16</sub> (884)  | 14 <sup>7</sup> / <sub>16</sub> (367)  | 20 <sup>3</sup> / <sub>8</sub> (518)   | (Pre)-12-30HB36                       | 26 <sup>5</sup> / <sub>8</sub> (676)  | 7 <sup>1</sup> / <sub>8</sub> (181)    | 14 <sup>1</sup> / <sub>4</sub> (362)   |
|                           | 18 (457)               | (Pre)-18-45HB36                         | 36 <sup>15</sup> / <sub>16</sub> (938)  | 15 <sup>5</sup> / <sub>16</sub> (389)  | 21 <sup>5</sup> / <sub>8</sub> (549)   | (Pre)-18-30HB36                       | 28 <sup>1</sup> / <sub>8</sub> (715)  | 7 <sup>1</sup> / <sub>2</sub> (191)    | 15 <sup>1</sup> / <sub>16</sub> (383)  |
|                           | 24 (609)               | (Pre)-24-45HB36                         | 39 <sup>1</sup> / <sub>16</sub> (992)   | 16 <sup>3</sup> / <sub>16</sub> (411)  | 22 <sup>7</sup> / <sub>8</sub> (581)   | (Pre)-24-30HB36                       | 29 <sup>5</sup> / <sub>8</sub> (753)  | 7 <sup>15</sup> / <sub>16</sub> (202)  | 15 <sup>7</sup> / <sub>8</sub> (403)   |
|                           | 30 (762)               | (Pre)-30-45HB36                         | 41 <sup>3</sup> / <sub>16</sub> (1046)  | 17 <sup>1</sup> / <sub>16</sub> (433)  | 24 <sup>1</sup> / <sub>8</sub> (613)   | (Pre)-30-30HB36                       | 31 <sup>1</sup> / <sub>8</sub> (790)  | 8 <sup>5</sup> / <sub>16</sub> (211)   | 16 <sup>11</sup> / <sub>16</sub> (424) |
|                           | 36 (914)               | (Pre)-36-45HB36                         | 43 <sup>5</sup> / <sub>16</sub> (1100)  | 17 <sup>15</sup> / <sub>16</sub> (456) | 25 <sup>3</sup> / <sub>8</sub> (645)   | (Pre)-36-30HB36                       | 32 <sup>5</sup> / <sub>8</sub> (829)  | 8 <sup>3</sup> / <sub>4</sub> (222)    | 17 <sup>1</sup> / <sub>2</sub> (445)   |
| 42 (1067)                 | (Pre)-42-45HB36        | 45 <sup>7</sup> / <sub>16</sub> (1154)  | 18 <sup>13</sup> / <sub>16</sub> (478)  | 26 <sup>5</sup> / <sub>8</sub> (676)   | (Pre)-42-30HB36                        | 34 <sup>1</sup> / <sub>8</sub> (867)  | 9 <sup>1</sup> / <sub>8</sub> (232)   | 18 <sup>1</sup> / <sub>4</sub> (464)   |  |
| 48 (1220)                 | 6 (152)                | (Pre)-06-45HB48                         | 41 <sup>3</sup> / <sub>16</sub> (1046)  | 17 <sup>1</sup> / <sub>16</sub> (433)  | 24 <sup>1</sup> / <sub>8</sub> (613)   | (Pre)-06-30HB48                       | 31 <sup>1</sup> / <sub>8</sub> (791)  | 8 <sup>5</sup> / <sub>16</sub> (211)   | 16 <sup>11</sup> / <sub>16</sub> (424) |
|                           | 9 (228)                | (Pre)-09-45HB48                         | 42 <sup>1</sup> / <sub>4</sub> (1073)   | 17 <sup>1</sup> / <sub>2</sub> (445)   | 24 <sup>3</sup> / <sub>4</sub> (629)   | (Pre)-09-30HB48                       | 31 <sup>7</sup> / <sub>8</sub> (810)  | 8 <sup>9</sup> / <sub>16</sub> (218)   | 17 <sup>1</sup> / <sub>16</sub> (433)  |
|                           | 12 (305)               | (Pre)-12-45HB48                         | 43 <sup>5</sup> / <sub>16</sub> (1100)  | 17 <sup>15</sup> / <sub>16</sub> (456) | 25 <sup>3</sup> / <sub>8</sub> (645)   | (Pre)-12-30HB48                       | 32 <sup>5</sup> / <sub>8</sub> (829)  | 8 <sup>3</sup> / <sub>4</sub> (222)    | 17 <sup>1</sup> / <sub>2</sub> (445)   |
|                           | 18 (457)               | (Pre)-18-45HB48                         | 45 <sup>7</sup> / <sub>16</sub> (1154)  | 18 <sup>13</sup> / <sub>16</sub> (487) | 26 <sup>5</sup> / <sub>8</sub> (676)   | (Pre)-18-30HB48                       | 34 <sup>1</sup> / <sub>8</sub> (867)  | 9 <sup>1</sup> / <sub>8</sub> (232)    | 18 <sup>1</sup> / <sub>4</sub> (464)   |
|                           | 24 (609)               | (Pre)-24-45HB48                         | 47 <sup>9</sup> / <sub>16</sub> (1208)  | 19 <sup>11</sup> / <sub>16</sub> (500) | 27 <sup>7</sup> / <sub>8</sub> (708)   | (Pre)-24-30HB48                       | 35 <sup>5</sup> / <sub>8</sub> (905)  | 9 <sup>9</sup> / <sub>16</sub> (243)   | 19 <sup>1</sup> / <sub>16</sub> (484)  |
|                           | 30 (762)               | (Pre)-30-45HB48                         | 49 <sup>11</sup> / <sub>16</sub> (1262) | 20 <sup>9</sup> / <sub>16</sub> (522)  | 29 <sup>1</sup> / <sub>8</sub> (740)   | (Pre)-30-30HB48                       | 37 <sup>1</sup> / <sub>8</sub> (943)  | 9 <sup>15</sup> / <sub>16</sub> (252)  | 19 <sup>7</sup> / <sub>8</sub> (505)   |
|                           | 36 (914)               | (Pre)-36-45HB48                         | 51 <sup>13</sup> / <sub>16</sub> (1316) | 21 <sup>7</sup> / <sub>16</sub> (545)  | 30 <sup>5</sup> / <sub>16</sub> (770)  | (Pre)-36-30HB48                       | 38 <sup>5</sup> / <sub>8</sub> (981)  | 10 <sup>5</sup> / <sub>16</sub> (262)  | 20 <sup>11</sup> / <sub>16</sub> (525) |
| 42 (1067)                 | (Pre)-42-45HB48        | 54 <sup>15</sup> / <sub>16</sub> (1395) | 22 <sup>5</sup> / <sub>16</sub> (567)   | 31 <sup>9</sup> / <sub>16</sub> (802)  | (Pre)-42-30HB48                        | 40 <sup>1</sup> / <sub>8</sub> (1019) | 10 <sup>3</sup> / <sub>4</sub> (273)  | 21 <sup>1</sup> / <sub>2</sub> (546)   |  |

(Pre) See page L-3 for catalog number prefix.

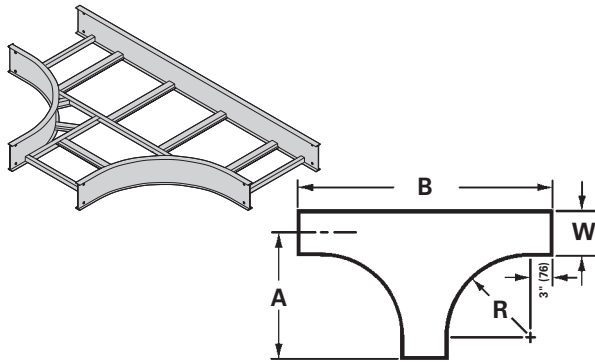
Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

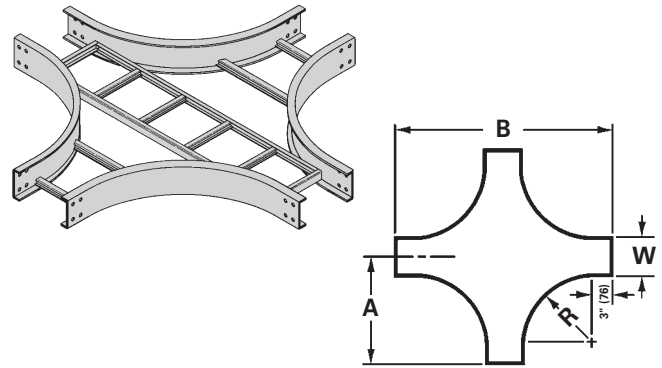
### Horizontal Tee (HT)

2 pair splice plates with hardware included.



### Horizontal Cross (HX)

3 pair splice plates with hardware included.



| Bend Radius<br>R | Tray Width<br>in. (mm) | Horizontal Tee   |            |            | Horizontal Cross |            |            |
|------------------|------------------------|------------------|------------|------------|------------------|------------|------------|
|                  |                        | Catalog Number   | Dimensions |            | Catalog Number   | Dimensions |            |
|                  |                        |                  | in.        | (mm)       |                  | in.        | (mm)       |
| 12 (305)         | 6 (152)                | (Prefix)-06-HT12 | 18 (457)   | 36 (914)   | (Prefix)-06-HX12 | 18 (457)   | 36 (914)   |
|                  | 9 (229)                | (Prefix)-09-HT12 | 19½ (496)  | 39 (991)   | (Prefix)-09-HX12 | 19½ (496)  | 39 (991)   |
|                  | 12 (305)               | (Prefix)-12-HT12 | 21 (533)   | 42 (1067)  | (Prefix)-12-HX12 | 21 (533)   | 42 (1067)  |
|                  | 18 (457)               | (Prefix)-18-HT12 | 24 (609)   | 48 (1219)  | (Prefix)-18-HX12 | 24 (609)   | 48 (1219)  |
|                  | 24 (609)               | (Prefix)-24-HT12 | 27 (686)   | 54 (1372)  | (Prefix)-24-HX12 | 27 (686)   | 54 (1372)  |
|                  | 30 (762)               | (Prefix)-30-HT12 | 30 (762)   | 60 (1524)  | (Prefix)-30-HX12 | 30 (762)   | 60 (1524)  |
|                  | 36 (914)               | (Prefix)-36-HT12 | 33 (838)   | 66 (1676)  | (Prefix)-36-HX12 | 33 (838)   | 66 (1676)  |
| 24 (610)         | 42 (1067)              | (Prefix)-42-HT12 | 36 (914)   | 72 (1829)  | (Prefix)-42-HX12 | 36 (914)   | 72 (1829)  |
|                  | 6 (152)                | (Prefix)-06-HT24 | 30 (762)   | 60 (1524)  | (Prefix)-06-HX24 | 30 (762)   | 60 (1524)  |
|                  | 9 (229)                | (Prefix)-09-HT24 | 31½ (800)  | 63 (1600)  | (Prefix)-09-HX24 | 31½ (800)  | 63 (1600)  |
|                  | 12 (305)               | (Prefix)-12-HT24 | 33 (838)   | 66 (1676)  | (Prefix)-12-HX24 | 33 (838)   | 66 (1676)  |
|                  | 18 (457)               | (Prefix)-18-HT24 | 36 (914)   | 72 (1829)  | (Prefix)-18-HX24 | 36 (914)   | 72 (1829)  |
|                  | 24 (609)               | (Prefix)-24-HT24 | 39 (991)   | 78 (1982)  | (Prefix)-24-HX24 | 39 (991)   | 78 (1982)  |
|                  | 30 (762)               | (Prefix)-30-HT24 | 42 (1067)  | 84 (2134)  | (Prefix)-30-HX24 | 42 (1067)  | 84 (2134)  |
| 36 (914)         | 36 (914)               | (Prefix)-36-HT24 | 45 (1143)  | 90 (2286)  | (Prefix)-36-HX24 | 45 (1143)  | 90 (2286)  |
|                  | 42 (1067)              | (Prefix)-42-HT24 | 48 (1219)  | 96 (2438)  | (Prefix)-42-HX24 | 48 (1219)  | 96 (2438)  |
|                  | 6 (152)                | (Prefix)-06-HT36 | 42 (1067)  | 84 (2134)  | (Prefix)-06-HX36 | 42 (1067)  | 84 (2134)  |
|                  | 9 (229)                | (Prefix)-09-HT36 | 43½ (1105) | 87 (2210)  | (Prefix)-09-HX36 | 43½ (1105) | 87 (2210)  |
|                  | 12 (305)               | (Prefix)-12-HT36 | 45 (1143)  | 90 (2286)  | (Prefix)-12-HX36 | 45 (1143)  | 90 (2286)  |
|                  | 18 (457)               | (Prefix)-18-HT36 | 48 (1219)  | 96 (2438)  | (Prefix)-18-HX36 | 48 (1219)  | 96 (2438)  |
|                  | 24 (609)               | (Prefix)-24-HT36 | 51 (1295)  | 102 (2590) | (Prefix)-24-HX36 | 51 (1295)  | 102 (2590) |
| 48 (1220)        | 30 (762)               | (Prefix)-30-HT36 | 54 (1372)  | 108 (2744) | (Prefix)-30-HX36 | 54 (1372)  | 108 (2744) |
|                  | 36 (914)               | (Prefix)-36-HT36 | 57 (1448)  | 114 (2896) | (Prefix)-36-HX36 | 57 (1448)  | 114 (2896) |
|                  | 42 (1067)              | (Prefix)-42-HT36 | 60 (1524)  | 120 (3048) | (Prefix)-42-HX36 | 60 (1524)  | 120 (3048) |
|                  | 6 (152)                | (Prefix)-06-HT48 | 54 (1372)  | 108 (2744) | (Prefix)-06-HX48 | 54 (1372)  | 108 (2744) |
|                  | 9 (229)                | (Prefix)-09-HT48 | 55½ (1410) | 111 (2820) | (Prefix)-09-HX48 | 55½ (1410) | 111 (2820) |
|                  | 12 (305)               | (Prefix)-12-HT48 | 57 (1448)  | 114 (2896) | (Prefix)-12-HX48 | 57 (1448)  | 114 (2896) |
|                  | 18 (457)               | (Prefix)-18-HT48 | 60 (1524)  | 120 (3048) | (Prefix)-18-HX48 | 60 (1524)  | 120 (3048) |
|                  | 24 (609)               | (Prefix)-24-HT48 | 63 (1600)  | 126 (3200) | (Prefix)-24-HX48 | 63 (1600)  | 126 (3200) |
|                  | 30 (762)               | (Prefix)-30-HT48 | 66 (1676)  | 132 (3353) | (Prefix)-30-HX48 | 66 (1676)  | 132 (3353) |
|                  | 36 (914)               | (Prefix)-36-HT48 | 69 (1753)  | 138 (3535) | (Prefix)-36-HX48 | 69 (1753)  | 138 (3535) |
|                  | 42 (1067)              | (Prefix)-42-HT48 | 72 (1829)  | 144 (3658) | (Prefix)-42-HX48 | 72 (1829)  | 144 (3658) |

(PRE) = Prefix. See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width. Manufacturing tolerances apply to all dimensions.

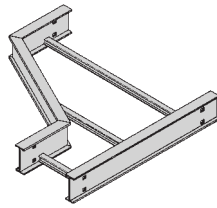
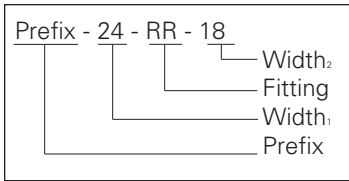
All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 - Fittings

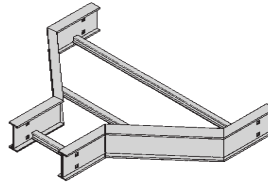
## Reducers (LR, SR, RR)

1 pair splice plates with hardware included.

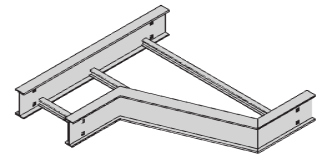
### Reducer Part Numbering



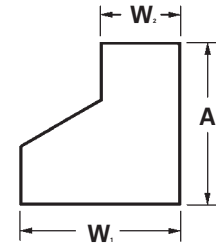
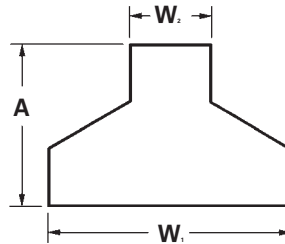
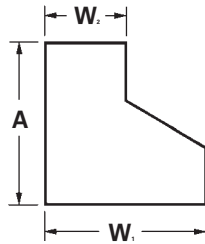
Left Reducer - LR



Straight Reducer SR



Right Reducer -RR

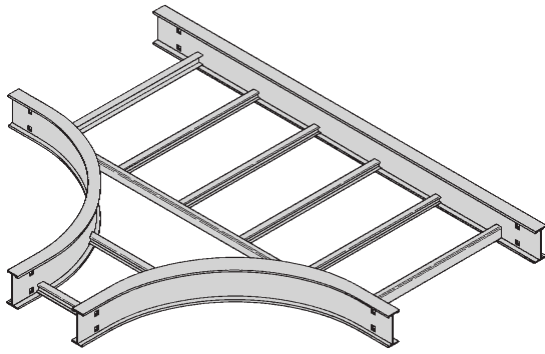


| Tray Width                 |                            | Left Hand Reducer |  | Straight Reducer |  | Right Hand Reducer |  |
|----------------------------|----------------------------|-------------------|--|------------------|--|--------------------|--|
| W <sub>1</sub><br>in. (mm) | W <sub>2</sub><br>in. (mm) | Catalog No.       | A<br>in. (mm)                          | Catalog No.      | A<br>in. (mm)                          | Catalog No.        | A<br>in. (mm)                          |
| 9 (228)                    | 6 (152)                    | (Prefix)-09-LR06  | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-09-SR06 | 8 <sup>15</sup> / <sub>16</sub> (227)  | (Prefix)-09-RR06   | 9 <sup>3</sup> / <sub>4</sub> (248)    |
| 12 (305)                   | 6 (152)                    | (Prefix)-12-LR06  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-12-SR06 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-12-RR06   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
|                            | 9 (228)                    | (Prefix)-12-LR09  | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-12-SR09 | 8 <sup>15</sup> / <sub>16</sub> (227)  | (Prefix)-12-RR09   | 9 <sup>3</sup> / <sub>4</sub> (248)    |
| 18 (457)                   | 6 (152)                    | (Prefix)-18-LR06  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-18-SR06 | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-18-RR06   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                            | 9 (228)                    | (Prefix)-18-LR09  | 13 <sup>3</sup> / <sub>16</sub> (340)  | (Prefix)-18-SR09 | 10 <sup>5</sup> / <sub>8</sub> (270)   | (Prefix)-18-RR09   | 13 <sup>3</sup> / <sub>16</sub> (340)  |
|                            | 12 (305)                   | (Prefix)-18-LR12  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-18-SR12 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-18-RR12   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 24 (609)                   | 6 (152)                    | (Prefix)-24-LR06  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-24-SR06 | 13 <sup>1</sup> / <sub>4</sub> (336)   | (Prefix)-24-RR06   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                            | 9 (228)                    | (Prefix)-24-LR09  | 16 <sup>11</sup> / <sub>16</sub> (424) | (Prefix)-24-SR09 | 12 <sup>3</sup> / <sub>8</sub> (314)   | (Prefix)-24-RR09   | 16 <sup>11</sup> / <sub>16</sub> (424) |
|                            | 12 (305)                   | (Prefix)-24-LR12  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-24-SR12 | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-24-RR12   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                            | 18 (457)                   | (Prefix)-24-LR18  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-24-SR18 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-24-RR18   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 30 (762)                   | 6 (152)                    | (Prefix)-30-LR06  | 21 <sup>7</sup> / <sub>8</sub> (555)   | (Prefix)-30-SR06 | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-30-RR06   | 21 <sup>7</sup> / <sub>8</sub> (555)   |
|                            | 9 (228)                    | (Prefix)-30-LR09  | 20 <sup>1</sup> / <sub>8</sub> (511)   | (Prefix)-30-SR09 | 14 <sup>1</sup> / <sub>8</sub> (359)   | (Prefix)-30-RR09   | 20 <sup>1</sup> / <sub>8</sub> (511)   |
|                            | 12 (305)                   | (Prefix)-30-LR12  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-30-SR12 | 13 <sup>1</sup> / <sub>4</sub> (336)   | (Prefix)-30-RR12   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                            | 18 (457)                   | (Prefix)-30-LR18  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-30-SR18 | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-30-RR18   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                            | 24 (609)                   | (Prefix)-30-LR24  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-30-SR24 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-30-RR24   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 36 (914)                   | 6 (152)                    | (Prefix)-36-LR06  | 25 <sup>5</sup> / <sub>16</sub> (643)  | (Prefix)-36-SR06 | 16 <sup>11</sup> / <sub>16</sub> (424) | (Prefix)-36-RR06   | 25 <sup>5</sup> / <sub>16</sub> (643)  |
|                            | 9 (228)                    | (Prefix)-36-LR09  | 23 <sup>9</sup> / <sub>16</sub> (598)  | (Prefix)-36-SR09 | 15 <sup>13</sup> / <sub>16</sub> (402) | (Prefix)-36-RR09   | 23 <sup>9</sup> / <sub>16</sub> (598)  |
|                            | 12 (305)                   | (Prefix)-36-LR12  | 21 <sup>7</sup> / <sub>8</sub> (555)   | (Prefix)-36-SR12 | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-36-RR12   | 21 <sup>7</sup> / <sub>8</sub> (555)   |
|                            | 18 (457)                   | (Prefix)-36-LR18  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-36-SR18 | 13 <sup>1</sup> / <sub>4</sub> (336)   | (Prefix)-36-RR18   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                            | 24 (609)                   | (Prefix)-36-LR24  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-36-SR24 | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-36-RR24   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                            | 30 (762)                   | (Prefix)-36-LR30  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-36-SR30 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-36-RR30   | 11 <sup>1</sup> / <sub>2</sub> (292)   |
| 42 (1067)                  | 6 (152)                    | (Prefix)-42-LR06  | 28 <sup>3</sup> / <sub>4</sub> (730)   | (Prefix)-42-SR06 | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-42-RR06   | 28 <sup>3</sup> / <sub>4</sub> (730)   |
|                            | 9 (228)                    | (Prefix)-42-LR09  | 27 <sup>1</sup> / <sub>16</sub> (687)  | (Prefix)-42-SR09 | 17 <sup>9</sup> / <sub>16</sub> (446)  | (Prefix)-42-RR09   | 27 <sup>1</sup> / <sub>16</sub> (687)  |
|                            | 12 (305)                   | (Prefix)-42-LR12  | 25 <sup>5</sup> / <sub>16</sub> (643)  | (Prefix)-42-SR12 | 16 <sup>11</sup> / <sub>16</sub> (424) | (Prefix)-42-RR12   | 25 <sup>5</sup> / <sub>16</sub> (643)  |
|                            | 18 (457)                   | (Prefix)-42-LR18  | 21 <sup>7</sup> / <sub>8</sub> (555)   | (Prefix)-42-SR18 | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-42-RR18   | 21 <sup>7</sup> / <sub>8</sub> (555)   |
|                            | 24 (609)                   | (Prefix)-42-LR24  | 18 <sup>3</sup> / <sub>8</sub> (467)   | (Prefix)-42-SR24 | 13 <sup>1</sup> / <sub>4</sub> (336)   | (Prefix)-42-RR24   | 18 <sup>3</sup> / <sub>8</sub> (467)   |
|                            | 30 (762)                   | (Prefix)-42-LR30  | 14 <sup>15</sup> / <sub>16</sub> (379) | (Prefix)-42-SR30 | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-42-RR30   | 14 <sup>15</sup> / <sub>16</sub> (379) |
|                            | 36 (914)                   | (Prefix)-42-LR36  | 11 <sup>1</sup> / <sub>2</sub> (292)   | (Prefix)-42-SR36 | 9 <sup>3</sup> / <sub>4</sub> (248)    | (Prefix)-42-RR36   | 11 <sup>1</sup> / <sub>2</sub> (292)   |

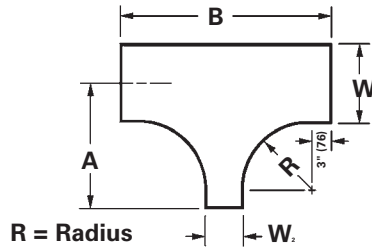
**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width. Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.



**Horizontal Reducing Tee (HT)**  
2 pair splice plates with hardware included.



Prefix - 36 - 18 HT 24  
 Radius  
 Fitting  
 Width W<sub>2</sub>  
 Width W<sub>1</sub>  
 To complete catalog number, insert fitting prefix.

| Tray Width   |              | * Insert Radius<br>(12", 24", 36", or 48")<br>Catalog No. | 12" Radius  |             | 24" Radius  |             | 36" Radius  |             | 48" Radius  |             |
|--------------|--------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| W1<br>in. mm | W2<br>in. mm |   | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm |
| 9 (228)      | 6 (152)      | (Prefix)-09-06-HT*  | 19½ (496)   | 36 (914)    | 31½ (800)   | 60 (1524)   | 43 (1092)   | 84 (2134)   | 55½ (1410)  | 108 (2743)  |
| 12 (305)     | 6 (152)      | (Prefix)-12-06-HT*  | 21 (533)    | 36 (914)    | 33 (838)    | 60 (1524)   | 45 (1143)   | 84 (2134)   | 57 (1448)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-12-09-HT*  | 21 (533)    | 39 (991)    | 33 (838)    | 63 (1600)   | 45 (1143)   | 87 (2210)   | 57 (1448)   | 111 (2819)  |
| 18 (457)     | 6 (152)      | (Prefix)-18-06-HT*  | 24 (609)    | 36 (914)    | 36 (914)    | 60 (1524)   | 48 (1143)   | 84 (2134)   | 60 (1524)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-18-09-HT*  | 24 (609)    | 39 (991)    | 36 (914)    | 63 (1600)   | 48 (1219)   | 87 (2210)   | 60 (1524)   | 111 (2819)  |
|              | 12 (305)     | (Prefix)-18-12-HT*  | 24 (609)    | 42 (1067)   | 36 (914)    | 66 (1676)   | 48 (1219)   | 90 (2286)   | 60 (1524)   | 114 (2895)  |
| 24 (609)     | 6 (152)      | (Prefix)-24-06-HT*  | 27 (686)    | 36 (914)    | 39 (991)    | 60 (1524)   | 51 (1295)   | 84 (2134)   | 63 (1600)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-24-09-HT*  | 27 (686)    | 39 (991)    | 39 (991)    | 63 (1600)   | 51 (1295)   | 87 (2210)   | 63 (1600)   | 111 (2819)  |
|              | 12 (305)     | (Prefix)-24-12-HT*  | 27 (686)    | 42 (1067)   | 39 (991)    | 66 (1676)   | 51 (1295)   | 90 (2286)   | 63 (1600)   | 114 (2895)  |
|              | 18 (457)     | (Prefix)-24-18-HT*  | 27 (686)    | 48 (1219)   | 39 (991)    | 72 (1829)   | 51 (1295)   | 96 (2438)   | 63 (1600)   | 120 (3048)  |
| 30 (762)     | 6 (152)      | (Prefix)-30-06-HT*  | 30 (762)    | 36 (914)    | 42 (1067)   | 60 (1524)   | 54 (1372)   | 84 (2134)   | 66 (1676)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-30-09-HT*  | 30 (762)    | 39 (991)    | 42 (1067)   | 63 (1600)   | 54 (1372)   | 87 (2210)   | 66 (1676)   | 111 (2819)  |
|              | 12 (305)     | (Prefix)-30-12-HT*  | 30 (762)    | 42 (1067)   | 42 (1067)   | 66 (1676)   | 54 (1372)   | 90 (2286)   | 66 (1676)   | 114 (2895)  |
|              | 18 (457)     | (Prefix)-30-18-HT*  | 30 (762)    | 48 (1219)   | 42 (1067)   | 72 (1829)   | 54 (1372)   | 96 (2438)   | 66 (1676)   | 120 (3048)  |
|              | 24 (609)     | (Prefix)-30-24-HT*  | 30 (762)    | 54 (1372)   | 42 (1067)   | 78 (1981)   | 54 (1372)   | 102 (2591)  | 66 (1676)   | 126 (3200)  |
| 36 (914)     | 6 (152)      | (Prefix)-30-06-HT*  | 33 (838)    | 36 (914)    | 45 (1143)   | 60 (1524)   | 57 (1448)   | 84 (2134)   | 69 (1753)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-36-09-HT*  | 33 (838)    | 39 (991)    | 45 (1143)   | 63 (1600)   | 57 (1448)   | 87 (2210)   | 69 (1753)   | 111 (2819)  |
|              | 12 (305)     | (Prefix)-36-12-HT*  | 33 (838)    | 42 (1067)   | 45 (1143)   | 66 (1676)   | 57 (1448)   | 90 (2286)   | 69 (1753)   | 114 (2895)  |
|              | 18 (457)     | (Prefix)-36-18-HT*  | 33 (838)    | 48 (1219)   | 45 (1143)   | 72 (1829)   | 57 (1448)   | 96 (2438)   | 69 (1753)   | 120 (3048)  |
|              | 24 (609)     | (Prefix)-36-24-HT*  | 33 (838)    | 54 (1372)   | 45 (1143)   | 78 (1981)   | 57 (1448)   | 102 (2591)  | 69 (1753)   | 126 (3200)  |
| 42 (1067)    | 30 (762)     | (Prefix)-36-30-HT*  | 33 (838)    | 60 (1524)   | 45 (1143)   | 84 (2134)   | 57 (1448)   | 108 (2743)  | 69 (1753)   | 132 (3353)  |
|              | 6 (152)      | (Prefix)-42-06-HT*  | 36 (914)    | 36 (914)    | 48 (1219)   | 60 (1524)   | 60 (1524)   | 84 (2134)   | 72 (1829)   | 108 (2743)  |
|              | 9 (228)      | (Prefix)-42-09-HT*  | 36 (914)    | 39 (991)    | 48 (1219)   | 63 (1600)   | 60 (1524)   | 87 (2210)   | 72 (1829)   | 111 (2819)  |
|              | 12 (305)     | (Prefix)-42-12-HT*  | 36 (914)    | 42 (1067)   | 48 (1219)   | 66 (1676)   | 60 (1524)   | 90 (2286)   | 72 (1829)   | 114 (2895)  |
|              | 18 (457)     | (Prefix)-42-18-HT*  | 36 (914)    | 48 (1219)   | 48 (1219)   | 72 (1829)   | 60 (1524)   | 96 (2438)   | 72 (1829)   | 120 (3048)  |
|              | 24 (609)     | (Prefix)-42-24-HT*  | 36 (914)    | 54 (1372)   | 48 (1219)   | 78 (1981)   | 60 (1524)   | 102 (2591)  | 72 (1829)   | 126 (3200)  |
| 36 (914)     | 30 (762)     | (Prefix)-42-30-HT*  | 36 (914)    | 60 (1524)   | 48 (1219)   | 84 (2134)   | 60 (1524)   | 108 (2743)  | 72 (1829)   | 132 (3353)  |
|              | 36 (914)     | (Prefix)-42-36-HT*  | 36 (914)    | 66 (1676)   | 48 (1219)   | 90 (2286)   | 60 (1524)   | 114 (2895)  | 72 (1829)   | 138 (3505)  |

**(Prefix) See page L-3 for catalog number prefix.**

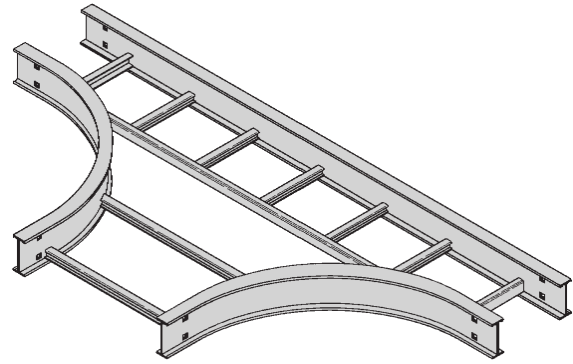
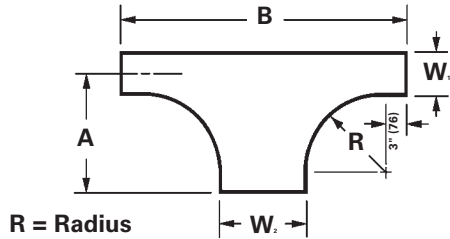
Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width. Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 - Fittings

## Horizontal Expanding Tee (HT)

2 pair splice plates with hardware included.



Prefix - 09 - 30 HT 12

Radius  
Fitting  
Width W<sub>2</sub>  
Width W<sub>1</sub>

To complete catalog number, insert fitting prefix.

Series 2, 3, 4, & 5 Fittings

| Tray Width   |                    | * Insert Radius<br>(12", 24", 36", or 48")<br>Catalog No. | 12" Radius  |             | 24" Radius  |             | 36" Radius  |             | 48" Radius  |             |
|--------------|--------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| W1<br>in. mm | W2<br>in. mm       |   | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm |
| 6 (152)      | 9 (228)            | (Prefix)-06-09-HT*  | 18 (457)    | 39 (991)    | 30 (762)    | 63 (1600)   | 42 (1067)   | 87 (2210)   | 54 (1372)   | 111 (2819)  |
|              | 12 (305)           | (Prefix)-06-12-HT*  | 18 (457)    | 42 (1067)   | 30 (762)    | 66 (1676)   | 42 (1067)   | 90 (2286)   | 54 (1372)   | 114 (2895)  |
|              | 18 (457)           | (Prefix)-06-18-HT*  | 18 (457)    | 48 (1219)   | 30 (762)    | 72 (1829)   | 42 (1067)   | 96 (2438)   | 54 (1372)   | 120 (3048)  |
|              | 24 (609)           | (Prefix)-06-24-HT*  | 18 (457)    | 54 (1372)   | 30 (762)    | 78 (1981)   | 42 (1067)   | 102 (2591)  | 54 (1372)   | 126 (3200)  |
|              | 30 (762)           | (Prefix)-06-30-HT*  | 18 (457)    | 60 (1524)   | 30 (762)    | 84 (2134)   | 42 (1067)   | 108 (2743)  | 54 (1372)   | 132 (3353)  |
|              | 36 (914)           | (Prefix)-06-36-HT*  | 18 (457)    | 66 (1676)   | 30 (762)    | 90 (2286)   | 42 (1067)   | 114 (2895)  | 54 (1372)   | 138 (3503)  |
| 42 (1067)    | (Prefix)-06-42-HT* | 18 (457)  | 72 (1829)   | 30 (762)    | 96 (2438)   | 42 (1067)   | 120 (3048)  | 54 (1372)   | 144 (3658)  |             |
| 9 (228)      | 12 (305)           | (Prefix)-09-12-HT*  | 19½ (496)   | 42 (1067)   | 31½ (800)   | 66 (1676)   | 43½ (1105)  | 90 (2286)   | 55½ (1410)  | 114 (2895)  |
|              | 18 (457)           | (Prefix)-09-18-HT*  | 19½ (496)   | 48 (1219)   | 31½ (800)   | 72 (1829)   | 43½ (1105)  | 96 (2438)   | 55½ (1410)  | 120 (3048)  |
|              | 24 (609)           | (Prefix)-09-24-HT*  | 19½ (496)   | 54 (1372)   | 31½ (800)   | 78 (1981)   | 43½ (1105)  | 102 (2591)  | 55½ (1410)  | 126 (3200)  |
|              | 30 (762)           | (Prefix)-09-30-HT*  | 19½ (496)   | 60 (1524)   | 31½ (800)   | 84 (2134)   | 43½ (1105)  | 108 (2743)  | 55½ (1410)  | 132 (3353)  |
|              | 36 (914)           | (Prefix)-09-36-HT*  | 19½ (496)   | 66 (1676)   | 31½ (800)   | 90 (2286)   | 43½ (1105)  | 114 (2895)  | 55½ (1410)  | 138 (3503)  |
|              | 42 (1067)          | (Prefix)-09-42-HT*  | 19½ (496)   | 72 (1829)   | 31½ (800)   | 96 (2438)   | 43½ (1105)  | 120 (3048)  | 55½ (1410)  | 144 (3658)  |
| 12 (305)     | 18 (457)           | (Prefix)-12-18-HT*  | 21 (533)    | 48 (1219)   | 33 (838)    | 72 (1829)   | 45 (1143)   | 96 (2438)   | 57 (1448)   | 120 (3048)  |
|              | 24 (609)           | (Prefix)-12-24-HT*  | 21 (533)    | 54 (1372)   | 33 (838)    | 78 (1981)   | 45 (1143)   | 102 (2591)  | 57 (1448)   | 126 (3200)  |
|              | 30 (762)           | (Prefix)-12-30-HT*  | 21 (533)    | 60 (1524)   | 33 (838)    | 84 (2134)   | 45 (1143)   | 108 (2743)  | 57 (1448)   | 132 (3353)  |
|              | 36 (914)           | (Prefix)-12-36-HT*  | 21 (533)    | 66 (1676)   | 33 (838)    | 90 (2286)   | 45 (1143)   | 114 (2895)  | 57 (1448)   | 138 (3503)  |
|              | 42 (1067)          | (Prefix)-12-42-HT*  | 21 (533)    | 72 (1829)   | 33 (838)    | 96 (2438)   | 45 (1143)   | 120 (3048)  | 57 (1448)   | 144 (3658)  |
| 18 (457)     | 24 (609)           | (Prefix)-18-24-HT*  | 24 (609)    | 54 (1372)   | 36 (914)    | 78 (1981)   | 48 (1219)   | 102 (2591)  | 60 (1524)   | 126 (3200)  |
|              | 30 (762)           | (Prefix)-18-30-HT*  | 24 (609)    | 60 (1524)   | 36 (914)    | 84 (2134)   | 48 (1219)   | 108 (2743)  | 60 (1524)   | 132 (3353)  |
|              | 36 (914)           | (Prefix)-18-36-HT*  | 24 (609)    | 66 (1676)   | 36 (914)    | 90 (2286)   | 48 (1219)   | 114 (2895)  | 60 (1524)   | 138 (3503)  |
|              | 42 (1067)          | (Prefix)-18-42-HT*  | 24 (609)    | 72 (1829)   | 36 (914)    | 96 (2438)   | 48 (1219)   | 120 (3048)  | 60 (1524)   | 144 (3658)  |
| 24 (609)     | 30 (762)           | (Prefix)-24-30-HT*  | 27 (686)    | 60 (1524)   | 39 (991)    | 84 (2134)   | 51 (1295)   | 108 (2743)  | 63 (1600)   | 132 (3353)  |
|              | 36 (914)           | (Prefix)-24-36-HT*  | 27 (686)    | 66 (1676)   | 39 (991)    | 90 (2286)   | 51 (1295)   | 114 (2895)  | 63 (1600)   | 138 (3503)  |
|              | 42 (1067)          | (Prefix)-24-42-HT*  | 27 (686)    | 72 (1829)   | 39 (991)    | 96 (2438)   | 51 (1295)   | 120 (3048)  | 63 (1600)   | 144 (3658)  |
| 30 (762)     | 36 (914)           | (Prefix)-30-36-HT*  | 30 (762)    | 66 (1676)   | 42 (1067)   | 90 (2286)   | 54 (1372)   | 114 (2895)  | 66 (1676)   | 138 (3503)  |
|              | 42 (1067)          | (Prefix)-30-42-HT*  | 30 (762)    | 72 (1829)   | 42 (1067)   | 96 (2438)   | 54 (1372)   | 120 (3048)  | 66 (1676)   | 144 (3658)  |
| 36 (914)     | 42 (1067)          | (Prefix)-36-42-HT*  | 33 (838)    | 72 (1829)   | 45 (1143)   | 96 (2438)   | 57 (1448)   | 120 (3048)  | 69 (1753)   | 144 (3658)  |

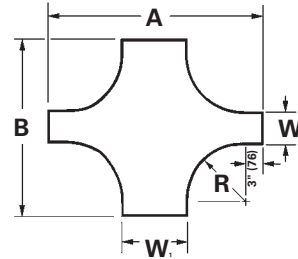
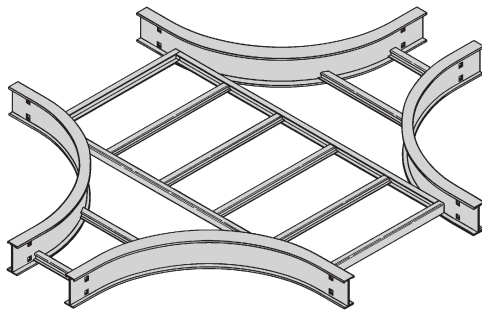
**(Prefix) See page L-3 for catalog number prefix.**

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

### Horizontal Expanding/Reducing Cross (HX) 3 pair splice plates with hardware included.



Prefix - 36 - 18 HX 24

Radius  
Fitting  
Width W<sub>2</sub>  
Width W<sub>1</sub>

To complete catalog number, insert fitting prefix.

| Tray Width   |              | * Insert Radius<br>(12", 24", 36", or 48")<br>Catalog No. | 12" Radius  |             | 24" Radius  |             | 36" Radius  |             | 48" Radius  |             |
|--------------|--------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| W1<br>in. mm | W2<br>in. mm |   | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm | A<br>in. mm | B<br>in. mm |
| 9 (228)      | 6 (152)      | (Prefix)-09-06-HX*  | 39 (991)    | 36 (914)    | 63 1600     | 60 (1524)   | 87 (2210)   | 84 (2134)   | 111 2819    | 108 (2743)  |
| 12 (305)     | 6 (152)      | (Prefix)-12-06-HX*  | 42 (1067)   | 36 (914)    | 66 (1676)   | 60 (1524)   | 90 (2286)   | 84 (2134)   | 114 (2895)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-12-09-HX*  | 42 (1067)   | 39 (991)    | 66 (1676)   | 63 (1600)   | 90 (2286)   | 87 (2210)   | 114 (2895)  | 111 (2819)  |
| 18 (457)     | 6 (152)      | (Prefix)-18-06-HX*  | 48 (1219)   | 36 (914)    | 72 (1829)   | 60 (1524)   | 96 (2438)   | 84 (2134)   | 120 (3048)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-18-09-HX*  | 48 (1219)   | 39 (991)    | 72 (1829)   | 63 (1600)   | 96 (2438)   | 87 (2210)   | 120 (3048)  | 111 (2819)  |
|              | 12 (305)     | (Prefix)-18-12-HX*  | 48 (1219)   | 42 (1067)   | 72 (1829)   | 66 (1676)   | 96 (2438)   | 90 (2286)   | 120 (3048)  | 114 (2895)  |
| 24 (609)     | 6 (152)      | (Prefix)-24-06-HX*  | 54 (1372)   | 36 (914)    | 78 (1981)   | 60 (1524)   | 102 (2591)  | 84 (2134)   | 126 (3200)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-24-09-HX*  | 54 (1372)   | 39 (991)    | 78 (1981)   | 63 (1600)   | 102 (2591)  | 87 (2210)   | 126 (3200)  | 111 (2819)  |
|              | 12 (305)     | (Prefix)-24-12-HX*  | 54 (1372)   | 42 (1067)   | 78 (1981)   | 66 (1676)   | 102 (2591)  | 90 (2286)   | 126 (3200)  | 114 (2895)  |
|              | 18 (457)     | (Prefix)-24-18-HX*  | 54 (1372)   | 48 (1219)   | 78 (1981)   | 72 (1829)   | 102 (2591)  | 96 (2438)   | 126 (3200)  | 120 (3048)  |
| 30 (762)     | 6 (152)      | (Prefix)-30-06-HX*  | 60 (1524)   | 36 (914)    | 84 (2134)   | 60 (1524)   | 108 (2743)  | 84 (2134)   | 132 (3353)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-30-09-HX*  | 60 (1524)   | 39 (991)    | 84 (2134)   | 63 (1600)   | 108 (2743)  | 87 (2210)   | 132 (3353)  | 111 (2819)  |
|              | 12 (305)     | (Prefix)-30-12-HX*  | 60 (1524)   | 42 (1067)   | 84 (2134)   | 66 (1676)   | 108 (2743)  | 90 (2286)   | 132 (3353)  | 114 (2895)  |
|              | 18 (457)     | (Prefix)-30-18-HX*  | 60 (1524)   | 48 (1219)   | 84 (2134)   | 72 (1829)   | 108 (2743)  | 96 (2438)   | 132 (3353)  | 120 (3048)  |
|              | 24 (609)     | (Prefix)-30-24-HX*  | 60 (1524)   | 54 (1372)   | 84 (2134)   | 78 (1981)   | 108 (2743)  | 102 (2591)  | 132 (3353)  | 126 (3200)  |
| 36 (914)     | 6 (152)      | (Prefix)-36-06-HX*  | 66 (1676)   | 36 (914)    | 90 (2286)   | 60 (1524)   | 114 (2895)  | 84 (2134)   | 138 (3505)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-36-09-HX*  | 66 (1676)   | 39 (991)    | 90 (2286)   | 63 (1600)   | 114 (2895)  | 87 (2210)   | 138 (3505)  | 111 (2819)  |
|              | 12 (305)     | (Prefix)-36-12-HX*  | 66 (1676)   | 42 (1067)   | 90 (2286)   | 66 (1676)   | 114 (2895)  | 90 (2286)   | 138 (3505)  | 114 (2895)  |
|              | 18 (457)     | (Prefix)-36-18-HX*  | 66 (1676)   | 48 (1219)   | 90 (2286)   | 72 (1829)   | 114 (2895)  | 96 (2438)   | 138 (3505)  | 120 (3048)  |
|              | 24 (609)     | (Prefix)-36-24-HX*  | 66 (1676)   | 54 (1372)   | 90 (2286)   | 78 (1981)   | 114 (2895)  | 102 (2591)  | 138 (3505)  | 126 (3200)  |
| 42 (1067)    | 30 (762)     | (Prefix)-36-30-HX*  | 66 (1676)   | 60 (1524)   | 90 (2286)   | 84 (2134)   | 114 (2895)  | 108 (2743)  | 138 (3505)  | 132 (3353)  |
|              | 6 (152)      | (Prefix)-42-06-HX*  | 72 (1829)   | 36 (914)    | 96 (2438)   | 60 (1524)   | 120 (3048)  | 84 (2134)   | 144 (3658)  | 108 (2743)  |
|              | 9 (228)      | (Prefix)-42-09-HX*  | 72 (1829)   | 39 (991)    | 96 (2438)   | 63 (1600)   | 120 (3048)  | 87 (2210)   | 144 (3658)  | 111 (2819)  |
|              | 12 (305)     | (Prefix)-42-12-HX*  | 72 (1829)   | 42 (1067)   | 96 (2438)   | 66 (1676)   | 120 (3048)  | 90 (2286)   | 144 (3658)  | 114 (2895)  |
|              | 18 (457)     | (Prefix)-42-18-HX*  | 72 (1829)   | 48 (1219)   | 96 (2438)   | 72 (1829)   | 120 (3048)  | 96 (2438)   | 144 (3658)  | 120 (3048)  |
|              | 24 (609)     | (Prefix)-42-24-HX*  | 72 (1829)   | 54 (1372)   | 96 (2438)   | 78 (1981)   | 120 (3048)  | 102 (2591)  | 144 (3658)  | 126 (3200)  |
| 30 (762)     | 30 (762)     | (Prefix)-42-30-HX*  | 72 (1829)   | 60 (1524)   | 96 (2438)   | 84 (2134)   | 120 (3048)  | 108 (2743)  | 144 (3658)  | 132 (3353)  |
|              | 36 (914)     | (Prefix)-42-36-HX*  | 72 (1829)   | 66 (1676)   | 96 (2438)   | 90 (2286)   | 120 (3048)  | 114 (2895)  | 144 (3658)  | 138 (3505)  |

**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

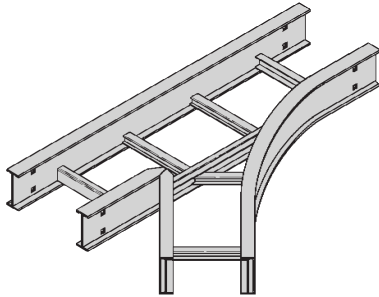
Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

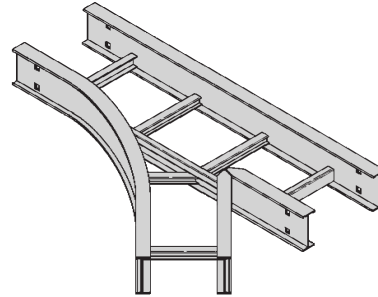


## Horizontal Wye (HYL, HYR)

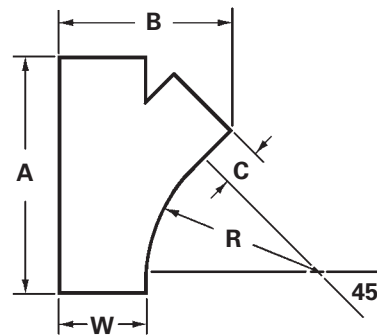
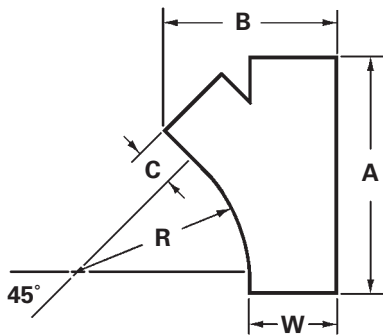
2 pair splice plates with hardware included.



Left Hand Wye - HYL



Right Hand Wye - HYR



R = Radius

| Bend Radius<br>in. mm | Tray Width<br>in. mm | Left Hand Wye<br>Catalog No. | Right Hand Wye<br>Catalog No.  | A                                |                                | B                                |                                 | C                               |       |
|-----------------------|----------------------|------------------------------|--------------------------------|----------------------------------|--------------------------------|----------------------------------|---------------------------------|---------------------------------|-------|
|                       |                      |                              |                                | in.                              | mm                             | in.                              | mm                              | in.                             | mm    |
| 24 (609)              | 6 (152)              | (Prefix)-06-HYL              | (Prefix)-06-HYR                | 28 <sup>7</sup> / <sub>16</sub>  | (722)                          | 15 <sup>3</sup> / <sub>16</sub>  | (386)                           | 3 <sup>1</sup> / <sub>16</sub>  | (77)  |
|                       | 9 (228)              | (Prefix)-09-HYL              | (Prefix)-09-HYR                | 32 <sup>11</sup> / <sub>16</sub> | (831)                          | 20 <sup>5</sup> / <sub>16</sub>  | (516)                           | 6 <sup>1</sup> / <sub>16</sub>  | (154) |
|                       | 12 (305)             | (Prefix)-12-HYL              | (Prefix)-12-HYR                | 36 <sup>15</sup> / <sub>16</sub> | (938)                          | 25 <sup>7</sup> / <sub>16</sub>  | (646)                           | 9 <sup>1</sup> / <sub>16</sub>  | (231) |
|                       | 18 (457)             | (Prefix)-18-HYL              | (Prefix)-18-HYR                | 45 <sup>3</sup> / <sub>8</sub>   | (1153)                         | 35 <sup>13</sup> / <sub>16</sub> | (910)                           | 15 <sup>1</sup> / <sub>16</sub> | (383) |
|                       | 24 (609)             | (Prefix)-24-HYL              | (Prefix)-24-HYR                | 53 <sup>7</sup> / <sub>8</sub>   | (1368)                         | 45 <sup>15</sup> / <sub>16</sub> | (1167)                          | 21 <sup>1</sup> / <sub>16</sub> | (535) |
|                       | 30 (762)             | (Prefix)-30-HYL              | (Prefix)-30-HYR                | 62 <sup>3</sup> / <sub>8</sub>   | (1585)                         | 56 <sup>3</sup> / <sub>16</sub>  | (1427)                          | 27 <sup>1</sup> / <sub>16</sub> | (688) |
|                       | 36 (914)             | (Prefix)-36-HYL              | (Prefix)-36-HYR                | 70 <sup>7</sup> / <sub>8</sub>   | (1800)                         | 66 <sup>7</sup> / <sub>16</sub>  | (1687)                          | 33 <sup>1</sup> / <sub>16</sub> | (840) |
| 42 (1067)             | (Prefix)-42-HYL      | (Prefix)-42-HYR              | 79 <sup>3</sup> / <sub>8</sub> | (2016)                           | 76 <sup>5</sup> / <sub>8</sub> | (1946)                           | 39 <sup>1</sup> / <sub>16</sub> | (992)                           |       |

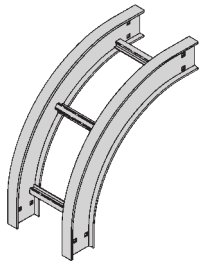
**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

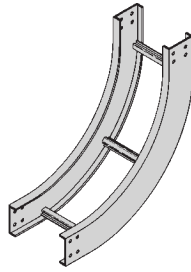
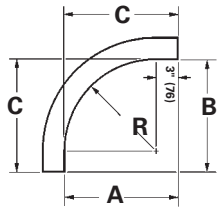
Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

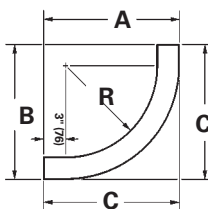
**Vertical Bend 90° (VO, VI)**  
1 pair splice plates with hardware included.



**90° Vertical Outside  
- VO**



**90° Vertical Inside  
- VI**



| Bend Radius<br>R | Tray Width<br>Insert | (*) Insert "VO" for<br>Vert. Outside Bend<br>"VI" for<br>Vert. Inside Bend<br>Catalog No. | VO Side Rail<br>Height<br>4" - 7" |        |        | VI Side Rail Height |        |        |        |        |        |        |        |        |        |        |        |  |
|------------------|----------------------|---|-----------------------------------|--------|--------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                  |                      |   | in./(mm)                          |        |        | 4"                  |        |        | 5"     |        |        | 6"     |        |        | 7"     |        |        |  |
|                  |                      |   | A                                 | B      | C      | A                   | B      | C      | A      | B      | C      | A      | B      | C      | A      | B      | C      |  |
| 12<br>(305)      | 6 (152)              | (Prefix)-06-90(*)12   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 9 (228)              | (Prefix)-09-90(*)12   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 12 (305)             | (Prefix)-12-90(*)12   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 18 (457)             | (Prefix)-18-90(*)12   | 15                                | 15     | 15     | 19                  | 19     | 19     | 20     | 20     | 20     | 21     | 21     | 21     | 22     | 22     | 22     |  |
|                  | 24 (609)             | (Prefix)-24-90(*)12   | (381)                             | (381)  | (381)  | (483)               | (483)  | (483)  | (508)  | (508)  | (508)  | (533)  | (533)  | (533)  | (559)  | (559)  | (559)  |  |
|                  | 30 (762)             | (Prefix)-30-90(*)12   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 36 (914)             | (Prefix)-36-90(*)12   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 42 (1067)        | (Prefix)-42-90(*)12  |   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 24<br>(609)      | 6 (152)              | (Prefix)-06-90(*)24   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 9 (228)              | (Prefix)-09-90(*)24   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 12 (305)             | (Prefix)-12-90(*)24   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 18 (457)             | (Prefix)-18-90(*)24   | 27                                | 27     | 27     | 31                  | 31     | 31     | 32     | 32     | 32     | 33     | 33     | 33     | 34     | 34     | 34     |  |
|                  | 24 (609)             | (Prefix)-24-90(*)24   | (686)                             | (686)  | (686)  | (787)               | (787)  | (787)  | (813)  | (813)  | (813)  | (838)  | (838)  | (838)  | (864)  | (864)  | (864)  |  |
|                  | 30 (762)             | (Prefix)-30-90(*)24   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 36 (914)             | (Prefix)-36-90(*)24   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 42 (1067)        | (Prefix)-42-90(*)24  |   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 36<br>(914)      | 6 (152)              | (Prefix)-06-90(*)36   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 9 (228)              | (Prefix)-09-90(*)36   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 12 (305)             | (Prefix)-12-90(*)36   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 18 (457)             | (Prefix)-18-90(*)36   | 39                                | 39     | 39     | 43                  | 43     | 43     | 44     | 44     | 44     | 45     | 45     | 45     | 46     | 46     | 46     |  |
|                  | 24 (609)             | (Prefix)-24-90(*)36   | (991)                             | (991)  | (991)  | (1092)              | (1092) | (1092) | (1118) | (1118) | (1118) | (1143) | (1143) | (1143) | (1168) | (1168) | (1168) |  |
|                  | 30 (762)             | (Prefix)-30-90(*)36   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 36 (914)             | (Prefix)-36-90(*)36   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 42 (1067)        | (Prefix)-42-90(*)36  |   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 48<br>(1219)     | 6 (152)              | (Prefix)-06-90(*)48   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 9 (228)              | (Prefix)-09-90(*)48   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 12 (305)             | (Prefix)-12-90(*)48   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 18 (457)             | (Prefix)-18-90(*)48   | 51                                | 51     | 51     | 55                  | 55     | 55     | 56     | 56     | 56     | 57     | 57     | 57     | 58     | 58     | 58     |  |
|                  | 24 (609)             | (Prefix)-24-90(*)48   | (1295)                            | (1295) | (1295) | (1397)              | (1397) | (1397) | (1422) | (1422) | (1422) | (1448) | (1448) | (1448) | (1473) | (1473) | (1473) |  |
|                  | 30 (762)             | (Prefix)-30-90(*)48   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
|                  | 36 (914)             | (Prefix)-36-90(*)48   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |
| 42 (1067)        | (Prefix)-42-90(*)48  |   |                                   |        |        |                     |        |        |        |        |        |        |        |        |        |        |        |  |

**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

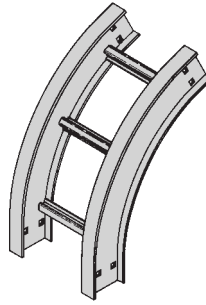
Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

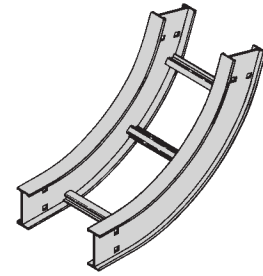
# Series 2, 3, 4, & 5 - Fittings

## Vertical Bend 60° (VO, VI)

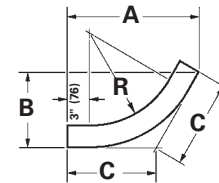
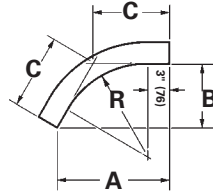
1 pair splice plates with hardware included.



60° Vertical Outside - VO



60° Vertical Inside - VI



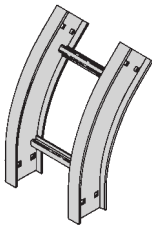
| Bend Radius R<br>in./(mm) | Tray Width Insert<br>in. (mm) | (*) Insert "VO" for Vert. Outside Bend "VI" for Vert. Inside Bend Catalog No. | VO Side Rail Height 4" - 7"      |                                |                                  | VI Side Rail Height             |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|---------------------------|-------------------------------|---|----------------------------------|--------------------------------|----------------------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|----------------------------------|---------------------------------|--------------------------------|---------------------------------|----------------------------------|--------------------------------|----------------------------------|--|
|                           |                               |   | in./(mm)                         |                                |                                  | 4"                              |                                |                                 | 5"                             |                                |                                  | 6"                              |                                |                                 | 7"                               |                                |                                  |  |
|                           |                               |   | A                                | B                              | C                                | A                               | B                              | C                               | A                              | B                              | C                                | A                               | B                              | C                               | A                                | B                              | C                                |  |
| 12<br>(305)               | 6 (152)                       | (Prefix)-06-60(*)12   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 9 (228)                       | (Prefix)-09-60(*)12   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 12 (305)                      | (Prefix)-12-60(*)12   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 18 (457)                      | (Prefix)-18-60(*)12   | 14 <sup>7</sup> / <sub>8</sub>   | 8 <sup>5</sup> / <sub>8</sub>  | 9 <sup>15</sup> / <sub>16</sub>  | 18 <sup>3</sup> / <sub>8</sub>  | 10 <sup>7</sup> / <sub>8</sub> | 12 <sup>1</sup> / <sub>4</sub>  | 19 <sup>1</sup> / <sub>4</sub> | 11 <sup>1</sup> / <sub>8</sub> | 12 <sup>13</sup> / <sub>16</sub> | 20 <sup>1</sup> / <sub>16</sub> | 11 <sup>5</sup> / <sub>8</sub> | 13 <sup>3</sup> / <sub>8</sub>  | 21 <sup>15</sup> / <sub>16</sub> | 12 <sup>1</sup> / <sub>8</sub> | 14                               |  |
|                           | 24 (609)                      | (Prefix)-24-60(*)12   | (378)                            | (219)                          | (253)                            | (467)                           | (270)                          | (311)                           | (489)                          | (283)                          | (326)                            | (510)                           | (296)                          | (340)                           | (557)                            | (308)                          | (356)                            |  |
|                           | 30 (762)                      | (Prefix)-30-60(*)12   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 36 (914)                      | (Prefix)-36-60(*)12   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 42 (1067)                 | (Prefix)-42-60(*)12           |   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 24<br>(609)               | 6 (152)                       | (Prefix)-06-60(*)24   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 9 (228)                       | (Prefix)-09-60(*)24   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 12 (305)                      | (Prefix)-12-60(*)24   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 18 (457)                      | (Prefix)-18-60(*)24   | 25 <sup>5</sup> / <sub>16</sub>  | 14 <sup>5</sup> / <sub>8</sub> | 16 <sup>7</sup> / <sub>8</sub>   | 28 <sup>3</sup> / <sub>4</sub>  | 16 <sup>5</sup> / <sub>8</sub> | 19 <sup>3</sup> / <sub>16</sub> | 29 <sup>5</sup> / <sub>8</sub> | 17 <sup>1</sup> / <sub>8</sub> | 19 <sup>3</sup> / <sub>4</sub>   | 30 <sup>1</sup> / <sub>2</sub>  | 17 <sup>5</sup> / <sub>8</sub> | 20 <sup>5</sup> / <sub>16</sub> | 31 <sup>3</sup> / <sub>8</sub>   | 18 <sup>1</sup> / <sub>8</sub> | 20 <sup>7</sup> / <sub>8</sub>   |  |
|                           | 24 (609)                      | (Prefix)-24-60(*)24   | (643)                            | (372)                          | (428)                            | (730)                           | (422)                          | (488)                           | (753)                          | (435)                          | (502)                            | (775)                           | (448)                          | (516)                           | (797)                            | (461)                          | (530)                            |  |
|                           | 30 (762)                      | (Prefix)-30-60(*)24   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 36 (914)                      | (Prefix)-36-60(*)24   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 42 (1067)                 | (Prefix)-42-60(*)24           |   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 36<br>(914)               | 6 (152)                       | (Prefix)-06-60(*)36   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 9 (228)                       | (Prefix)-09-60(*)36   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 12 (305)                      | (Prefix)-12-60(*)36   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 18 (457)                      | (Prefix)-18-60(*)36   | 35 <sup>11</sup> / <sub>16</sub> | 20 <sup>5</sup> / <sub>8</sub> | 23 <sup>13</sup> / <sub>16</sub> | 39 <sup>1</sup> / <sub>8</sub>  | 22 <sup>5</sup> / <sub>8</sub> | 26 <sup>1</sup> / <sub>8</sub>  | 40                             | 23 <sup>1</sup> / <sub>8</sub> | 26 <sup>11</sup> / <sub>16</sub> | 40 <sup>7</sup> / <sub>8</sub>  | 23 <sup>5</sup> / <sub>8</sub> | 27 <sup>1</sup> / <sub>4</sub>  | 41 <sup>3</sup> / <sub>4</sub>   | 24 <sup>1</sup> / <sub>8</sub> | 27 <sup>13</sup> / <sub>16</sub> |  |
|                           | 24 (609)                      | (Prefix)-24-60(*)36   | (907)                            | (524)                          | (605)                            | (994)                           | (575)                          | (663)                           | (1016)                         | (587)                          | (687)                            | (1038)                          | (600)                          | (692)                           | (1060)                           | (613)                          | (706)                            |  |
|                           | 30 (762)                      | (Prefix)-30-60(*)36   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 36 (914)                      | (Prefix)-36-60(*)36   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 42 (1067)                 | (Prefix)-42-60(*)36           |   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 48<br>(1219)              | 6 (152)                       | (Prefix)-06-60(*)48   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 9 (228)                       | (Prefix)-09-60(*)48   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 12 (305)                      | (Prefix)-12-60(*)48   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 18 (457)                      | (Prefix)-18-60(*)48   | 46 <sup>1</sup> / <sub>16</sub>  | 26 <sup>5</sup> / <sub>8</sub> | 30 <sup>11</sup> / <sub>16</sub> | 49 <sup>9</sup> / <sub>16</sub> | 28 <sup>5</sup> / <sub>8</sub> | 33                              | 50 <sup>3</sup> / <sub>8</sub> | 29 <sup>1</sup> / <sub>8</sub> | 33 <sup>5</sup> / <sub>8</sub>   | 51 <sup>1</sup> / <sub>4</sub>  | 29 <sup>5</sup> / <sub>8</sub> | 34 <sup>3</sup> / <sub>16</sub> | 52 <sup>1</sup> / <sub>8</sub>   | 30 <sup>1</sup> / <sub>8</sub> | 34 <sup>3</sup> / <sub>4</sub>   |  |
|                           | 24 (609)                      | (Prefix)-24-60(*)48   | (1170)                           | (676)                          | (780)                            | (1259)                          | (727)                          | (838)                           | (1280)                         | (740)                          | (854)                            | (1302)                          | (753)                          | (868)                           | (1324)                           | (765)                          | (883)                            |  |
|                           | 30 (762)                      | (Prefix)-30-60(*)48   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
|                           | 36 (914)                      | (Prefix)-36-60(*)48   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |
| 42 (1067)                 | (Prefix)-42-60(*)48           |   |                                  |                                |                                  |                                 |                                |                                 |                                |                                |                                  |                                 |                                |                                 |                                  |                                |                                  |  |

(Prefix) See page L-3 for catalog number prefix.

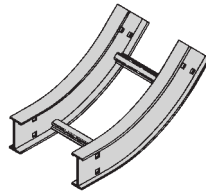
Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.



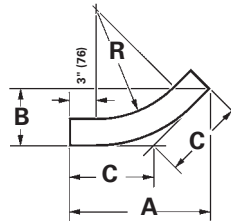
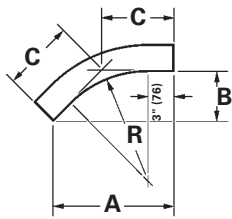
45° Vertical Outside -VO



45° Vertical Inside -VI

**Vertical Bend 45° (VO, VI)**

1 pair splice plates with hardware included.



| Bend Radius<br>R | Tray Width<br>Insert | (*) Insert "VO" for<br>Vert. Outside Bend<br>"VI" for<br>Vert. Inside Bend<br>Catalog No. | VO Side Rail<br>Height<br>4" - 7" |                                  |                                  | VI Side Rail Height              |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|------------------|----------------------|---|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|--------------------------------|--------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|--|
|                  |                      |   | in./(mm)                          |                                  |                                  | 4"                               |                                  |                                 | 5"                             |                                |                                  | 6"                               |                                  |                                 | 7"                              |                                  |                                  |  |
|                  |                      |   | A                                 | B                                | C                                | A                                | B                                | C                               | A                              | B                              | C                                | A                                | B                                | C                               | A                               | B                                | C                                |  |
| 12<br>(305)      | 6 (152)              | (Prefix)-06-45(*)12   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 9 (228)              | (Prefix)-09-45(*)12   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 12 (305)             | (Prefix)-12-45(*)12   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 18 (457)             | (Prefix)-18-45(*)12   | 13 <sup>5</sup> / <sub>8</sub>    | 5 <sup>5</sup> / <sub>8</sub>    | 8                                | 16 <sup>7</sup> / <sub>16</sub>  | 6 <sup>13</sup> / <sub>16</sub>  | 9 <sup>5</sup> / <sub>8</sub>   | 17 <sup>1</sup> / <sub>8</sub> | 7 <sup>1</sup> / <sub>8</sub>  | 10 <sup>1</sup> / <sub>16</sub>  | 17 <sup>7</sup> / <sub>8</sub>   | 7 <sup>3</sup> / <sub>8</sub>    | 10 <sup>7</sup> / <sub>16</sub> | 18 <sup>9</sup> / <sub>16</sub> | 7 <sup>11</sup> / <sub>16</sub>  | 10 <sup>7</sup> / <sub>8</sub>   |  |
|                  | 24 (609)             | (Prefix)-24-45(*)12   | (346)                             | (143)                            | (203)                            | (417)                            | (173)                            | (245)                           | (435)                          | (181)                          | (256)                            | (454)                            | (188)                            | (265)                           | (471)                           | (195)                            | (2176)                           |  |
|                  | 30 (762)             | (Prefix)-30-45(*)12   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 36 (914)             | (Prefix)-36-45(*)12   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 42 (1067)        | (Prefix)-42-45(*)12  |   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 24<br>(609)      | 6 (152)              | (Prefix)-06-45(*)24   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 9 (228)              | (Prefix)-09-45(*)24   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 12 (305)             | (Prefix)-12-45(*)24   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 18 (457)             | (Prefix)-18-45(*)24   | 22 <sup>1</sup> / <sub>16</sub>   | 9 <sup>1</sup> / <sub>8</sub>    | 12 <sup>15</sup> / <sub>16</sub> | 24 <sup>15</sup> / <sub>16</sub> | 10 <sup>5</sup> / <sub>16</sub>  | 14 <sup>5</sup> / <sub>8</sub>  | 25 <sup>5</sup> / <sub>8</sub> | 10 <sup>5</sup> / <sub>8</sub> | 15                               | 26 <sup>5</sup> / <sub>16</sub>  | 10 <sup>15</sup> / <sub>16</sub> | 15 <sup>7</sup> / <sub>16</sub> | 27 <sup>1</sup> / <sub>16</sub> | 11 <sup>3</sup> / <sub>16</sub>  | 15 <sup>13</sup> / <sub>16</sub> |  |
|                  | 24 (609)             | (Prefix)-24-45(*)24   | (561)                             | (232)                            | (329)                            | (634)                            | (262)                            | (372)                           | (651)                          | (270)                          | (381)                            | (668)                            | (278)                            | (392)                           | (687)                           | (284)                            | (402)                            |  |
|                  | 30 (762)             | (Prefix)-30-45(*)24   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 36 (914)             | (Prefix)-36-45(*)24   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 42 (1067)        | (Prefix)-42-45(*)24  |   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 36<br>(914)      | 6 (152)              | (Prefix)-06-45(*)36   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 9 (228)              | (Prefix)-09-45(*)36   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 12 (305)             | (Prefix)-12-45(*)36   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 18 (457)             | (Prefix)-18-45(*)36   | 30 <sup>9</sup> / <sub>16</sub>   | 12 <sup>11</sup> / <sub>16</sub> | 17 <sup>15</sup> / <sub>16</sub> | 33 <sup>3</sup> / <sub>8</sub>   | 13 <sup>13</sup> / <sub>16</sub> | 19 <sup>9</sup> / <sub>16</sub> | 34 <sup>1</sup> / <sub>8</sub> | 14 <sup>1</sup> / <sub>8</sub> | 20                               | 34 <sup>13</sup> / <sub>16</sub> | 14 <sup>7</sup> / <sub>16</sub>  | 20 <sup>3</sup> / <sub>8</sub>  | 35 <sup>1</sup> / <sub>2</sub>  | 14 <sup>11</sup> / <sub>16</sub> | 20 <sup>13</sup> / <sub>16</sub> |  |
|                  | 24 (609)             | (Prefix)-24-45(*)36   | (776)                             | (323)                            | (456)                            | (848)                            | (351)                            | (497)                           | (867)                          | (359)                          | (508)                            | (885)                            | (367)                            | (518)                           | (902)                           | (284)                            | (402)                            |  |
|                  | 30 (762)             | (Prefix)-30-45(*)36   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 36 (914)             | (Prefix)-36-45(*)36   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 42 (1067)        | (Prefix)-42-45(*)36  |   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 48<br>(1219)     | 6 (152)              | (Prefix)-06-45(*)48   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 9 (228)              | (Prefix)-09-45(*)48   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 12 (305)             | (Prefix)-12-45(*)48   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 18 (457)             | (Prefix)-18-45(*)48   | 39 <sup>1</sup> / <sub>16</sub>   | 16 <sup>3</sup> / <sub>16</sub>  | 22 <sup>7</sup> / <sub>8</sub>   | 41 <sup>7</sup> / <sub>8</sub>   | 17 <sup>3</sup> / <sub>8</sub>   | 24 <sup>9</sup> / <sub>16</sub> | 42 <sup>5</sup> / <sub>8</sub> | 17 <sup>5</sup> / <sub>8</sub> | 24 <sup>15</sup> / <sub>16</sub> | 43 <sup>5</sup> / <sub>16</sub>  | 17 <sup>15</sup> / <sub>16</sub> | 25 <sup>3</sup> / <sub>8</sub>  | 44                              | 18 <sup>1</sup> / <sub>4</sub>   | 25 <sup>13</sup> / <sub>16</sub> |  |
|                  | 24 (609)             | (Prefix)-24-45(*)48   | (992)                             | (411)                            | (581)                            | (1064)                           | (441)                            | (624)                           | (1083)                         | (448)                          | (633)                            | (1100)                           | (456)                            | (645)                           | (1118)                          | (464)                            | (656)                            |  |
|                  | 30 (762)             | (Prefix)-30-45(*)48   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
|                  | 36 (914)             | (Prefix)-36-45(*)48   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |
| 42 (1067)        | (Prefix)-42-45(*)48  |   |                                   |                                  |                                  |                                  |                                  |                                 |                                |                                |                                  |                                  |                                  |                                 |                                 |                                  |                                  |  |

(Prefix) See page L-3 for catalog number prefix.

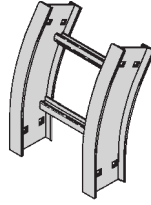
Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width. Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

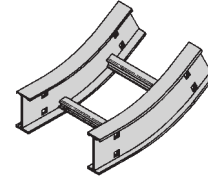
# Series 2, 3, 4, & 5 - Fittings

## Vertical Bend 30° (VO, VI)

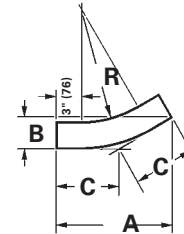
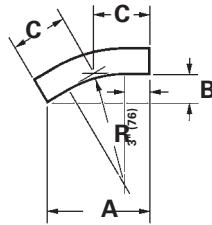
1 pair splice plates with hardware included.



30° Vertical Outside -VO



30° Vertical Inside -VI



| Bend Radius R | Tray Width Insert   | (*) Insert "VO" for Vert. Outside Bend "VI" for Vert. Inside Bend Catalog No. | VO Side Rail Height 4" - 7"    |                                 |                                | VI Side Rail Height            |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|---------------|---------------------|---|--------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|
|               |                     |   | in./(mm)                       |                                 |                                | 4"                             |                                |                                  | 5"                             |                               |                                 | 6"                             |                                 |                                 | 7"                             |                                |                                 |
|               |                     |   | A                              | B                               | C                              | A                              | B                              | C                                | A                              | B                             | C                               | A                              | B                               | C                               | A                              | B                              | C                               |
| 12<br>(305)   | 6 (152)             | (Prefix)-06-30(*)12   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 9 (228)             | (Prefix)-09-30(*)12   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 12 (305)            | (Prefix)-12-30(*)12   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 18 (457)            | (Prefix)-18-30(*)12   | 11 <sup>5</sup> / <sub>8</sub> | 3 <sup>1</sup> / <sub>8</sub>   | 6 <sup>3</sup> / <sub>16</sub> | 13 <sup>5</sup> / <sub>8</sub> | 3 <sup>5</sup> / <sub>8</sub>  | 7 <sup>9</sup> / <sub>16</sub>   | 14 <sup>1</sup> / <sub>8</sub> | 3 <sup>3</sup> / <sub>4</sub> | 7 <sup>9</sup> / <sub>16</sub>  | 14 <sup>5</sup> / <sub>8</sub> | 3 <sup>15</sup> / <sub>16</sub> | 7 <sup>13</sup> / <sub>16</sub> | 15 <sup>1</sup> / <sub>8</sub> | 4 <sup>1</sup> / <sub>16</sub> | 8 <sup>1</sup> / <sub>16</sub>  |
|               | 24 (609)            | (Prefix)-24-30(*)12   | (296)                          | (79)                            | (157)                          | (346)                          | (92)                           | (186)                            | (359)                          | (95)                          | (192)                           | (372)                          | (100)                           | (199)                           | (384)                          | (103)                          | (205)                           |
|               | 30 (762)            | (Prefix)-30-30(*)12   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 36 (914)            | (Prefix)-36-30(*)12   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 42 (1067)     | (Prefix)-42-30(*)12 |   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 24<br>(609)   | 6 (152)             | (Prefix)-06-30(*)24   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 9 (228)             | (Prefix)-09-30(*)24   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 12 (305)            | (Prefix)-12-30(*)24   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 18 (457)            | (Prefix)-18-30(*)24   | 17 <sup>5</sup> / <sub>8</sub> | 4 <sup>11</sup> / <sub>16</sub> | 9 <sup>7</sup> / <sub>16</sub> | 19 <sup>5</sup> / <sub>8</sub> | 5 <sup>1</sup> / <sub>4</sub>  | 10 <sup>1</sup> / <sub>2</sub>   | 20 <sup>1</sup> / <sub>8</sub> | 5 <sup>3</sup> / <sub>8</sub> | 10 <sup>3</sup> / <sub>4</sub>  | 20 <sup>5</sup> / <sub>8</sub> | 5 <sup>1</sup> / <sub>2</sub>   | 11 <sup>1</sup> / <sub>16</sub> | 21 <sup>1</sup> / <sub>8</sub> | 5 <sup>5</sup> / <sub>8</sub>  | 11 <sup>5</sup> / <sub>16</sub> |
|               | 24 (609)            | (Prefix)-24-30(*)24   | (448)                          | (120)                           | (240)                          | (499)                          | (133)                          | (267)                            | (511)                          | (137)                         | (273)                           | (524)                          | (140)                           | (282)                           | (537)                          | (143)                          | (287)                           |
|               | 30 (762)            | (Prefix)-30-30(*)24   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 36 (914)            | (Prefix)-36-30(*)24   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 42 (1067)     | (Prefix)-42-30(*)24 |   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 36<br>(914)   | 6 (152)             | (Prefix)-06-30(*)36   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 9 (228)             | (Prefix)-09-30(*)36   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 12 (305)            | (Prefix)-12-30(*)36   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 18 (457)            | (Prefix)-18-30(*)36   | 23 <sup>5</sup> / <sub>8</sub> | 6 <sup>5</sup> / <sub>16</sub>  | 12 <sup>5</sup> / <sub>8</sub> | 25 <sup>5</sup> / <sub>8</sub> | 6 <sup>7</sup> / <sub>8</sub>  | 13 <sup>11</sup> / <sub>16</sub> | 26 <sup>1</sup> / <sub>8</sub> | 7                             | 14                              | 26 <sup>5</sup> / <sub>8</sub> | 7 <sup>1</sup> / <sub>8</sub>   | 14 <sup>1</sup> / <sub>4</sub>  | 27 <sup>1</sup> / <sub>8</sub> | 7 <sup>1</sup> / <sub>4</sub>  | 14 <sup>1</sup> / <sub>2</sub>  |
|               | 24 (609)            | (Prefix)-24-30(*)36   | (600)                          | (160)                           | (321)                          | (651)                          | (174)                          | (348)                            | (663)                          | (175)                         | (356)                           | (676)                          | (181)                           | (362)                           | (689)                          | (184)                          | (287)                           |
|               | 30 (762)            | (Prefix)-30-30(*)36   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 36 (914)            | (Prefix)-36-30(*)36   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 42 (1067)     | (Prefix)-42-30(*)36 |   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 48<br>(1219)  | 6 (152)             | (Prefix)-06-30(*)48   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 9 (228)             | (Prefix)-09-30(*)48   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 12 (305)            | (Prefix)-12-30(*)48   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 18 (457)            | (Prefix)-18-30(*)48   | 29 <sup>5</sup> / <sub>8</sub> | 7 <sup>15</sup> / <sub>16</sub> | 15 <sup>7</sup> / <sub>8</sub> | 31 <sup>5</sup> / <sub>8</sub> | 8 <sup>7</sup> / <sub>16</sub> | 16 <sup>15</sup> / <sub>16</sub> | 32 <sup>1</sup> / <sub>8</sub> | 8 <sup>5</sup> / <sub>8</sub> | 17 <sup>9</sup> / <sub>16</sub> | 32 <sup>5</sup> / <sub>8</sub> | 8 <sup>3</sup> / <sub>4</sub>   | 17 <sup>1</sup> / <sub>2</sub>  | 33 <sup>1</sup> / <sub>8</sub> | 8 <sup>7</sup> / <sub>8</sub>  | 17 <sup>3</sup> / <sub>4</sub>  |
|               | 24 (609)            | (Prefix)-24-30(*)48   | (753)                          | (202)                           | (403)                          | (803)                          | (214)                          | (430)                            | (816)                          | (219)                         | (437)                           | (829)                          | (222)                           | (445)                           | (842)                          | (226)                          | (451)                           |
|               | 30 (762)            | (Prefix)-30-30(*)48   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
|               | 36 (914)            | (Prefix)-36-30(*)48   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |
| 42 (1067)     | (Prefix)-42-30(*)48 |   |                                |                                 |                                |                                |                                |                                  |                                |                               |                                 |                                |                                 |                                 |                                |                                |                                 |

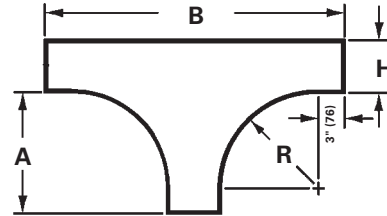
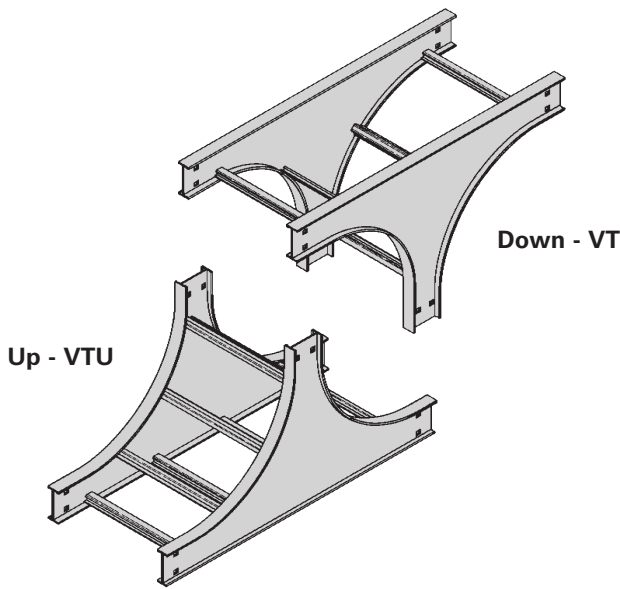
(Prefix) See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

**Vertical Tee Up/Down (VTU/VT)**  
2 pair splice plates with hardware included.



| Bend Radius<br>R<br>in./(mm) | Tray Width<br>in. mm | Vertical Tee Down<br>Catalog No. | Vertical Tee Up<br>Catalog No. | Side Rail Height "H" |               |               |               |               |               |               |               |
|------------------------------|----------------------|----------------------------------|--------------------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                              |                      |                                  |                                | 4"                   |               | 5"            |               | 6"            |               | 7"            |               |
|                              |                      |                                  |                                | A<br>in./(mm)        | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) |
| 12<br>(305)                  | 6 (152)              | (Prefix)-06-VT12                 | (Prefix)-06-VTU12              |                      |               |               |               |               |               |               |               |
|                              | 9 (228)              | (Prefix)-09-VT12                 | (Prefix)-09-VTU12              |                      |               |               |               |               |               |               |               |
|                              | 12 (305)             | (Prefix)-12-VT12                 | (Prefix)-12-VTU12              |                      |               |               |               |               |               |               |               |
|                              | 18 (457)             | (Prefix)-18-VT12                 | (Prefix)-18-VTU12              | 15                   | 34            | 15            | 35            | 15            | 36            | 15            | 37            |
|                              | 24 (609)             | (Prefix)-24-VT12                 | (Prefix)-24-VTU12              | (381)                | (846)         | (381)         | (889)         | (381)         | (914)         | (381)         | (940)         |
|                              | 30 (762)             | (Prefix)-30-VT12                 | (Prefix)-30-VTU12              |                      |               |               |               |               |               |               |               |
|                              | 36 (914)             | (Prefix)-36-VT12                 | (Prefix)-36-VTU12              |                      |               |               |               |               |               |               |               |
| 42 (1067)                    | (Prefix)-42-VT12     | (Prefix)-42-VTU12                |                                |                      |               |               |               |               |               |               |               |
| 24<br>(609)                  | 6 (152)              | (Prefix)-06-VT24                 | (Prefix)-06-VTU24              |                      |               |               |               |               |               |               |               |
|                              | 9 (228)              | (Prefix)-09-VT24                 | (Prefix)-09-VTU24              |                      |               |               |               |               |               |               |               |
|                              | 12 (305)             | (Prefix)-12-VT24                 | (Prefix)-12-VTU24              |                      |               |               |               |               |               |               |               |
|                              | 18 (457)             | (Prefix)-18-VT24                 | (Prefix)-18-VTU24              | 27                   | 58            | 27            | 59            | 27            | 60            | 27            | 61            |
|                              | 24 (609)             | (Prefix)-24-VT24                 | (Prefix)-24-VTU24              | (6867)               | (1473)        | (686)         | (1498)        | (686)         | (1524)        | (686)         | (1549)        |
|                              | 30 (762)             | (Prefix)-30-VT24                 | (Prefix)-30-VTU24              |                      |               |               |               |               |               |               |               |
|                              | 36 (914)             | (Prefix)-36-VT24                 | (Prefix)-36-VTU24              |                      |               |               |               |               |               |               |               |
| 42 (1067)                    | (Prefix)-42-VT24     | (Prefix)-42-VTU24                |                                |                      |               |               |               |               |               |               |               |
| 36<br>(914)                  | 6 (152)              | (Prefix)-06-VT36                 | (Prefix)-06-VTU36              |                      |               |               |               |               |               |               |               |
|                              | 9 (228)              | (Prefix)-09-VT36                 | (Prefix)-09-VTU36              |                      |               |               |               |               |               |               |               |
|                              | 12 (305)             | (Prefix)-12-VT36                 | (Prefix)-12-VTU36              |                      |               |               |               |               |               |               |               |
|                              | 18 (457)             | (Prefix)-18-VT36                 | (Prefix)-18-VTU36              | 39                   | 82            | 39            | 83            | 39            | 84            | 39            | 85            |
|                              | 24 (609)             | (Prefix)-24-VT36                 | (Prefix)-24-VTU36              | (991)                | (2083)        | (991)         | (2108)        | (991)         | (2134)        | (991)         | (2159)        |
|                              | 30 (762)             | (Prefix)-30-VT36                 | (Prefix)-30-VTU36              |                      |               |               |               |               |               |               |               |
|                              | 36 (914)             | (Prefix)-36-VT36                 | (Prefix)-36-VTU36              |                      |               |               |               |               |               |               |               |
| 42 (1067)                    | (Prefix)-42-VT36     | (Prefix)-42-VTU36                |                                |                      |               |               |               |               |               |               |               |
| 48<br>(1219)                 | 6 (152)              | (Prefix)-06-VT48                 | (Prefix)-06-VTU48              |                      |               |               |               |               |               |               |               |
|                              | 9 (228)              | (Prefix)-09-VT48                 | (Prefix)-09-VTU48              |                      |               |               |               |               |               |               |               |
|                              | 12 (305)             | (Prefix)-12-VT48                 | (Prefix)-12-VTU48              |                      |               |               |               |               |               |               |               |
|                              | 18 (457)             | (Prefix)-18-VT48                 | (Prefix)-18-VTU48              | 51                   | 106           | 51            | 107           | 51            | 108           | 51            | 109           |
|                              | 24 (609)             | (Prefix)-24-VT48                 | (Prefix)-24-VTU48              | (1295)               | (2692)        | (1295)        | (2718)        | (1295)        | (2743)        | (1295)        | (2769)        |
|                              | 30 (762)             | (Prefix)-30-VT48                 | (Prefix)-30-VTU48              |                      |               |               |               |               |               |               |               |
|                              | 36 (914)             | (Prefix)-36-VT48                 | (Prefix)-36-VTU48              |                      |               |               |               |               |               |               |               |
| 42 (1067)                    | (Prefix)-42-VT48     | (Prefix)-42-VTU48                |                                |                      |               |               |               |               |               |               |               |

Series 2, 3, 4, & 5 Fittings

**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

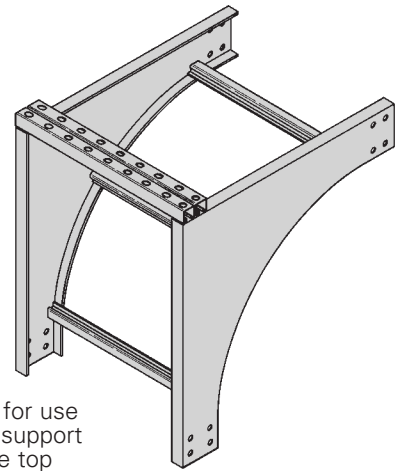
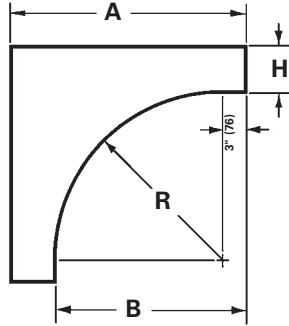
Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

# Series 2, 3, 4, & 5 - Fittings

## Cable Support Fittings (CSF)

1 pair splice plates with hardware included.



This fitting is recommended for use at the top of vertical runs to support the weight of the cables. The top cross brace is drilled for installing eyebolts, ordered separately.

Series 2, 3, 4, & 5 Fittings

| Bend Radius<br>R<br>in./(mm) | Tray Width<br>in. mm | Catalog No.       | Side Rail Height "H" |               |               |               |               |               |               |               |
|------------------------------|----------------------|-------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                              |                      |                   | 4"                   |               | 5"            |               | 6"            |               | 7"            |               |
|                              |                      |                   | A<br>in./(mm)        | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) | A<br>in./(mm) | B<br>in./(mm) |
| 12<br>(305)                  | 6 152                | (Prefix)-06-CSF12 | 19<br>(483)          | 15<br>(381)   | 20<br>(508)   | 15<br>(381)   | 21<br>(533)   | 15<br>(381)   | 22<br>(559)   | 15<br>(381)   |
|                              | 9 228                | (Prefix)-09-CSF12 |                      |               |               |               |               |               |               |               |
|                              | 12 305               | (Prefix)-12-CSF12 |                      |               |               |               |               |               |               |               |
|                              | 18 457               | (Prefix)-18-CSF12 |                      |               |               |               |               |               |               |               |
|                              | 24 609               | (Prefix)-24-CSF12 |                      |               |               |               |               |               |               |               |
|                              | 30 762               | (Prefix)-30-CSF12 |                      |               |               |               |               |               |               |               |
|                              | 36 914               | (Prefix)-36-CSF12 |                      |               |               |               |               |               |               |               |
| 42 1067                      | (Prefix)-42-CSF12    |                   |                      |               |               |               |               |               |               |               |
| 24<br>(609)                  | 6 152                | (Prefix)-06-CSF24 | 31<br>(787)          | 27<br>(686)   | 32<br>(813)   | 27<br>(686)   | 33<br>(838)   | 27<br>(686)   | 34<br>(864)   | 27<br>(686)   |
|                              | 9 228                | (Prefix)-09-CSF24 |                      |               |               |               |               |               |               |               |
|                              | 12 305               | (Prefix)-12-CSF24 |                      |               |               |               |               |               |               |               |
|                              | 18 457               | (Prefix)-18-CSF24 |                      |               |               |               |               |               |               |               |
|                              | 24 609               | (Prefix)-24-CSF24 |                      |               |               |               |               |               |               |               |
|                              | 30 762               | (Prefix)-30-CSF24 |                      |               |               |               |               |               |               |               |
|                              | 36 914               | (Prefix)-36-CSF24 |                      |               |               |               |               |               |               |               |
| 42 1067                      | (Prefix)-42-CSF24    |                   |                      |               |               |               |               |               |               |               |
| 36<br>(914)                  | 6 152                | (Prefix)-06-CSF36 | 43<br>(1092)         | 39<br>(991)   | 44<br>(1118)  | 39<br>(991)   | 45<br>(1143)  | 39<br>(991)   | 46<br>(1168)  | 39<br>(991)   |
|                              | 9 228                | (Prefix)-09-CSF36 |                      |               |               |               |               |               |               |               |
|                              | 12 305               | (Prefix)-12-CSF36 |                      |               |               |               |               |               |               |               |
|                              | 18 457               | (Prefix)-18-CSF36 |                      |               |               |               |               |               |               |               |
|                              | 24 609               | (Prefix)-24-CSF36 |                      |               |               |               |               |               |               |               |
|                              | 30 762               | (Prefix)-30-CSF36 |                      |               |               |               |               |               |               |               |
|                              | 36 914               | (Prefix)-36-CSF36 |                      |               |               |               |               |               |               |               |
| 42 1067                      | (Prefix)-42-CSF36    |                   |                      |               |               |               |               |               |               |               |
| 48<br>(1219)                 | 6 152                | (Prefix)-06-CSF48 | 55<br>(1397)         | 51<br>(1295)  | 56<br>(1422)  | 51<br>(1295)  | 57<br>(1448)  | 51<br>(1295)  | 58<br>(1473)  | 51<br>(1295)  |
|                              | 9 228                | (Prefix)-09-CSF48 |                      |               |               |               |               |               |               |               |
|                              | 12 305               | (Prefix)-12-CSF48 |                      |               |               |               |               |               |               |               |
|                              | 18 457               | (Prefix)-18-CSF48 |                      |               |               |               |               |               |               |               |
|                              | 24 609               | (Prefix)-24-CSF48 |                      |               |               |               |               |               |               |               |
|                              | 30 762               | (Prefix)-30-CSF48 |                      |               |               |               |               |               |               |               |
|                              | 36 914               | (Prefix)-36-CSF48 |                      |               |               |               |               |               |               |               |
| 42 1067                      | (Prefix)-42-CSF48    |                   |                      |               |               |               |               |               |               |               |

**(Prefix)** See page L-3 for catalog number prefix.

Width dimensions are to inside wall. For aluminum fittings add 1.5 inches (38mm) for total outside width.

Manufacturing tolerances apply to all dimensions.

All dimensions in parentheses are millimeters unless otherwise specified.

