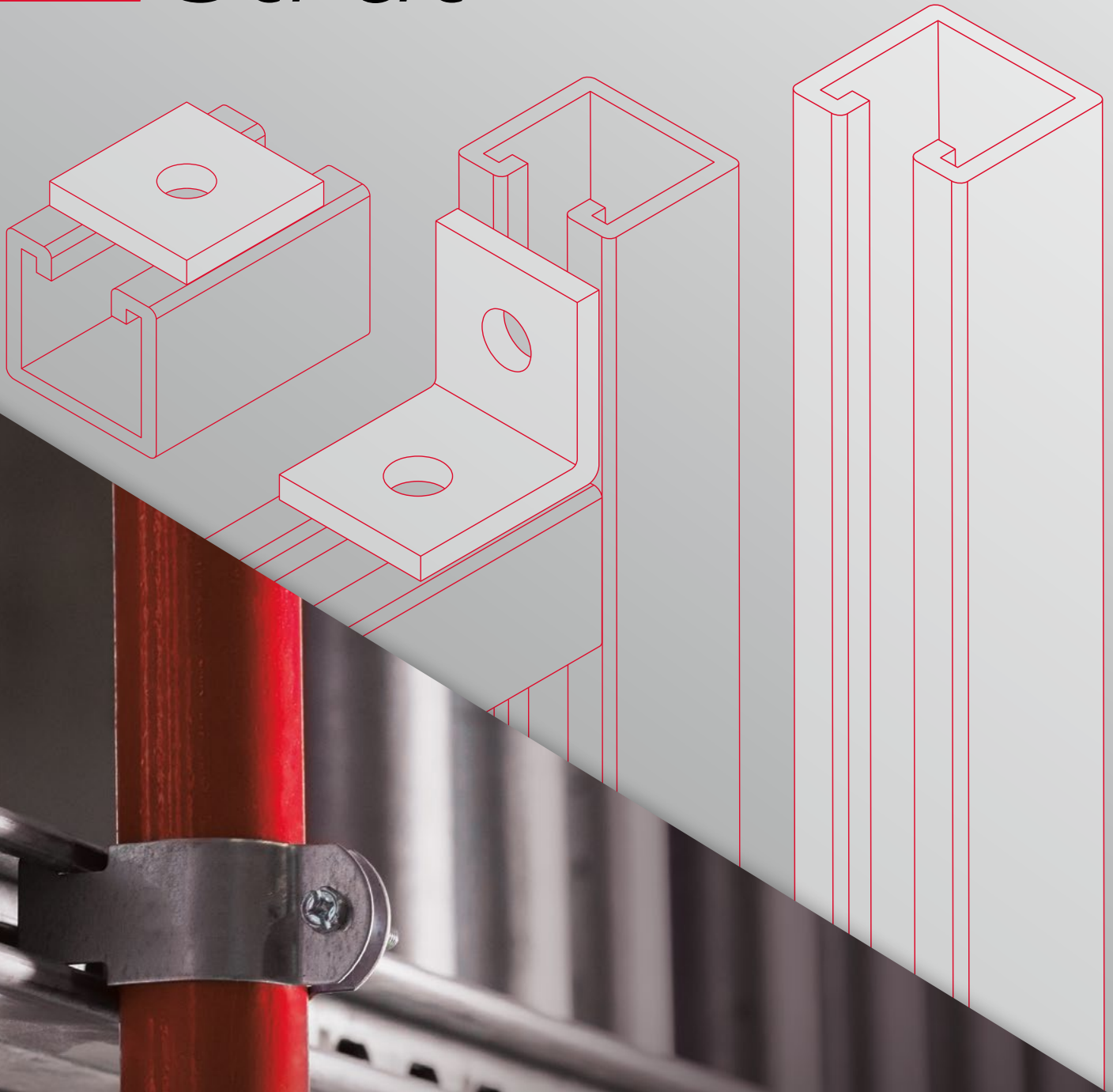


# ZI-Strut®

 **Wheatland** Tube  
A ZEKELMAN COMPANY



## PRODUCT CATALOG

# High-quality strut and a full line of steel accessories.

Backed by the best service  
in the industry.

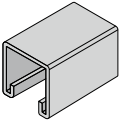
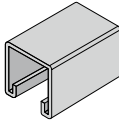
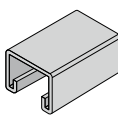
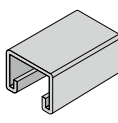
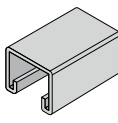
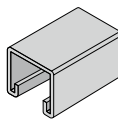
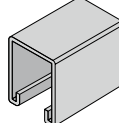
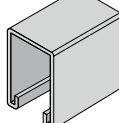
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We work hard to exceed your expectations with superior domestic products, competitive pricing and the best customer service. Our high-quality, American-made strut is complemented by a complete line of accessories that are available in all finishes and materials, including 304 and 316 stainless steel.



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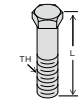


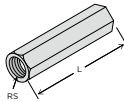

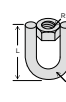
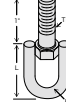
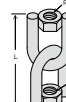
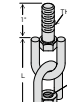
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|  |  |  |  |   |  |  |  |
|--|--|--|--|---|--|--|--|
| <b>ZI12-158</b><br>$1\frac{1}{8}" \times 1\frac{1}{8}"$ Channel<br>12 Gauge<br> | <b>ZI14-158</b><br>$1\frac{1}{8}" \times 1\frac{1}{8}"$ Channel<br>14 Gauge<br> | <b>ZI12-1316</b><br>$1\frac{1}{8}" \times \frac{1}{2}"$ Channel<br>12 Gauge<br> | <b>ZI14-1316</b><br>$1\frac{1}{8}" \times \frac{1}{2}"$ Channel<br>14 Gauge<br> | <b>ZI12-1</b><br>$1\frac{1}{8}" \times 1"$ Channel<br>12 Gauge<br> | <b>ZI12-138</b><br>$1\frac{1}{8}" \times 1\frac{1}{8}"$ Channel<br>12 Gauge<br> | <b>ZI12-2716</b><br>$1\frac{1}{8}" \times 2\frac{7}{16}"$ Channel<br>12 Gauge<br> | <b>ZI12-314</b><br>$1\frac{1}{8}" \times 3\frac{1}{4}"$ Channel<br>12 Gauge<br> |
|--|--|--|--|---|--|--|--|






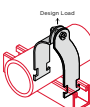
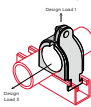
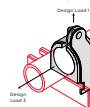
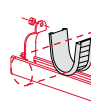
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|  |   |   |  |  |  |  |   |  |
|--|---|---|--|--|--|--|---|--|
| <b>ZCNN (D)</b><br>Most Channel<br> | <b>ZCNS (D)</b><br>$\frac{1}{8}"$ & $1"$ Channel<br> | <b>ZCNR (D)</b><br>$1\frac{1}{8}"$ & $1\frac{1}{2}"$ Channel<br> | <b>ZCNL (D)</b><br>$2\frac{1}{16}"$ & $3\frac{1}{4}"$ Channel<br> | <b>ZCNT (D)</b><br>Most Channel<br> | <b>ZCND</b><br>$1\frac{1}{8}"$ & $1\frac{1}{2}"$ Channel<br> | <b>ZCNSQ</b><br>All Channel<br> | <b>ZCNC</b><br>All Channel<br> | <b>ZCNW</b><br>Most Channel<br> |
|--|---|---|--|--|--|--|---|--|

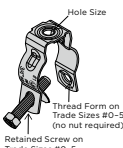
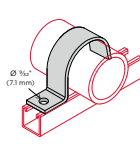
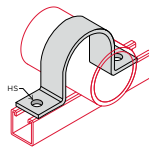
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|  |  |  |   |   |  |  |  |  |
|--|--|--|---|---|--|--|--|--|
| <b>ZHCS</b><br>Hex Head Cap Screw<br><br>$\frac{1}{4}"$ -20 to $\frac{1}{2}"$ -13 | <b>ZHN</b><br>Hex Nut<br><br>$\frac{1}{4}"$ -20 to $\frac{3}{4}"$ -10 | <b>ZFW</b><br>Flat Washer<br><br>$\frac{1}{4}"$ to $\frac{3}{4}"$ | <b>ZRC</b><br>Rod Coupling<br><br>$\frac{1}{4}"$ -20 to $\frac{1}{2}"$ -13 | <b>ZVRS</b><br>Rod Stiffener<br><br>$\frac{3}{8}"$ to $\frac{5}{8}"$ | <b>ZSW10</b><br>Swivel Female<br><br>$\frac{3}{8}"$ -16 to $\frac{1}{2}"$ -13 | <b>ZSW11</b><br>Swivel Male<br><br>$\frac{3}{8}"$ -16 to $\frac{1}{2}"$ -13 | <b>ZSW12</b><br>Swivel Female to Female<br><br>$\frac{3}{8}"$ -16 to $\frac{1}{2}"$ -13 | <b>ZSW13</b><br>Swivel Male to Female<br><br>$\frac{3}{8}"$ -16 to $\frac{1}{2}"$ -13 |
|--|--|--|---|---|--|--|--|--|

## STRUT CLAMPS | PAGES 27-31

|  |  |   |  |   |
|--|--|---|--|---|
| <b>ZSCR</b><br>Rigid Strut Clamp<br><br>$\frac{1}{4}"$ -12" | <b>ZSCU</b><br>Universal Strut Clamp<br><br>$\frac{1}{2}"$ -2"                      | <b>ZSCE</b><br>EMT Strut Clamp<br><br>$\frac{1}{2}"$ -2"             | <b>ZSCH</b><br>One Piece Strut Clamp<br><br>$\frac{3}{8}"$ -4"    | <b>ZSCC</b><br>Copper Tubing Strut Clamp<br><br>$\frac{1}{4}"$ -6" |
| <b>ZSCO</b><br>OD Strut Clamp<br><br>$\frac{1}{4}"$ -9"     | <b>ZCCT</b><br>Cushioned Tubing Strut Clamp<br><br>$\frac{1}{4}"$ -4 $\frac{1}{8}"$ | <b>ZCCP</b><br>Cushioned Pipe Strut Clamp<br><br>$\frac{3}{8}"$ -5" | <b>ZPW2500EP</b><br>Cushioned Pipe Wrap<br><br>$\frac{1}{4}"$ -8" |   |

## CONDUIT & TUBING CLAMPS | PAGE 32

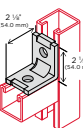
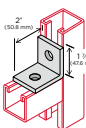
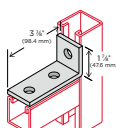
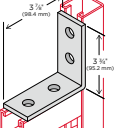
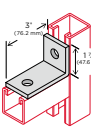
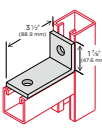
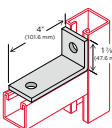
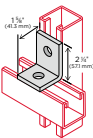
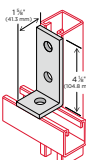
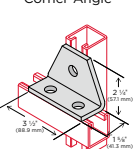
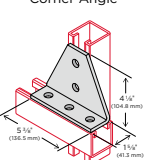
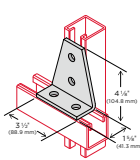
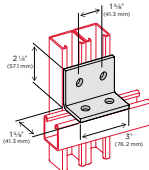
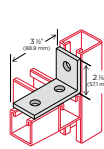
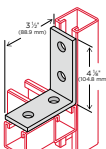
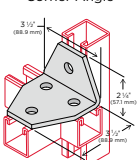
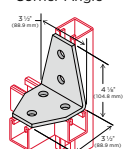
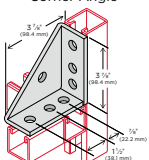
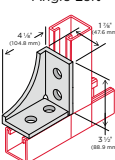
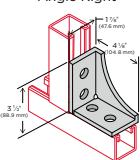
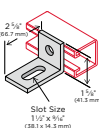
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|--|--|--|
| <b>ZPCH</b><br>Pipe and Conduit Hanger   $\frac{1}{2}"$ -4"<br> | <b>ZTC1</b><br>OD Tubing Clamp   $\frac{1}{4}"$ -1"<br> | <b>ZPS2</b><br>Pipe Strap   $\frac{1}{2}"$ -12"<br> |
|--|--|--|

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| <b>ZF35</b><br>4 Hole Parallel Splice Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF36</b><br>3 Hole Parallel Splice Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF40</b><br>2 Hole Swivel Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "     | <b>ZF41</b><br>3 Hole Swivel Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "     | <b>ZF50</b><br>3 Hole Corner Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "     | <b>ZF51</b><br>4 Hole Corner Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF52</b><br>3 Hole Corner Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF53</b><br>4 Hole Corner Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "   |
| <b>ZF54</b><br>5 Hole Corner Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "   | <b>ZF60</b><br>4 Hole Tee Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "             | <b>ZF61</b><br>3 Hole Tee Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF62</b><br>4 Hole Tee Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF63</b><br>5 Hole Tee Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZF70</b><br>5 Hole Cross Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  | <b>ZF71</b><br>7 Hole Cross Gusset Plate<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  |  |

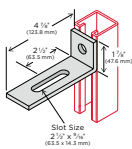
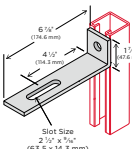
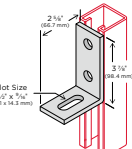
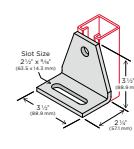
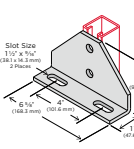
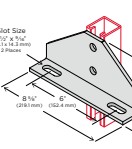
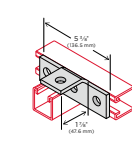
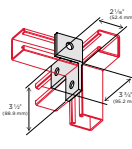
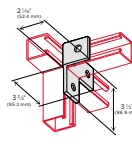
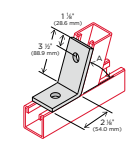
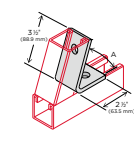
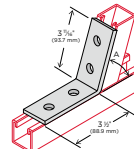
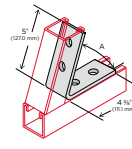
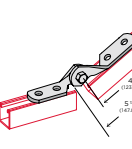
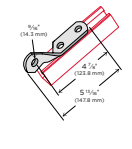
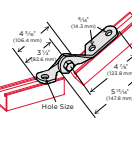
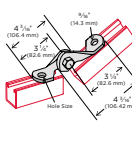
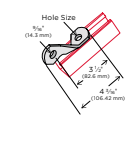
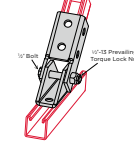
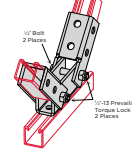
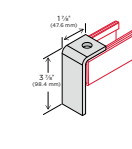
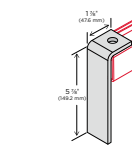

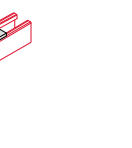
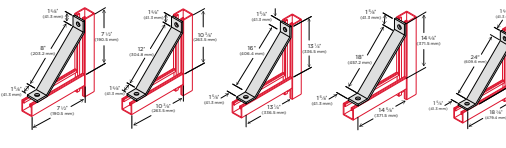
## ANGLE FITTINGS | PAGES 37-46

|   |   |   |   |   |  |   |
|---|---|---|---|---|--|---|
| <b>ZL10</b><br>2 Hole No Twist Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL11</b><br>2 Hole Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "              | <b>ZL12</b><br>3 Hole Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "              | <b>ZL13</b><br>4 Hole Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "                  | <b>ZL14</b><br>2 Hole 3\" Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL15</b><br>2 Hole 3 1/2\" Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL16</b><br>2 Hole 4\" Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  |
| <b>ZL20</b><br>2 Hole Cross Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "    | <b>ZL21</b><br>3 Hole Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "              | <b>ZL22</b><br>3 Hole Cross Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL23</b><br>5 Hole Cross Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "     | <b>ZL24</b><br>4 Hole Gusset Shelf Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "   | <b>ZL25</b><br>4 Hole Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  | <b>ZL30</b><br>3 Hole 3 Way Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  |
| <b>ZL31</b><br>4 Hole 3 Way Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "    | <b>ZL32</b><br>4 Hole 3 Way Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL33</b><br>5 Hole 3 Way Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL34</b><br>7 Hole Universal Gusset Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " | <b>ZL35</b><br>4 Hole Gusset Corner Angle Left<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "   | <b>ZL36</b><br>4 Hole Gusset Corner Angle Right<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ "  | <b>ZL40</b><br>2 Hole 2 5/8\" Adjustable Corner Angle<br><br>$\frac{3}{4}$ - $\frac{1}{2}$ " |

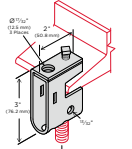
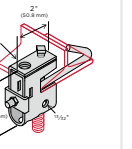
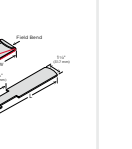
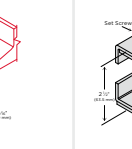
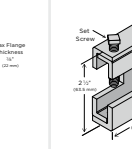
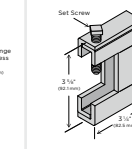
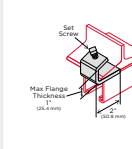
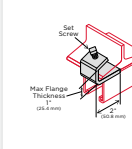
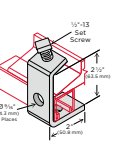
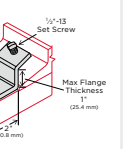
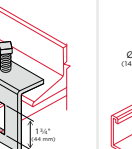
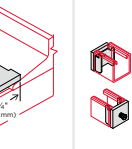
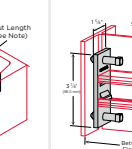
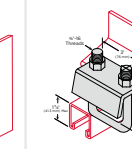
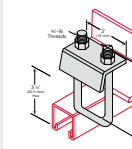
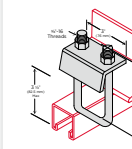


# Contents

## ANGLE FITTINGS (...CONTINUED) | PAGES 37-46

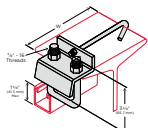
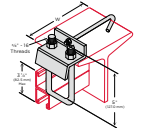
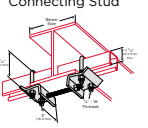
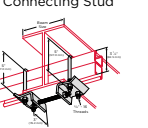
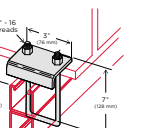
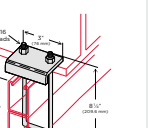
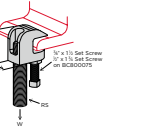
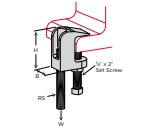
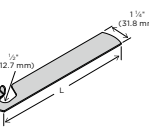
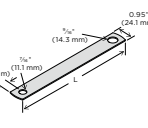
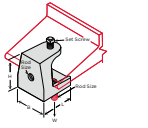
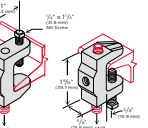
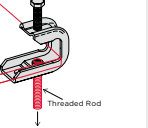
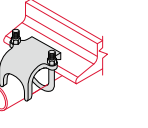
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|--|--|--|--|--|--|---|
| <b>ZL41</b><br>2 Hole 4 7/8" Adjustable<br>Corner Angle<br> | <b>ZL42</b><br>2 Hole 6 7/8" Adjustable<br>Corner Angle<br> | <b>ZL43</b><br>3 Hole Adjustable<br>Corner Angle<br>  | <b>ZL44</b><br>2 Hole Adjustable Gusset<br>Corner Angle<br> | <b>ZL45</b><br>4 Hole 6 3/8" Adjustable<br>Gusset Corner Angle<br> | <b>ZL46</b><br>4 Hole 8 3/8" Adjustable<br>Corner Angle<br> | <b>ZL50</b><br>4 Hole Offset Corner Angle<br>        |
| <b>ZL51</b><br>4 Hole Offset<br>Bent Tee Left<br>           | <b>ZL52</b><br>4 Hole Offset<br>Bent Tee Right<br>          | <b>ZL60</b><br>2 Hole Open<br>Corner Angle<br>        | <b>ZL61</b><br>2 Hole Closed<br>Corner Angle<br>            | <b>ZL62</b><br>4 Hole Open<br>Corner Angle<br>                     | <b>ZL63</b><br>4 Hole Closed<br>Corner Angle<br>            | <b>ZL64</b><br>4 Hole Adjustable<br>Corner Angle<br> |
| <b>ZL64H</b><br>2 Hole Adjustable<br>Angle Half<br>        | <b>ZL65</b><br>3 Hole Adjustable<br>Corner Angle<br>       | <b>ZL66</b><br>2 Hole Adjustable<br>Corner Angle<br> | <b>ZL66H</b><br>1 Hole Adjustable<br>Angle Half<br>        | <b>ZL67</b><br>Adjustable Brace Fitting<br>                       | <b>ZL68</b><br>Double Adjustable<br>Brace Fitting<br>      | <b>ZL70</b><br>3 3/8" Corner Angle<br>              |
| <b>ZL71</b><br>5 7/8" Corner Angle<br>                    | <b>ZL72</b><br>7 7/8" Corner Angle<br>                    | <b>ZL73</b><br>9 7/8" Corner Angle<br>              | <b>ZL80-ZL84</b><br>8-24° Angle Brace<br>                |  |  |   |

## BEAM CLAMPS | PAGES 47-55

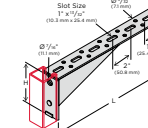
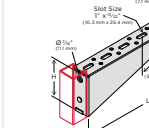
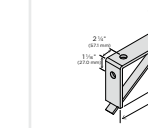
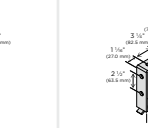

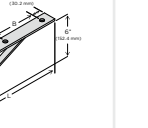
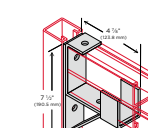
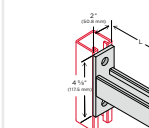
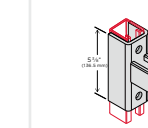


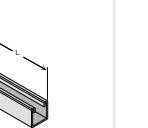
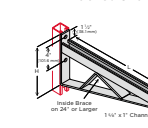


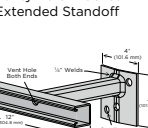
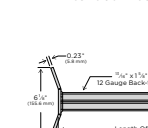

|   |  |  |  |   |   |   |   |
|---|--|--|--|---|---|---|---|
| <b>ZBC10</b><br>Formed Steel Beam Clamp<br>              | <b>ZBC11</b><br>Formed Steel Beam Clamp With J-Hook<br> | <b>ZBC13</b><br>Beam Clamp Anchor Strap<br>         | <b>ZBC14</b><br>Beam Clamp Swivel Adapter for ZBC10<br> | <b>ZBC15</b><br>Formed Steel Beam Clamp<br>     | <b>ZBC16</b><br>Formed Steel Heavy Duty Beam Clamp<br> | <b>ZBC17</b><br>Formed Steel Heavy Duty Beam Clamp<br>     | <b>ZBC20, ZBC21</b><br>Strut to Beam Clamp C-Type<br>      |
| <b>ZBC22</b><br>Strut to Beam Clamp C-Type, Parallel<br> | <b>ZBC30</b><br>Strut to Beam Clamp Z-Type<br>          | <b>ZBC40</b><br>Strut to Beam Clamp Window Type<br> | <b>ZBC70</b><br>Strut to Beam Clamp Notched Type<br>    | <b>ZBC50</b><br>Strut to Beam Spreader Caps<br> | <b>ZBC51</b><br>Strut to Beam Spreader Caps<br>        | <b>ZBC60</b><br>Strut to Beam Clamp With Square U-Bolt<br> | <b>ZBC61</b><br>Strut to Beam Clamp With Square U-Bolt<br> |

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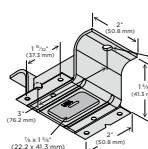
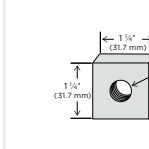
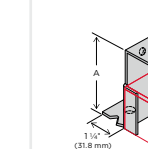
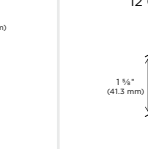
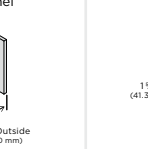
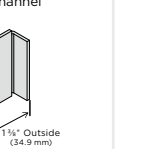
## BEAM CLAMPS (...CONTINUED) | PAGES 47-55

|  |  |   |   |   |  |   |
|--|--|---|---|---|--|---|
| <b>ZBC62</b><br>Strut to Beam Clamp With Square U-Bolt & J-Hook<br><br>4-12"                                    | <b>ZBC63</b><br>Strut to Beam Clamp With Square U-Bolt & J-Hook<br><br>4-12"      | <b>ZBC64</b><br>Strut to Beam Clamp With Square U-Bolts & Connecting Stud<br><br>9-12" | <b>ZBC65</b><br>Strut to Beam Clamp With Square U-Bolts & Connecting Stud<br><br>9-12"                       | <b>ZBC66</b><br>Strut to Beam Clamp With Square U-Bolt<br><br>1/2" x 16 Threads<br>1/2" U-Bolt<br>1/2" Beam Width | <b>ZBC68</b><br>Strut to Beam Clamp With Square U-Bolt<br><br>1/2" x 16 Threads<br>1/2" U-Bolt<br>1/2" Beam Width | <b>ZBC80</b><br>Malleable Iron Universal Beam Clamp<br><br>1/2" x 1/2" Set Screw<br>1/2" x 1/2" Set Screw on BCS00075<br>3/8"-3/4" |
| <b>ZBC81</b><br>Wide Mouth Malleable Iron Beam Clamp<br><br>1/2" x 2" Set Screw<br>1/2" Beam Width<br>3/8"-5/8" | <b>ZRBS</b><br>Retrofit Beam Clamp Retaining Strap<br><br>1/2" (12.7 mm)<br>8-16" | <b>ZRS</b><br>Beam Clamp Retaining Strap<br><br>1/2" (12.7 mm)<br>8-16"                | <b>ZBC90</b><br>Malleable Iron Rod Support Beam Clamp<br><br>1/4" x 1/2" Rod<br>1/2" Beam Width<br>1/4"-1/2" | <b>ZBC91</b><br>Malleable Iron Universal Beam Clamp<br><br>1/2" x 1/2" Set Screw<br>1/2" Beam Width<br>1/2"       | <b>ZBC92</b><br>Light Duty Beam Clamp<br><br>1/2" Beam Width<br>1/2" Beam Width<br>Max Load                       | <b>ZRA</b><br>Right Angle Clamp<br><br>1/2" Beam Width<br>1/2" Beam Width<br>1/2"-4"   |

## BRACKETS | PAGES 56-60

|   |  |   |  |   |  |
|---|--|---|--|---|--|
| <b>ZBR8R</b><br>Slotted Shelf Bracket (Right Hand)<br><br>6-18" | <b>ZBR8L</b><br>Slotted Shelf Bracket (Left Hand)<br><br>6-18" | <b>ZBR20</b><br>Bracket 3 Hole<br><br>8 1/2-10 1/2"   | <b>ZBR21</b><br>Bracket 6 Hole<br><br>12 1/2-14 1/2"   | <b>ZBR22</b><br>Bracket With Brace 6 Hole<br><br>16 1/2-20 1/2"                              | <b>ZBR30</b><br>Bracket for 1 1/2" Channel<br><br>4 1/2" (113 mm)                            |
| <b>ZBR31</b><br>Bracket for 3/4" Channel<br><br>6-24"          | <b>ZBR40</b><br>Bracket for 1 1/2" Channel<br><br>6-24"       | <b>ZBR41</b><br>Bracket 1 1/2" Channel Wrap<br><br>6-24"   | <b>ZBR42</b><br>Bracket Double 1 1/2" Channel<br><br>12-36"                                 | <b>ZBR43</b><br>Bracket Channel, Up<br><br>6-24"  | <b>ZBR44</b><br>Bracket Channel, Down<br><br>6-24"  |
| <b>ZBR45</b><br>Bracket Channel<br><br>12-36"                  | <b>ZBR47</b><br>Ladder Bracket<br><br>6-14"                   | <b>ZBR50</b><br>Utility Pole Bracket Extended Standoff<br><br>1/2" x 1/2" Slot Size<br>1/2" x 1/2" Slot Size | <b>ZPB1</b><br>Extended Riser Bracket<br><br>1/2" x 1/2" Slot Size<br>1/2" x 1/2" Slot Size | <b>ZPB5</b><br>Standoff Riser Bracket<br><br>1/2" x 1/2" Slot Size<br>1/2" x 1/2" Slot Size | <b>ZPB5</b><br>Standoff Riser Bracket<br><br>1/2" x 1/2" Slot Size<br>1/2" x 1/2" Slot Size |

## CONCRETE INSERTS | PAGES 61-62

|  |   |  |  |   |  |
|--|---|--|--|---|--|
| <b>ZCI</b><br>Concrete Insert<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) | <b>ZCIN</b><br>Concrete Insert Nut<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) | <b>ZCI20-ZCI22</b><br>Concrete End Cap Anchor<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) | <b>ZEC10</b><br>End Cap for 1 1/2" 12 Ga. Channel<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) | <b>ZEC11</b><br>End Cap for 1 1/2" 14 Ga. Channel<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) | <b>ZEC12</b><br>End Cap for 1 1/2" 12 Ga. or 14 Ga. Channel<br><br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm)<br>1 1/2" (38.1 mm) |
|--|---|--|--|---|--|

# Contents

## ELECTRICAL | PAGES 63-66

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| <b>ZEF10</b><br>Hinged Fluorescent Fixture Hanger 1½" Channel<br>    | <b>ZEF11</b><br>Hinged Fluorescent Fixture Hanger 3¼" Channel<br>   | <b>ZEF12</b><br>Hinged Fluorescent Fixture Hanger 1½" Channel<br>     | <b>ZEF13</b><br>Hinged Fluorescent Fixture Hanger 3¼" Channel<br>     | <b>ZEF19</b><br>Fixture Stud Nut<br>                                  | <b>ZEF20</b><br>End Cap Knock Out With Hardware<br>       |
| <b>ZEF21</b><br>Wiring Stud<br>                                      | <b>ZEF22</b><br>Conduit Connection Plate<br>                        | <b>ZEF30</b><br>Channel Splice 4 Hole Assembly With Tapped Plate<br>  | <b>ZEF31</b><br>Channel Splice 4 Hole Assembly With Stud Plate<br>    | <b>ZEF33</b><br>Inside Strut Joiner<br>                               | <b>ZEF40</b><br>Outlet Box Bolt Down<br>                  |
| <b>ZEF41</b><br>Junction Box Universal With 1 Conduit Attachment<br> | <b>ZEF42</b><br>Junction Box Universal With 2 Connectors at 90°<br> | <b>ZEF43</b><br>Junction Box Universal With 2 Connectors Opposite<br> | <b>ZEF44</b><br>Junction Box Universal With 3 Conduit Attachments<br> | <b>ZEF45</b><br>Junction Box Universal With 4 Conduit Attachments<br> | <b>ZEF46</b><br>¼" x ¾" Carriage Bolt and ¼" Wing Nut<br> |

## POST BASES | PAGES 67-70

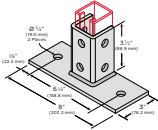
|  |   |   |   |   |
|--|---|---|---|---|
| <b>ZP10</b><br>Post Base Single Channel 2 Hole Square<br>            | <b>ZP11</b><br>Post Base Single Channel 2 Hole Square Flush<br> | <b>ZP12</b><br>Post Base Single Channel 4 Hole Standard 1½"<br> | <b>ZP13</b><br>Post Base Single Channel 4 Hole Standard 3½"<br>     | <b>ZP14</b><br>Post Base Single Channel 4 Hole Square 3½"<br>       |
| <b>ZP15</b><br>Post Base Single Channel Gusset 4 Hole Square 3½"<br> | <b>ZP16</b><br>Post Base Double Channel 1 Hole Square 1½"<br>   | <b>ZP17</b><br>Post Base Double Channel 2 Hole Square 3½"<br>   | <b>ZP18</b><br>Post Base Double Channel 4 Hole Standard 1½"<br>     | <b>ZP19</b><br>Post Base Double Channel 4 Hole Standard 3½"<br>     |
| <b>ZP20</b><br>Post Base Double Channel 4 Hole Square 3½"<br>        | <b>ZP21</b><br>Post Base Single Channel 2 Hole Flush 1½"<br>    | <b>ZP22</b><br>Post Base Single Channel 4 Hole Square 1½"<br>   | <b>ZP23</b><br>Post Base Double Channel 2 Hole Square Flush 3½"<br> | <b>ZP24</b><br>Post Base Double Channel 2 Hole Square Flush 1½"<br> |

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## POST BASES (...CONTINUED) | PAGES 67-70

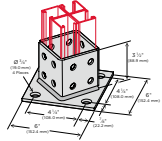
### ZP26

Post Base Single Channel  
2 Hole Square Flush 3 1/2"



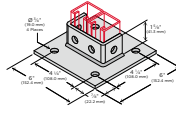
### ZP27

Post Base Four Channel  
Combinations 4 Hole Square 3 1/2"



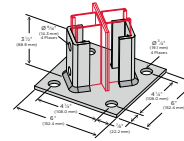
### ZP28

Post Base Double Channel  
4 Hole Square 1 1/2"



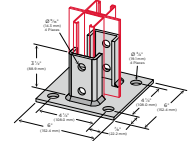
### ZP29

Post Base Double Channel  
4 Hole Square 3 1/2"



### ZP30

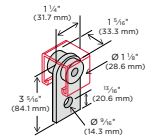
Post Base Double Channel  
4 Hole Square 3 1/2"



## ROLLERS | PAGES 71-73

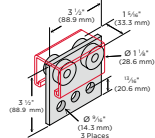
### ZR10

Roller Trolley 2 Bearing



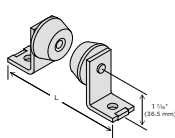
### ZR11

Roller Trolley 4 Bearing



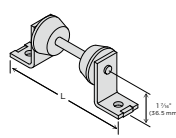
### ZR20

Pipe Roller 1-4" Pipe



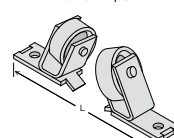
### ZR21

Pipe Roller



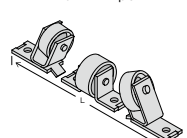
### ZR22

Pipe Roller Heavy Duty  
6-16" Pipe



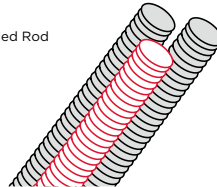
### ZR23

Pipe Roller Heavy Duty  
16-24" Pipe



## THREADED ROD | PAGE 74

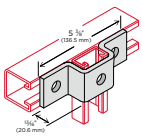
**TR**  
Threaded Rod



## U-FITTINGS | PAGES 74-77

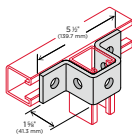
### ZU10

Cross 3 Hole 1 3/16"



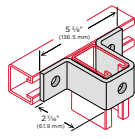
### ZU11

Cross 5 Hole 1 1/8"



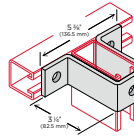
### ZU12

Cross 3 Hole 2 1/8"



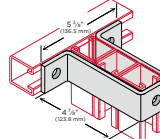
### ZU13

Cross 3 Hole 3 1/4"



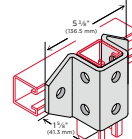
### ZU14

Cross 3 Hole 4 1/8"



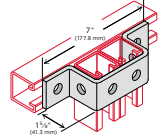
### ZU15

Cross 8 Hole 1 1/8"



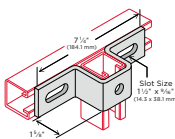
### ZU16

Cross 6 Hole  
1 1/8" Double Channel



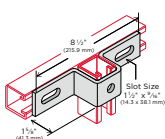
### ZU20

Cross 1 Hole 2 Slot



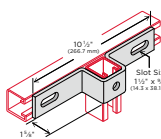
### ZU21

Cross 1 Hole 2 Slot



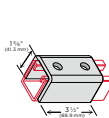
### ZU22

Cross 1 Hole 2 Slot



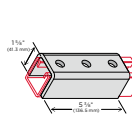
### ZU30

Splice 2 Hole 1 1/8"



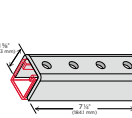
### ZU31

Splice 3 Hole 1 1/8"



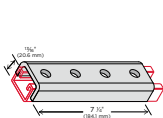
### ZU32

Splice 4 Hole 1 1/8"



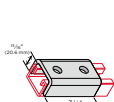
### ZU33

Splice 4 Hole 1 3/16"



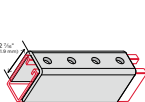
### ZU34

Splice 2 Hole 1 3/16"



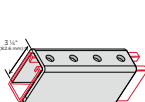
### ZU35

Splice 4 Hole 2 1/8"



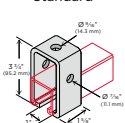
### ZU36

Splice 4 Hole 3 1/4"



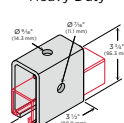
### ZU40

Trolley Support 3 Hole  
Standard



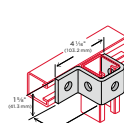
### ZU41

Trolley Support 3 Hole  
Heavy Duty



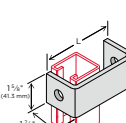
### ZU50

4 Hole Cup Support



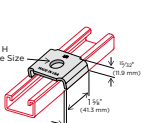
### ZU60

Clevis 2 Hole



### ZU70

Saddle Washer



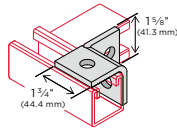


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## WING FITTINGS | PAGES 78-81

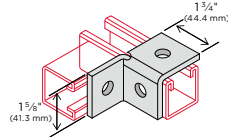
### ZW10

Single 3 Hole Right



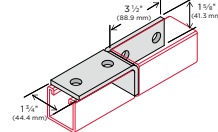
### ZW11

Single 3 Hole Left



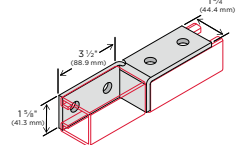
### ZW12

Single 4 Hole Right



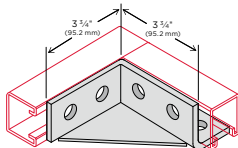
### ZW13

Single 4 Hole Left



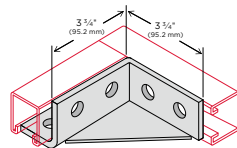
### ZW14

Single 6 Hole Gusset Right



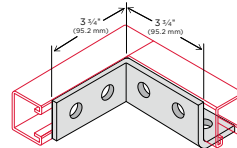
### ZW15

Single 6 Hole Gusset Left



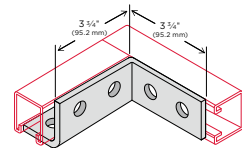
### ZW16

Single 6 Hole Right



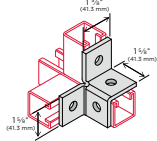
### ZW17

Single 6 Hole Left



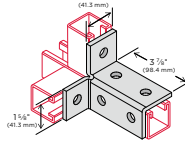
### ZW20

Double Corner 4 Hole



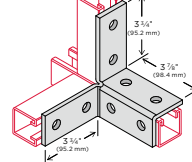
### ZW21

Double Corner 6 Hole



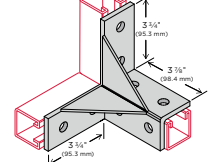
### ZW22

Double Corner 8 Hole



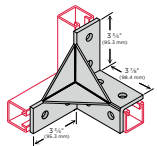
### ZW23

Double Corner 8 Hole Gusset



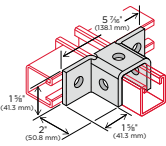
### ZW24

Double Corner 8 Hole Double Gusset



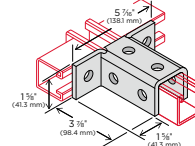
### ZW30

Connector 5 Hole



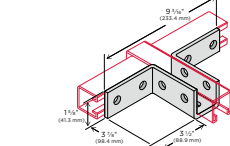
### ZW31

Connector 8 Hole



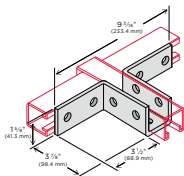
### ZW32

Connector 10 Hole



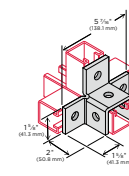
### ZW33

Connector 10 Hole Double Gusset



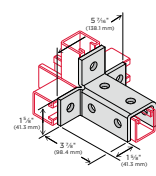
### ZW40

Triple Corner 6 Hole



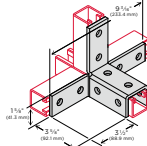
### ZW41

Triple Corner 9 Hole



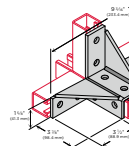
### ZW42

Triple Corner 12 Hole



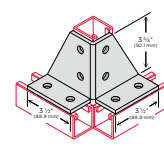
### ZW43

Triple Corner 12 Hole Gusset



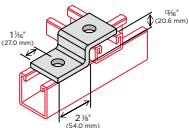
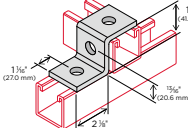
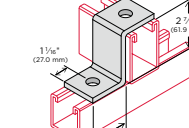
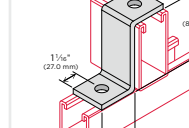
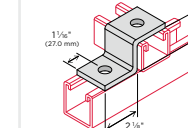
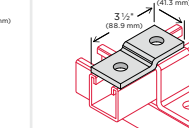
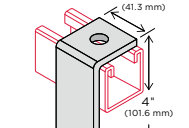
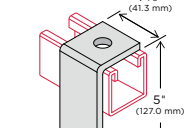
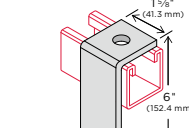
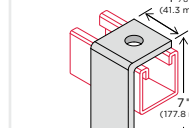
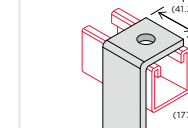
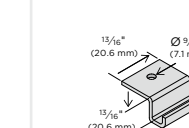
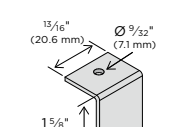
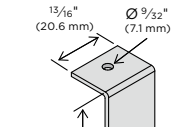
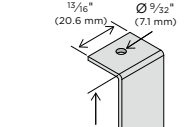
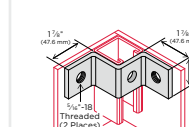
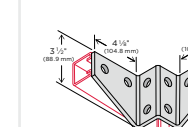
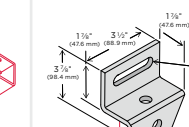
### ZW50

Double Connector 8 Hole

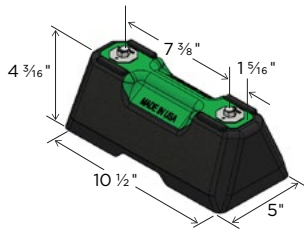
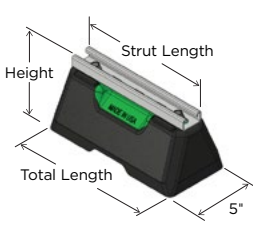
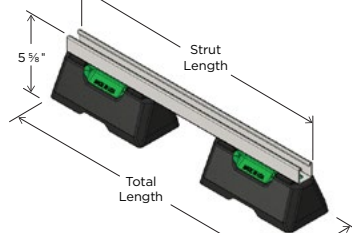


# Contents

## Z-FITTINGS | PAGES 82-84

|   |  |   |   |  |  |
|---|--|---|---|--|--|
| <b>ZZ10</b><br>Cross 2 Hole 1 <sup>3</sup> / <sub>16</sub> "     | <b>ZZ11</b><br>Cross 2 Hole 1 <sup>1</sup> / <sub>2</sub> "       | <b>ZZ12</b><br>Cross 2 Hole 2 <sup>1</sup> / <sub>16</sub> "     | <b>ZZ13</b><br>Cross 2 Hole 3 <sup>1</sup> / <sub>4</sub> "  | <b>ZZ14</b><br>Cross 2 Hole 1"        | <b>ZZ20</b><br>Offset Support 2 Hole                            |
| <b>ZZ30</b><br>2 Hole Support 4"                                 | <b>ZZ31</b><br>2 Hole Support 5"                                  | <b>ZZ32</b><br>2 Hole Support 6"                                 | <b>ZZ33</b><br>2 Hole Support 7"                             | <b>ZZ34</b><br>2 Hole Support 8"      | <b>ZZ40</b><br>Channel Hanger 1 <sup>3</sup> / <sub>16</sub> "  |
| <b>ZZ41</b><br>Channel Hanger 1 <sup>1</sup> / <sub>2</sub> "  | <b>ZZ42</b><br>Channel Hanger 2 <sup>1</sup> / <sub>16</sub> "  | <b>ZZ43</b><br>Channel Hanger 3 <sup>1</sup> / <sub>4</sub> "  | <b>ZZ50</b><br>Corner Brace 3 Hole                         | <b>ZZ51</b><br>Corner Brace 8 Hole  | <b>ZZ60</b><br>Slotted Support                                |

## ROOFTOP SUPPORT BLOCKS | PAGES 85-86

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|---|--|---|
| <b>ZRSB</b><br>Rooftop Support Block Plain Base  | <b>ZRSB</b><br>Rooftop Support Block With 1 <sup>3</sup> / <sub>16</sub> "<br>1 <sup>1</sup> / <sub>2</sub> " & 2 <sup>1</sup> / <sub>16</sub> " Channel  | <b>ZRSB — Bridge Series</b><br>Rooftop Support Blocks With<br>1 <sup>1</sup> / <sub>2</sub> " Channel  |
|---|--|---|

|   |       |
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| Dimension Information for ZR20, ZR21, ZR22 & ZR23 ..... | 72-73 |
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# General Info

## METAL FRAMING ACCESSORIES SPECIFICATIONS AND FINISHES:

Note: Specifications subject to change without notice.

**Carbon Steel**—ASTM A1011-00 SS GR 33 or ASTM A1011-00CS Type B

**304 Stainless Steel**—ASTM A240 (Type 304)

**316 Stainless Steel**—ASTM A240 (Type 316)

**316 Stainless Steel Nuts**—ASTM A276-03

**Aluminum**—ASTM B209 (Type 5052-H32)

### PL—Uncoated Carbon Steel

There is no coating on the steel except a possibility of some oil left on the part from the pickle and oil or fabrication process.

### EG—Electroplated Zinc, aka Electro-Galvanized

This coating is standard for most products. Electro-Galvanized products meet ASTM B633 SC1 or SC3, Type III. Electroplating deposits zinc on the surface of the steel by electrolysis from a bath of zinc salts. This coating is recommended for relatively dry indoor use. The thickness of zinc applied in this method is between 0.2 mils and 0.5 mils (5.1  $\mu\text{m}$  to 12.7  $\mu\text{m}$ ).

### HD—Hot-Dip Galvanized After Fabrication

Fabricated product is dipped in molten zinc and is completely covered on all surfaces. Recommended for outdoor use. Coatings on ZI-Strut HD products meet ASTM A123/153. The zinc coating is typically 2.6 mils (66.0  $\mu\text{m}$ ) or 1.5 oz. per square foot (0.46 kg per square meter) per side.

### YC—Yellow Zinc Dichromate

A 0.2 mil (5  $\mu\text{m}$ ) electro-galvanized zinc plating finished with a yellowish dichromate coating that meets ASTM B633 SC1 Type II. This yellowish-colored coating improves corrosion resistance over colorless coatings, acts as a non-porous barrier and can be painted.

### CP—Copper Zinc Dichromate

A 0.2 mil (5  $\mu\text{m}$ ) electro-galvanized zinc plating finished with a copper dichromate coating that meets ASTM B633 SC1 Type II. This copper-colored coating improves corrosion resistance over colorless coatings and acts as a non-porous barrier that does not react adversely with copper pipe or tubing.

### PC & GN—Powder Coat (Special Order)

A polyester powder coating is electrostatically applied after fabrication. The powder is then baked on, creating a 1.38 to 1.77 mil (35 to 45  $\mu\text{m}$ ) thick coating. The hardness of this coating meets ASTM D-3363-74, the impact rating meets ASTM D-2794-93 and the gloss meets ASTM D-523-85. This creates a coating that is resistant to chipping, peeling and corrosion. Available in many colors by special order.

### PG—Pre-Galvanized Zinc

ASTM A653 G-90 and G-60 Pre-galvanized zinc is produced by continuously rolling steel coils or sheets through molten zinc at the mills. The coils or sheets are slit to size and fabricated by forming, shearing or punching to produce the finished product. During fabrication cut edges are not generally zinc coated; however, the zinc near the uncoated metal becomes a sacrificial anode to protect the bare areas.

# General Info

## METAL FRAMING SPECIFICATIONS AND FINISHES:

### Carbon Steel

Structural grade steel sheet coil that has been melted and rolled at the steel mill to conform to ASTM A1011 SS GR 33 (Hot Rolled) and ASTM A653 SS GR 33 (Galvanized). These ASTM specifications require the mechanical properties to be a minimum of 33 ksi yield and 52 ksi tensile. Additionally, the mechanical properties of the incoming steel are further increased in the actual rollforming process. This is sometimes referred to as “work hardening.”

### Stainless Steel

Chromium-nickel austenitic steel sheet coil that has been melted, rolled and annealed at the steel mill to conform to ASTM A240 Type 304. Generally, stainless steel has a higher yield and tensile than carbon steel produced to GR 33. The mechanical properties of the incoming steel (stainless) tend not to increase as much as carbon steel in the rollforming process. Strut produced from stainless steel offers superior protection in harsh and corrosive environments.

### PL—Plain

Plain strut does not have any protective coating other than the residual mill oil and rolling lubricant that is applied in the rollforming process. Using bare strut in any application where it may be exposed to corrosion is not recommended.

### PG—Pre-Galvanized

Pre-Galvanized, also known as Hot-Dip Mill Galvanized or Mill Galvanized, is produced at the steel mills. Coils of carbon steel weighing up to 40 tons are unwound and passed (continuously) through a vessel containing molten zinc. This vessel is commonly referred to as a “Galvanizing Pot” or “Zinc Pot.” The molten zinc alloys itself to the base metal (carbon steel) and is then cooled in a uniform manner and rewound back into a coil. The amount of zinc applied to the base metal used for manufacturing ZI-Strut meets all specifications of ASTM G90, which requires 0.9 oz. minimum per square foot of base metal. The nominal coating weight for G90 is 1.25 oz. per square foot. Prior to rewinding the pre-galvanized coil, a chromate coating (chem treat) and/or a light coating of rolling oil may be applied to prevent oxidation.

### GN—Green Painted

Plain strut is thoroughly cleaned to remove all residual mill oils and rolling lubricants. The cleaned strut is then pre-treated with a phosphoric coating for additional corrosion resistance and improved paint adherence. From here, a high grade of polyester powder paint is electrostatically applied. The strut is then placed on an overhead conveyor and is cycled through a curing oven for 20 minutes at 400°F (204°C). Upon completion of this process, the paint is chemically bonded to the base steel.\*

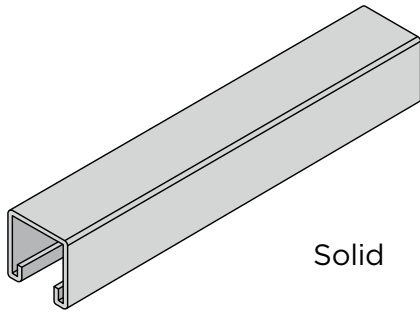
\*Zekelman Industries reserves the right to substitute alternate paint systems that will be of equal or superior quality to the system described above.



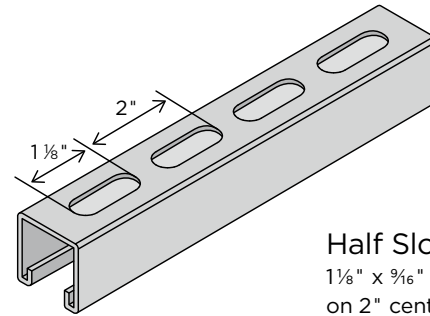
# Metal Framing

Standard finish is Pre-Galvanized (PG)  
 Green Painted (GN) is Made to Order  
 Product finishes and materials are on [page 12](#)

## Punching Options

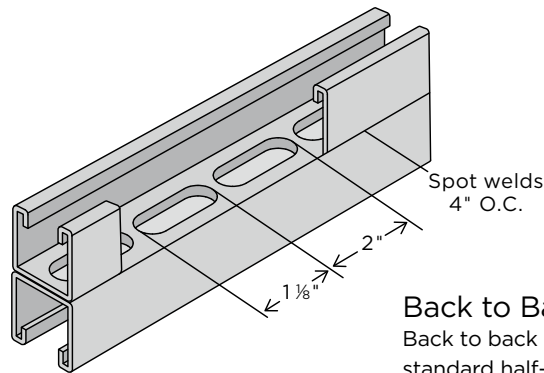


**Solid**



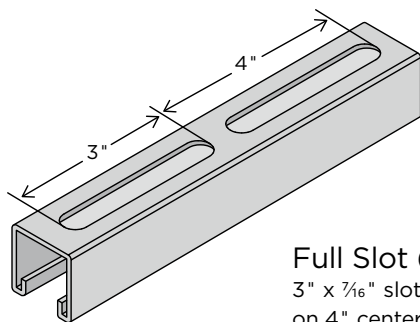
**Half Slot (HS)**

1 1/8" x 7/16" slots punched  
 on 2" centers



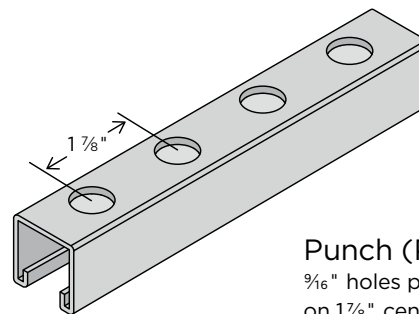
**Back to Back (BTB)**

Back to back channel with  
 standard half-slots



**Full Slot (FS)**

3" x 7/16" slots punched  
 on 4" centers



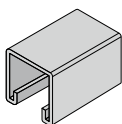
**Punch (P)**

9/16" holes punched  
 on 1 1/8" centers

## METAL FRAMING | PAGES 12-20

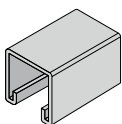
**ZI12-158**

1 1/8" x 1 1/8" Channel  
 12 Gauge



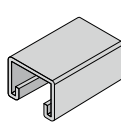
**ZI14-158**

1 1/8" x 1 1/8" Channel  
 14 Gauge



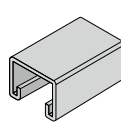
**ZI12-1316**

1 1/8" x 1 3/16" Channel  
 12 Gauge



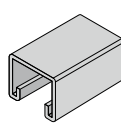
**ZI14-1316**

1 1/8" x 1 3/16" Channel  
 14 Gauge



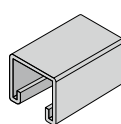
**ZI12-1**

1 1/8" x 1" Channel  
 12 Gauge



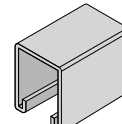
**ZI12-138**

1 1/8" x 1 1/8" Channel  
 12 Gauge



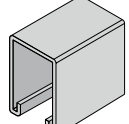
**ZI12-2716**

1 1/8" x 2 7/16" Channel  
 12 Gauge



**ZI12-314**

1 1/8" x 3 1/4" Channel  
 12 Gauge



# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI12-158** | 1 5/8" x 1 5/8" Channel  
Metal thickness is 12 gauge (0.105").

## ELEMENTS OF SECTION

| CATALOG #           | STOCK #    | PUNCH   | LENGTH<br>ft. | WEIGHT<br>lbs./ft. | AREA OF<br>SECTION<br>in. <sup>2</sup> | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE<br>QTY |
|---------------------|------------|---------|---------------|--------------------|--|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|---------------|
|                     |            |         |               |                    |  | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) |               |
| <b>ZI12-158</b>     | 5201210000 | Solid   |               | 1.77               |  |                       |                       |         |                       |                       |         | 500           |
|                     | 5201010000 | HS      | 10            | 1.70               | 0.583                                  | 0.188                 | 0.203                 | 0.581   | 0.257                 | 0.316                 | 0.680   | 500           |
|                     | 5201110000 | FS      |               | 1.68               |  |                       |                       |         |                       |                       |         | 500           |
|                     | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
| <b>ZI12-158 BTB</b> | 5211110000 | HS/BTB* | 10            | 3.40               | 1.166                                  | 0.920                 | 0.566                 | 0.910   | 0.514                 | 0.632                 | 0.680   | 250           |
|                     | 5201220000 | Solid   |               | 1.77               |  |                       |                       |         |                       |                       |         | 500           |
|                     | 5201020000 | HS      | 20            | 1.70               | 0.583                                  | 0.188                 | 0.203                 | 0.581   | 0.257                 | 0.316                 | 0.680   | 500           |
|                     | 5201120000 | FS      |               | 1.68               |  |                       |                       |         |                       |                       |         | 500           |
| <b>ZI12-158 BTB</b> | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
|                     | 5211120000 | HS/BTB* | 20            | 3.40               | 1.166                                  | 0.920                 | 0.566                 | 0.910   | 0.514                 | 0.632                 | 0.680   | 300           |

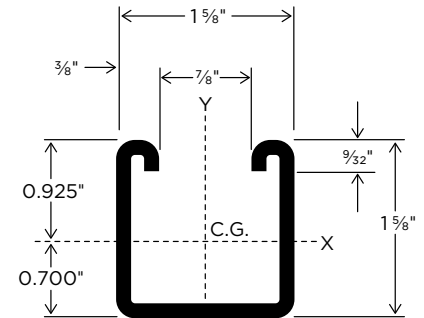
I: Moment of inertia  
S: Section modulus  
R: Radius of gyration  
\*BTB is welded back to back

## BEAM AND COLUMN LOADS DATA

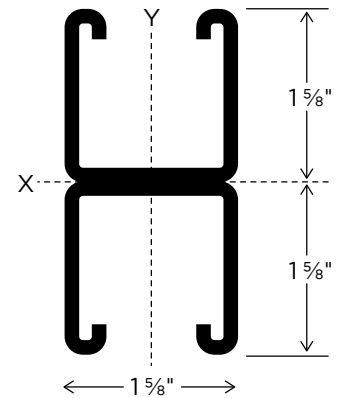
| CATALOG #           | BEAM SPAN OR<br>UNBRACED<br>COLUMN HEIGHT | UNIFORM LOAD<br>AT STRESS OF<br>25,000 PSI | DEFLECTION<br>AT STRESS OF<br>25,000 PSI | UNIFORM LOAD<br>WHEN MAXIMUM<br>DEFLECTION =<br>SPAN/240 | MAXIMUM<br>ALLOWABLE LOAD<br>OF COLUMN |
|---------------------|---|--|--|--|--|
|                     | in.                                       | lbs.                                       | in.                                      | lbs.   | lbs.                                   |
| <b>ZI12-158</b>     | 18  | 2213                                       | 0.031                                    | 2213   | 11300                                  |
|                     | 24  | 1680                                       | 0.055                                    | 1680   | 9700                                   |
|                     | 30  | 1340                                       | 0.086                                    | 1340   | 8850                                   |
|                     | 36  | 1125                                       | 0.125                                    | 1125   | 8600                                   |
|                     | 42  | 950  | 0.168                                    | 950  | 7550                                   |
|                     | 48  | 855  | 0.225                                    | 757  | 6720                                   |
|                     | 60  | 690  | 0.356                                    | 484  | 5800                                   |
|                     | 72  | 555  | 0.594                                    | 336  | 4970                                   |
|                     | 84  | 490  | 0.693                                    | 247  | 4250                                   |
|                     | 96  | 433  | 0.915                                    | 189  | 3500                                   |
| <b>ZI12-158 BTB</b> | 120                                       | 335  | 1.382                                    | 121  | 2100                                   |
|                     | 18  | 6530                                       | 0.018                                    | 6530   | 24340                                  |
|                     | 24  | 4895                                       | 0.033                                    | 4895   | 21800                                  |
|                     | 30  | 3800                                       | 0.050                                    | 3800   | 21500                                  |
|                     | 36  | 3100                                       | 0.070                                    | 3100   | 21000                                  |
|                     | 42  | 2700                                       | 0.097                                    | 2700   | 20600                                  |
|                     | 48  | 2300                                       | 0.124                                    | 2300   | 19900                                  |
|                     | 60  | 1930                                       | 0.203                                    | 1930   | 17950                                  |
|                     | 72  | 1560                                       | 0.284                                    | 1560   | 15940                                  |
|                     | 84  | 1360                                       | 0.393                                    | 1210   | 14750                                  |
|                     | 96  | 1200                                       | 0.438                                    | 926  | 12650                                  |
|                     | 120                                       | 953  | 0.680                                    | 593  | 8000                                   |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**ZI12-158**



**ZI12-158 BTB**



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI14-158** | 1 5/8" x 1 5/8" Channel  
Metal thickness is 14 gauge (0.075").

## ELEMENTS OF SECTION

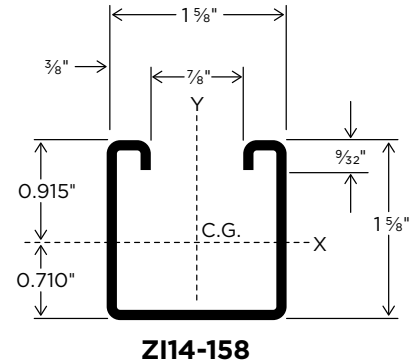
| CATALOG #           | STOCK #    | PUNCH   | LENGTH<br>ft. | WEIGHT<br>lbs./ft. | AREA OF<br>SECTION<br>in. <sup>2</sup> | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE<br>QTY |
|---------------------|------------|---------|---------------|--------------------|--|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|---------------|
|                     |            |         |               |                    |  | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) |               |
| <b>ZI14-158</b>     | 5203310000 | Solid   |               | 1.30               |  |                       |                       |         |                       |                       |         | 500           |
|                     | 5203010000 | HS      | 10            | 1.28               | 0.398                                  | 0.142                 | 0.155                 | 0.597   | 0.177                 | 0.215                 | 0.655   | 500           |
|                     | 5203210000 | FS      |               | 1.29               |  |                       |                       |         |                       |                       |         | 500           |
|                     | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
| <b>ZI14-158 BTB</b> | 5203110000 | HS/BTB* | 10            | 2.56               | 0.796                                  | 0.685                 | 0.421                 | 0.927   | 0.354                 | 0.430                 | 0.655   | 250           |
|                     | 5203320000 | Solid   |               | 1.30               |  |                       |                       |         |                       |                       |         | 500           |
|                     | 5203020000 | HS      | 20            | 1.28               | 0.398                                  | 0.142                 | 0.155                 | 0.597   | 0.177                 | 0.215                 | 0.655   | 500           |
|                     | 5203220000 | FS      |               | 1.29               |  |                       |                       |         |                       |                       |         | 500           |
|                     | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
| <b>ZI14-158 BTB</b> | 5203120000 | HS/BTB* | 20            | 2.56               | 0.796                                  | 0.685                 | 0.421                 | 0.927   | 0.354                 | 0.430                 | 0.655   | 300           |

I: Moment of inertia

S: Section modulus

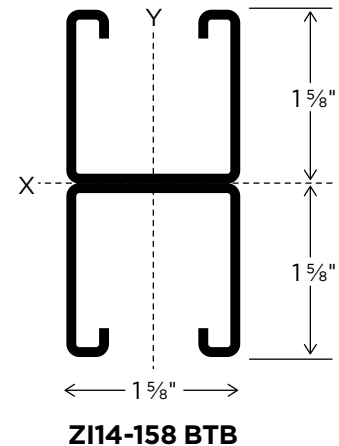
R: Radius of gyration

\*BTB is welded back to back



## BEAM AND COLUMN LOADS DATA

| CATALOG #           | BEAM SPAN OR<br>COLUMN HEIGHT | UNIFORM LOAD<br>AT STRESS OF<br>25,000 PSI | DEFLECTION<br>AT STRESS OF<br>25,000 PSI | UNIFORM LOAD<br>WHEN MAXIMUM<br>DEFLECTION =<br>SPAN/240 | MAXIMUM<br>ALLOWABLE LOAD<br>OF COLUMN |
|---------------------|-------------------------------|--|--|--|--|
|                     | in.                           | lbs.                                       | in.                                      | lbs.   | lbs.                                   |
| <b>ZI14-158</b>     | 18                            | 1850                                       | 0.034                                    | 1850   | 7500                                   |
|                     | 24                            | 1360                                       | 0.059                                    | 1360   | 6790                                   |
|                     | 30                            | 1050                                       | 0.089                                    | 1050   | 6350                                   |
|                     | 36                            | 900  | 0.133                                    | 900  | 6000                                   |
|                     | 42                            | 760  | 0.178                                    | 760  | 5400                                   |
|                     | 48                            | 660  | 0.230                                    | 572  | 4750                                   |
|                     | 60                            | 535  | 0.365                                    | 366  | 4120                                   |
|                     | 72                            | 445  | 0.525                                    | 254  | 3320                                   |
|                     | 84                            | 375  | 0.702                                    | 186  | 2800                                   |
|                     | 96                            | 333  | 0.931                                    | 143  | 2250                                   |
| <b>ZI14-158 BTB</b> | 120                           | 260  | 1.420                                    | 91   | 1520                                   |
|                     | 18                            | 5000                                       | 0.019                                    | 5000   | 16500                                  |
|                     | 24                            | 3700                                       | 0.033                                    | 3700   | 15000                                  |
|                     | 30                            | 2900                                       | 0.051                                    | 2900   | 14250                                  |
|                     | 36                            | 2400                                       | 0.073                                    | 2400   | 13950                                  |
|                     | 42                            | 2100                                       | 0.102                                    | 2100   | 13500                                  |
|                     | 48                            | 1800                                       | 0.130                                    | 1800   | 13100                                  |
|                     | 60                            | 1500                                       | 0.212                                    | 1500   | 12000                                  |
|                     | 72                            | 1220                                       | 0.298                                    | 1220   | 10950                                  |
|                     | 84                            | 1050                                       | 0.407                                    | 900  | 9600                                   |
|                     | 96                            | 900  | 0.522                                    | 689  | 7550                                   |
|                     | 120                           | 725  | 0.849                                    | 441  | 4000                                   |



**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI12-1316** | 1 5/8" x 13/16" Channel  
Metal thickness is 12 gauge (0.105").

## ELEMENTS OF SECTION

| CATALOG #            | STOCK #    | PUNCH   | LENGTH | WEIGHT   | AREA OF SECTION  | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE QTY |
|----------------------|------------|---------|--------|----------|------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------|
|                      |            |         | ft.    | lbs./ft. | in. <sup>2</sup> | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | ft.        |
| <b>ZI12-1316</b>     | 5205310000 | Solid   |        | 1.22     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | 5205010000 | HS      | 10     | 1.15     | 0.375            | 0.032                 | 0.066                 | 0.291   | 0.126                 | 0.155                 | 0.577   | 500        |
|                      | 5205210000 | FS      |        | 1.15     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | —          | P       |        |          |                  |                       |                       |         |                       |                       |         | —          |
| <b>ZI12-1316 BTB</b> | 5205110000 | HS/BTB* | 10     | 2.36     | 0.750            | 0.148                 | 0.182                 | 0.442   | 0.252                 | 0.311                 | 0.577   | 250        |
| <b>ZI12-1316</b>     | 5205320000 | Solid   |        | 1.22     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | 5205020000 | HS      | 20     | 1.15     | 0.375            | 0.032                 | 0.066                 | 0.291   | 0.126                 | 0.155                 | 0.577   | 500        |
|                      | 5205220000 | FS      |        | 1.15     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | —          | P       |        |          |                  |                       |                       |         |                       |                       |         | —          |
| <b>ZI12-1316 BTB</b> | 5205120000 | HS/BTB* | 20     | 2.36     | 0.750            | 0.148                 | 0.182                 | 0.442   | 0.252                 | 0.311                 | 0.577   | 300        |

I: Moment of inertia

S: Section modulus

R: Radius of gyration

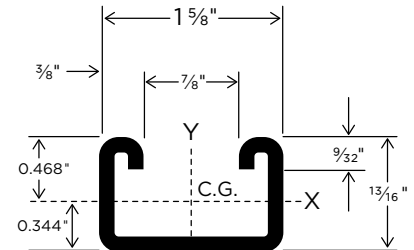
\*BTB is welded back to back

## BEAM AND COLUMN LOADS DATA

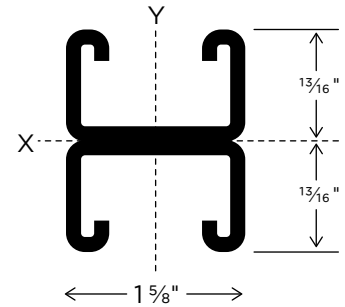
| CATALOG #            | BEAM SPAN OR UNBRACED COLUMN HEIGHT | UNIFORM LOAD AT STRESS OF 25,000 PSI | DEFLECTION AT STRESS OF 25,000 PSI | UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240 | MAXIMUM ALLOWABLE LOAD OF COLUMN |
|----------------------|-------------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|
|                      | in.                                 | lbs.                                 | in.                                | lbs.  | lbs.                             |
| <b>ZI12-1316</b>     | 18                                  | 760                                  | 0.058                              | 700   | 6700                             |
|                      | 24                                  | 555                                  | 0.103                              | 506   | 6250                             |
|                      | 30                                  | 450                                  | 0.150                              | 365   | 5300                             |
|                      | 36                                  | 370                                  | 0.230                              | 240   | 4100                             |
|                      | 42                                  | 320                                  | 0.300                              | 185   | 3950                             |
|                      | 48                                  | 275                                  | 0.409                              | 136   | 2720                             |
|                      | 60                                  | 223                                  | 0.644                              | 86  | 1950                             |
|                      | 72                                  | 185                                  | 0.925                              | 58  | 910                              |
|                      | 84                                  | 157                                  | 1.220                              | 43  | 665                              |
|                      | 96                                  | 137                                  | 1.649                              | 34  | —                                |
| <b>ZI12-1316 BTB</b> | 120                                 | 109                                  | 2.574                              | 20  | —                                |
|                      | 18                                  | 1270                                 | 0.026                              | 1270  | 15890                            |
|                      | 24                                  | 1270                                 | 0.051                              | 1270  | 15700                            |
|                      | 30                                  | 1215                                 | 0.090                              | 1130  | 14720                            |
|                      | 36                                  | 1012                                 | 0.136                              | 1013  | 13660                            |
|                      | 42                                  | 870                                  | 0.180                              | 840   | 13050                            |
|                      | 48                                  | 759                                  | 0.245                              | 624   | 11530                            |
|                      | 60                                  | 607                                  | 0.381                              | 399   | 9450                             |
|                      | 72                                  | 506                                  | 0.548                              | 278   | 6780                             |
|                      | 84                                  | 432                                  | 0.743                              | 179   | 4850                             |
|                      | 96                                  | 380                                  | 0.971                              | 156   | 3750                             |
|                      | 120                                 | 302                                  | 1.517                              | 99  | 2450                             |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**ZI12-1316**



**ZI12-1316 BTB**



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI14-1316** | 1 5/8" x 13/16" Channel  
Metal thickness is 14 gauge (0.075").

## ELEMENTS OF SECTION

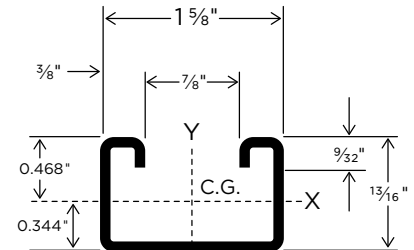
| CATALOG #            | STOCK #    | PUNCH   | LENGTH | WEIGHT   | AREA OF SECTION  | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE QTY |
|----------------------|------------|---------|--------|----------|------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------|
|                      |            |         | ft.    | lbs./ft. | in. <sup>2</sup> | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | ft.        |
| <b>ZI14-1316</b>     | 5202310000 | Solid   |        | 0.93     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | 5202010000 | HS      | 10     | 0.86     | 0.275            | 0.028                 | 0.060                 | 0.319   | 0.116                 | 0.142                 | 0.649   | 500        |
|                      | 5202110000 | FS      |        | 0.86     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | —          | P       |        |          |                  |                       |                       |         |                       |                       |         | —          |
| <b>ZI14-1316 BTB</b> | 5202210000 | HS/BTB* | 10     | 1.72     | 0.550            | 0.121                 | 0.149                 | 0.469   | 0.232                 | 0.284                 | 0.649   | 250        |
|                      | 5202320000 | Solid   |        | 0.93     |                  |                       |                       |         |                       |                       |         | 500        |
|                      | 5202020000 | HS      | 20     | 0.86     | 0.275            | 0.028                 | 0.060                 | 0.319   | 0.116                 | 0.142                 | 0.649   | 500        |
|                      | 5202120000 | FS      |        | 0.86     |                  |                       |                       |         |                       |                       |         | 500        |
| <b>ZI14-1316 BTB</b> | —          | P       |        |          |                  |                       |                       |         |                       |                       |         | —          |
|                      | 5202220000 | HS/BTB* | 20     | 1.72     | 0.550            | 0.121                 | 0.149                 | 0.469   | 0.232                 | 0.284                 | 0.649   | 300        |

I: Moment of inertia

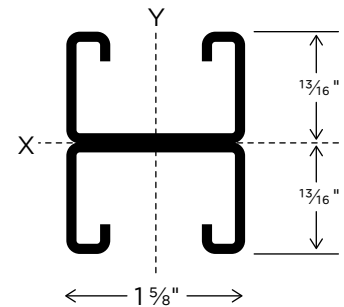
S: Section modulus

R: Radius of gyration

\*BTB is welded back to back



**ZI14-1316**



**ZI14-1316 BTB**

## BEAM AND COLUMN LOADS DATA

| CATALOG #            | BEAM SPAN OR UNBRACED COLUMN HEIGHT | UNIFORM LOAD AT STRESS OF 25,000 PSI | DEFLECTION AT STRESS OF 25,000 PSI | UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240 | MAXIMUM ALLOWABLE LOAD OF COLUMN |
|----------------------|-------------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|
|                      | in.                                 | lbs.                                 | in.                                | lbs.  | lbs.                             |
| <b>ZI14-1316</b>     | 18                                  | 625                                  | 0.058                              | 625   | 4600                             |
|                      | 24                                  | 468                                  | 0.103                              | 451   | 4150                             |
|                      | 30                                  | 380                                  | 0.164                              | 289   | 3900                             |
|                      | 36                                  | 310                                  | 0.232                              | 200   | 3580                             |
|                      | 42                                  | 270                                  | 0.320                              | 147   | 3300                             |
|                      | 48                                  | 235                                  | 0.417                              | 113   | 2900                             |
|                      | 60                                  | 190                                  | 0.658                              | 72  | 2550                             |
|                      | 72                                  | 155                                  | 0.928                              | 50  | 750                              |
|                      | 84                                  | 130                                  | 1.235                              | 36  | 560                              |
|                      | 96                                  | —                                    | —                                  | —   | —                                |
| <b>ZI14-1316 BTB</b> | 120                                 | —                                    | —                                  | —   | —                                |
|                      | 18                                  | 5000                                 | 0.036                              | 1680  | 9600                             |
|                      | 24                                  | 3700                                 | 0.062                              | 1220  | 9400                             |
|                      | 30                                  | 2900                                 | 0.098                              | 985   | 8950                             |
|                      | 36                                  | 2400                                 | 0.142                              | 820   | 8480                             |
|                      | 42                                  | 2100                                 | 0.195                              | 636   | 8100                             |
|                      | 48                                  | 1800                                 | 0.254                              | 487   | 7600                             |
|                      | 60                                  | 1500                                 | 0.396                              | 312   | 7000                             |
|                      | 72                                  | 1220                                 | 0.554                              | 217   | 5800                             |
|                      | 84                                  | 1050                                 | 0.769                              | 159   | 3950                             |
| <b>ZI14-1316 BTB</b> | 96                                  | —                                    | —                                  | —   | —                                |
|                      | 120                                 | —                                    | —                                  | —   | —                                |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



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# Metal Framing

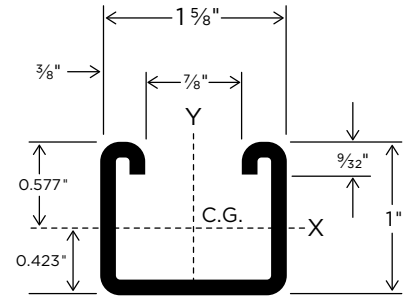
Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**Z112-1** | 1 5/8" x 1" Channel  
Metal thickness is 12 gauge (0.105").

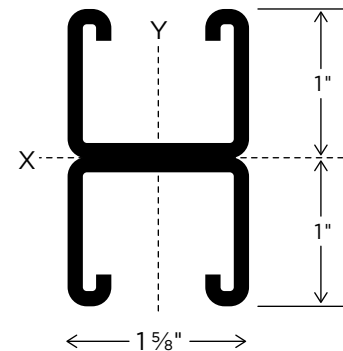
## ELEMENTS OF SECTION

| CATALOG #         | STOCK #    | PUNCH   | LENGTH | WEIGHT | AREA OF SECTION | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE QTY |
|-------------------|------------|---------|--------|--------|-----------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------|
|                   |            |         |        |        |                 | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) |            |
| <b>Z112-1</b>     | 5204310000 | Solid   |        | 1.38   |                 |                       |                       |         |                       |                       |         | 500        |
|                   | 5204010000 | HS      | 10     | 1.34   | 0.418           | 0.066                 | 0.099                 | 0.364   | 0.157                 | 0.193                 | 0.594   | 500        |
|                   | 5204210000 | FS      |        | 1.31   |                 |                       |                       |         |                       |                       |         | 500        |
|                   | —          | P       |        |        |                 |                       |                       |         |                       |                       |         | —          |
| <b>Z112-1 BTB</b> | 5204110000 | HS/BTB* | 10     | 2.72   | 0.836           | 0.306                 | 0.268                 | 0.552   | 0.314                 | 0.386                 | 0.604   | 250        |
|                   | 5204320000 | Solid   |        | 1.38   |                 |                       |                       |         |                       |                       |         | 500        |
|                   | 5204020000 | HS      | 20     | 1.34   | 0.418           | 0.066                 | 0.099                 | 0.364   | 0.157                 | 0.193                 | 0.594   | 500        |
|                   | 5204220000 | FS      |        | 1.31   |                 |                       |                       |         |                       |                       |         | 500        |
| <b>Z112-1 BTB</b> | —          | P       |        |        |                 |                       |                       |         |                       |                       |         | —          |
|                   | 5204120000 | HS/BTB* | 20     | 2.72   | 0.836           | 0.306                 | 0.268                 | 0.552   | 0.314                 | 0.386                 | 0.604   | 300        |

I: Moment of inertia  
S: Section modulus  
R: Radius of gyration  
\*BTB is welded back to back



**Z112-1**



**Z112-1 BTB**

## BEAM AND COLUMN LOADS DATA

| CATALOG #         | BEAM SPAN OR UNBRACED COLUMN HEIGHT | UNIFORM LOAD AT STRESS OF 25,000 PSI | DEFLECTION AT STRESS OF 25,000 PSI | UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240 | MAXIMUM ALLOWABLE LOAD OF COLUMN |
|-------------------|-------------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|
|                   | in.                                 | lbs.                                 | in.                                | lbs.  | lbs.                             |
| <b>Z112-1</b>     | 18                                  | 1095                                 | 0.051                              | 1054  | 7300                             |
|                   | 24                                  | 815                                  | 0.088                              | 780   | 6870                             |
|                   | 30                                  | 650                                  | 0.145                              | 595   | 6000                             |
|                   | 36                                  | 535                                  | 0.198                              | 446   | 5150                             |
|                   | 42                                  | 463                                  | 0.275                              | 359   | 4740                             |
|                   | 48                                  | 402                                  | 0.352                              | 273   | 3640                             |
|                   | 60                                  | 327                                  | 0.550                              | 174   | 2890                             |
|                   | 72                                  | 269                                  | 0.792                              | 120   | 1940                             |
|                   | 84                                  | 231                                  | 1.079                              | 88  | 1540                             |
|                   | 96                                  | 199                                  | 1.409                              | 68  | 775                              |
| <b>Z112-1 BTB</b> | 120                                 | 160                                  | 2.202                              | 42  | —                                |
|                   | 18                                  | 2480                                 | 0.024                              | 2480  | 16500                            |
|                   | 24                                  | 2075                                 | 0.046                              | 2075  | 16200                            |
|                   | 30                                  | 1785                                 | 0.080                              | 1725  | 15400                            |
|                   | 36                                  | 1480                                 | 0.119                              | 1480  | 14670                            |
|                   | 42                                  | 1290                                 | 0.159                              | 1265  | 14100                            |
|                   | 48                                  | 1115                                 | 0.214                              | 1020  | 13030                            |
|                   | 60                                  | 895                                  | 0.334                              | 750   | 11340                            |
|                   | 72                                  | 750                                  | 0.481                              | 552   | 8840                             |
|                   | 84                                  | 640                                  | 0.653                              | 392   | 7270                             |
| <b>Z112-1 BTB</b> | 96                                  | 560                                  | 0.847                              | 313   | 5920                             |
|                   | 120                                 | 447                                  | 1.324                              | 200   | 3710                             |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



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# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI12-138** | 1 5/8" x 1 3/8" Channel  
Metal thickness is 12 gauge (0.105").

## ELEMENTS OF SECTION

| CATALOG #           | STOCK #    | PUNCH   | LENGTH | WEIGHT | AREA OF SECTION | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE QTY |
|---------------------|------------|---------|--------|--------|-----------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------|
|                     |            |         |        |        |                 | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) |            |
| <b>ZI12-138</b>     | —          | Solid   |        |        |                 |                       |                       |         |                       |                       |         | —          |
|                     | 5206010000 | HS      | 10     | 1.54   | 0.500           | 0.134                 | 0.168                 | 0.517   | 0.219                 | 0.269                 | 0.662   | 500        |
|                     | 5206210000 | FS      |        | 1.59   |                 |                       |                       |         |                       |                       |         | 500        |
|                     | —          | P       |        |        |                 |                       |                       |         |                       |                       |         | —          |
| <b>ZI12-138 BTB</b> | 5206110000 | HS/BTB* | 10     | 3.24   | 1.000           | 0.602                 | 0.438                 | 0.775   | 0.438                 | 0.538                 | 0.662   | 250        |
| <b>ZI12-138</b>     | —          | Solid   |        |        |                 |                       |                       |         |                       |                       |         | —          |
|                     | 5206020000 | HS      | 20     | 1.54   | 0.500           | 0.134                 | 0.168                 | 0.517   | 0.219                 | 0.269                 | 0.662   | 500        |
|                     | 5206220000 | FS      |        | 1.59   |                 |                       |                       |         |                       |                       |         | 500        |
|                     | —          | P       |        |        |                 |                       |                       |         |                       |                       |         | —          |
| <b>ZI12-138 BTB</b> | 5206120000 | HS/BTB* | 20     | 3.24   | 1.000           | 0.602                 | 0.438                 | 0.775   | 0.438                 | 0.538                 | 0.662   | 300        |

I: Moment of inertia

S: Section modulus

R: Radius of gyration

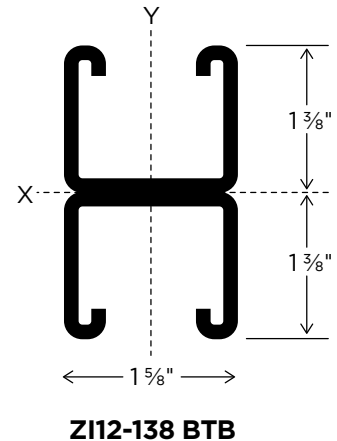
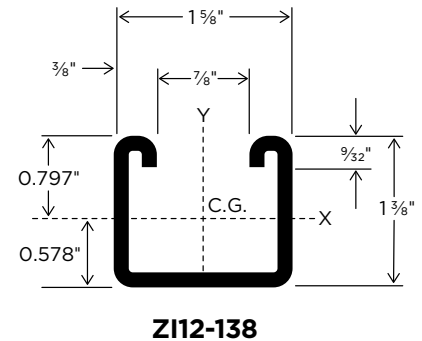
\*BTB is welded back to back

## BEAM AND COLUMN LOADS DATA

| CATALOG #           | BEAM SPAN OR UNBRACED COLUMN HEIGHT | UNIFORM LOAD AT STRESS OF 25,000 PSI | DEFLECTION AT STRESS OF 25,000 PSI | UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240 | MAXIMUM ALLOWABLE LOAD OF COLUMN |
|---------------------|-------------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|
|                     | in.                                 | lbs.                                 | in.                                | lbs.  | lbs.                             |
| <b>ZI12-138</b>     | 18                                  | 1766                                 | 0.035                              | 1766  | 8200                             |
|                     | 24                                  | 1330                                 | 0.062                              | 1330  | 7960                             |
|                     | 30                                  | 1050                                 | 0.095                              | 1050  | 7400                             |
|                     | 36                                  | 858                                  | 0.134                              | 858   | 7250                             |
|                     | 42                                  | 748                                  | 0.185                              | 705   | 6280                             |
|                     | 48                                  | 650                                  | 0.241                              | 539   | 5490                             |
|                     | 60                                  | 530                                  | 0.383                              | 345   | 4820                             |
|                     | 72                                  | 435                                  | 0.544                              | 240   | 4080                             |
|                     | 84                                  | 378                                  | 0.750                              | 176   | 3320                             |
|                     | 96                                  | 315                                  | 0.934                              | 135   | 2860                             |
| <b>ZI12-138 BTB</b> | 120                                 | 260                                  | 1.500                              | 86  | 2100                             |
|                     | 18                                  | 4900                                 | 0.021                              | 4900  | 17650                            |
|                     | 24                                  | 3650                                 | 0.037                              | 3650  | 17200                            |
|                     | 30                                  | 2900                                 | 0.058                              | 2900  | 16800                            |
|                     | 36                                  | 2400                                 | 0.083                              | 2400  | 16450                            |
|                     | 42                                  | 2120                                 | 0.117                              | 2120  | 16000                            |
|                     | 48                                  | 1820                                 | 0.150                              | 1820  | 15600                            |
|                     | 60                                  | 1450                                 | 0.233                              | 1450  | 15050                            |
|                     | 72                                  | 1230                                 | 0.342                              | 1077  | 12900                            |
|                     | 84                                  | 1050                                 | 0.464                              | 792   | 12250                            |
|                     | 96                                  | 910                                  | 0.600                              | 606   | 10380                            |
|                     | 120                                 | 730                                  | 0.940                              | 388   | 6200                             |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**Z112-2716** | 1 5/8" x 2 7/16" Channel  
Metal thickness is 12 gauge (0.105").

## ELEMENTS OF SECTION

| CATALOG #            | STOCK #    | PUNCH   | LENGTH<br>ft. | WEIGHT<br>lbs./ft. | AREA OF<br>SECTION<br>in. <sup>2</sup> | AXIS X-X              |                       |         | AXIS Y-Y              |                       |         | BUNDLE<br>QTY |
|----------------------|------------|---------|---------------|--------------------|--|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|---------------|
|                      |            |         |               |                    |  | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) |               |
| <b>Z112-2716</b>     | —          | Solid   |               |                    |  |                       |                       |         |                       |                       |         | —             |
|                      | 5207010000 | HS      | 10            | 2.23               | 0.725                                  | 0.520                 | 0.395                 | 0.847   | 0.337                 | 0.415                 | 0.682   | 400           |
|                      | 5207210000 | FS      |               | 2.21               |  |                       |                       |         |                       |                       |         | 400           |
| <b>Z112-2716 BTB</b> | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
|                      | 5207110000 | HS/BTB* | 10            | 4.46               | 1.450                                  | 2.865                 | 1.175                 | 1.405   | 0.674                 | 0.830                 | 0.682   | 250           |
|                      | —          | Solid   |               |                    |  |                       |                       |         |                       |                       |         | —             |
| <b>Z112-2716</b>     | 5207020000 | HS      | 20            | 2.23               | 0.725                                  | 0.520                 | 0.395                 | 0.847   | 0.337                 | 0.415                 | 0.682   | 400           |
|                      | 5207220000 | FS      |               | 2.21               |  |                       |                       |         |                       |                       |         | 400           |
|                      | —          | P       |               |                    |  |                       |                       |         |                       |                       |         | —             |
| <b>Z112-2716 BTB</b> | 5207120000 | HS/BTB* | 20            | 4.46               | 1.450                                  | 2.865                 | 1.175                 | 1.405   | 0.674                 | 0.830                 | 0.682   | 300           |

I: Moment of inertia

S: Section modulus

R: Radius of gyration

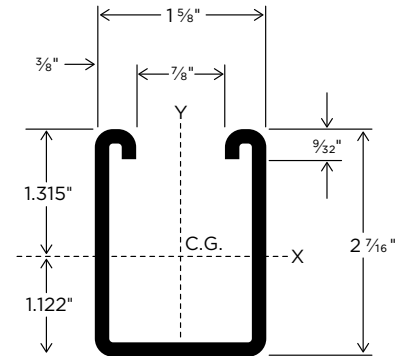
\*BTB is welded back to back

## BEAM AND COLUMN LOADS DATA

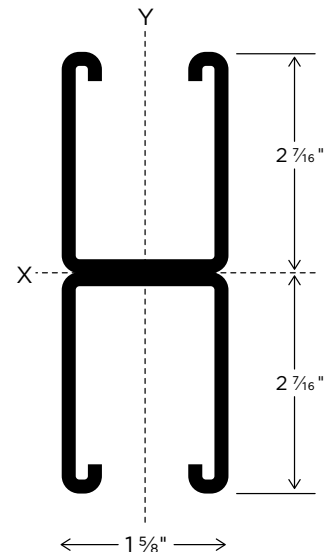
| CATALOG #            | BEAM SPAN OR<br>UNBRACED COLUMN<br>HEIGHT | UNIFORM LOAD<br>AT STRESS OF<br>25,000 PSI | DEFLECTION<br>AT STRESS OF<br>25,000 PSI | UNIFORM LOAD<br>WHEN MAXIMUM<br>DEFLECTION =<br>SPAN/240 | MAXIMUM<br>ALLOWABLE LOAD<br>OF COLUMN |
|----------------------|---|--|--|--|--|
|                      | in.                                       | lbs.                                       | in.                                      | lbs.   | lbs.                                   |
| <b>Z112-2716</b>     | 18  | 4400                                       | 0.022                                    | 4400   | 10500                                  |
|                      | 24  | 3280                                       | 0.039                                    | 3280   | 9800                                   |
|                      | 30  | 2650                                       | 0.062                                    | 2650   | 9650                                   |
|                      | 36  | 2180                                       | 0.088                                    | 2180   | 9000                                   |
|                      | 42  | 1880                                       | 0.120                                    | 1880   | 8800                                   |
|                      | 48  | 1620                                       | 0.154                                    | 1620   | 8150                                   |
|                      | 60  | 1320                                       | 0.246                                    | 1320   | 6900                                   |
|                      | 72  | 1100                                       | 0.354                                    | 930  | 5850                                   |
|                      | 84  | 930  | 0.475                                    | 684  | 5000                                   |
|                      | 96  | 820  | 0.626                                    | 523  | 4450                                   |
| <b>Z112-2716 BTB</b> | 120                                       | 645  | 0.962                                    | 335  | 3200                                   |
|                      | 18  | 13000                                      | 0.012                                    | 13000  | 18500                                  |
|                      | 24  | 9800                                       | 0.021                                    | 9800   | 18450                                  |
|                      | 30  | 7700                                       | 0.032                                    | 7700   | 18380                                  |
|                      | 36  | 6450                                       | 0.047                                    | 6450   | 18300                                  |
|                      | 42  | 5450                                       | 0.063                                    | 5450   | 18200                                  |
|                      | 48  | 4800                                       | 0.083                                    | 4800   | 18100                                  |
|                      | 60  | 3850                                       | 0.130                                    | 3850   | 17900                                  |
|                      | 72  | 3200                                       | 0.187                                    | 3200   | 17550                                  |
|                      | 84  | 2750                                       | 0.255                                    | 2750   | 16650                                  |
|                      | 96  | 2420                                       | 0.335                                    | 2420   | 14800                                  |
|                      | 120                                       | 1920                                       | 0.519                                    | 1846   | 9000                                   |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**Z112-2716**



**Z112-2716 BTB**



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# Metal Framing

Standard finish is Pre-Galvanized (PG)  
Product finishes and materials are on [page 12](#)

**ZI12-314** | 1 5/8" x 3 1/4" Channel  
Metal thickness is 12 gauge (0.105").

## ELEMENTS OF SECTION

| CATALOG #           | STOCK #    | PUNCH   | LENGTH | WEIGHT   | AREA OF SECTION  | AXIS X-X              |                       |         |                       | AXIS Y-Y              |         |     | BUNDLE QTY |
|---------------------|------------|---------|--------|----------|------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|-----|------------|
|                     |            |         | ft.    | lbs./ft. | in. <sup>2</sup> | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | I (in. <sup>4</sup> ) | S (in. <sup>3</sup> ) | R (in.) | ft. |            |
| <b>ZI12-314</b>     | —          | Solid   |        |          |                  |                       |                       |         |                       |                       |         |     | —          |
|                     | 5208010000 | HS      | 10     | 2.90     | 0.898            | 1.111                 | 0.640                 | 1.112   | 0.438                 | 0.539                 | 0.698   | 300 |            |
|                     | 5208210000 | FS      |        | 2.89     |                  |                       |                       |         |                       |                       |         | 300 |            |
|                     | —          | P       |        |          |                  |                       |                       |         |                       |                       |         |     | —          |
| <b>ZI12-314 BTB</b> | 5208110000 | HS/BTB* | 10     | 5.80     | 1.796            | 6.344                 | 1.920                 | 1.879   | 0.876                 | 1.078                 | 0.698   | 250 |            |
|                     | —          | Solid   |        |          |                  |                       |                       |         |                       |                       |         |     | —          |
| <b>ZI12-314</b>     | 5208020000 | HS      | 20     | 2.90     | 0.898            | 1.111                 | 0.640                 | 1.112   | 0.438                 | 0.539                 | 0.698   | 300 |            |
|                     | 5208220000 | FS      |        | 2.89     |                  |                       |                       |         |                       |                       |         | 300 |            |
|                     | —          | P       |        |          |                  |                       |                       |         |                       |                       |         |     | —          |
| <b>ZI12-314 BTB</b> | 5208120000 | HS/BTB* | 20     | 5.80     | 1.796            | 6.344                 | 1.920                 | 1.879   | 0.876                 | 1.078                 | 0.698   | 300 |            |

I: Moment of inertia

S: Section modulus

R: Radius of gyration

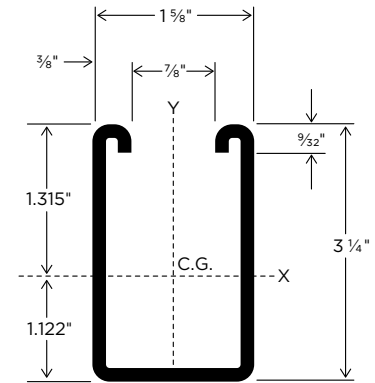
\*BTB is welded back to back

## BEAM AND COLUMN LOADS DATA

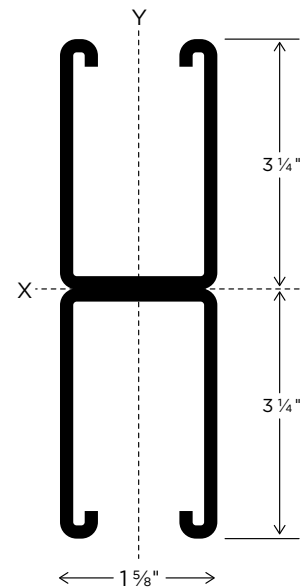
| CATALOG #           | BEAM SPAN OR UNBRACED COLUMN HEIGHT | UNIFORM LOAD AT STRESS OF 25,000 PSI | DEFLECTION AT STRESS OF 25,000 PSI | UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240 | MAXIMUM ALLOWABLE LOAD OF COLUMN |
|---------------------|-------------------------------------|--------------------------------------|------------------------------------|---|----------------------------------|
|                     | in.                                 | lbs.                                 | in.                                | lbs.  | lbs.                             |
| <b>ZI12-314</b>     | 36                                  | 3700                                 | 0.069                              | 3700  | 10000                            |
|                     | 48                                  | 2800                                 | 0.125                              | 2800  | 8000                             |
|                     | 60                                  | 2150                                 | 0.187                              | 2150  | 7100                             |
|                     | 72                                  | 1750                                 | 0.264                              | 1750  | 6620                             |
|                     | 84                                  | 1500                                 | 0.359                              | 1461  | 5000                             |
|                     | 96                                  | 1350                                 | 0.482                              | 1118  | 4780                             |
|                     | 120                                 | 1100                                 | 0.768                              | 716   | 4400                             |
|                     | 144                                 | 880                                  | 1.062                              | 497   | —                                |
|                     | 168                                 | 750                                  | 1.437                              | 365   | —                                |
|                     | 192                                 | 650                                  | 1.859                              | 279   | —                                |
| <b>ZI12-314 BTB</b> | 240                                 | 530                                  | 2.961                              | 179   | —                                |
|                     | 72                                  | 5500                                 | 0.145                              | 5500  | 13000                            |
|                     | 84                                  | 4900                                 | 0.205                              | 4900  | 11200                            |
|                     | 96                                  | 4000                                 | 0.250                              | 4000  | 10000                            |
|                     | 120                                 | 3200                                 | 0.391                              | 3200  | 8800                             |
|                     | 144                                 | 2750                                 | 0.581                              | 2750  | —                                |
|                     | 168                                 | 2320                                 | 0.778                              | 2085  | —                                |
|                     | 192                                 | 2000                                 | 1.002                              | 1597  | —                                |
|                     | 216                                 | 1790                                 | 1.276                              | 1261  | —                                |
|                     | 240                                 | 1610                                 | 1.575                              | 1022  | —                                |

**Beam Loads:** Loads listed are uniformly distributed; for loads concentrated at center of span, multiply uniform load at table by 0.5 and multiply the deflection by 0.8. When deflection is not a factor, use stress of 25,000 psi. When deflection is a factor, use deflection of SPAN/240.

All weights and dimensions shown are subject to commercial tolerances.



**ZI12-314**



**ZI12-314 BTB**



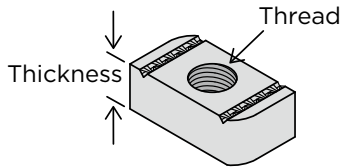
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# Channel Nuts

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZCNN | Channel Nut No Spring

For all channel sizes except as noted

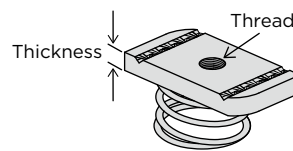


| CATALOG #    | THREAD SIZE | THICKNESS |      | WEIGHT |
|--------------|-------------|-----------|------|--------|
|              |             | in.       | mm   |        |
| ZCNN20010EG  | 10-24       | 0.25      | 6.3  | 0.096  |
| ZCNN20025EG  | ¼"-20       | 0.25      | 6.3  | 0.096  |
| ZCNN30031EG  | ⅝"-18       | 0.37      | 9.4  | 0.096  |
| ZCNN30037EG  | ⅜"-16       | 0.37      | 9.4  | 0.084  |
| ZCNN30050EG  | ½"-13       | 0.37      | 9.4  | 0.076  |
| ZCNN30M10EG  | M10         | 0.37      | 9.4  | 0.076  |
| ZCNN40050EG* | ½"-13       | 0.50      | 12.7 | 0.108  |
| ZCNN40M12EG* | M12         | 0.50      | 12.7 | 0.108  |
| ZCNN30062EG  | ⅝"-11       | 0.37      | 9.4  | 0.097  |
| ZCNN40062EG* | ⅝"-11       | 0.50      | 12.7 | 0.130  |
| ZCNN30075EG  | ¾"-10       | 0.37      | 9.4  | 0.103  |
| ZCNN40075EG* | ¾"-10       | 0.50      | 12.7 | 0.127  |
| ZCNN40087EG* | ⅞"-9        | 0.50      | 12.7 | 0.125  |

\*Cannot be used with 1⅝" channel

## ZCNS | Channel Nut Short Spring

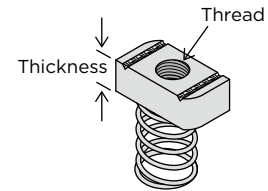
For 1⅜" & 1" channel



| CATALOG #   | THREAD SIZE | THICKNESS |     | WEIGHT |
|-------------|-------------|-----------|-----|--------|
|             |             | in.       | mm  |        |
| ZCNS20010EG | 10-24       | 0.25      | 6.3 | 0.060  |
| ZCNS20025EG | ¼"-20       | 0.25      | 6.3 | 0.068  |
| ZCNS20031EG | ⅝"-18       | 0.25      | 6.3 | 0.068  |
| ZCNS30031EG | ⅝"-18       | 0.37      | 9.4 | 0.092  |
| ZCNS20037EG | ⅜"-16       | 0.25      | 6.3 | 0.060  |
| ZCNS30037EG | ⅜"-16       | 0.37      | 9.4 | 0.088  |
| ZCNS30050EG | ½"-13       | 0.37      | 9.4 | 0.087  |
| ZCNS30062EG | ⅝"-11       | 0.37      | 9.4 | 0.104  |

## ZCNR | Channel Nut Regular Spring

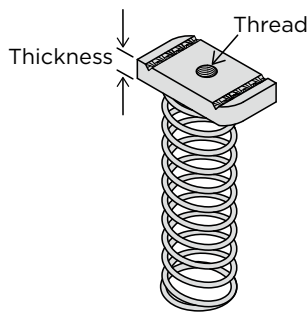
For 1⅜" & 1⅝" channel



| CATALOG #   | THREAD SIZE | THICKNESS |      | WEIGHT |
|-------------|-------------|-----------|------|--------|
|             |             | in.       | mm   |        |
| ZCNR20010EG | 10-24       | 0.25      | 6.3  | 0.066  |
| ZCNR20025EG | ¼"-20       | 0.25      | 6.3  | 0.072  |
| ZCNR20031EG | ⅝"-18       | 0.25      | 6.3  | 0.072  |
| ZCNR30031EG | ⅝"-18       | 0.37      | 9.4  | 0.0925 |
| ZCNR20037EG | ⅜"-16       | 0.25      | 6.3  | 0.066  |
| ZCNR30037EG | ⅜"-16       | 0.37      | 9.4  | 0.093  |
| ZCNR30M10EG | M10         | 0.37      | 9.4  | 0.093  |
| ZCNR30050EG | ½"-13       | 0.37      | 9.4  | 0.084  |
| ZCNR40M12EG | M12         | 0.50      | 12.7 | 0.108  |
| ZCNR40050EG | ½"-13       | 0.50      | 12.7 | 0.108  |
| ZCNR40062EG | ⅝"-11       | 0.50      | 12.7 | 0.162  |
| ZCNR40075EG | ¾"-10       | 0.50      | 12.7 | 0.137  |
| ZCNR40087EG | ⅞"-9        | 0.50      | 12.7 | 0.114  |

## ZCNL | Channel Nut Long Spring

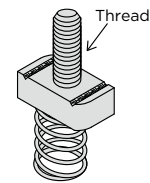
For 2⅞" & 3¼" channel



| CATALOG #   | THREAD SIZE | THICKNESS |      | WEIGHT |
|-------------|-------------|-----------|------|--------|
|             |             | in.       | mm   |        |
| ZCNL20025EG | ¼"-20       | 0.25      | 6.3  | 0.10   |
| ZCNL30037EG | ⅜"-16       | 0.37      | 9.4  | 0.10   |
| ZCNL40050EG | ½"-13       | 0.50      | 12.7 | 0.11   |

## ZCND | Channel Stud Nut Regular Spring

For 1⅜" & 1⅝" channel



| CATALOG #   | THREAD SIZE | THICKNESS |      | WEIGHT |
|-------------|-------------|-----------|------|--------|
|             |             | in.       | mm   |        |
| ZCND25100EG | ¼"-20       | 1         | 25.4 | 0.08   |
| ZCND25137EG | ¼"-20       | 1⅜        | 34.9 | 0.09   |
| ZCND25150EG | ¼"-20       | 1½        | 38.1 | 0.09   |
| ZCND37100EG | ⅜"-16       | 1         | 25.4 | 0.13   |
| ZCND37112EG | ⅜"-16       | 1⅝        | 28.6 | 0.13   |
| ZCND37125EG | ⅜"-16       | 1¾        | 31.8 | 0.14   |
| ZCND37150EG | ⅜"-16       | 1½        | 38.1 | 0.15   |
| ZCND37162EG | ⅜"-16       | 1⅝        | 41.3 | 0.16   |
| ZCND37212EG | ⅜"-16       | 2⅞        | 54.0 | 0.16   |
| ZCND50100EG | ½"-13       | 1         | 25.4 | 0.14   |
| ZCND50125EG | ½"-13       | 1¼        | 31.8 | 0.15   |
| ZCND50150EG | ½"-13       | 1½        | 38.1 | 0.17   |
| ZCND50200EG | ½"-13       | 2         | 50.8 | 0.19   |

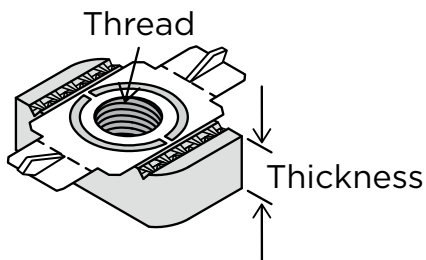


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# Channel Nuts

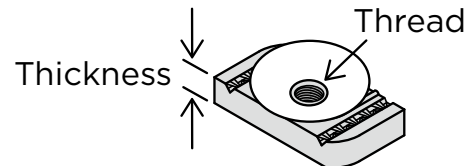
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## **ZCNSQ** | Channel Squeeze Nut *For all channel sizes*



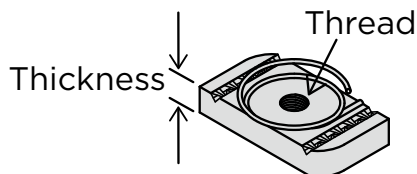
| CATALOG #          | THREAD SIZE | THICKNESS |      | WEIGHT |
|--------------------|-------------|-----------|------|--------|
|                    |             | in.       | mm   | lbs.   |
| <b>ZCNSQ2025EG</b> | ¼"-20       | ¼         | 6.35 | 0.093  |
| <b>ZCNSQ3037EG</b> | ⅜"-16       | ⅜         | 9.50 | 0.093  |
| <b>ZCNSQ3050EG</b> | ½"-13       | ⅝         | 9.50 | 0.092  |

## **ZCNC** | Channel Cone Nut *For all channel sizes*



| CATALOG #          | THREAD SIZE | THICKNESS |     | WEIGHT |
|--------------------|-------------|-----------|-----|--------|
|                    |             | in.       | mm  | lbs.   |
| <b>ZCNC30025EG</b> | ¼"-20       | 0.37      | 9.4 | 0.093  |
| <b>ZCNC30037EG</b> | ⅜"-16       | 0.37      | 9.4 | 0.093  |
| <b>ZCNC30050EG</b> | ½"-13       | 0.37      | 9.4 | 0.092  |

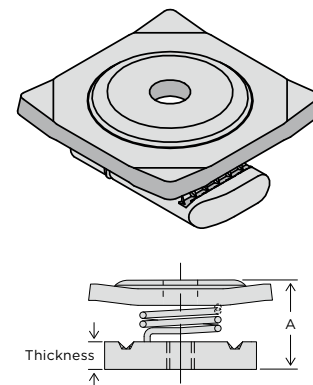
## **ZCNT** | Channel Nut Top Spring *For all channel sizes except as noted*



| CATALOG #           | THREAD SIZE | THICKNESS |      | WEIGHT |
|---------------------|-------------|-----------|------|--------|
|                     |             | in.       | mm   | lbs.   |
| <b>ZCNT20025EG</b>  | ¼"-20       | 0.25      | 6.3  | 0.093  |
| <b>ZCNT30037EG</b>  | ⅜"-16       | 0.37      | 9.4  | 0.093  |
| <b>ZCNT30050EG</b>  | ½"-13       | 0.37      | 9.4  | 0.092  |
| <b>ZCNT40050EG*</b> | ½"-13       | 0.50      | 12.7 | 0.101  |

\*Cannot be used with ⅜" channel

## **ZCNW** | Combo Nut Washer *For all channel sizes except as noted*



| CATALOG #           | THREAD SIZE | THICKNESS |      | A    |      | WEIGHT |
|---------------------|-------------|-----------|------|------|------|--------|
|                     |             | in.       | mm   | in.  | mm   | lbs.   |
| <b>ZCNW30025EG</b>  | ¼"-20       | 0.37      | 9.4  | 0.81 | 20.6 | 0.120  |
| <b>ZCNW30037EG</b>  | ⅜"-16       | 0.37      | 9.4  | 0.81 | 20.6 | 0.113  |
| <b>ZCNW40050EG*</b> | ½"-13       | 0.50      | 12.7 | 0.91 | 23.1 | 0.130  |

\*Cannot be used with ⅜" channel



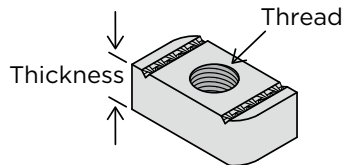
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Domestic Channel Nuts

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZCNN (D) | Channel Nut No Spring

For all channel sizes except as noted

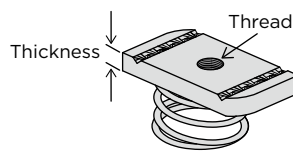


| CATALOG #    | THREAD SIZE | THICKNESS |      | WEIGHT |
|--------------|-------------|-----------|------|--------|
|              |             | in.       | mm   |        |
| ZCNN2D025EG  | ¼"-20       | 0.25      | 6.3  | 0.061  |
| ZCNN3D031EG  | ⅝"-18       | 0.37      | 9.4  | 0.096  |
| ZCNN3D037EG  | ¾"-16       | 0.37      | 9.4  | 0.084  |
| ZCNN3D050EG  | ½"-13       | 0.37      | 9.4  | 0.076  |
| ZCNN4D050EG* | ½"-13       | 0.50      | 12.7 | 0.108  |
| ZCNN3D062EG  | ⅝"-11       | 0.37      | 9.4  | 0.097  |
| ZCNN4D062EG* | ⅝"-11       | 0.50      | 12.7 | 0.130  |
| ZCNN3D075EG  | ¾"-10       | 0.37      | 9.4  | 0.103  |
| ZCNN4D075EG* | ¾"-10       | 0.50      | 12.7 | 0.127  |
| ZCNN4D087EG* | ⅞"-9        | 0.50      | 12.7 | 0.125  |

\*Cannot be used with 1⅜" channel

## ZCNS (D) | Channel Nut Short Spring

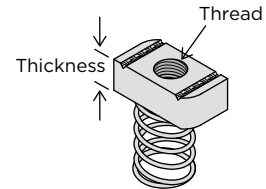
For 1⅜" & 1" channel



| CATALOG #   | THREAD SIZE | THICKNESS |     | WEIGHT |
|-------------|-------------|-----------|-----|--------|
|             |             | in.       | mm  |        |
| ZCNS2D025EG | ¼"-20       | 0.25      | 6.3 | 0.068  |
| ZCNS2D031EG | ⅝"-18       | 0.25      | 6.3 | 0.068  |
| ZCNS3D031EG | ⅝"-18       | 0.37      | 9.4 | 0.092  |
| ZCNS2D037EG | ¾"-16       | 0.25      | 6.3 | 0.070  |
| ZCNS3D037EG | ¾"-16       | 0.37      | 9.4 | 0.088  |
| ZCNS3D050EG | ½"-13       | 0.37      | 9.4 | 0.087  |
| ZCNS3D062EG | ⅝"-11       | 0.37      | 9.4 | 0.104  |

## ZCNR (D) | Channel Nut Regular Spring

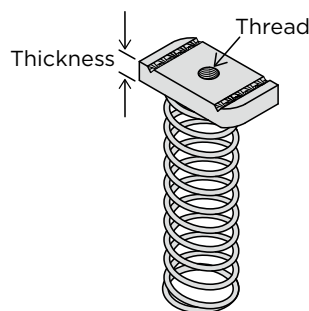
For 1⅜" & 1⅝" channel



| CATALOG #   | THREAD SIZE | THICKNESS |      | WEIGHT |
|-------------|-------------|-----------|------|--------|
|             |             | in.       | mm   |        |
| ZCNR2D025EG | ¼"-20       | 0.25      | 6.3  | 0.072  |
| ZCNR2D031EG | ⅝"-18       | 0.25      | 6.3  | 0.072  |
| ZCNR3D031EG | ⅝"-18       | 0.37      | 9.4  | 0.093  |
| ZCNR2D037EG | ¾"-16       | 0.25      | 6.3  | 0.066  |
| ZCNR3D037EG | ¾"-16       | 0.37      | 9.4  | 0.093  |
| ZCNR3D050EG | ½"-13       | 0.37      | 9.4  | 0.084  |
| ZCNR4D050EG | ½"-13       | 0.50      | 12.7 | 0.108  |
| ZCNR4D062EG | ⅝"-11       | 0.50      | 12.7 | 0.162  |
| ZCNR4D075EG | ¾"-10       | 0.50      | 12.7 | 0.137  |
| ZCNR4D087EG | ⅞"-9        | 0.50      | 12.7 | 0.114  |

## ZCNL (D) | Channel Nut Long Spring

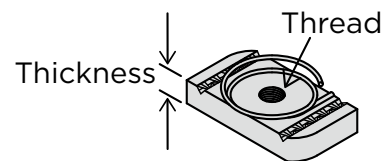
For 2⅞" & 3¼" channel



| CATALOG #   | THREAD SIZE | THICKNESS |      | WEIGHT |
|-------------|-------------|-----------|------|--------|
|             |             | in.       | mm   |        |
| ZCNL2D025EG | ¼"-20       | 0.25      | 6.3  | 0.10   |
| ZCNL3D037EG | ¾"-16       | 0.37      | 9.4  | 0.10   |
| ZCNL4D050EG | ½"-13       | 0.50      | 12.7 | 0.11   |

## ZCNT (D) | Channel Nut Top Spring

For all channel sizes except as noted



| CATALOG #    | THREAD SIZE | THICKNESS |      | WEIGHT |
|--------------|-------------|-----------|------|--------|
|              |             | in.       | mm   |        |
| ZCNT2D025EG  | ¼"-20       | 0.25      | 6.3  | 0.092  |
| ZCNT3D037EG  | ¾"-16       | 0.37      | 9.4  | 0.093  |
| ZCNT3D050EG  | ½"-13       | 0.37      | 9.4  | 0.092  |
| ZCNT4D050EG* | ½"-13       | 0.50      | 12.7 | 0.101  |

\*Cannot be used with 1⅜" channel

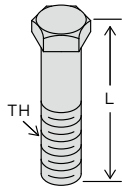


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Hardware

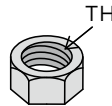
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZHCS | Hex Head Cap Screw



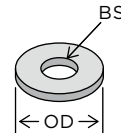
| CATALOG #  | THREAD SIZE | LENGTH | WEIGHT |
|------------|-------------|--------|--------|
|            |             | in.    | lbs.   |
| ZHCS2507EG | ¼"-20       | ¾      | 0.015  |
| ZHCS2510EG | ¼"-20       | 1      | 0.018  |
| ZHCS2512EG | ¼"-20       | 1¼     | 0.021  |
| ZHCS2515EG | ¼"-20       | 1½     | 0.024  |
| ZHCS3707EG | ⅜"-16       | ¾      | 0.036  |
| ZHCS3710EG | ⅜"-16       | 1      | 0.042  |
| ZHCS3712EG | ⅜"-16       | 1¼     | 0.049  |
| ZHCS3715EG | ⅜"-16       | 1½     | 0.056  |
| ZHCS3720EG | ⅜"-16       | 2      | 0.072  |
| ZHCS5010EG | ½"-13       | 1      | 0.092  |
| ZHCS5012EG | ½"-13       | 1¼     | 0.104  |
| ZHCS5015EG | ½"-13       | 1½     | 0.116  |
| ZHCS5017EG | ½"-13       | 1¾     | 0.130  |
| ZHCS5020EG | ½"-13       | 2      | 0.144  |

## ZHN | Hex Nut



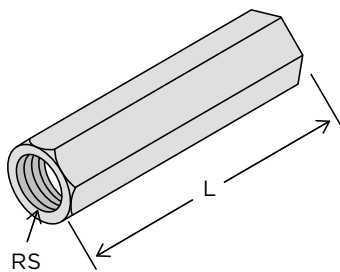
| CATALOG # | THREAD SIZE | WEIGHT |
|-----------|-------------|--------|
|           |             | lbs.   |
| ZHN0025EG | ¼"-20       | 0.009  |
| ZHN0037EG | ⅜"-16       | 0.016  |
| ZHN0050EG | ½"-13       | 0.038  |
| ZHN0062EG | ⅝"-11       | 0.073  |
| ZHN0075EG | ¾"-10       | 0.119  |

## ZFW | Flat Washer



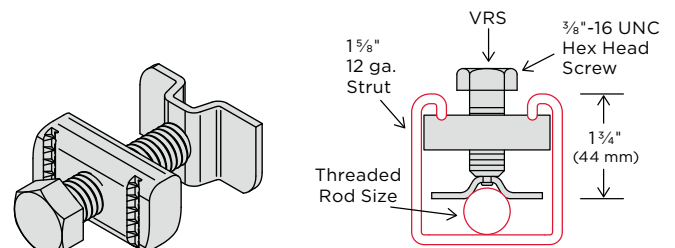
| CATALOG # | BS  | OD      | WEIGHT |
|-----------|-----|---------|--------|
|           | in. | in. mm  | lbs.   |
| ZFW0025EG | ¼   | ¾ 19.0  | 0.008  |
| ZFW0037EG | ⅜   | 1 25.4  | 0.015  |
| ZFW0050EG | ½   | 1⅝ 34.9 | 0.039  |
| ZFW0062EG | ⅝   | 1¾ 44.4 | 0.077  |
| ZFW0075EG | ¾   | 2 50.8  | 0.110  |

## ZRC | Rod Coupling



| CATALOG # | RS    | L       | HEX SIZE | WEIGHT |
|-----------|-------|---------|----------|--------|
|           |       | in. mm  | in.      | lbs.   |
| ZRC0025EG | ¼"-20 | ¾ 22.2  | ⅝        | 0.03   |
| ZRC0037EG | ⅜"-16 | 1¼ 44.4 | ⅞        | 0.08   |
| ZRC0050EG | ½"-13 | 1¾ 44.4 | 1⅞       | 0.12   |

## ZVRS | Rod Stiffener



| CATALOG #  | BOLT SIZE | ROD DIAMETER | ROOT AREA        | RADIUS OF GYRATION | DESIGN LOAD |
|------------|-----------|--------------|------------------|--------------------|-------------|
|            | in.       | in. mm       | in. <sup>2</sup> | in.                | lbs. kN     |
|            |           | ⅝"-16 9.5    | 0.068            | 0.074              | 730 3.3     |
| ZVRS0000EG | ⅝"-⅞      | ½"-13 12.7   | 0.126            | 0.100              | 1350 6.0    |
|            |           | ⅝"-11 15.9   | 0.202            | 0.127              | 2160 9.6    |

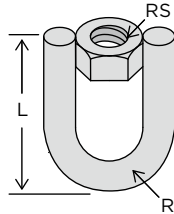


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Hardware

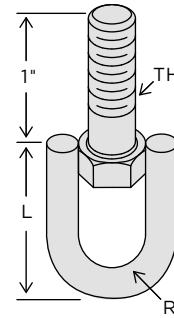
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZSW10 | Swivel Female



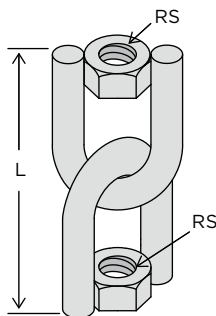
| CATALOG #   | WEIGHT | RS      | L     |      | R   |     | DESIGN LOAD |      |
|-------------|--------|---------|-------|------|-----|-----|-------------|------|
|             | lbs.   |         | in.   | mm   | in. | mm  | lbs.        | kN   |
| ZSW100037EG | 0.13   | 3/8"-16 | 1 3/4 | 44.4 | 1/4 | 6.3 | 620         | 2.76 |
| ZSW100050EG | 0.17   | 1/2"-13 | 2     | 50.8 | 3/8 | 9.4 | 1150        | 5.12 |

## ZSW11 | Swivel Male



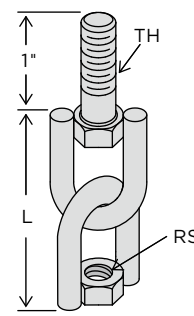
| CATALOG #   | WEIGHT | TH      | L     |      | R   |     | DESIGN LOAD |      |
|-------------|--------|---------|-------|------|-----|-----|-------------|------|
|             | lbs.   |         | in.   | mm   | in. | mm  | lbs.        | kN   |
| ZSW110037EG | 0.15   | 3/8"-16 | 1 3/4 | 44.4 | 1/4 | 6.3 | 620         | 2.76 |
| ZSW110050EG | 0.20   | 1/2"-13 | 2     | 50.8 | 3/8 | 9.4 | 1150        | 5.12 |

## ZSW12 | Swivel Female to Female



| CATALOG #   | WEIGHT | RS      | L     |      | DESIGN LOAD |      |
|-------------|--------|---------|-------|------|-------------|------|
|             | lbs.   |         | in.   | mm   | lbs.        | kN   |
| ZSW120037EG | 0.26   | 3/8"-16 | 2 3/4 | 69.8 | 620         | 2.76 |
| ZSW120050EG | 0.33   | 1/2"-13 | 3     | 76.2 | 1150        | 5.12 |

## ZSW13 | Swivel Male to Female



| CATALOG #   | WEIGHT | TH      | RS      | L     |      | DESIGN LOAD |      |
|-------------|--------|---------|---------|-------|------|-------------|------|
|             | lbs.   |         |         | in.   | mm   | lbs.        | kN   |
| ZSW130037EG | 0.28   | 3/8"-16 | 3/8"-16 | 2 3/4 | 69.8 | 620         | 2.76 |
| ZSW130050EG | 0.37   | 1/2"-13 | 1/2"-13 | 3     | 76.2 | 1150        | 5.12 |



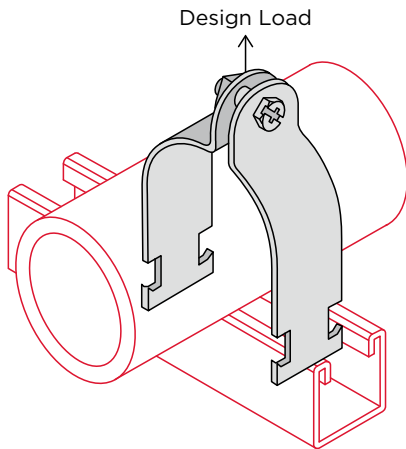
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# Strut Clamps

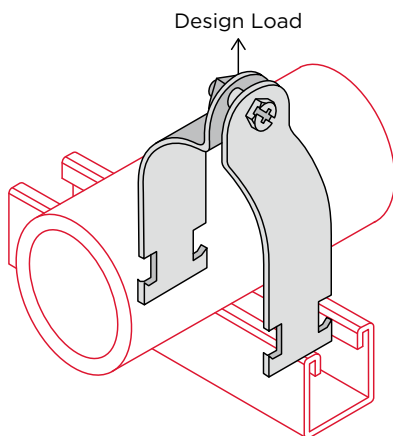
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZSCR | Rigid Strut Clamp



| CATALOG #  | PIPE SIZE |     | OD     |       | DESIGN LOAD |      | WEIGHT |
|------------|-----------|-----|--------|-------|-------------|------|--------|
|            | in.       | mm  | in.    | mm    | lbs.        | kN   |        |
| ZSCR0025EG | ¼         | 6   | 0.540  | 13.7  | 400         | 1.78 | 0.09   |
| ZSCR0037EG | ⅜         | 10  | 0.675  | 17.1  | 400         | 1.78 | 0.09   |
| ZSCR0050EG | ½         | 15  | 0.840  | 21.3  | 400         | 1.78 | 0.10   |
| ZSCR0075EG | ¾         | 20  | 1.050  | 26.7  | 600         | 2.67 | 0.13   |
| ZSCR0100EG | 1         | 25  | 1.315  | 33.4  | 600         | 2.67 | 0.15   |
| ZSCR0125EG | 1¼        | 32  | 1.660  | 42.2  | 600         | 2.67 | 0.17   |
| ZSCR0150EG | 1½        | 40  | 1.900  | 48.3  | 800         | 3.56 | 0.29   |
| ZSCR0200EG | 2         | 50  | 2.375  | 60.3  | 800         | 3.56 | 0.33   |
| ZSCR0250EG | 2½        | 65  | 2.875  | 73.0  | 800         | 3.56 | 0.39   |
| ZSCR0300EG | 3         | 80  | 3.500  | 88.9  | 800         | 3.56 | 0.43   |
| ZSCR0350EG | 3½        | 90  | 4.000  | 101.6 | 1000        | 4.45 | 0.57   |
| ZSCR0400EG | 4         | 100 | 4.500  | 114.3 | 1000        | 4.45 | 0.62   |
| ZSCR0500EG | 5         | 125 | 5.562  | 141.3 | 1000        | 4.45 | 0.73   |
| ZSCR0600EG | 6         | 150 | 6.625  | 168.3 | 1000        | 4.45 | 0.85   |
| ZSCR0800EG | 8         | 200 | 8.625  | 219.1 | 1000        | 4.45 | 1.07   |
| ZSCR1000EG | 10        | 250 | 10.750 | 273.1 | 1000        | 4.45 | 1.27   |
| ZSCR1200EG | 12        | 300 | 12.750 | 323.9 | 1000        | 4.45 | 1.49   |

## ZSCU | Universal Strut Clamp



| CATALOG #  | CLAMP SIZE |    | OD            |              |               |              | DESIGN LOAD |      | WEIGHT |
|------------|------------|----|---------------|--------------|---------------|--------------|-------------|------|--------|
|            | in.        | mm | Minimum (in.) | Minimum (mm) | Maximum (in.) | Maximum (mm) | lbs.        | kN   |        |
| ZSCU0050EG | ½          | 15 | 0.706         | 17.93        | 0.840         | 21.34        | 400         | 1.78 | 0.10   |
| ZSCU0075EG | ¾          | 20 | 0.922         | 23.42        | 1.050         | 26.67        | 600         | 2.67 | 0.13   |
| ZSCU0100EG | 1          | 25 | 1.163         | 29.54        | 1.315         | 33.40        | 600         | 2.67 | 0.15   |
| ZSCU0125EG | 1¼         | 32 | 1.510         | 38.35        | 1.660         | 42.16        | 600         | 2.67 | 0.17   |
| ZSCU0150EG | 1½         | 40 | 1.740         | 44.20        | 1.900         | 48.26        | 800         | 3.56 | 0.29   |
| ZSCU0200EG | 2          | 50 | 2.197         | 55.80        | 2.375         | 60.32        | 800         | 3.56 | 0.34   |

\*These clamps are designed to fit both pipe (rigid conduit) and thin-walled tubing (EMT) in the corresponding sizes.

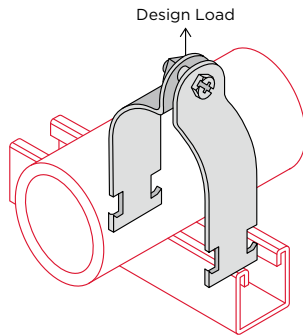


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Strut Clamps

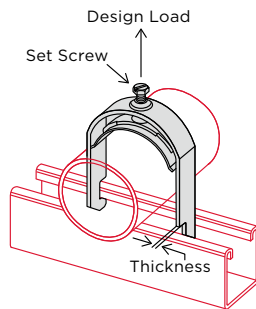
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZSCE | EMT Strut Clamp



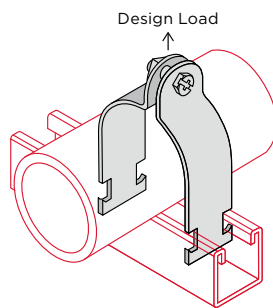
| CATALOG #  | EMT SIZE |    | OD    |      | DESIGN LOAD |      | WEIGHT |
|------------|----------|----|-------|------|-------------|------|--------|
|            | in.      | mm | in.   | mm   | lbs.        | kN   | lbs.   |
| ZSCE0050EG | ½        | 15 | 0.706 | 17.9 | 400         | 1.78 | 0.10   |
| ZSCE0075EG | ¾        | 20 | 0.922 | 23.4 | 400         | 1.78 | 0.11   |
| ZSCE0100EG | 1        | 25 | 1.163 | 29.5 | 600         | 2.67 | 0.14   |
| ZSCE0125EG | 1¼       | 32 | 1.510 | 38.4 | 600         | 2.67 | 0.16   |
| ZSCE0150EG | 1½       | 40 | 1.740 | 44.2 | 800         | 3.56 | 0.26   |
| ZSCE0200EG | 2        | 50 | 2.197 | 55.8 | 800         | 3.56 | 0.32   |

## ZSCH | One Piece Universal Strut Clamp



| CATALOG #  | EMT SIZE |     | RIGID CONDUIT SIZE |     | THICKNESS    | DESIGN LOAD | WEIGHT |
|------------|----------|-----|--------------------|-----|--------------|-------------|--------|
|            | in.      | mm  | in.                | mm  |              | lbs.        | lbs.   |
| ZSCH0037EG | ⅜        | 10  | —                  | —   | 16 Ga. (1.5) | 200         | 7.0    |
| ZSCH0050EG | ½        | 15  | —                  | —   | 16 Ga. (1.5) | 200         | 7.4    |
| ZSCH0075EG | ¾        | 20  | ½                  | 15  | 16 Ga. (1.5) | 200         | 8.0    |
| ZSCH0100EG | 1        | 25  | ¾                  | 20  | 14 Ga. (1.9) | 300         | 11.0   |
| ZSCH0125EG | 1¼       | 32  | 1                  | 25  | 14 Ga. (1.9) | 300         | 12.5   |
| ZSCH0150EG | 1½       | 40  | 1¼                 | 32  | 12 Ga. (2.6) | 400         | 20.5   |
| ZSCH0200EG | 2        | 50  | 1½                 | 40  | 12 Ga. (2.6) | 400         | 21.5   |
| ZSCH020REG | —        | —   | 2                  | 50  | 12 Ga. (2.6) | 400         | 22.7   |
| ZSCH0250EG | 2½       | 65  | 2½                 | 65  | 12 Ga. (2.6) | 400         | 26.0   |
| ZSCH0300EG | 3        | 80  | 3                  | 80  | 12 Ga. (2.6) | 400         | 30.2   |
| ZSCH0350EG | 3½       | 90  | 3½                 | 90  | 12 Ga. (2.6) | 400         | 33.3   |
| ZSCH0400EG | 4        | 100 | 4                  | 100 | 12 Ga. (2.6) | 400         | 36.6   |

## ZSCC | Copper Tubing Strut Clamp



Standard finish for model ZSCC is Copper Zinc Dichromate, which has a copper color to identify product for use with copper tubing. For further information, see coating specifications (page 11).

| CATALOG #  | TUBING SIZE |     | OD    |       | DESIGN LOAD |      | WEIGHT |
|------------|-------------|-----|-------|-------|-------------|------|--------|
|            | in.         | mm  | in.   | mm    | lbs.        | kN   | lbs.   |
| ZSCC0025CP | ¼           | 6   | 0.375 | 9.5   | 400         | 1.78 | 0.08   |
| ZSCC0037CP | ⅜           | 10  | 0.500 | 12.7  | 400         | 1.78 | 0.09   |
| ZSCC0050CP | ½           | 15  | 0.625 | 15.9  | 400         | 1.78 | 0.10   |
| ZSCC0075CP | ¾           | 20  | 0.875 | 22.2  | 400         | 1.78 | 0.11   |
| ZSCC0100CP | 1           | 25  | 1.125 | 28.6  | 600         | 2.67 | 0.14   |
| ZSCC0125CP | 1¼          | 32  | 1.375 | 34.9  | 600         | 2.67 | 0.16   |
| ZSCC0150CP | 1½          | 40  | 1.625 | 41.3  | 600         | 2.67 | 0.16   |
| ZSCC0200CP | 2           | 50  | 2.125 | 54.0  | 800         | 3.56 | 0.30   |
| ZSCC0250CP | 2½          | 65  | 2.625 | 66.7  | 800         | 3.56 | 0.35   |
| ZSCC0300CP | 3           | 80  | 3.125 | 79.4  | 800         | 3.56 | 0.38   |
| ZSCC0350CP | 3½          | 90  | 3.625 | 92.1  | 1000        | 4.45 | 0.52   |
| ZSCC0400CP | 4           | 100 | 4.125 | 104.8 | 1000        | 4.45 | 0.60   |
| ZSCC0500CP | 5           | 125 | 5.125 | 130.2 | 1000        | 4.45 | 0.72   |
| ZSCC0600CP | 6           | 150 | 6.125 | 155.6 | 1000        | 4.45 | 0.80   |

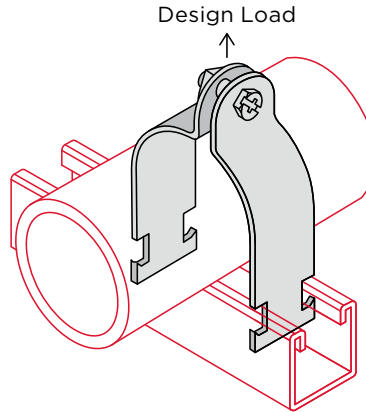


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# Strut Clamps

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZSCO | OD Strut Clamp



| CATALOG #  |     |       |             |     |        |      | CATALOG #  |     |       |             |      |        |      | CATALOG #                           |     |        |             |      |        |      |
|------------|-----|-------|-------------|-----|--------|------|------------|-----|-------|-------------|------|--------|------|-------------------------------------|-----|--------|-------------|------|--------|------|
| SIZE OD    |     |       | DESIGN LOAD |     | WEIGHT |      | SIZE OD    |     |       | DESIGN LOAD |      | WEIGHT |      | SIZE OD                             |     |        | DESIGN LOAD |      | WEIGHT |      |
| in.        | in. | mm    | lbs.        | kN  | lbs.   |      | in.        | in. | mm    | lbs.        | kN   | lbs.   |      | in.                                 | in. | mm     | lbs.        | kN   | lbs.   |      |
| ZSCO0025EG | ¼   | 0.250 | 6.4         | 400 | 1.78   | 0.08 | ZSCO0350EG | 3½  | 3.500 | 88.9        | 800  | 3.56   | 0.45 | ZSCO0675EG                          | 6¾  | 6.750  | 171.5       | 1000 | 4.45   | 0.90 |
| ZSCO0037EG | ⅜   | 0.375 | 9.5         | 400 | 1.78   | 0.08 | ZSCO0362EG | 3⅝  | 3.625 | 92.1        | 1000 | 3.56   | 0.53 | ZSCO0687EG                          | 6⅞  | 6.875  | 174.6       | 1000 | 4.45   | 0.91 |
| ZSCO0050EG | ½   | 0.500 | 12.7        | 400 | 1.78   | 0.08 | ZSCO0375EG | 3¾  | 3.750 | 95.3        | 1000 | 4.45   | 0.55 | ZSCO0700EG                          | 7   | 7.000  | 177.8       | 1000 | 4.45   | 0.93 |
| ZSCO0062EG | ⅝   | 0.625 | 15.9        | 400 | 1.78   | 0.09 | ZSCO0387EG | 3⅞  | 3.875 | 98.4        | 1000 | 4.45   | 0.57 | ZSCO0712EG                          | 7⅛  | 7.125  | 181.0       | 1000 | 4.45   | 0.94 |
| ZSCO0075EG | ¾   | 0.750 | 19.0        | 400 | 1.78   | 0.10 | ZSCO0400EG | 4   | 4.000 | 101.6       | 1000 | 4.45   | 0.59 | ZSCO0725EG                          | 7¼  | 7.250  | 184.2       | 1000 | 4.45   | 0.95 |
| ZSCO0087EG | ⅞   | 0.875 | 22.3        | 400 | 1.78   | 0.11 | ZSCO0412EG | 4⅛  | 4.125 | 104.8       | 1000 | 4.45   | 0.59 | ZSCO0737EG                          | 7⅜  | 7.375  | 187.3       | 1000 | 4.45   | 0.97 |
| ZSCO0100EG | 1   | 1.000 | 25.4        | 600 | 2.67   | 0.14 | ZSCO0425EG | 4¼  | 4.250 | 108.0       | 1000 | 4.45   | 0.60 | ZSCO0750EG                          | 7½  | 7.500  | 190.5       | 1000 | 4.45   | 0.98 |
| ZSCO0112EG | 1⅛  | 1.125 | 28.6        | 600 | 2.67   | 0.15 | ZSCO0437EG | 4⅜  | 4.375 | 111.1       | 1000 | 4.45   | 0.60 | ZSCO0762EG                          | 7⅝  | 7.625  | 193.7       | 1000 | 4.45   | 1.00 |
| ZSCO0125EG | 1¼  | 1.250 | 31.8        | 600 | 2.67   | 0.16 | ZSCO0450EG | 4½  | 4.500 | 114.3       | 1000 | 4.45   | 0.63 | ZSCO0775EG                          | 7¾  | 7.750  | 196.9       | 1000 | 4.45   | 1.01 |
| ZSCO0137EG | 1⅝  | 1.375 | 34.9        | 600 | 2.67   | 0.16 | ZSCO0462EG | 4⅝  | 4.625 | 117.5       | 1000 | 4.45   | 0.63 | ZSCO0787EG                          | 7⅞  | 7.875  | 200.0       | 1000 | 4.45   | 1.02 |
| ZSCO0150EG | 1½  | 1.500 | 38.1        | 600 | 2.67   | 0.16 | ZSCO0475EG | 4¾  | 4.750 | 120.7       | 1000 | 4.45   | 0.65 | ZSCO0800EG                          | 8   | 8.000  | 203.2       | 1000 | 4.45   | 1.04 |
| ZSCO0162EG | 1⅞  | 1.625 | 41.3        | 600 | 2.67   | 0.17 | ZSCO0487EG | 4⅞  | 4.875 | 123.8       | 1000 | 4.45   | 0.66 | ZSCO0812EG                          | 8⅛  | 8.125  | 206.4       | 1000 | 4.45   | 1.05 |
| ZSCO0175EG | 1¾  | 1.750 | 44.5        | 800 | 3.56   | 0.28 | ZSCO0500EG | 5   | 5.000 | 127.0       | 1000 | 4.45   | 0.70 | ZSCO0825EG                          | 8¼  | 8.250  | 209.6       | 1000 | 4.45   | 1.06 |
| ZSCO0187EG | 1⅞  | 1.875 | 47.6        | 800 | 3.56   | 0.28 | ZSCO0512EG | 5⅛  | 5.125 | 130.2       | 1000 | 4.45   | 0.71 | ZSCO0837EG                          | 8⅜  | 8.375  | 212.7       | 1000 | 4.45   | 1.08 |
| ZSCO0200EG | 2   | 2.000 | 50.8        | 800 | 3.56   | 0.29 | ZSCO0525EG | 5¼  | 5.250 | 133.4       | 1000 | 4.45   | 0.73 | ZSCO0850EG                          | 8½  | 8.500  | 215.9       | 1000 | 4.45   | 1.09 |
| ZSCO0212EG | 2⅛  | 2.125 | 54.0        | 800 | 3.56   | 0.31 | ZSCO0537EG | 5⅝  | 5.375 | 136.5       | 1000 | 4.45   | 0.75 | ZSCO0862EG                          | 8⅝  | 8.625  | 219.1       | 1000 | 4.45   | 1.11 |
| ZSCO0225EG | 2¼  | 2.250 | 57.2        | 800 | 3.56   | 0.31 | ZSCO0550EG | 5½  | 5.500 | 139.7       | 1000 | 4.45   | 0.71 | ZSCO0875EG                          | 8¾  | 8.750  | 222.3       | 1000 | 4.45   | 1.12 |
| ZSCO0237EG | 2⅝  | 2.375 | 60.3        | 800 | 3.56   | 0.33 | ZSCO0562EG | 5⅞  | 5.625 | 142.9       | 1000 | 4.45   | 0.74 | ZSCO0887EG                          | 8⅞  | 8.875  | 225.4       | 1000 | 4.45   | 1.14 |
| ZSCO0250EG | 2½  | 2.500 | 63.5        | 800 | 3.56   | 0.34 | ZSCO0575EG | 5¾  | 5.750 | 146.1       | 1000 | 4.45   | 0.73 | ZSCO0900EG                          | 9   | 9.000  | 228.6       | 1000 | 4.45   | 1.15 |
| ZSCO0262EG | 2⅞  | 2.625 | 66.7        | 800 | 3.56   | 0.35 | ZSCO0587EG | 5⅞  | 5.875 | 149.2       | 1000 | 4.45   | 0.78 | ZSCO0925EG                          | 9¼  | 9.250  | 235.0       | 1000 | 4.45   | 1.18 |
| ZSCO0275EG | 2¾  | 2.750 | 69.9        | 800 | 3.56   | 0.33 | ZSCO0600EG | 6   | 6.000 | 152.4       | 1000 | 4.45   | 0.76 | ZSCO0937EG                          | 9⅝  | 9.375  | 238.1       | 1000 | 4.45   | 1.19 |
| ZSCO0287EG | 2⅞  | 2.875 | 73.0        | 800 | 2.56   | 0.38 | ZSCO0612EG | 6⅛  | 6.125 | 155.6       | 1000 | 4.45   | 0.77 | ZSCO0950EG                          | 9½  | 9.500  | 241.3       | 1000 | 4.45   | 1.20 |
| ZSCO0300EG | 3   | 3.000 | 76.2        | 800 | 3.56   | 0.38 | ZSCO0625EG | 6¼  | 6.250 | 158.8       | 1000 | 4.45   | 0.84 | ZSCO0962EG                          | 9⅞  | 9.625  | 244.5       | 1000 | 4.45   | 1.22 |
| ZSCO0312EG | 3⅛  | 3.125 | 79.4        | 800 | 3.56   | 0.39 | ZSCO0637EG | 6⅝  | 6.375 | 161.9       | 1000 | 4.45   | 0.86 | ZSCO0975EG                          | 9¾  | 9.750  | 247.7       | 1000 | 4.45   | 1.23 |
| ZSCO0325EG | 3¼  | 3.250 | 82.6        | 800 | 3.56   | 0.41 | ZSCO0650EG | 6⅞  | 6.500 | 165.1       | 1000 | 4.45   | 0.87 | ZSCO1000EG                          | 10  | 10.000 | 254.0       | 1000 | 4.45   | 1.26 |
| ZSCO0337EG | 3⅝  | 3.375 | 85.7        | 800 | 3.56   | 0.43 | ZSCO0662EG | 6⅞  | 6.625 | 168.3       | 1000 | 4.45   | 0.89 | Other sizes available upon request. |     |        |             |      |        |      |

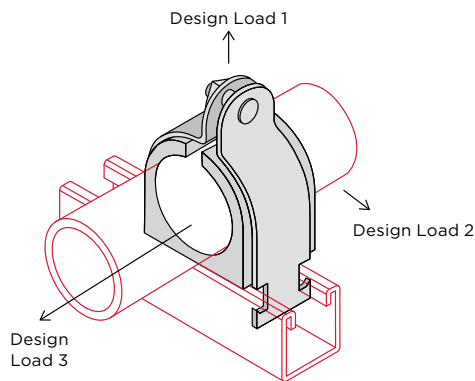


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# Strut Clamps

Standard finish is Yellow Chromate (YC)  
Product finishes and materials are on [page 11](#)

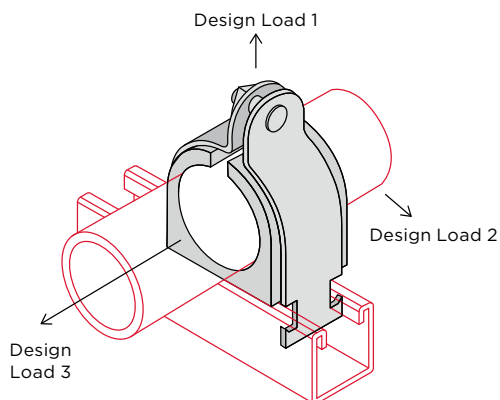
## ZCCT | Cushioned Tubing Strut Clamp



| CATALOG #  | TUBING SIZE OD |       |       | DESIGN LOAD 1 |      | DESIGN LOAD 2 |      | DESIGN LOAD 3 |      | WEIGHT |
|------------|----------------|-------|-------|---------------|------|---------------|------|---------------|------|--------|
|            | in.            | in.   | mm    | lbs.          | kN   | lbs.          | kN   | lbs.          | kN   |        |
| ZCCT0025YC | ¼              | 0.250 | 6.4   | 400           | 1.78 | 50            | 0.22 | 50            | 0.22 | 0.11   |
| ZCCT0037YC | ⅜              | 0.375 | 9.5   |               |      |               |      |               |      | 0.12   |
| ZCCT0050YC | ½              | 0.500 | 12.7  |               |      |               |      |               |      | 0.13   |
| ZCCT0062YC | ⅝              | 0.625 | 15.9  |               |      |               |      |               |      | 0.15   |
| ZCCT0075YC | ¾              | 0.750 | 19.0  | 600           | 2.67 | 75            | 0.33 | 75            | 0.33 | 0.14   |
| ZCCT0087YC | 7⁄8            | 0.875 | 22.3  |               |      |               |      |               |      | 0.21   |
| ZCCT0100YC | 1              | 1.000 | 25.4  |               |      |               |      |               |      | 0.22   |
| ZCCT0112YC | 1 ⅛            | 1.125 | 28.6  |               |      |               |      |               |      | 0.24   |
| ZCCT0125YC | 1 ¼            | 1.250 | 31.8  |               |      |               |      |               |      | 0.25   |
| ZCCT0137YC | 1 ⅝            | 1.375 | 34.9  |               |      |               |      |               |      | 0.26   |
| ZCCT0150YC | 1 ½            | 1.500 | 38.1  | 800           | 3.56 | 125           | 0.56 | 125           | 0.56 | 0.36   |
| ZCCT0162YC | 1 ⅞            | 1.625 | 41.3  |               |      |               |      |               |      | 0.39   |
| ZCCT0175YC | 1 ¾            | 1.750 | 44.5  |               |      |               |      |               |      | 0.43   |
| ZCCT0187YC | 1 ⅞            | 1.875 | 47.6  |               |      |               |      |               |      | 0.39   |
| ZCCT0200YC | 2              | 2.000 | 50.8  |               |      |               |      |               |      | 0.43   |
| ZCCT0212YC | 2 ⅛            | 2.125 | 54.0  |               |      |               |      |               |      | 0.50   |
| ZCCT0225YC | 2 ¼            | 2.250 | 57.2  |               |      |               |      |               |      | 0.52   |
| ZCCT0262YC | 2 ⅝            | 2.625 | 66.7  |               |      |               |      |               |      | 0.57   |
| ZCCT0287YC | 2 ⅞            | 2.875 | 73.0  |               |      |               |      |               |      | 0.59   |
| ZCCT0312YC | 3 ⅛            | 3.125 | 79.4  |               |      |               |      |               |      | 0.59   |
| ZCCT0362YC | 3 ⅝            | 3.625 | 92.1  | 1000          | 4.45 | 200           | 0.89 | 150           | 0.67 | 0.75   |
| ZCCT0412YC | 4 ⅝            | 4.125 | 104.8 |               |      |               |      |               |      | 0.84   |

Other sizes available upon request.

## ZCCP | Cushioned Pipe Strut Clamp



| CATALOG #  | PIPE SIZE |     | PIPE OD |       | DESIGN LOAD 1 |      | DESIGN LOAD 2 |      | DESIGN LOAD 3 |      | WEIGHT |
|------------|-----------|-----|---------|-------|---------------|------|---------------|------|---------------|------|--------|
|            | in.       | mm  | in.     | mm    | lbs.          | kN   | lbs.          | kN   | lbs.          | kN   |        |
| ZCCP0037YC | ⅜         | 10  | 0.675   | 17.1  | 400           | 1.78 | 50            | 0.22 | 50            | 0.22 | 0.14   |
| ZCCP0050YC | ½         | 15  | 0.840   | 21.3  | 600           | 2.67 | 75            | 0.33 | 75            | 0.33 | 0.19   |
| ZCCP0075YC | ¾         | 20  | 1.050   | 26.7  |               |      |               |      |               |      | 0.23   |
| ZCCP0100YC | 1         | 25  | 1.315   | 33.4  |               |      |               |      |               |      | 0.24   |
| ZCCP0125YC | 1 ¼       | 32  | 1.660   | 42.2  | 800           | 3.56 | 125           | 0.56 | 125           | 0.56 | 0.42   |
| ZCCP0150YC | 1 ½       | 40  | 1.900   | 48.3  |               |      |               |      |               |      | 0.42   |
| ZCCP0200YC | 2         | 50  | 2.375   | 60.3  |               |      |               |      |               |      | 0.49   |
| ZCCP0250YC | 2 ½       | 65  | 2.875   | 73.0  |               |      |               |      |               |      | 0.60   |
| ZCCP0300YC | 3         | 80  | 3.500   | 88.9  | 1000          | 4.45 | 200           | 0.89 | 150           | 0.67 | 0.77   |
| ZCCP0350YC | 3 ½       | 90  | 4.000   | 101.6 |               |      |               |      |               |      | 0.93   |
| ZCCP0400YC | 4         | 100 | 4.500   | 114.3 |               |      |               |      |               |      | 1.10   |
| ZCCP0500YC | 5         | 125 | 5.562   | 141.3 |               |      |               |      |               |      | 1.13   |



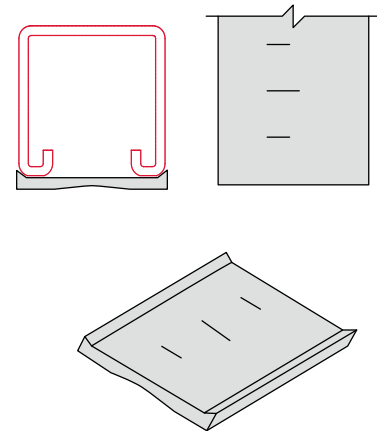
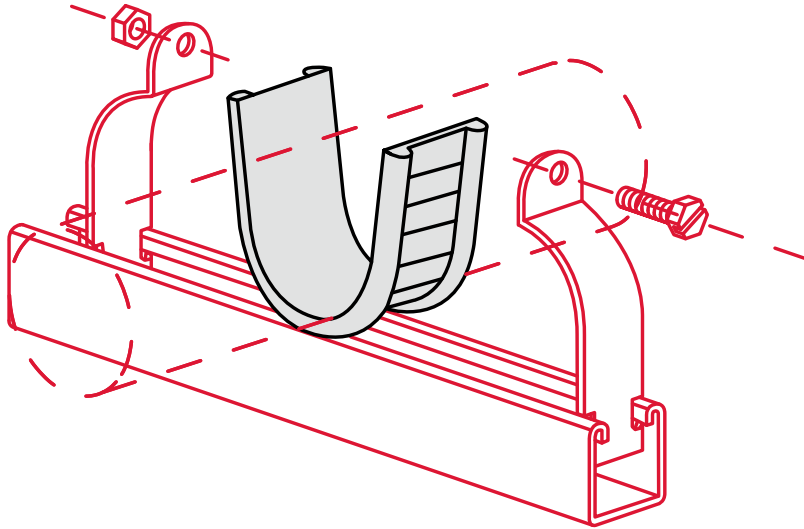
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# Strut Clamps

Product finishes and materials are on [page 11](#)

## **ZPW2500EP** | Cushioned Pipe Wrap Sold in 25-foot rolls

Manufactured from a thermoplastic elastomer  
Service range of -50°F to +275°F (-45°C to +135°C).



*Recommended clamp size and cut length for common pipe and tubing*

### IRON PIPE OR RIGID CONDUIT

| NOMINAL PIPE SIZE |     | PW CUT LENGTH |       | CLAMP #           | QTY       |
|-------------------|-----|---------------|-------|-------------------|-----------|
| in.               | mm  | in.           | mm    |                   | PER ROLL* |
| 3/8               | 10  | 2 1/8         | 54.0  | <b>ZSCE0075EG</b> | 141       |
| 1/2               | 15  | 2 3/8         | 66.7  | <b>ZSCR0075EG</b> | 114       |
| 3/4               | 20  | 3 1/4         | 82.6  | <b>ZSCO0125EG</b> | 92        |
| 1                 | 25  | 4 1/8         | 104.8 | <b>ZSCE0125EG</b> | 72        |
| 1 1/2             | 40  | 5 15/16       | 150.8 | <b>ZSCO0212EG</b> | 50        |
| 2                 | 50  | 7 1/8         | 188.9 | <b>ZSCO0262EG</b> | 40        |
| 2 1/2             | 65  | 9             | 228.6 | <b>ZSCO0312EG</b> | 33        |
| 3                 | 80  | 11            | 279.4 | <b>ZSCO0375EG</b> | 27        |
| 3 1/2             | 90  | 12 1/2        | 317.5 | <b>ZSCO0425EG</b> | 24        |
| 4                 | 100 | 14 1/8        | 358.8 | <b>ZSCO0475EG</b> | 21        |
| 5                 | 125 | 17 1/8        | 442.9 | <b>ZSCO0575EG</b> | 17        |
| 6                 | 150 | 20 3/4        | 527.1 | <b>ZSCO0687EG</b> | 14        |

### COPPER TUBING

| NOMINAL PIPE SIZE |     | PW CUT LENGTH |       | CLAMP #           | QTY       |
|-------------------|-----|---------------|-------|-------------------|-----------|
| in.               | mm  | in.           | mm    |                   | PER ROLL* |
| 1/4               | 6   | 1 1/8         | 28.6  | <b>ZSCO0062EG</b> | 266       |
| 3/8               | 10  | 1 3/8         | 39.7  | <b>ZSCO0075EG</b> | 192       |
| 1/2               | 15  | 1 7/8         | 47.6  | <b>ZSCO0087EG</b> | 160       |
| 5/8               | 17  | 2 1/8         | 58.7  | <b>ZSCO0100EG</b> | 129       |
| 3/4               | 20  | 2 3/4         | 69.9  | <b>ZSCO0112EG</b> | 109       |
| 1                 | 25  | 3 1/2         | 88.9  | <b>ZSCO0137EG</b> | 85        |
| 1 1/4             | 32  | 4 3/8         | 109.5 | <b>ZSCO0162EG</b> | 69        |
| 1 1/2             | 40  | 5 1/8         | 128.6 | <b>ZSCO0187EG</b> | 59        |
| 2                 | 50  | 6 1/8         | 169.9 | <b>ZSCR0200EG</b> | 44        |
| 2 1/2             | 65  | 8 1/4         | 209.6 | <b>ZSCR0250EG</b> | 36        |
| 3                 | 80  | 9 1/8         | 249.2 | <b>ZSCO0337EG</b> | 30        |
| 3 1/2             | 90  | 11 3/8        | 288.9 | <b>ZSCO0387EG</b> | 26        |
| 4                 | 100 | 12 1/8        | 328.6 | <b>ZSCO0437EG</b> | 23        |
| 5                 | 125 | 16 1/8        | 408.0 | <b>ZSCO0537EG</b> | 18        |
| 6                 | 150 | 19 1/4        | 488.9 | <b>ZSCO0637EG</b> | 15        |
| 8                 | 200 | 25 1/2        | 647.7 | <b>ZSCO0837EG</b> | 11        |

### THIN-WALL EMT CONDUIT

| NOMINAL PIPE SIZE |    | PW CUT LENGTH |       | CLAMP #           | QTY       |
|-------------------|----|---------------|-------|-------------------|-----------|
| in.               | mm | in.           | mm    |                   | PER ROLL* |
| 3/8               | 10 | 1 13/16       | 46.0  | <b>ZSCO0075EG</b> | 165       |
| 1/2               | 15 | 2 3/8         | 55.6  | <b>ZSCE0075EG</b> | 137       |
| 3/4               | 20 | 2 7/8         | 73.0  | <b>ZSCE0100EG</b> | 1041      |
| 1                 | 25 | 3 3/8         | 92.1  | <b>ZSCO0137EG</b> | 82        |
| 1 1/4             | 32 | 4 1/8         | 119.1 | <b>ZSCO0187EG</b> | 64        |
| 1 1/2             | 40 | 5 1/8         | 138.1 | <b>ZSCR0150EG</b> | 55        |
| 2                 | 50 | 6 7/8         | 174.6 | <b>ZSCR0200EG</b> | 43        |

\*Quantity per roll is an approximation based on cut length specified from a 25-foot roll.



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# Conduit & Tubing Clamps

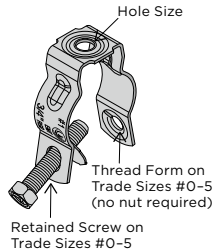
Product finishes and materials are on [page 11](#)

## ZPCH | Pipe and Conduit Hanger

Standard finish is Pre-Galvanized Zinc (PG).

Note: Hanger also available in stainless steel.

Hole size also available with ¼"-20 thread form on trade sizes 0-5.

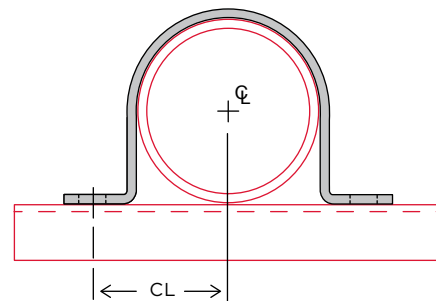
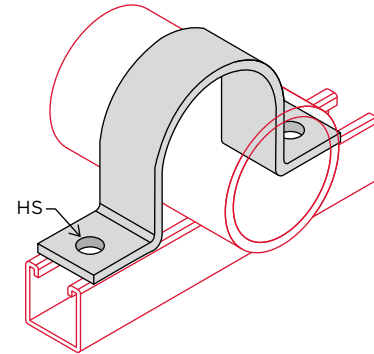


| CATALOG # | TRADE SIZE | CONDUIT SIZE (INCHES) |       | HOLE SIZE | BOX QTY |
|-----------|------------|-----------------------|-------|-----------|---------|
|           |            | EMT                   | RIGID |           |         |
| ZPCH0     | 0          | ½                     | ⅜, ½  | ¼         | 100     |
| ZPCH037   |            |                       |       | ⅜         |         |
| ZPCH1     | 1          | ¾                     | ¾     | ¼         | 100     |
| ZPCH137   |            |                       |       | ⅜         |         |
| ZPCH2     | 2          | 1                     | 1     | ¼         | 100     |
| ZPCH237   |            |                       |       | ⅜         |         |
| ZPCH2.5   | 2.5        | 1¼                    | —     | ¼         | 100     |
| ZPCH2.537 |            |                       |       | ⅜         |         |
| ZPCH3     | 3          | 1½                    | 1¼    | ¼         | 50      |
| ZPCH337   |            |                       |       | ⅜         |         |
| ZPCH4     | 4          | —                     | 1½    | ⅝         | 50      |
| ZPCH437   |            |                       |       | ⅜         |         |
| ZPCH5     | 5          | 2                     | 2     | ⅝         | 50      |
| ZPCH537   |            |                       |       | ⅜         |         |
| ZPCH6*    | 6          | 2½                    | 2½    | ⅝         | 25      |
| ZPCH7*    | 7          | 3                     | 3     | ⅝         | 25      |
| ZPCH8*    | 8          | 3½                    | 3½    | ⅝         | 10      |
| ZPCH9*    | 9          | 4                     | 4     | ⅝         | 10      |

\*EG finish and pan head, hex nut hardware

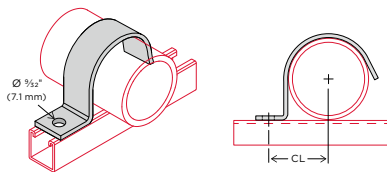
## ZPS2 | Pipe Strap

Standard finish is Electro-Galvanized (EG).



## ZTC1 | OD Tubing Clamp

Standard finish is Electro-Galvanized (EG).



| CATALOG #  | WEIGHT | TUBING OD |     | CL  |      |
|------------|--------|-----------|-----|-----|------|
|            |        | lbs.      | in. | in. | mm   |
| ZTC10025EG | 0.040  |           | ¼   | ½   | 12.7 |
| ZTC10031EG | 0.042  |           | ⅝   | ⅝   | 14.3 |
| ZTC10037EG | 0.052  |           | ¾   | ⅝   | 14.3 |
| ZTC10050EG | 0.058  |           | ½   | ¾   | 15.9 |
| ZTC10062EG | 0.071  |           | ¾   | 1½  | 17.5 |
| ZTC10075EG | 0.077  |           | ¾   | ¾   | 19.0 |
| ZTC10087EG | 0.087  |           | ¾   | 1½  | 20.6 |
| ZTC10100EG | 0.100  |           | 1   | 1½  | 23.8 |

| CATALOG #  | WEIGHT | PIPE SIZE |     | HS  |      | CL  |       |
|------------|--------|-----------|-----|-----|------|-----|-------|
|            | lbs.   | in.       | mm  | in. | mm   | in. | mm    |
| ZPS20050EG | 0.23   | ½         | 15  | ⅝   | 7.9  | 1⅝  | 23.8  |
| ZPS20075EG | 0.26   | ¾         | 20  | ⅝   | 7.9  | 1⅝  | 25.4  |
| ZPS20100EG | 0.29   | 1         | 25  | ⅝   | 7.9  | 1⅝  | 28.6  |
| ZPS20125EG | 0.34   | 1¼        | 32  | ⅝   | 7.9  | 1⅝  | 33.3  |
| ZPS20150EG | 0.37   | 1½        | 40  | ⅝   | 7.9  | 1⅝  | 36.5  |
| ZPS20200EG | 0.92   | 2         | 50  | ⅞   | 11.1 | 2⅝  | 54.0  |
| ZPS20250EG | 1.08   | 2½        | 65  | ⅞   | 11.1 | 2⅝  | 60.3  |
| ZPS20300EG | 1.33   | 3         | 80  | ⅞   | 11.1 | 2⅝  | 68.3  |
| ZPS20350EG | 1.43   | 3½        | 90  | ⅞   | 11.1 | 2⅝  | 74.6  |
| ZPS20400EG | 1.66   | 4         | 100 | ⅞   | 14.2 | 3⅝  | 81.0  |
| ZPS20500EG | 1.95   | 5         | 125 | ⅞   | 14.2 | 3¾  | 95.2  |
| ZPS20600EG | 2.27   | 6         | 150 | ⅞   | 14.2 | 4¼  | 107.9 |
| ZPS20800EG | 2.75   | 8         | 203 | ⅞   | 14.2 | 5¼  | 133.3 |
| ZPS21000EG | 3.43   | 10        | 254 | ⅞   | 14.2 | 6⅝  | 160.3 |
| ZPS21200EG | 3.96   | 12        | 305 | ⅞   | 14.2 | 7⅝  | 185.7 |



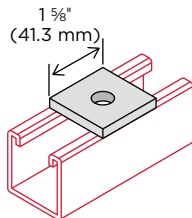
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# Flat Fittings

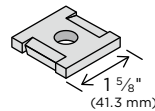
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZF09-ZF15 Square Washer



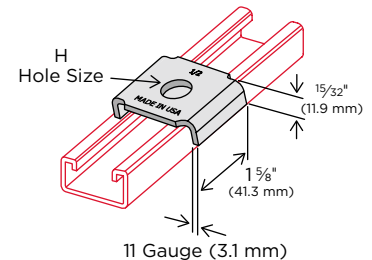
| CATALOG #  | BOLT SIZE |    | HOLE SIZE |      | WEIGHT |
|------------|-----------|----|-----------|------|--------|
|            | in.       | mm | in.       | mm   |        |
| ZF100025EG | 1/4       | 6  | 5/16      | 7.9  | 0.18   |
| ZF090031EG | 5/16      | 7  | 3/8       | 9.5  | 0.17   |
| ZF110037EG | 3/8       | 8  | 7/16      | 11.1 | 0.17   |
| ZF120050EG | 1/2       | 12 | 9/16      | 14.3 | 0.15   |
| ZF130062EG | 5/8       | 16 | 1 1/16    | 17.5 | 0.15   |
| ZF140075EG | 3/4       | 20 | 1 3/16    | 20.6 | 0.14   |
| ZF150087EG | 7/8       | 22 | 1 5/16    | 23.8 | 0.13   |

## ZF19-ZF24 No Twist Square Washer



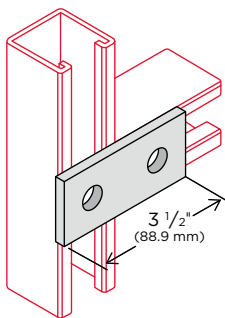
| CATALOG #  | BOLT SIZE |    | WEIGHT |
|------------|-----------|----|--------|
|            | in.       | mm |        |
| ZF190031EG | 5/16      | 8  | 0.17   |
| ZF200025EG | 1/4       | 6  | 0.17   |
| ZF210037EG | 3/8       | 8  | 0.17   |
| ZF220050EG | 1/2       | 12 | 0.16   |
| ZF230062EG | 5/8       | 16 | 0.15   |
| ZF240075EG | 3/4       | 20 | 0.14   |

## ZU70 Saddle Washer



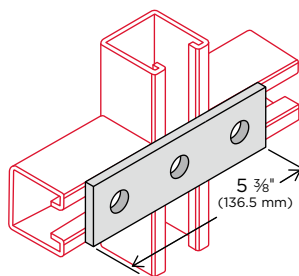
| CATALOG #  | BOLT SIZE | H (HOLE SIZE) |      | WEIGHT |
|------------|-----------|---------------|------|--------|
|            |           | in.           | mm   |        |
| ZU700025EG | 1/4       | 5/16          | 7.9  | 0.14   |
| ZU700037EG | 3/8       | 7/16          | 11.1 | 0.14   |
| ZU700050EG | 1/2       | 9/16          | 14.3 | 0.13   |
| ZU700062EG | 5/8       | 1 1/16        | 17.4 | 0.13   |
| ZU700075EG | 3/4       | 1 3/16        | 20.6 | 0.13   |

## ZF30 2 Hole Splice Plate



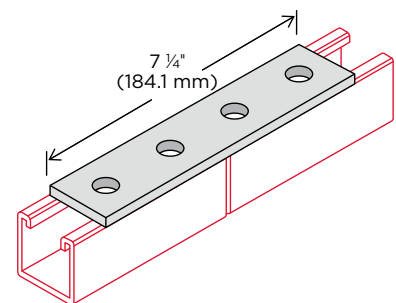
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF300000EG | 0.34   |

## ZF31 3 Hole Splice Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF310000EG | 0.54   |

## ZF32 4 Hole Splice Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF320000EG | 0.70   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



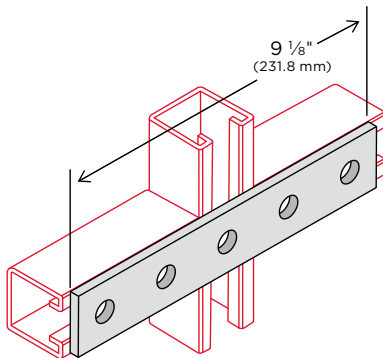
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# Flat Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZF33

### 5 Hole Splice Plate



CATALOG #

WEIGHT

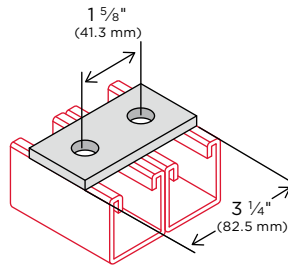
lbs.

ZF330000EG

0.93

## ZF34

### 2 Hole Parallel Splice Plate



CATALOG #

WEIGHT

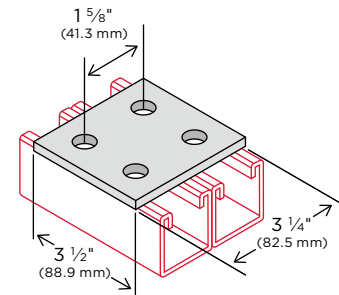
lbs.

ZF340000EG

0.31

## ZF35

### 4 Hole Parallel Splice Plate



CATALOG #

WEIGHT

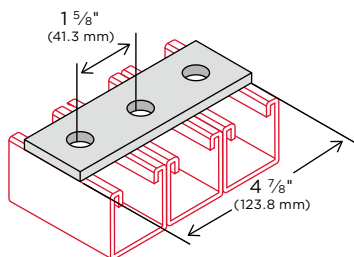
lbs.

ZF350000EG

0.76

## ZF36

### 3 Hole Parallel Splice Plate



CATALOG #

WEIGHT

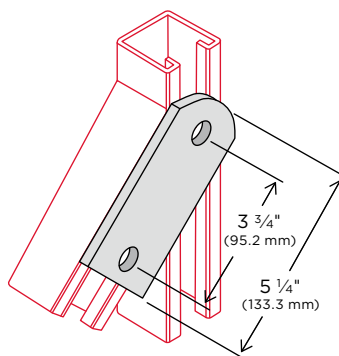
lbs.

ZF360000EG

0.45

## ZF40

### 2 Hole Swivel Plate



CATALOG #

WEIGHT

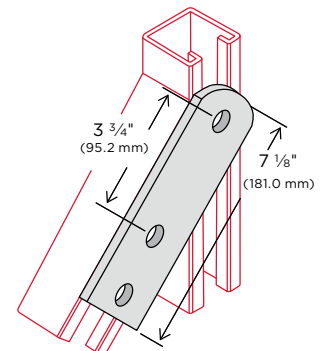
lbs.

ZF400000EG

0.52

## ZF41

### 3 Hole Swivel Plate



CATALOG #

WEIGHT

lbs.

ZF410000EG

0.53

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



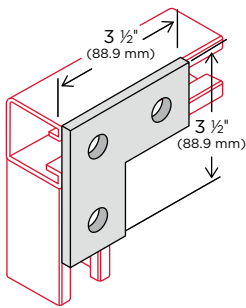
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# Flat Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZF50

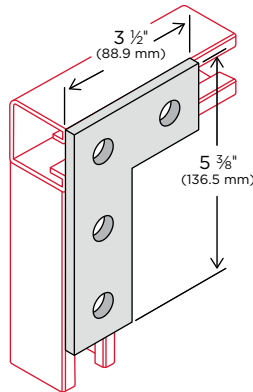
3 Hole Corner Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF500000EG | 0.60   |

## ZF51

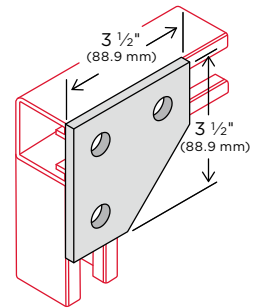
4 Hole Corner Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF510000EG | 0.71   |

## ZF52

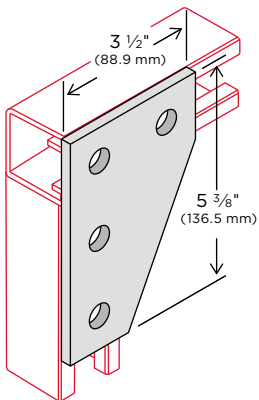
3 Hole Corner Gusset Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF520000EG | 0.65   |

## ZF53

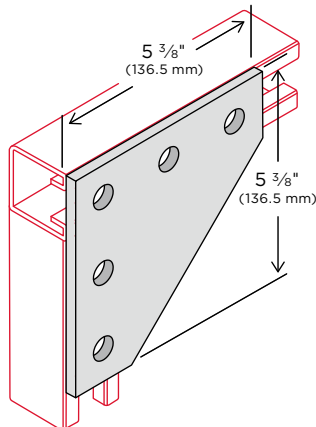
4 Hole Corner Gusset Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF530000EG | 0.95   |

## ZF54

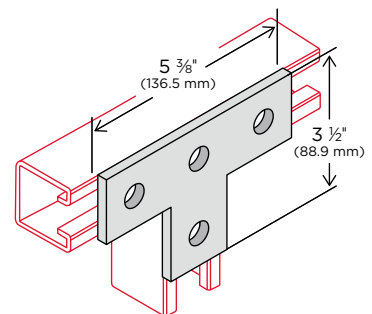
5 Hole Corner Gusset Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF540000EG | 0.95   |

## ZF60

4 Hole Tee Plate



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZF600000EG | 0.70   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



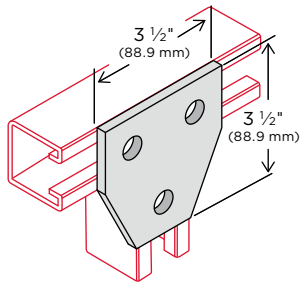
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# Flat Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZF61

3 Hole Tee Gusset Plate



CATALOG #

WEIGHT

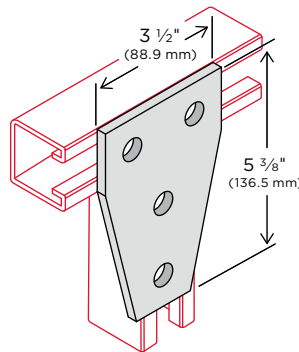
lbs.

ZF610000EG

0.64

## ZF62

4 Hole Tee Gusset Plate



CATALOG #

WEIGHT

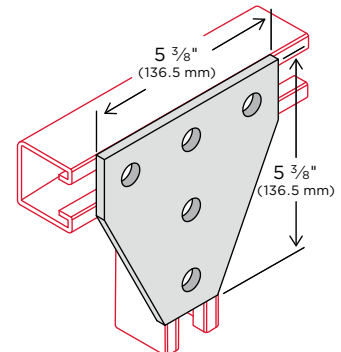
lbs.

ZF620000EG

0.97

## ZF63

5 Hole Tee Gusset Plate



CATALOG #

WEIGHT

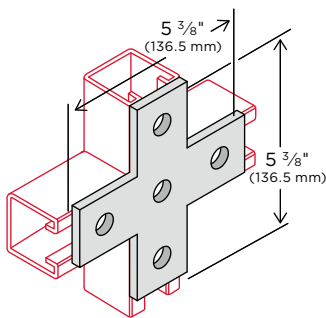
lbs.

ZF630000EG

1.39

## ZF70

5 Hole Cross Plate



CATALOG #

WEIGHT

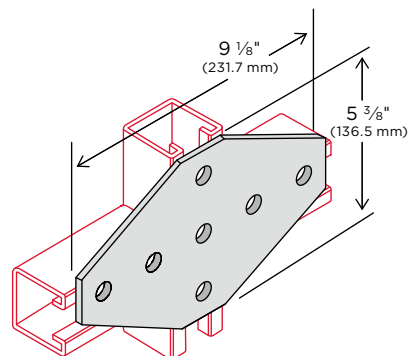
lbs.

ZF700000EG

0.95

## ZF71

7 Hole Cross Gusset Plate



CATALOG #

WEIGHT

lbs.

ZF710000EG

2.32

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



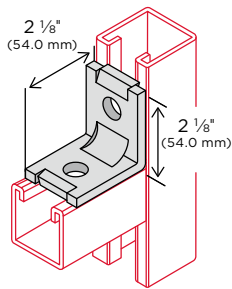
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# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL10

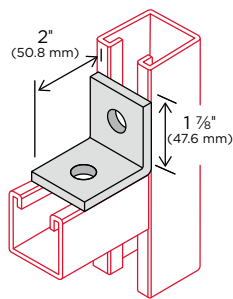
2 Hole No Twist Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL100000EG | 0.36   |

## ZL11

2 Hole Corner Angle

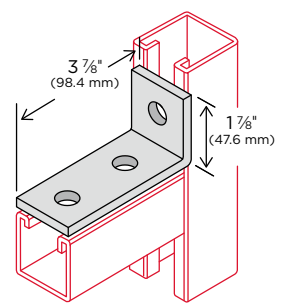


*Note: Also available with 7/16" hole size for 3/8" hardware as catalog number ZL110037EG.*

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL110000EG | 0.36   |

## ZL12

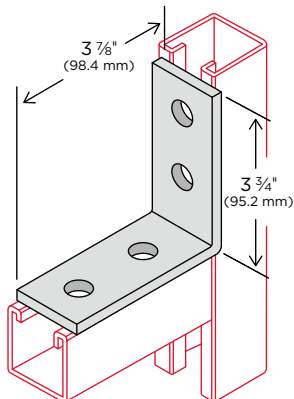
3 Hole Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL120000EG | 0.40   |

## ZL13

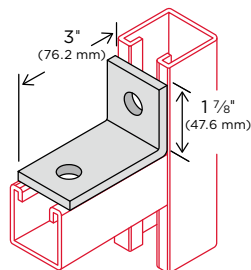
4 Hole Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL130000EG | 0.76   |

## ZL14

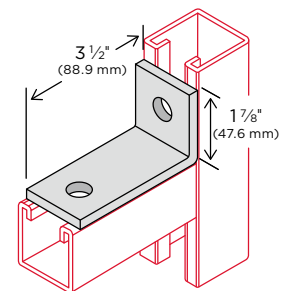
2 Hole 3" Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL140000EG | 0.45   |

## ZL15

2 Hole 3 1/2" Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL150000EG | 0.51   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



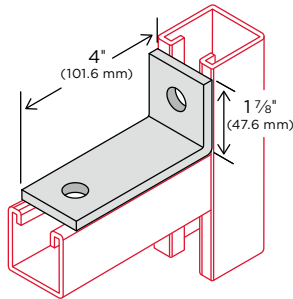
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# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL16

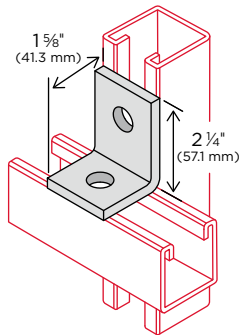
2 Hole 4" Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL160000EG | 0.54   |

## ZL20

2 Hole Cross Corner Angle

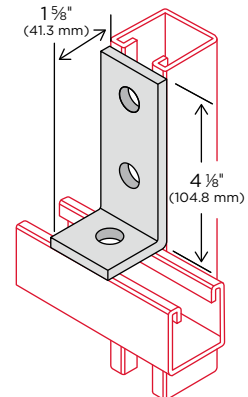


*Note: Also available with 7/16" hole size for 3/8" hardware as catalog number ZL110037EG.*

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL200000EG | 0.34   |

## ZL21

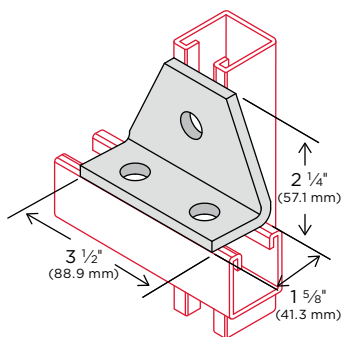
3 Hole Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL210000EG | 0.52   |

## ZL22

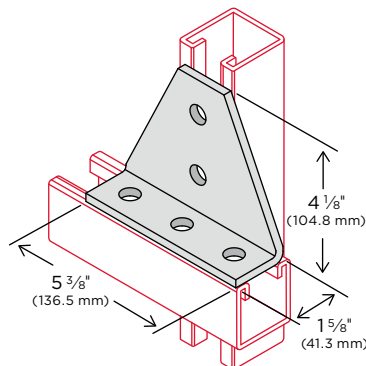
3 Hole Cross Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL220000EG | 0.65   |

## ZL23

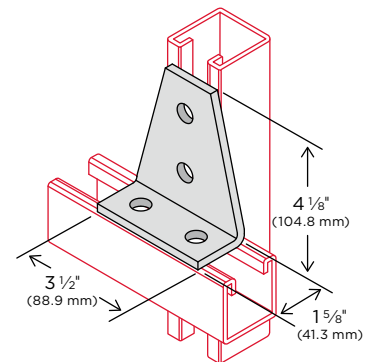
5 Hole Cross Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL230000EG | 1.40   |

## ZL24

4 Hole Gusset Shelf Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL240000EG | 1.02   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



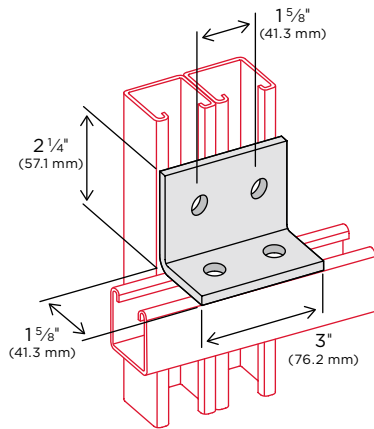
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# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL25

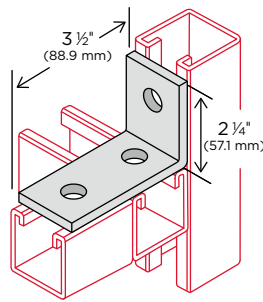
4 Hole Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL250000EG | 0.75   |

## ZL30

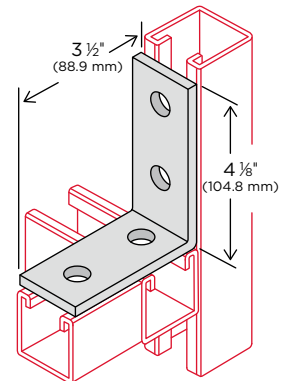
3 Hole 3 Way Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL300000EG | 0.52   |

## ZL31

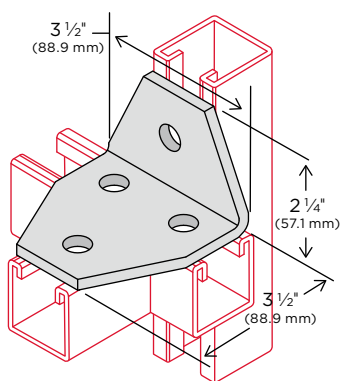
4 Hole 3 Way Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL310000EG | 0.71   |

## ZL32

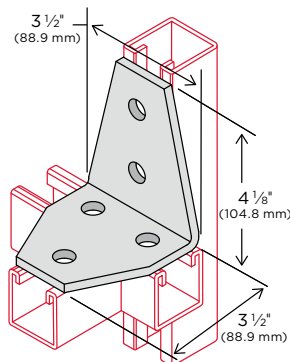
4 Hole 3 Way Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL320000EG | 0.96   |

## ZL33

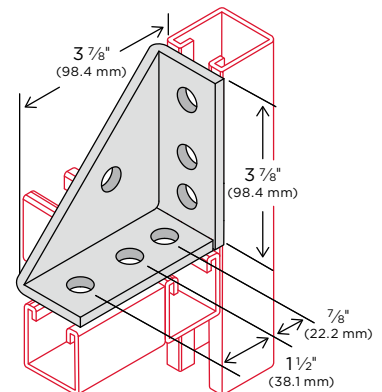
5 Hole 3 Way Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL330000EG | 1.27   |

## ZL34

7 Hole Universal Gusset Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL340000EG | 1.51   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



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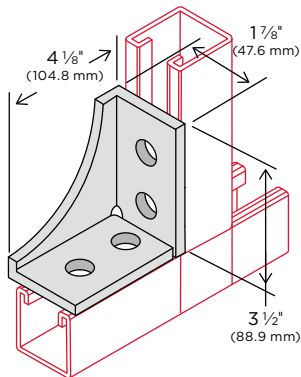


# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL35

4 Hole Gusset Corner  
Angle Left



CATALOG #

WEIGHT

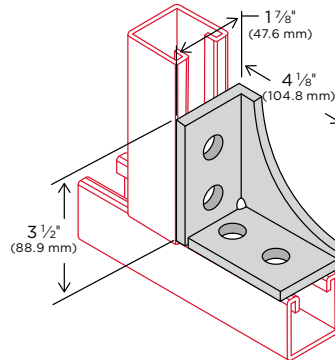
lbs.

ZL350000EG

1.15

## ZL36

4 Hole Gusset Corner  
Angle Right



CATALOG #

WEIGHT

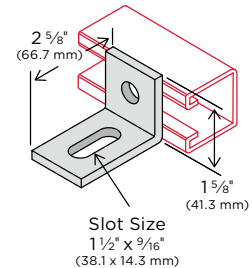
lbs.

ZL360000EG

1.20

## ZL40

2 Hole 2 5/8" Adjustable  
Corner Angle



CATALOG #

WEIGHT

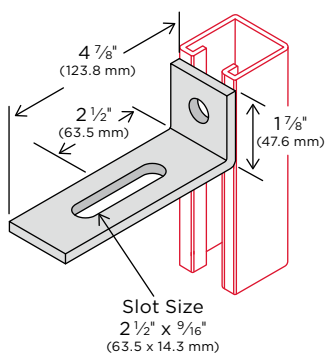
lbs.

ZL400000EG

0.35

## ZL41

2 Hole 4 7/8" Adjustable  
Corner Angle



CATALOG #

WEIGHT

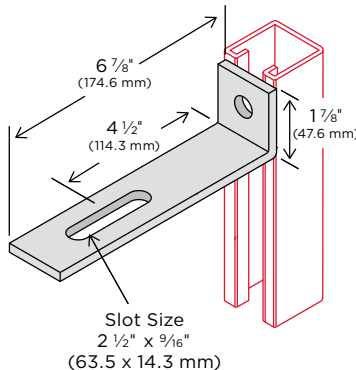
lbs.

ZL410000EG

0.58

## ZL42

2 Hole 6 7/8" Adjustable  
Corner Angle



CATALOG #

WEIGHT

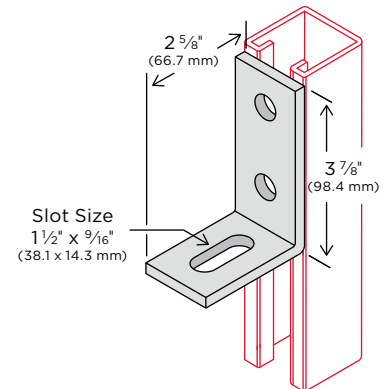
lbs.

ZL420000EG

0.80

## ZL43

3 Hole Adjustable  
Corner Angle



CATALOG #

WEIGHT

lbs.

ZL430000EG

0.70

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



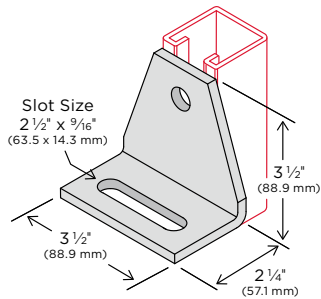
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL44

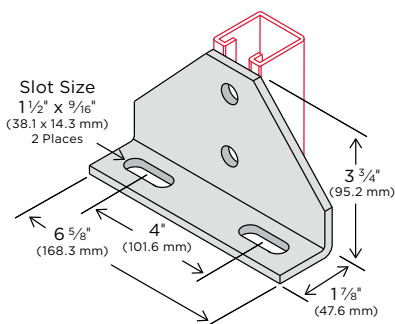
2 Hole Adjustable Gusset  
Corner Angle



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL440000EG</b> | 0.87   |

## ZL45

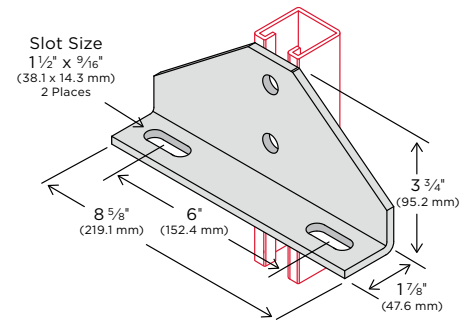
4 Hole 6 5/8" Adjustable  
Gusset Corner Angle



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL450000EG</b> | 1.62   |

## ZL46

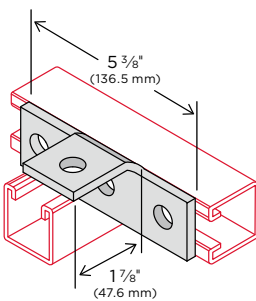
4 Hole 8 5/8" Adjustable  
Corner Angle



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL460000EG</b> | 2.40   |

## ZL50

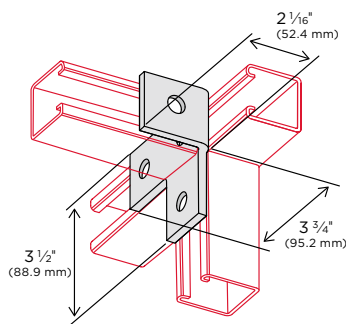
4 Hole Offset Corner Angle



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL500000EG</b> | 0.71   |

## ZL51

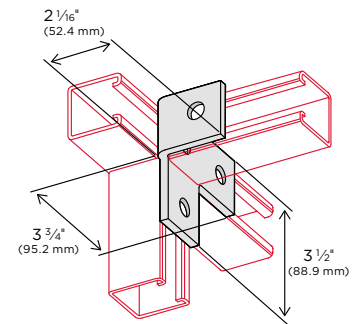
4 Hole Offset Bent Tee Left



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL510000EG</b> | 0.71   |

## ZL52

4 Hole Offset Bent Tee Right



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL520000EG</b> | 0.71   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

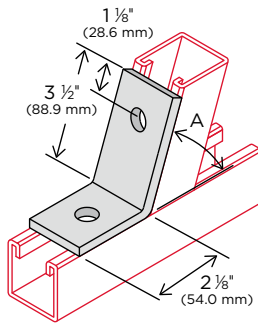


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# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL60 | 2 Hole Open Corner Angle

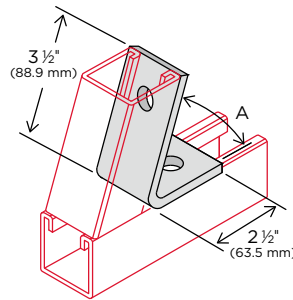


"A" is available in any angle up to 90°

Dimensions shown may vary based on specified angle "A"

| CATALOG #  | A   | WEIGHT<br>lbs. |
|------------|-----|----------------|
| ZL600000EG | 45° | 0.58           |
| ZL600030EG | 30° | 0.58           |
| ZL600060EG | 60° | 0.58           |

## ZL61 | 2 Hole Closed Corner Angle

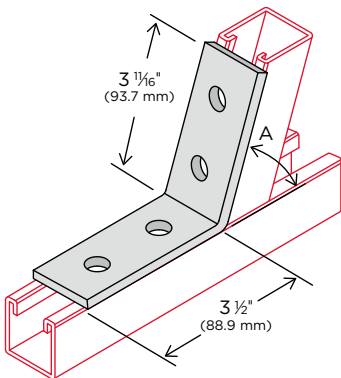


"A" is available in any angle up to 90°

Dimensions shown may vary based on specified angle "A"

| CATALOG #  | A   | WEIGHT<br>lbs. |
|------------|-----|----------------|
| ZL610000EG | 45° | 0.56           |
| ZL610030EG | 30° | 0.56           |
| ZL610060EG | 60° | 0.56           |

## ZL62 | 4 Hole Open Corner Angle

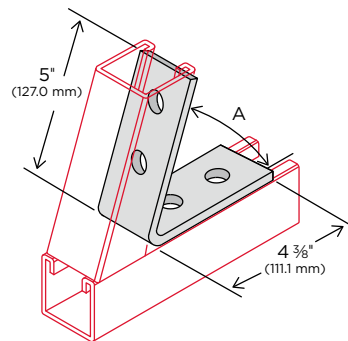


"A" is available in any angle up to 90°

Dimensions shown may vary based on specified angle "A"

| CATALOG #  | A   | WEIGHT<br>lbs. |
|------------|-----|----------------|
| ZL620000EG | 45° | 0.76           |
| ZL620030EG | 30° | 0.76           |
| ZL620060EG | 60° | 0.76           |

## ZL63 | 4 Hole Closed Corner Angle



"A" is available in any angle up to 90°

Dimensions shown may vary based on specified angle "A"

| CATALOG #  | A   | WEIGHT<br>lbs. |
|------------|-----|----------------|
| ZL630000EG | 45° | 0.93           |
| ZL630030EG | 30° | 0.93           |
| ZL630060EG | 60° | 0.93           |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



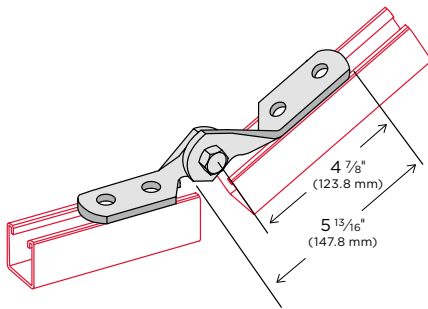
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL64

4 Hole Adjustable Corner Angle

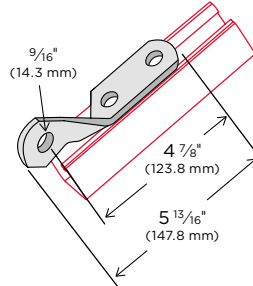


Note: Supplied pre-assembled with  
1/2" grade 5 bolt and nylock nut

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL640000EG | 1.26   |

## ZL64H

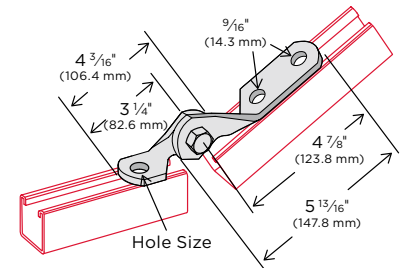
2 Hole Adjustable Angle Half



| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZL64H0050EG | 0.53   |

## ZL65

3 Hole Adjustable Corner Angle

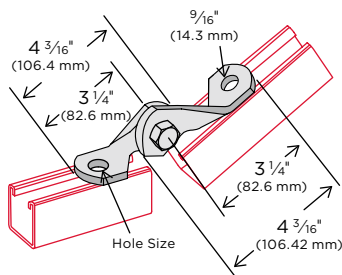


Note: Supplied pre-assembled with  
1/2" grade 5 bolt and nylock nut

| CATALOG #  | WEIGHT | BOLT SIZE |    | HOLE SIZE |      |
|------------|--------|-----------|----|-----------|------|
|            | lbs.   | in.       | mm | in.       | mm   |
| ZL650037EG | 1.07   | ⅜         | 8  | ⅞         | 11.1 |
| ZL650050EG | 1.07   | ½         | 12 | ⅞         | 14.3 |
| ZL650062EG | 1.07   | ⅝         | 16 | 1⅞        | 17.5 |

## ZL66

2 Hole Adjustable Corner Angle

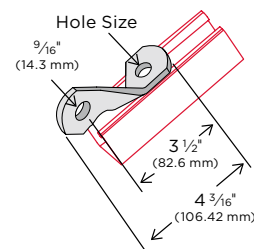


Note: Supplied pre-assembled with 1/2" grade 5  
bolt and nylock nut

| CATALOG #  | WEIGHT | BOLT SIZE |    | HOLE SIZE |      |
|------------|--------|-----------|----|-----------|------|
|            | lbs.   | in.       | mm | in.       | mm   |
| ZL660037EG | 0.78   | 3/8       | 8  | 7/16      | 11.1 |
| ZL660050EG | 0.78   | 1/2       | 12 | 9/16      | 14.3 |
| ZL660062EG | 0.78   | 5/8       | 16 | 1 1/16    | 17.5 |

## ZL66H

1 Hole Adjustable Angle Half



| CATALOG #   | WEIGHT | BOLT SIZE |    | HOLE SIZE |      |
|-------------|--------|-----------|----|-----------|------|
|             | lbs.   | in.       | mm | in.       | mm   |
| ZL66H0037EG | 0.39   | 3⁄8       | 8  | 7⁄16      | 11.1 |
| ZL66H0050EG | 0.39   | 1⁄2       | 12 | 9⁄16      | 14.3 |
| ZL66H0062EG | 0.39   | 5⁄8       | 16 | 1 1⁄16    | 17.5 |

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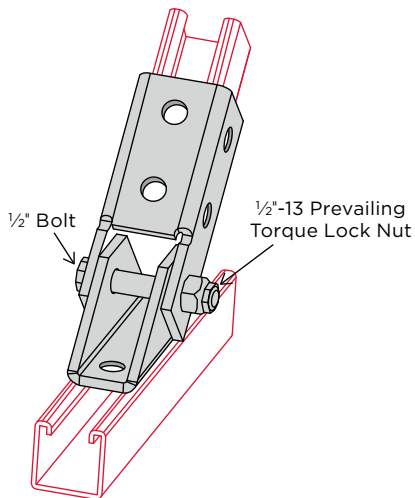


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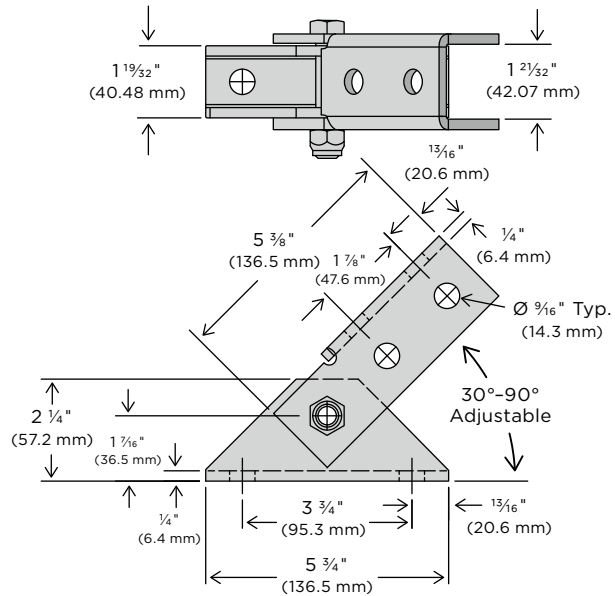
# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

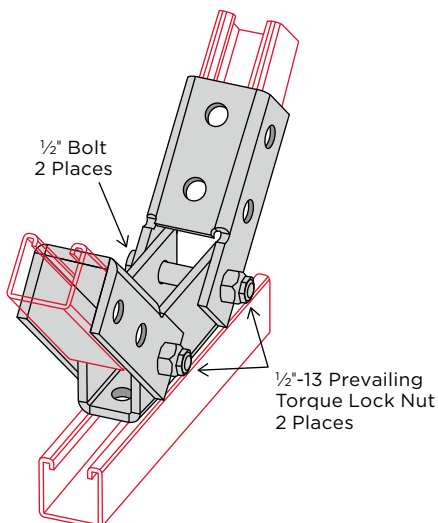
## ZL67 | Adjustable Brace Fitting



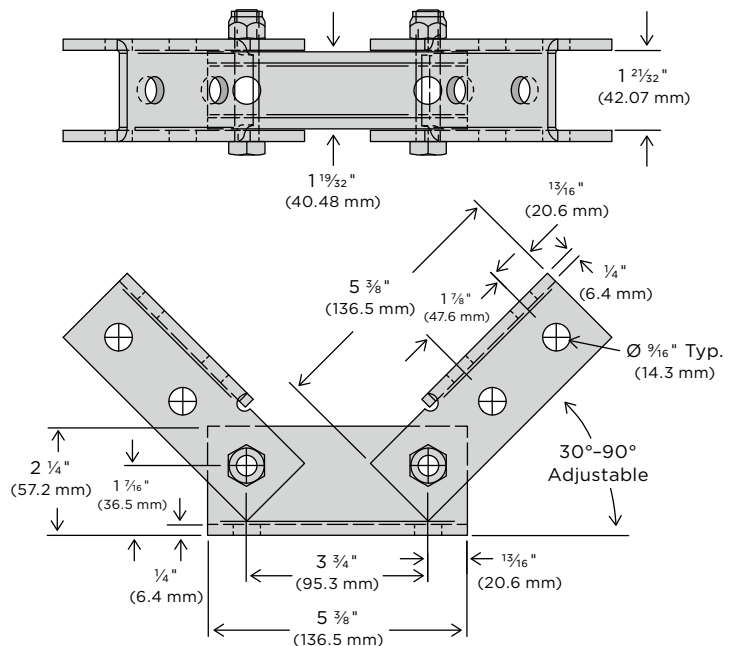
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL670000EG</b> | 3.07   |



## ZL68 | Double Adjustable Brace Fitting



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZL680000EG</b> | 4.97   |



Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

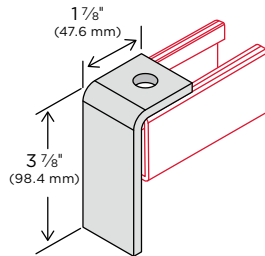


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# Angle Fittings

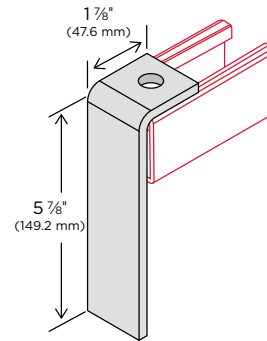
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL70 | 1 Hole 3 7/8" Corner Angle



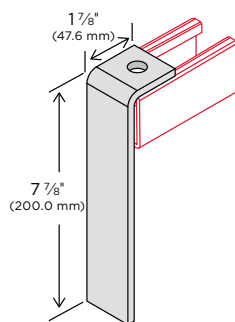
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL700000EG | 0.56   |

## ZL71 | 1 Hole 5 7/8" Corner Angle



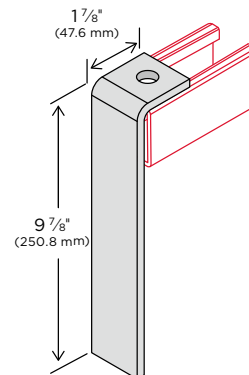
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL710000EG | 0.85   |

## ZL72 | 1 Hole 7 7/8" Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL720000EG | 1.00   |

## ZL73 | 1 Hole 9 7/8" Corner Angle



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZL730000EG | 1.21   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

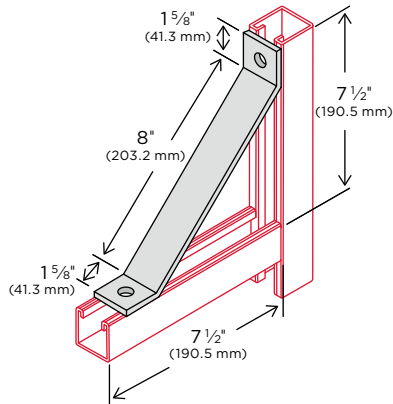


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# Angle Fittings

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZL80 | 8" Angle Brace



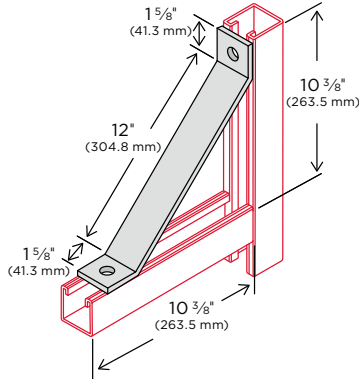
CATALOG #

WEIGHT

ZL800000EG

1.19

## ZL81 | 12" Angle Brace



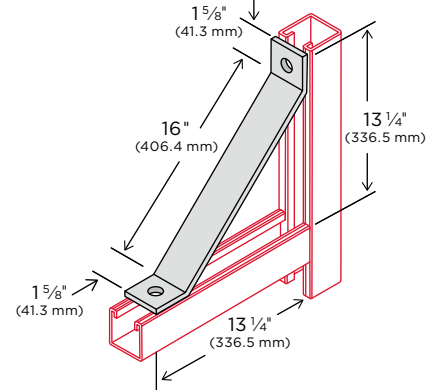
CATALOG #

WEIGHT

ZL810000EG

1.65

## ZL82 | 16" Angle Brace



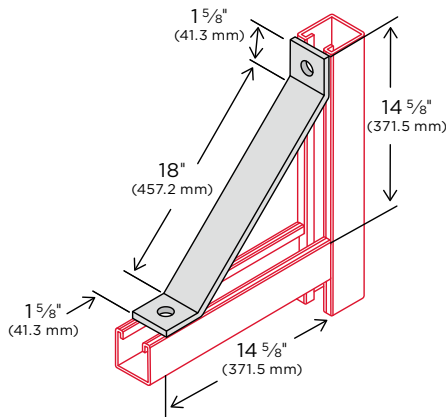
CATALOG #

WEIGHT

ZL820000EG

2.18

## ZL83 | 18" Angle Brace



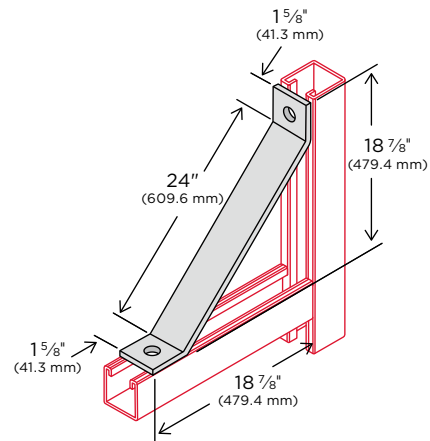
CATALOG #

WEIGHT

ZL830000EG

2.34

## ZL84 | 24" Angle Brace



CATALOG #

WEIGHT

ZL840000EG

3.03

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



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# Beam Clamps

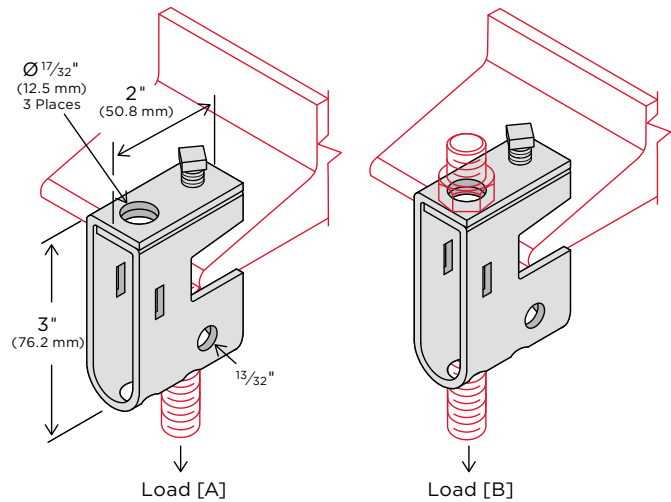
Product finishes and materials are on [page 11](#)

## ZBC10 | Formed Steel Beam Clamp

Standard finish is Electro-Galvanized (EG).

Maximum rod size 1/2" (12 mm)  
Maximum flange thickness 3/4" (19 mm)

| CATALOG #   | POSITION | DESIGN LOAD |      | WEIGHT |
|-------------|----------|-------------|------|--------|
|             |          | lbs.        | kN   | lbs.   |
| ZBC100000EG | A        | 500         | 2.22 | 0.42   |
| ZBC100000EG | B        | 300         | 1.33 | 0.42   |

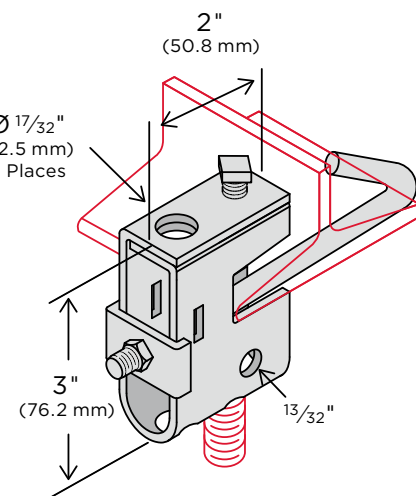


## ZBC11 | Formed Steel Beam Clamp With J-Hook

Standard finish is Electro-Galvanized (EG).

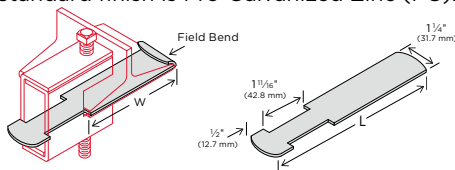
Maximum rod size 1/2" (12 mm)  
Maximum flange thickness 3/4" (19 mm)  
Design loads are the same as model ZBC10.

| CATALOG #   | WEIGHT |      | W       |  |
|-------------|--------|------|---------|--|
|             | lbs.   | in.  | mm      |  |
| ZBC110600EG | 0.78   | 3-6  | 76-152  |  |
| ZBC110900EG | 0.83   | 6-9  | 152-228 |  |
| ZBC111200EG | 0.88   | 9-12 | 228-305 |  |



## ZBC13 | Beam Clamp Anchor Strap

Standard finish is Pre-Galvanized Zinc (PG).

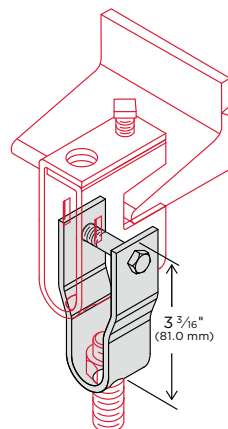


| CATALOG #   | WEIGHT | L    |     | W* (MAX) |     |
|-------------|--------|------|-----|----------|-----|
|             |        | lbs. | in. | mm       | mm  |
| ZBC130600PG | 0.23   | 9    | 228 | 6        | 152 |
| ZBC130900PG | 0.30   | 12   | 305 | 9        | 228 |
| ZBC131200PG | 0.38   | 15   | 381 | 12       | 305 |
| ZBC131500PG | 0.45   | 18   | 457 | 15       | 381 |

\*For beam flange greater than 3/4" (19 mm) thick, use next larger flange width size.

## ZBC14 | Beam Clamp Swivel Adapter for ZBC10

Standard finish is Electro-Galvanized (EG).



For use with 1/4", 3/8" or 1/2" rod (6 mm, 8 mm or 10 mm).

| CATALOG #   | WEIGHT |      | DESIGN LOAD |  |
|-------------|--------|------|-------------|--|
|             | lbs.   | lbs. | kN          |  |
| ZBC140000EG | 0.3    | 500  | 2.22        |  |

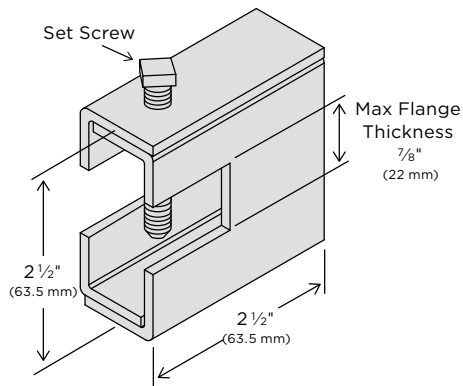


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# Beam Clamps

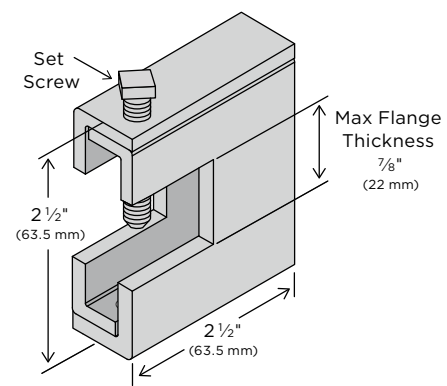
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC15 | Formed Steel Beam Clamp



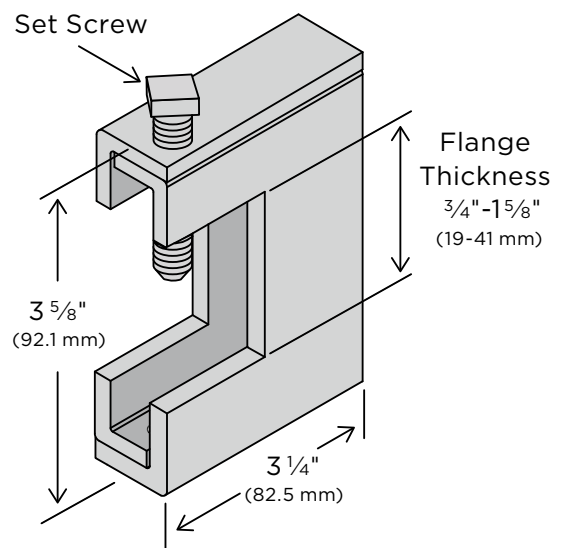
| CATALOG #   | WEIGHT | ROD SIZE | SET SCREW | THICKNESS | DESIGN LOAD |      |
|-------------|--------|----------|-----------|-----------|-------------|------|
|             | lbs.   | in.      |           | in.       | lbs.        | kN   |
| ZBC150025EG | 0.62   | ¼        | ¾\"-16    | ⅝         | 650         | 2.89 |
| ZBC150037EG | 0.60   | ¾        | ¾\"-16    | ⅝         | 650         | 2.89 |
| ZBC150050EG | 0.94   | ½        | ½\"-13    | ¾         | 1100        | 4.89 |
| ZBC150062EG | 1.18   | ⅝        | ½\"-13    | ¾         | 1600        | 7.12 |

## ZBC16 | Formed Steel Heavy Duty Beam Clamp



| CATALOG #   | WEIGHT | ROD SIZE | SET SCREW | THICKNESS | DESIGN LOAD |       |
|-------------|--------|----------|-----------|-----------|-------------|-------|
|             | lbs.   | in.      |           | in.       | lbs.        | kN    |
| ZBC160037EG | 0.96   | ¾        | ½\"-13    | ¾         | 1100        | 4.89  |
| ZBC160050EG | 1.22   | ½        | ½\"-13    | ¾         | 1600        | 7.12  |
| ZBC160062EG | 1.60   | ⅝        | ¾\"-11    | ¾         | 2400        | 10.67 |

## ZBC17 | Formed Steel Heavy Duty Beam Clamp



| CATALOG #   | WEIGHT | ROD SIZE | SET SCREW | THICKNESS | DESIGN LOAD |      |
|-------------|--------|----------|-----------|-----------|-------------|------|
|             | lbs.   | in.      |           | in.       | lbs.        | kN   |
| ZBC170025EG | 1.51   | ¾        | ½\"-13    | ¾         | 800         | 3.56 |
| ZBC170037EG | 1.51   | ¾        | ½\"-13    | ¾         | 800         | 3.56 |
| ZBC170050EG | 1.93   | ½        | ½\"-13    | ¾         | 1300        | 5.78 |
| ZBC170062EG | 3.11   | ⅝        | ¾\"-11    | ¾         | 1900        | 8.45 |

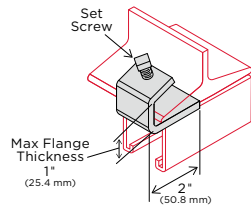


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Beam Clamps

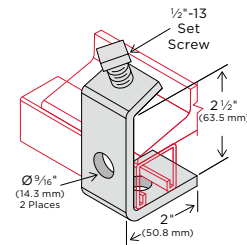
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC20, ZBC21 | Strut to Beam Clamp C-Type



| CATALOG #   | WEIGHT | SET SCREW | MATERIAL THICKNESS |     | DESIGN LOAD WHEN USED IN PAIRS |     |
|-------------|--------|-----------|--------------------|-----|--------------------------------|-----|
|             | lbs.   |           | in                 | mm  | lbs.                           | kN  |
| ZBC200000EG | 0.39   | 3/8"-16   | 1/4                | 6.3 | 550                            | 2.5 |
| ZBC210000EG | 0.62   | 1/2"-13   | 3/8                | 9.5 | 1000                           | 4.5 |

## ZBC22 | Strut to Beam Clamp C-Type, Parallel



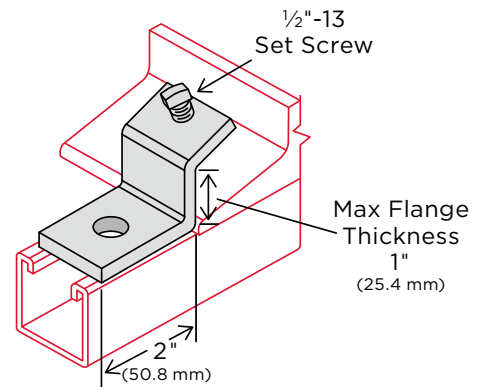
| CATALOG #   | WEIGHT | MATERIAL THICKNESS |     | DESIGN LOAD WHEN USED IN PAIRS |      |
|-------------|--------|--------------------|-----|--------------------------------|------|
|             | lbs.   | in.                | mm  | lbs.                           | kN   |
| ZBC220000EG | 0.91   | 3/8                | 9.5 | 1000                           | 4.45 |

## ZBC30 | Strut to Beam Clamp Z-Type

3/8" (9.5) material thickness

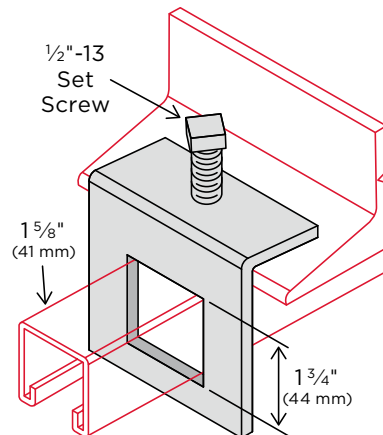
Clamp requires 1/2"-13 HCS and 1/2" channel nut, order separately

| CATALOG #   | WEIGHT | DESIGN LOAD WHEN USED IN PAIRS |      |
|-------------|--------|--------------------------------|------|
|             | lbs.   | lbs.                           | kN   |
| ZBC300000EG | 0.65   | 600                            | 2.67 |



## ZBC40 | Strut to Beam Clamp Window Type

| CATALOG #   | WEIGHT | DESIGN LOAD WHEN USED IN PAIRS |      |
|-------------|--------|--------------------------------|------|
|             | lbs.   | lbs.                           | kN   |
| ZBC400000EG | 1.06   | 950                            | 4.23 |



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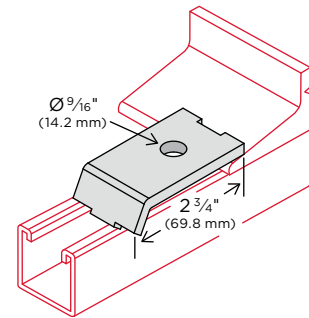
# Beam Clamps

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC70 | Strut to Beam Clamp Notched Type

Material is 1 5/8" (41.3 mm) wide x 1/4" (6.3 mm) thick  
Clamp requires 1/2"-13 HCS and 1/2" channel nut, order separately

| CATALOG #   | WEIGHT | DESIGN LOAD WHEN USED IN PAIRS |      |
|-------------|--------|--------------------------------|------|
|             |        | lbs.                           | kN   |
| ZBC700000EG | 0.29   | 1100                           | 4.89 |

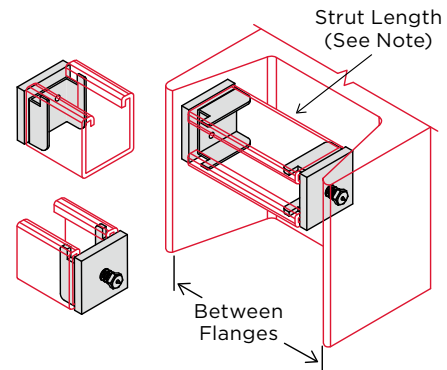


## ZBC50 | Strut to Beam Spreader Caps

Includes 1 adjustable cap and 1 nonadjustable cap.  
For use with 12 gauge strut.

Cut strut length 1 1/4" to 1 5/8" shorter than the average distance between flanges.

| CATALOG #   | WEIGHT | DESIGN LOAD WHEN USED AS A SET |      |
|-------------|--------|--------------------------------|------|
|             |        | lbs.                           | kN   |
| ZBC500000EG | 0.54   | 500                            | 2.22 |

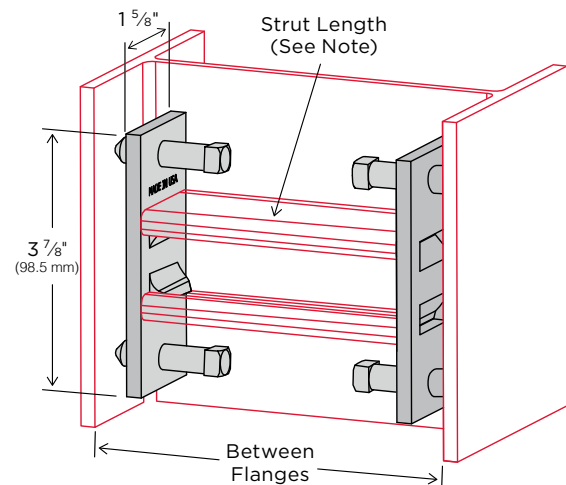


## ZBC51 | Strut to Beam Spreader Caps

Includes 2 adjustable caps.  
For use with 12 gauge strut.

Cut strut length 1 1/4" to 1 5/8" shorter than the average distance between flanges.

| CATALOG #   | WEIGHT | DESIGN LOAD WHEN USED AS A SET |      |
|-------------|--------|--------------------------------|------|
|             |        | lbs.                           | kN   |
| ZBC510000EG | 1.40   | 1000                           | 4.44 |



Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



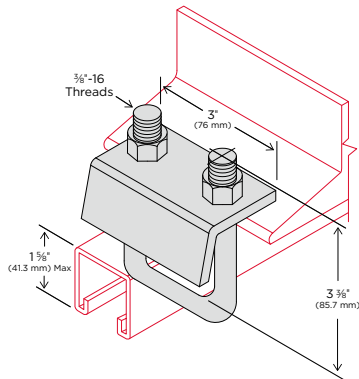
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Beam Clamps

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC60

Strut to Beam Clamp With Square U-Bolt

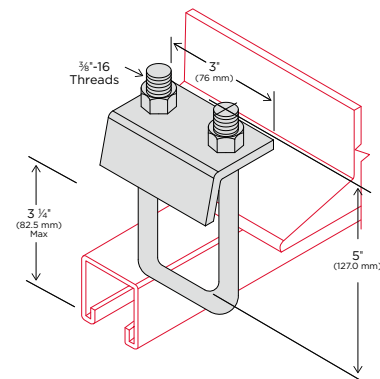


For 1<sup>5</sup>/<sub>16</sub>" & 1<sup>3</sup>/<sub>8</sub>" channel  
For use with flanges up to 3/4" (19.1 mm) thick

| CATALOG #   | DESIGN LOAD WHEN USED IN PAIRS |      |      |
|-------------|--------------------------------|------|------|
|             | WEIGHT<br>lbs.                 | lbs. | kN   |
| ZBC600000EG | 0.72                           | 1200 | 5.34 |

## ZBC61

Strut to Beam Clamp With Square U-Bolt

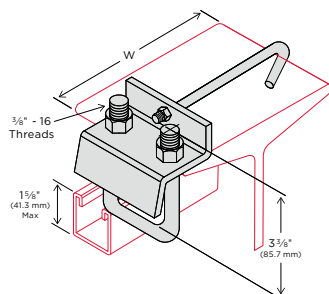


For 2<sup>7</sup>/<sub>16</sub>" & 3<sup>1</sup>/<sub>4</sub>" channel  
For use with flanges up to 3/4" (19.1 mm) thick

| CATALOG #   | DESIGN LOAD WHEN USED IN PAIRS |      |      |
|-------------|--------------------------------|------|------|
|             | WEIGHT<br>lbs.                 | lbs. | kN   |
| ZBC610000EG | 0.79                           | 1200 | 5.34 |

## ZBC62

Strut to Beam Clamp With Square U-Bolt and J-Hook

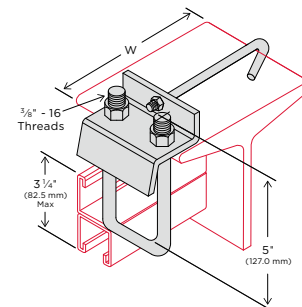


For 1<sup>5</sup>/<sub>16</sub>" & 1<sup>3</sup>/<sub>8</sub>" channel  
For use with flanges up to 3/4" (19.1 mm) thick

| CATALOG #   | WEIGHT |      | W       |
|-------------|--------|------|---------|
|             | lbs.   | in.  |         |
| ZBC620600EG | 1.16   | 4-6  | 101-152 |
| ZBC620900EG | 1.20   | 6-9  | 152-228 |
| ZBC621200EG | 1.26   | 9-12 | 228-305 |

## ZBC63

Strut to Beam Clamp With Square U-Bolt and J-Hook



For 2<sup>7</sup>/<sub>16</sub>" & 3<sup>1</sup>/<sub>4</sub>" channel  
For use with flanges up to 3/4" (19.1 mm) thick

| CATALOG #   | WEIGHT |      | W       |
|-------------|--------|------|---------|
|             | lbs.   | in.  |         |
| ZBC630600EG | 1.29   | 4-6  | 101-152 |
| ZBC630900EG | 1.36   | 6-9  | 152-228 |
| ZBC631200EG | 1.42   | 9-12 | 228-305 |

Material is 1<sup>5</sup>/<sub>16</sub>" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1<sup>3</sup>/<sub>16</sub>" (20.6) center to edge on 1<sup>7</sup>/<sub>8</sub>" (47.6) centers unless specified.



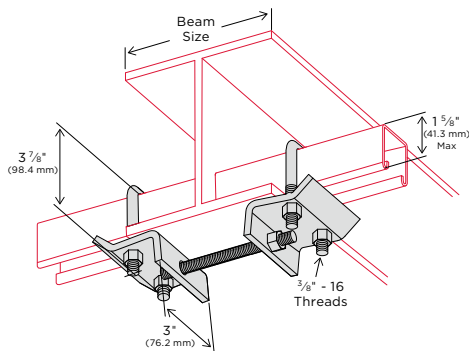
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Beam Clamps

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC64

Strut to Beam Clamp With  
Square U-Bolts & Connecting Stud, Double

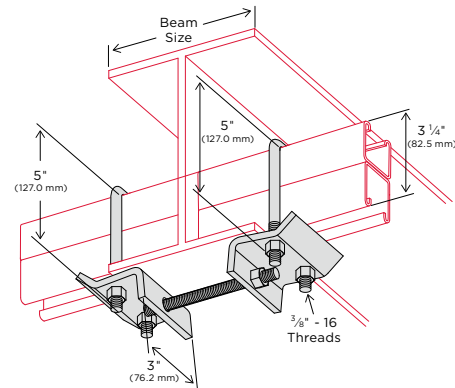


For 1 5/16\" & 1 5/8\" channel  
For use with flanges up to 3/4\" (19.1 mm) thick

| CATALOG #          | WEIGHT |      | BEAM SIZE |  |
|--------------------|--------|------|-----------|--|
|                    | lbs.   | in.  | mm        |  |
| <b>ZBC641200EG</b> | 2.90   | 9-12 | 228-305   |  |

## ZBC65

Strut to Beam Clamp With  
Square U-Bolts & Connecting Stud, Double

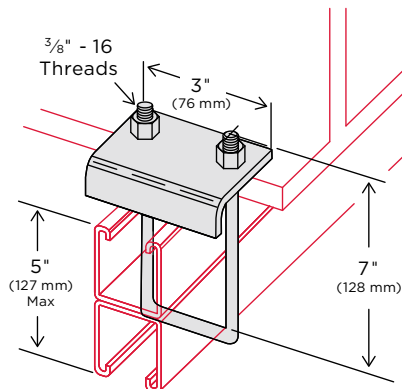


For 2 5/16\" & 3 1/4\" channel  
For use with flanges up to 3/4\" (19.1 mm) thick

| CATALOG #          | WEIGHT |      | BEAM SIZE |  |
|--------------------|--------|------|-----------|--|
|                    | lbs.   | in.  | mm        |  |
| <b>ZBC651200EG</b> | 3.2    | 9-12 | 228-305   |  |

## ZBC66

Strut to Beam Clamp With Square U-Bolt

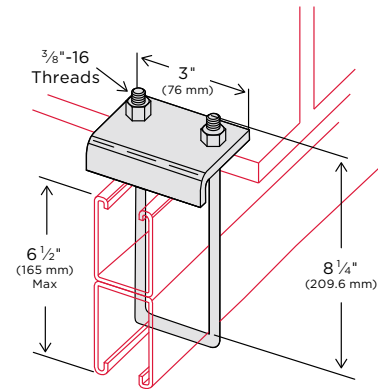


For 5\" maximum  
For use with flanges up to 3/4\" (19.1 mm) thick

| CATALOG #          | WEIGHT |      | DESIGN LOAD WHEN USED IN PAIRS |  |
|--------------------|--------|------|--------------------------------|--|
|                    | lbs.   | lbs. | kN                             |  |
| <b>ZBC660000EG</b> | 0.92   | 1200 | 5.34                           |  |

## ZBC68

Strut to Beam Clamp With Square U-Bolt



For 6 1/2\" maximum  
For use with flanges up to 3/4\" (19.1 mm) thick

| CATALOG #          | WEIGHT |      | DESIGN LOAD WHEN USED IN PAIRS |  |
|--------------------|--------|------|--------------------------------|--|
|                    | lbs.   | lbs. | kN                             |  |
| <b>ZBC680000EG</b> | 1.26   | 1200 | 5.34                           |  |

Material is 1 5/16\" (41.3) wide x 1/4\" (6.3) thick unless specified. Holes are 9/16\" (14.3) diameter, 1 3/16\" (20.6) center to edge on 1 7/8\" (47.6) centers unless specified.



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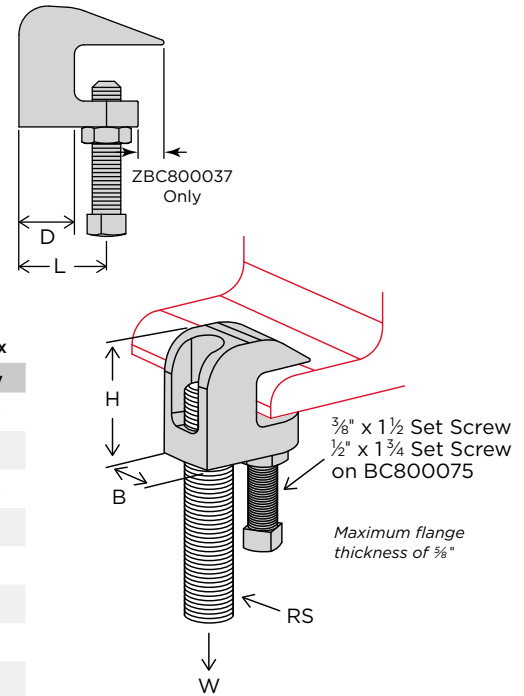
# Beam Clamps

Standard finishes are Electro-Galvanized (EG) and Plain (PL)  
Product finishes and materials are on [page 11](#)

## ZBC80 | Malleable Iron Universal Beam Clamp

| CATALOG #   | ROD SIZE (RS) | MAX LOAD (W) | MAX PIPE SIZE | B      | L       | H       | D    | WEIGHT | BOX |
|-------------|---------------|--------------|---------------|--------|---------|---------|------|--------|-----|
|             |               | lbs.         | in.           | in.    | in.     | in.     | in.  | lbs.   | qty |
| ZBC800037PL | 3/8"-16       | 350          | 4             | 1 3/16 | 1 1/4   | 1 3/16  | 3/16 | 0.32   | 50  |
| ZBC800037EG | 3/8"-16       | 350          | 4             | 1 3/16 | 1 1/4   | 1 3/16  | 3/16 | 0.32   | 50  |
| ZBC800050PL | 1/2"-13       | 470          | 4             | 1      | 1 3/8   | 1 3/8   | 3/16 | 0.32   | 50  |
| ZBC800050EG | 1/2"-13       | 470          | 4             | 1      | 1 3/8   | 1 3/8   | 3/16 | 0.32   | 50  |
| ZBC800062PL | 5/8"-11       | 550          | 5             | 1 1/8  | 1 1/2   | 1 3/4   | 3/16 | 0.56   | 25  |
| ZBC800062EG | 5/8"-11       | 550          | 5             | 1 1/8  | 1 1/2   | 1 3/4   | 3/16 | 0.56   | 25  |
| ZBC800075PL | 3/4"-10       | 700          | 6             | 1 3/8  | 1 13/16 | 1 13/16 | 3/8  | 0.75   | 20  |
| ZBC800075EG | 3/4"-10       | 700          | 6             | 1 3/8  | 1 13/16 | 1 13/16 | 3/8  | 0.75   | 20  |

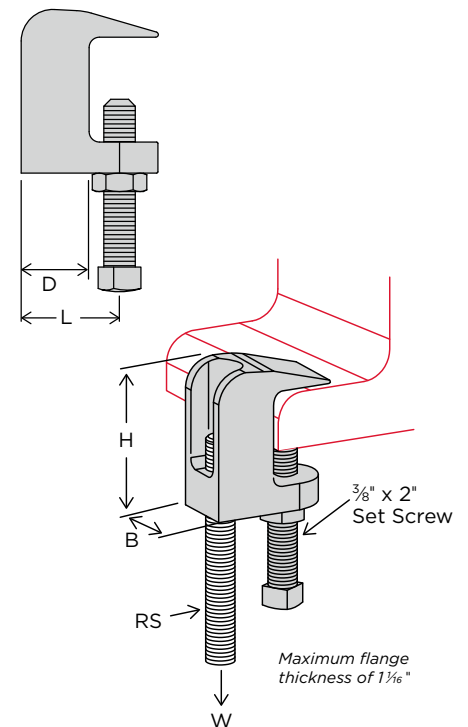
Note: Do not over tighten set screw.



## ZBC81 | Wide Mouth Malleable Iron Universal Beam Clamp

| CATALOG #   | ROD SIZE (RS) | MAX LOAD (W) | MAX PIPE SIZE | B     | L      | H       | D    | WEIGHT | BOX |
|-------------|---------------|--------------|---------------|-------|--------|---------|------|--------|-----|
|             | in.           | lbs.         | in.           | in.   | in.    | in.     | in.  | lbs.   | qty |
| ZBC810037PL | 3/8"-16       | 400          | 4             | 3/8   | 1 1/4  | 1 15/16 | 3/16 | 0.41   | 50  |
| ZBC810037EG | 3/8"-16       | 400          | 4             | 3/8   | 1 1/4  | 1 15/16 | 3/16 | 0.41   | 50  |
| ZBC810050PL | 1/2"-13       | 500          | 8             | 3/8   | 1 1/4  | 2 3/16  | 1/2  | 0.41   | 25  |
| ZBC810050EG | 1/2"-13       | 500          | 8             | 3/8   | 1 1/4  | 2 3/16  | 1/2  | 0.41   | 25  |
| ZBC810062PL | 5/8"-11       | 600          | 8             | 1 1/4 | 1 3/8  | 2 3/4   | 3/8  | 0.75   | 20  |
| ZBC810062EG | 5/8"-11       | 600          | 8             | 1 1/4 | 1 3/8  | 2 3/4   | 3/8  | 0.75   | 20  |
| ZBC810075PL | 3/4"-10       | 800          | 8             | 1 3/8 | 2 1/16 | 2 1/2   | 3/8  | 1.00   | 10  |
| ZBC810075EG | 3/4"-10       | 800          | 8             | 1 3/8 | 2 1/16 | 2 1/2   | 3/8  | 1.00   | 10  |

Note: Do not over tighten set screw.



Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 3/8" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



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# Beam Clamps

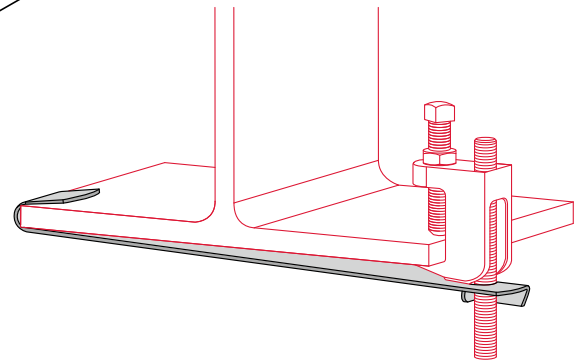
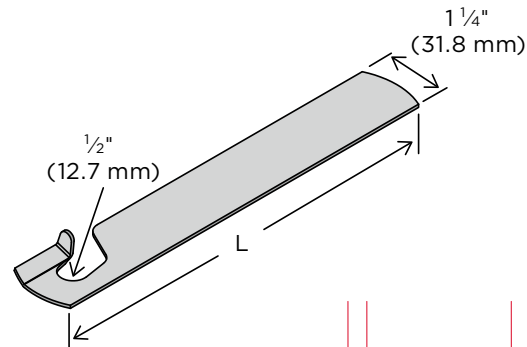
Standard finish is Pre-Galvanized Zinc (PG)  
Product finishes and materials are on [page 11](#)

## ZRBS | Retrofit Beam Clamp Retaining Strap



For use with 3/8" and 1/2" rod sizes

| CATALOG #  | GAUGE                      | BEAM SIZE |     | LENGTH |     | WEIGHT |
|------------|----------------------------|-----------|-----|--------|-----|--------|
|            |                            | in.       | kN  | in.    | mm  |        |
| ZRBS0600PG | 16 Gauge<br>(0.054-0.065") | 6         | 152 | 8      | 203 | 0.158  |
| ZRBS0800PG |                            | 8         | 203 | 10     | 254 | 0.204  |
| ZRBS1000PG |                            | 10        | 254 | 12     | 305 | 0.249  |
| ZRBS1200PG |                            | 12        | 305 | 14     | 356 | 0.295  |
| ZRBS1400PG |                            | 14        | 356 | 16     | 406 | 0.340  |

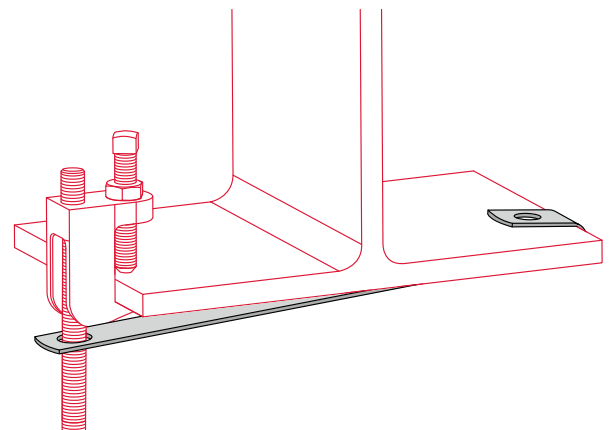
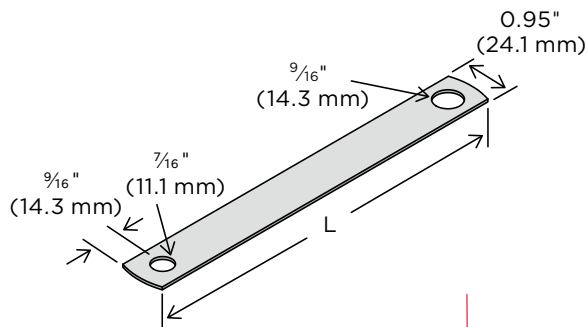


## ZRS | Beam Clamp Retaining Strap



For use with 3/8" and 1/2" rod sizes

| CATALOG # | GAUGE                      | BEAM SIZE |     | LENGTH |     | WEIGHT |
|-----------|----------------------------|-----------|-----|--------|-----|--------|
|           |                            | in.       | kN  | in.    | mm  |        |
| ZRS0600PG | 16 Gauge<br>(0.054-0.065") | 6         | 152 | 8      | 203 | 0.122  |
| ZRS0800PG |                            | 8         | 203 | 10     | 254 | 0.157  |
| ZRS1000PG |                            | 10        | 254 | 12     | 305 | 0.191  |
| ZRS1200PG |                            | 12        | 305 | 14     | 356 | 0.226  |
| ZRS1400PG |                            | 14        | 356 | 16     | 406 | 0.260  |



Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



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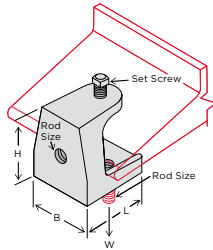


# Beam Clamps

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBC90

Malleable Iron Rod Support Beam Clamp



Maximum flange thickness of 1/2"

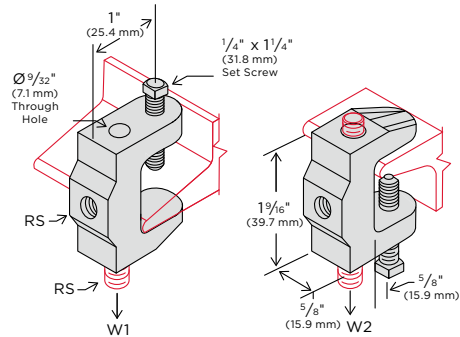
| CATALOG #   | WEIGHT<br>lbs. | ROD SIZE | SET SCREW<br>SIZE |  | MAX LOAD (W) |      |
|-------------|----------------|----------|-------------------|--|--------------|------|
|             |                |          |                   |  | lbs.         | kN   |
| ZBC900025EG | 0.20           | 1/4"-20  | 5/16"-18          |  | 335          | 1.49 |
| ZBC900037EG | 0.67           | 3/8"-16  | 1/2"-13           |  | 525          | 2.34 |
| ZBC900050EG | 1.22           | 1/2"-13  | 1/2"-13           |  | 750          | 3.34 |

| CATALOG #   | B     |      | L     |      | H     |      |
|-------------|-------|------|-------|------|-------|------|
|             | in.   | mm   | in.   | mm   | in.   | mm   |
| ZBC900025EG | 1 3/8 | 30.2 | 1 3/8 | 34.9 | 1 3/8 | 34.9 |
| ZBC900037EG | 2 1/8 | 52.4 | 1 7/8 | 47.6 | 1 3/4 | 44.4 |
| ZBC900050EG | 2 1/2 | 63.5 | 2 3/8 | 60.3 | 2 3/8 | 55.6 |

## ZBC91

Malleable Iron Universal Beam Clamp

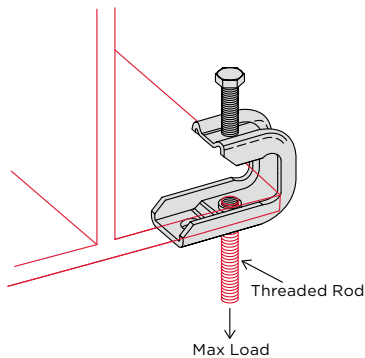


Maximum flange thickness of 5/8"

| CATALOG #   | WEIGHT<br>lbs. | ROD SIZE<br>(RS) | MAXIMUM<br>LOAD (W1) |      | MAXIMUM<br>LOAD (W2) |      |
|-------------|----------------|------------------|----------------------|------|----------------------|------|
|             |                |                  | lbs.                 | kN   | lbs.                 | kN   |
| ZBC910025EG | 0.24           | 1/4"-20          | 100                  | 0.44 | 250                  | 1.11 |

Note: The threaded hole on the back side of the clamp is not load rated.

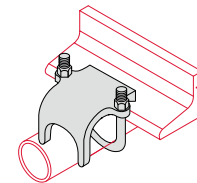
## ZBC92 | Light Duty Beam Clamp



| CATALOG #   | WEIGHT<br>lbs. | ROD SIZE | MAXIMUM<br>FLANGE<br>THICKNESS<br>in. | MAX LOAD (W) |      |
|-------------|----------------|----------|---------------------------------------|--------------|------|
|             |                |          |                                       | lbs.         | kN   |
| ZBC920025EG | 0.30           | 1/4"-20  | 5/8                                   | 100          | 0.44 |
| ZBC920037EG | 0.90           | 3/8"-16  | 3/4                                   | 200          | 0.89 |

## ZRA | Right Angle Clamp

Standard finish is Hot-Dip Galvanized



| CATALOG # | WEIGHT<br>lbs. | PIPE SIZE |     |
|-----------|----------------|-----------|-----|
|           |                | in.       | mm  |
| ZRA0050HD | 0.38           | 1/2       | 15  |
| ZRA0075HD | 0.41           | 3/4       | 20  |
| ZRA0100HD | 0.46           | 1         | 25  |
| ZRA0125HD | 0.49           | 1 1/4     | 32  |
| ZRA0150HD | 0.59           | 1 1/2     | 40  |
| ZRA0200HD | 0.88           | 2         | 50  |
| ZRA0250HD | 1.09           | 2 1/2     | 65  |
| ZRA0300HD | 1.31           | 3         | 80  |
| ZRA0350HD | 1.48           | 3 1/2     | 90  |
| ZRA0400HD | 1.66           | 4         | 100 |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

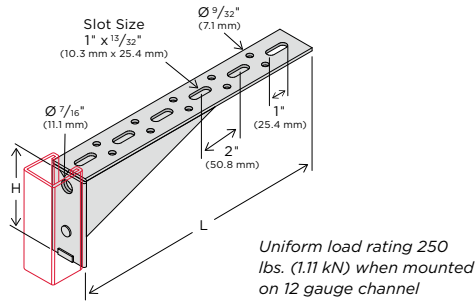


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# Brackets

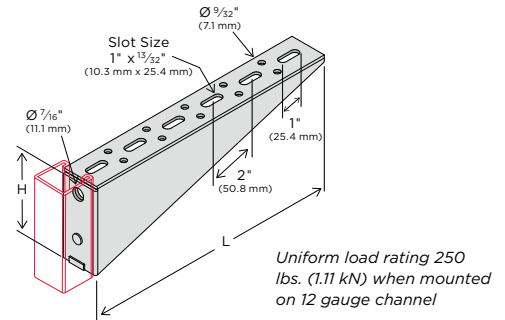
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZBR8R | Slotted Shelf Bracket (Right Hand)



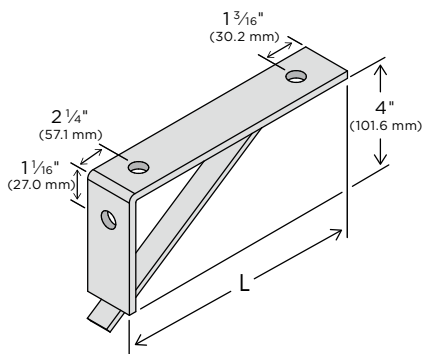
| CATALOG #   | WEIGHT |     | L     |         | H     |  |
|-------------|--------|-----|-------|---------|-------|--|
|             | lbs.   | in. | mm    | in.     | mm    |  |
| ZBR8R0600EG | 0.58   | 6   | 152.4 | 2 1/8   | 73.0  |  |
| ZBR8R0800EG | 0.83   | 8   | 203.2 | 2 1/8   | 73.0  |  |
| ZBR8R1000EG | 1.14   | 10  | 254.0 | 2 1/8   | 73.0  |  |
| ZBR8R1200EG | 1.49   | 12  | 304.8 | 3 1/8   | 87.3  |  |
| ZBR8R1400EG | 1.74   | 14  | 355.6 | 3 15/16 | 100.0 |  |
| ZBR8R1600EG | 2.25   | 16  | 406.4 | 4 1/8   | 112.7 |  |
| ZBR8R1800EG | 2.55   | 18  | 457.2 | 4 15/16 | 125.4 |  |

## ZBR8L | Slotted Shelf Bracket (Left Hand)



| CATALOG #   | WEIGHT |     | L     |         | H     |  |
|-------------|--------|-----|-------|---------|-------|--|
|             | lbs.   | in. | mm    | in.     | mm    |  |
| ZBR8L0600EG | 0.58   | 6   | 152.4 | 2 1/8   | 73.0  |  |
| ZBR8L0800EG | 0.83   | 8   | 203.2 | 2 1/8   | 73.0  |  |
| ZBR8L1000EG | 1.14   | 10  | 254.0 | 2 1/8   | 73.0  |  |
| ZBR8L1200EG | 1.49   | 12  | 304.8 | 3 1/8   | 87.3  |  |
| ZBR8L1400EG | 1.74   | 14  | 355.6 | 3 15/16 | 100.0 |  |
| ZBR8L1600EG | 2.25   | 16  | 406.4 | 4 1/8   | 112.7 |  |
| ZBR8L1800EG | 2.55   | 18  | 457.2 | 4 15/16 | 125.4 |  |

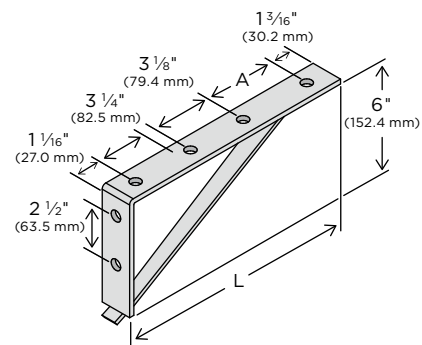
## ZBR20 | Bracket 3 Hole



| CATALOG #   | WEIGHT |        | L     |      | UNIFORM LOAD* |  |
|-------------|--------|--------|-------|------|---------------|--|
|             | lbs.   | in.    | mm    | lbs. | kN            |  |
| ZBR200850EG | 1.68   | 8 1/2  | 215.9 | 850  | 3.78          |  |
| ZBR201050EG | 2.02   | 10 1/2 | 266.7 | 850  | 3.78          |  |

\*When mounted on 12 gauge channel

## ZBR21 | Bracket 6 Hole



| CATALOG #   | WEIGHT |        | L     |       | A     |      | UNIFORM LOAD* |  |
|-------------|--------|--------|-------|-------|-------|------|---------------|--|
|             | lbs.   | in.    | mm    | in.   | mm    | lbs. | kN            |  |
| ZBR211250EG | 2.58   | 12 1/2 | 317.5 | 3 3/4 | 95.2  | 900  | 4.00          |  |
| ZBR211450EG | 2.92   | 14 1/2 | 368.3 | 5 1/4 | 146.0 | 900  | 4.00          |  |

\*When mounted on 12 gauge channel

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

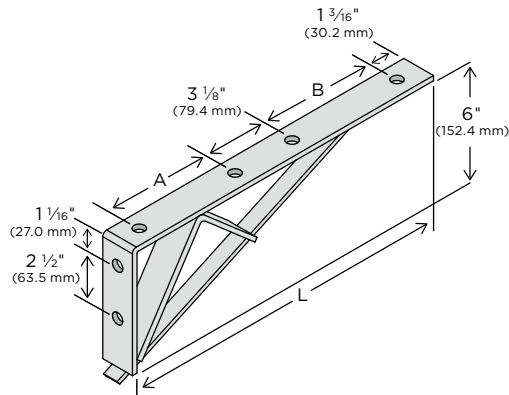


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# Brackets

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

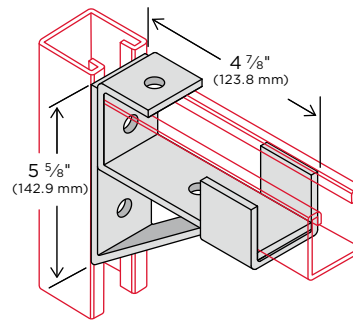
## ZBR22 | Bracket With Brace 6 Hole



| CATALOG #   | WEIGHT | L    |       | A   |       | B   |       | UNIFORM LOAD* |      |
|-------------|--------|------|-------|-----|-------|-----|-------|---------------|------|
|             | lbs.   | in.  | mm    | in. | mm    | in. | mm    | lbs.          | kN   |
| ZBR221650EG | 3.81   | 16 ½ | 419.1 | 5 ¼ | 133.3 | 5 ¼ | 146.0 | 1200          | 5.34 |
| ZBR221850EG | 4.16   | 18 ½ | 469.9 | 5 ¼ | 133.3 | 7 ¼ | 196.8 | 1100          | 4.89 |
| ZBR222050EG | 4.61   | 20 ½ | 520.7 | 7 ¼ | 184.1 | 7 ¼ | 196.8 | 900           | 4.00 |

\*When mounted on 12 gauge channel

## ZBR30 | Bracket for 1 5/8" Channel

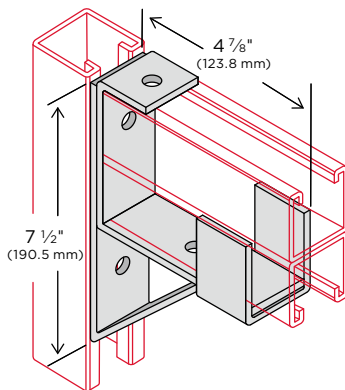


Maximum moment 5800 in.-lbs.  
(655 Nm) when mounted on  
12 gauge channel

Max load applies to bracket  
only, not the strength of the  
strut arm.

| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZBR300000EG | 2.46   |

## ZBR31 | Bracket for 3 1/4" Channel

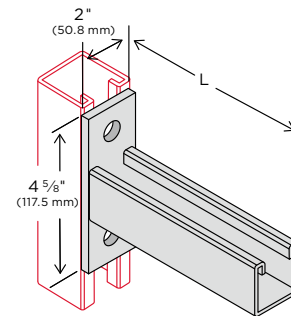


Maximum moment 12500 in.-lbs.  
(1412 Nm) when mounted on  
12 gauge channel

Max load applies to bracket  
only, not the strength of the  
strut arm.

| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZBR310000EG | 2.84   |

## ZBR40 | Bracket 1 5/8" Channel 2 Hole



| CATALOG #   | WEIGHT |     | L     | UNIFORM LOAD* |      |
|-------------|--------|-----|-------|---------------|------|
|             | lbs.   | in. | mm    | lbs.          | kN   |
| ZBR400600EG | 1.85   | 6   | 152.4 | 1250          | 5.56 |
| ZBR400900EG | 2.31   | 9   | 228.6 | 1000          | 4.45 |
| ZBR401200EG | 2.36   | 12  | 304.8 | 750           | 3.34 |
| ZBR401800EG | 3.28   | 18  | 457.2 | 500           | 2.22 |
| ZBR402400EG | 4.49   | 24  | 609.6 | 350           | 1.56 |

\*When mounted on 12 gauge channel

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

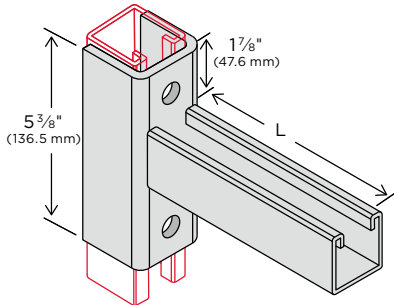


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# Brackets

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

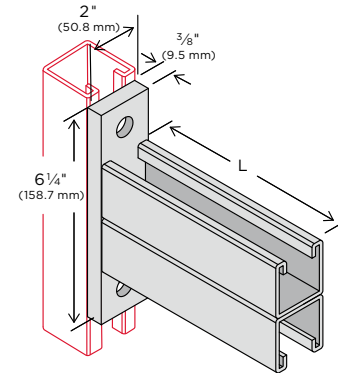
## ZBR41 | Bracket Channel Wrap Around 1 5/8" Channel



| CATALOG #   | WEIGHT |     | L     |      | UNIFORM LOAD* |  |
|-------------|--------|-----|-------|------|---------------|--|
|             | lbs.   | in. | mm    | lbs. | kN            |  |
| ZBR410600EG | 1.85   | 6   | 152.4 | 1250 | 5.56          |  |
| ZBR411200EG | 2.86   | 12  | 304.8 | 1000 | 4.45          |  |
| ZBR411800EG | 4.31   | 18  | 457.2 | 750  | 3.34          |  |
| ZBR412400EG | 5.14   | 24  | 609.6 | 500  | 2.22          |  |

\*When mounted on 12 gauge channel

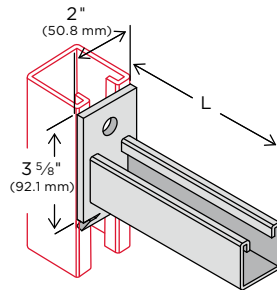
## ZBR42 | Bracket Double 1 5/8" Channel



| CATALOG #   | WEIGHT |     | L     |      | UNIFORM LOAD* |  |
|-------------|--------|-----|-------|------|---------------|--|
|             | lbs.   | in. | mm    | lbs. | kN            |  |
| ZBR421200EG | 4.92   | 12  | 304.8 | 2000 | 8.90          |  |
| ZBR421800EG | 6.78   | 18  | 457.2 | 1300 | 5.78          |  |
| ZBR422400EG | 8.68   | 24  | 609.6 | 1000 | 4.45          |  |
| ZBR423000EG | 10.50  | 30  | 762.0 | 800  | 3.56          |  |
| ZBR423600EG | 12.52  | 36  | 914.4 | 650  | 2.89          |  |

\*When mounted on 12 gauge channel

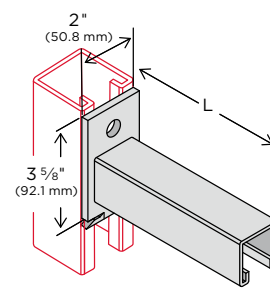
## ZBR43 | Bracket Channel Notched, Up



| CATALOG #   | WEIGHT |     | L     |      | UNIFORM LOAD* |  |
|-------------|--------|-----|-------|------|---------------|--|
|             | lbs.   | in. | mm    | lbs. | kN            |  |
| ZBR430600EG | 1.51   | 6   | 152.4 | 1250 | 5.56          |  |
| ZBR430900EG | 1.97   | 9   | 228.6 | 1000 | 4.45          |  |
| ZBR431200EG | 2.55   | 12  | 304.8 | 750  | 3.34          |  |
| ZBR431800EG | 3.51   | 18  | 457.2 | 500  | 2.22          |  |
| ZBR432400EG | 4.28   | 24  | 609.6 | 350  | 1.56          |  |

\*When mounted on 12 gauge channel

## ZBR44 | Bracket Channel Notched, Down



| CATALOG #   | WEIGHT |     | L     |      | UNIFORM LOAD* |  |
|-------------|--------|-----|-------|------|---------------|--|
|             | lbs.   | in. | mm    | lbs. | kN            |  |
| ZBR440600EG | 1.51   | 6   | 152.4 | 1250 | 5.56          |  |
| ZBR440900EG | 1.97   | 9   | 228.6 | 1000 | 4.45          |  |
| ZBR441200EG | 2.55   | 12  | 304.8 | 750  | 3.34          |  |
| ZBR441800EG | 3.51   | 18  | 457.2 | 500  | 2.22          |  |
| ZBR442400EG | 4.28   | 24  | 609.6 | 350  | 1.56          |  |

\*When mounted on 12 gauge channel

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

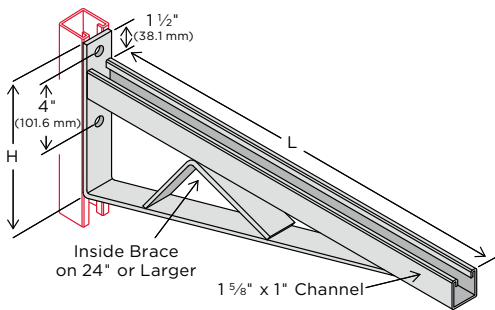


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# Brackets

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

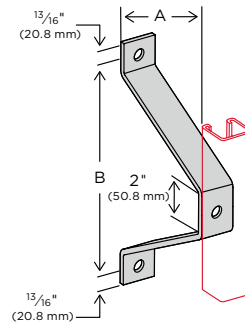
## ZBR45 | Bracket Channel



| CATALOG #   | WEIGHT |     | L       |        | H     |      | UNIFORM LOAD* |  |
|-------------|--------|-----|---------|--------|-------|------|---------------|--|
|             | lbs.   | in. | mm      | in.    | mm    | lbs. | kN            |  |
| ZBR451200EG | 3.71   | 12  | 304.8   | 8 3/4  | 222.2 | 1550 | 6.89          |  |
| ZBR451800EG | 4.88   | 18  | 457.2   | 8 3/4  | 222.2 | 1000 | 4.45          |  |
| ZBR452400EG | 7.41   | 24  | 609.6   | 8 3/4  | 222.2 | 950  | 4.23          |  |
| ZBR453000EG | 9.88   | 30  | 762.0   | 11 1/4 | 285.7 | 900  | 4.00          |  |
| ZBR453600EG | 10.83  | 36  | 914.4   | 11 1/4 | 285.7 | 850  | 3.78          |  |
| ZBR453800EG | 11.28  | 38  | 965.2   | 11 1/4 | 285.7 | 800  | 3.56          |  |
| ZBR454200EG | 13.25  | 42  | 1066.38 | 16     | 406.4 | 600  | 2.67          |  |
| ZBR454800EG | 14.58  | 48  | 1219.2  | 16     | 406.4 | 500  | 2.22          |  |

\*When mounted on 12 gauge channel

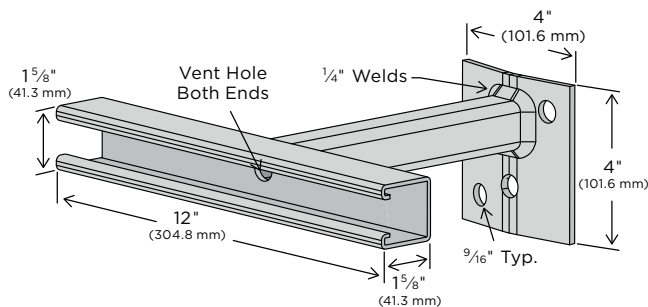
## ZBR47 | Ladder Bracket



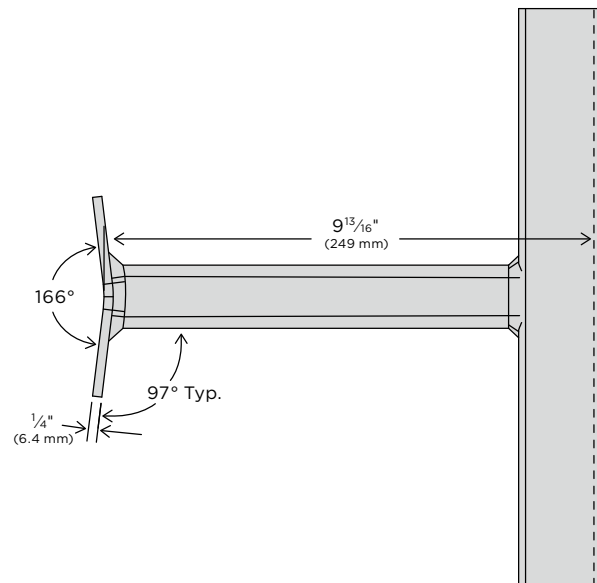
| CATALOG #   | A      | B   | WEIGHT |
|-------------|--------|-----|--------|
|             | in.    | in. | lbs.   |
| ZBR470237EG | 2 3⁄8  | 6   | 1.10   |
| ZBR470437EG | 4 3⁄8  | 8   | 1.64   |
| ZBR470637EG | 6 3⁄8  | 10  | 2.00   |
| ZBR470837EG | 8 3⁄8  | 12  | 2.53   |
| ZBR471037EG | 10 3⁄8 | 14  | 3.28   |

## ZBR50 | Utility Pole Bracket — Extended Standoff

Standard finish is Hot-Dip Galvanized



| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   |  |
| ZBR501000EG | 2.36   |  |



Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



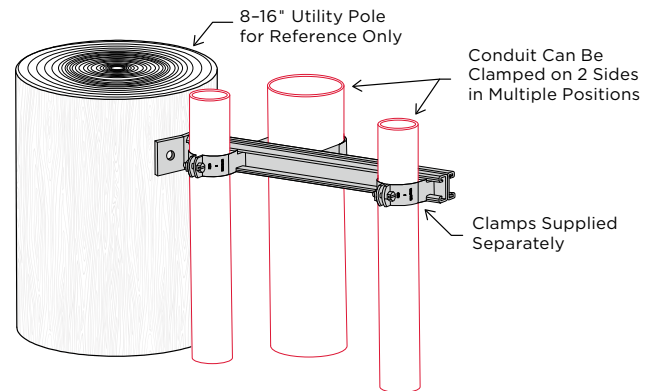
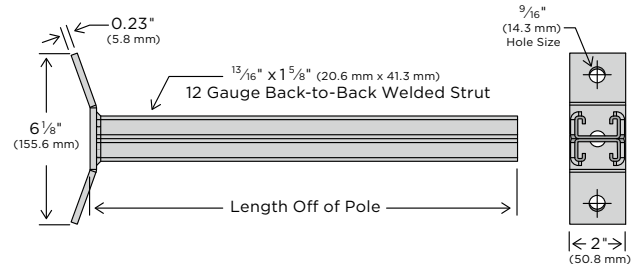
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# Brackets

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZPB1 | Extended Riser Bracket

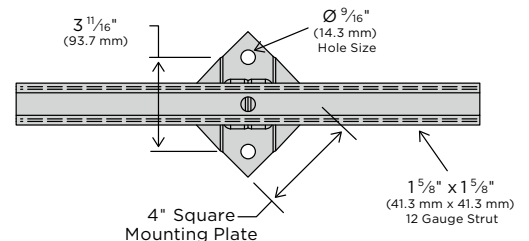
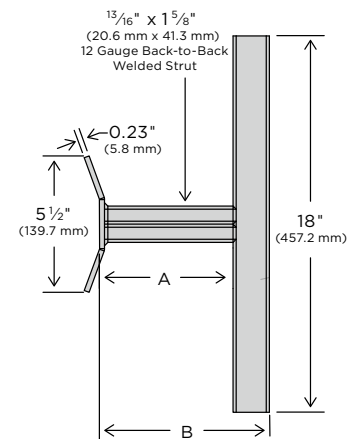
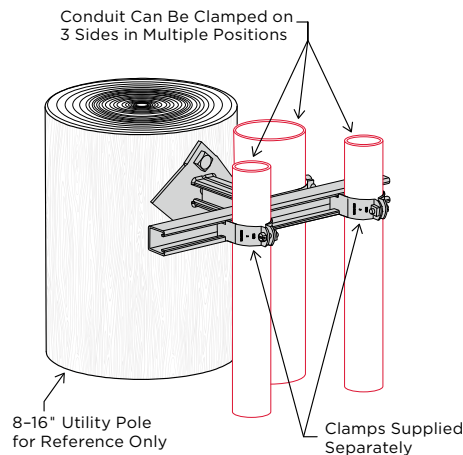
- With  $\frac{13}{16}$ " strut back-to-back
- Standard finish: Hot-Dip Galvanized
- Conduit can be clamped on 2 sides and in multiple positions
- Can also be supplied in 304 or 316 stainless steel upon request
- One-piece design allows for ease of installation (lag screws not supplied)



| CATALOG #  | LENGTH OF STRUT |     | WEIGHT |
|------------|-----------------|-----|--------|
|            | in.             | mm  | lbs.   |
| ZPB11200HD | 12              | 305 | 2.76   |
| ZPB11800HD | 18              | 457 | 4.09   |

## ZPB5 | Standoff Riser Bracket

- With  $\frac{13}{16}$ " strut back-to-back
- Standard finish: Hot-Dip Galvanized
- Conduit can be clamped on 3 sides and in multiple positions
- Can also be supplied in 304 or 316 stainless steel upon request
- One-piece design allows for ease of installation (lag screws not supplied)



| CATALOG #  | A     |     | B      |     | WEIGHT |
|------------|-------|-----|--------|-----|--------|
|            | in.   | mm  | in.    | mm  | lbs.   |
| ZPB50618HD | 6     | 152 | 7 1/8  | 200 | 5.16   |
| ZPB50918HD | 8 1/2 | 216 | 10 1/8 | 276 | 5.82   |



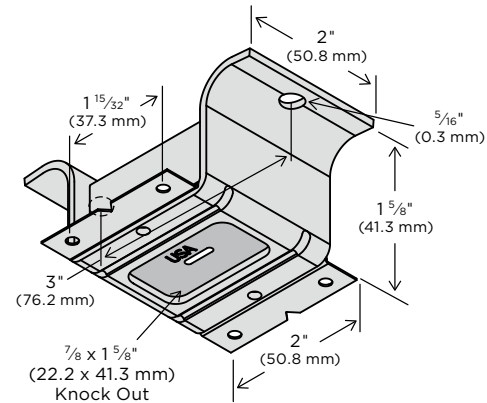
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Concrete Inserts

Standard finishes are Electro-Galvanized (EG) and Plain (PL)  
Product finishes and materials are on [page 11](#)

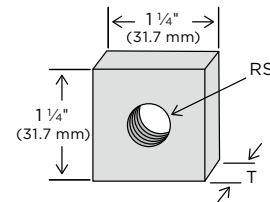
## ZCI | Concrete Insert

| CATALOG # | WEIGHT | DESIGN LOAD |      |
|-----------|--------|-------------|------|
|           | lbs.   | lbs.        | kN   |
| ZCI0000EG | 0.44   | 600         | 2.67 |
| ZCI0000PL | 0.42   | 600         | 2.67 |



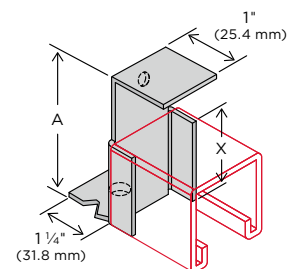
## ZCIN | Concrete Insert Nut

| CATALOG #    |            | WEIGHT | RS      | T<br>(THICKNESS) |
|--------------|------------|--------|---------|------------------|
| PLAIN FINISH | EG FINISH  | lbs.   |         | in.              |
| ZCIN0025PL   | ZCIN0025EG | 0.11   | 1/4"-20 | 1/4              |
| ZCIN0037PL   | ZCIN0037EG | 0.16   | 3/8"-16 | 1/4              |
| ZCIN0050PL   | ZCIN0050EG | 0.20   | 1/2"-13 | 5/16             |
| ZCIN0062PL   | ZCIN0062EG | 0.18   | 5/8"-11 | 5/16             |
| ZCIN0075PL   | ZCIN0075EG | 0.17   | 3/4"-10 | 1/2              |
| ZCIN0087PL   | ZCIN0087EG | 0.15   | 7/8"-9  | 1/2              |



## ZCI20, ZCI21, ZCI22 | Concrete End Cap Anchor

| CATALOG #   | FOR USE WITH<br>12 GAUGE CHANNEL | X     | A     | WEIGHT |
|-------------|----------------------------------|-------|-------|--------|
|             | in.                              | in.   | in.   | lbs.   |
| ZCI200000EG | 1 5/8 x 1 5/8                    | 1.415 | 3 3/4 | 0.10   |
| ZCI210000EG | 1 5/8 x 1 3/8                    | 1.170 | 2 3/4 | 0.10   |
| ZCI220000EG | 1 5/8 x 1                        | 0.790 | 2 1/2 | 0.10   |

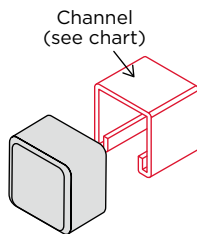


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# End Caps

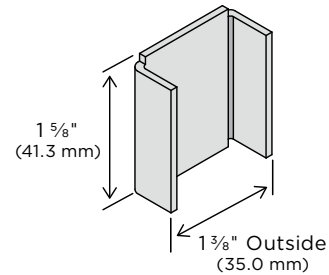
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## **ZEC07, ZEC08, ZEC09** | Plastic End Cap *Standard finish is Vinyl (VC)*



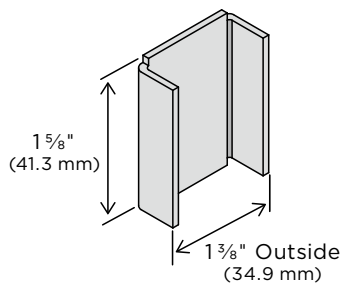
| CATALOG #    | FOR USE WITH CHANNEL | WEIGHT<br>lbs. | COLOR |
|--------------|----------------------|----------------|-------|
|              | in.                  |                |       |
| ZEC080000VC  | 1 5/8 x 1 5/16       | 0.03           | White |
| ZEC080000RVC |                      | 0.03           | Red   |
| ZEC090000VC  | 1 5/8 x 1 5/8        | 0.04           | White |
| ZEC090000RVC |                      | 0.05           | Red   |
| ZEC070000VC  | 1 5/8 x 3/4          | 0.05           | White |
| ZEC070000RVC |                      | 0.05           | Red   |

## **ZEC10** | End Cap (1 5/8" 12 Ga. Channel)



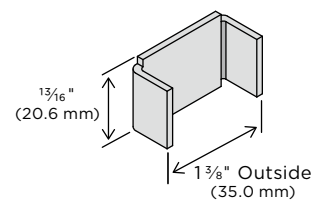
| CATALOG #   | WEIGHT<br>lbs. |
|-------------|----------------|
| ZEC100000EG | 0.08           |

## **ZEC11** | End Cap (1 5/8" 14 Ga. Channel)



| CATALOG #   | WEIGHT<br>lbs. |
|-------------|----------------|
| ZEC110000EG | 0.08           |

## **ZEC12** | End Cap (1 3/16" 12 Ga. or 14 Ga. Channel)



| CATALOG #   | WEIGHT<br>lbs. |
|-------------|----------------|
| ZEC120000EG | 0.04           |



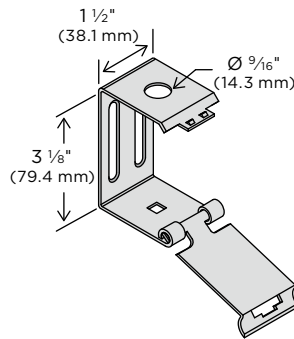
**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# Electrical

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

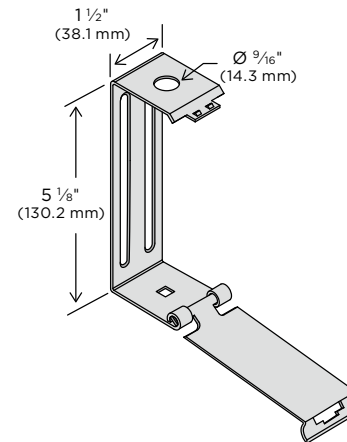
## **ZEF10** | Hinged Fluorescent Fixture Hanger 1 5/8" channel, 9/16" hole



Maximum loading 120 lbs. (0.53 kN)  
May be used as a channel hanger  
ZEF46 required for fixture attachment (page 66)

| CATALOG #          | WEIGHT |
|--------------------|--------|
|                    | lbs.   |
| <b>ZEF100000EG</b> | 0.35   |

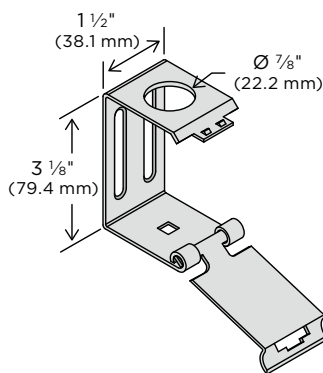
## **ZEF11** | Hinged Fluorescent Fixture Hanger 3 1/4" channel, 9/16" hole



Maximum loading 120 lbs. (0.53 kN)  
May be used as a channel hanger  
ZEF46 required for fixture attachment (page 66)

| CATALOG #          | WEIGHT |
|--------------------|--------|
|                    | lbs.   |
| <b>ZEF110000EG</b> | 0.44   |

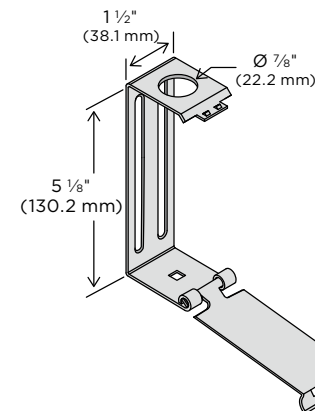
## **ZEF12** | Hinged Fluorescent Fixture Hanger 1 5/8" channel, 7/8" hole



Maximum loading 120 lbs. (0.53 kN)  
May be used as a channel hanger  
ZEF46 required for fixture attachment (page 66)

| CATALOG #          | WEIGHT |
|--------------------|--------|
|                    | lbs.   |
| <b>ZEF120000EG</b> | 0.26   |

## **ZEF13** | Hinged Fluorescent Fixture Hanger 3 1/4" channel, 7/8" hole



Maximum loading 120 lbs. (0.53 kN)  
May be used as a channel hanger  
ZEF46 required for fixture attachment (page 66)

| CATALOG #          | WEIGHT |
|--------------------|--------|
|                    | lbs.   |
| <b>ZEF130000EG</b> | 0.45   |

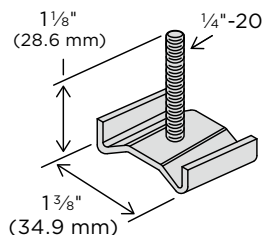


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Electrical

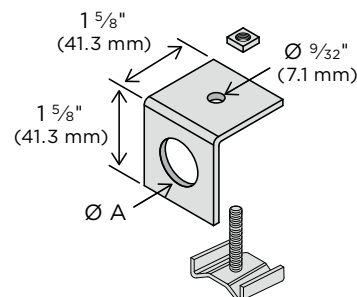
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZEF19 | Fixture Stud Nut



| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF190000EG | 0.03   |

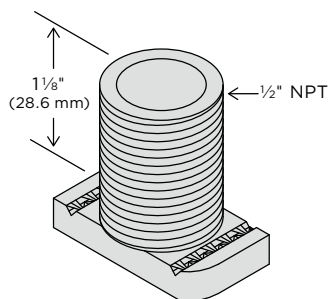
## ZEF20 | End Cap Knock Out With Hardware



Includes:  
Qty 1—ZEF19 Fixture Stud Nut  
Qty 1—1/4"-20 Square Nut

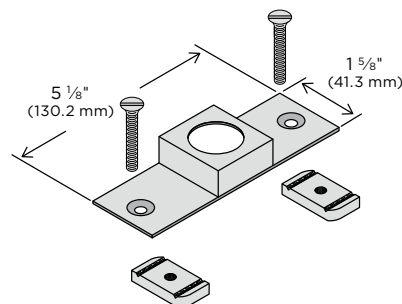
| CATALOG #   | WEIGHT |     | Ø A  |
|-------------|--------|-----|------|
|             | lbs.   | in. | mm   |
| ZEF200050EG | 0.26   | 1/2 | 12.7 |
| ZEF200075EG | 0.21   | 3/4 | 19.0 |

## ZEF21 | Wiring Stud Standard finish is Aluminum (AL)



| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF210000AL | 0.07   |

## ZEF22 | Conduit Connection Plate With Hardware



Includes:  
Qty 2—ZC20025 Channel Nuts  
Qty 2—1/4"-20 Flathead Machine Screws

| CATALOG #   | WEIGHT |     | CONDUIT SIZE |
|-------------|--------|-----|--------------|
|             | lbs.   | in. | mm           |
| ZEF220050EG | 0.35   | 1/2 | 12.7         |
| ZEF220075EG | 0.35   | 3/4 | 19.0         |

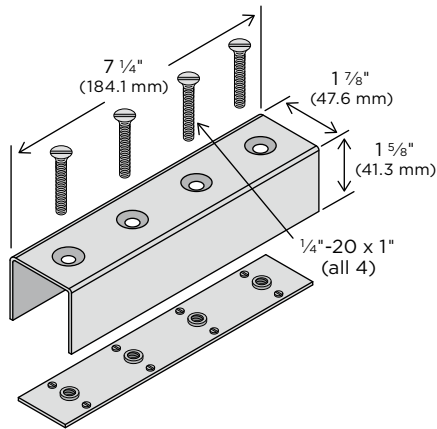


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# Electrical

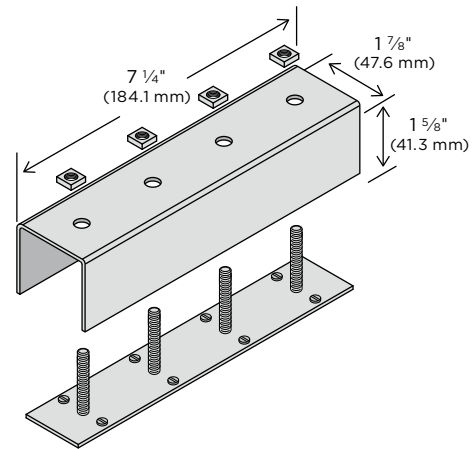
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZEF30 | Channel Splice 4 Hole Assembly With Tapped Plate and Hardware



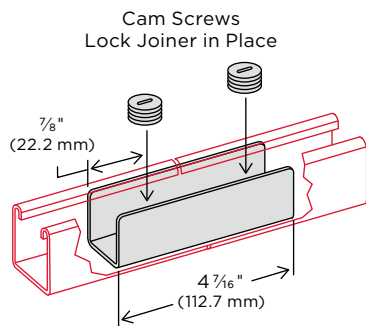
| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF300000EG | 1.06   |

## ZEF31 | Channel Splice 4 Hole Assembly With Stud Plate and Hardware



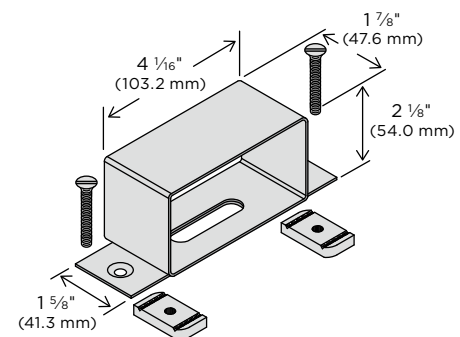
| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF310000EG | 1.05   |

## ZEF33 | Inside Strut Joiner for 1 3/16 inch or 1 5/8 inch Channel



| CATALOG #   | USE WITH        | WEIGHT |
|-------------|-----------------|--------|
|             |                 | lbs.   |
| ZEF330081EG | 1 3/16" channel | 0.31   |
| ZEF330162EG | 1 5/8" channel  | 0.55   |

## ZEF40 | Outlet Box Bolt Down With Hardware



Includes:  
Qty 2 — ZCNN20025 Channel Nuts  
Qty 2 — 1/4"-20 Flathead Machine Screws

| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF400000EG | 0.92   |

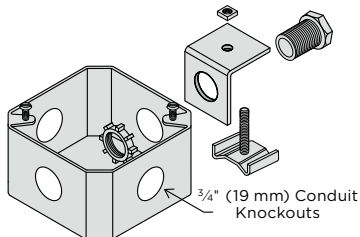


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# Electrical

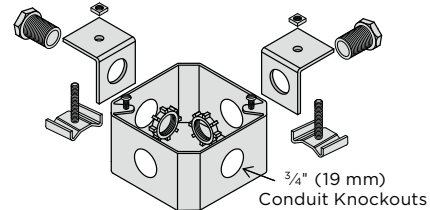
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZEF41 | Junction Box Universal With 1 Conduit Attachment



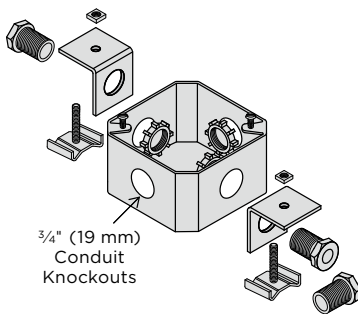
| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   | Includes:  |
| ZEF410000EG | 1.92   | Qty 1—ZEF200075EG<br>Qty 1— $\frac{3}{4}$ " Bushing With Nut |

## ZEF42 | Junction Box Universal With 2 Connectors at 90°



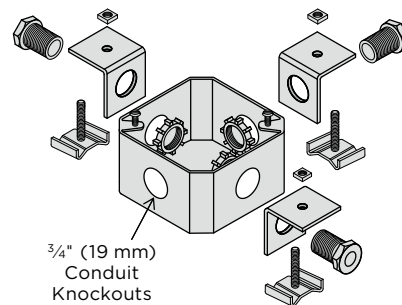
| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   | Includes:  |
| ZEF420000EG | 2.34   | Qty 2—ZEF200075EG<br>Qty 2— $\frac{3}{4}$ " Bushing With Nut |

## ZEF43 | Junction Box Universal With 2 Connectors Opposite



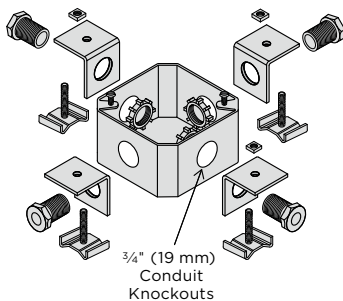
| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   | Includes:  |
| ZEF430000EG | 2.34   | Qty 2—ZEF200075EG<br>Qty 2— $\frac{3}{4}$ " Bushing With Nut |

## ZEF44 | Junction Box Universal With 3 Conduit Attachments



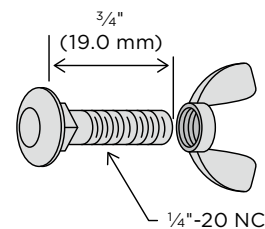
| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   | Includes:  |
| ZEF440000EG | 2.55   | Qty 3—ZEF200075EG<br>Qty 3— $\frac{3}{4}$ " Bushing With Nut |

## ZEF45 | Junction Box Universal with 4 Connectors



| CATALOG #   | WEIGHT |  |
|-------------|--------|--|
|             | lbs.   | Includes:  |
| ZEF450000EG | 2.76   | Qty 4—ZEF200075EG<br>Qty 4— $\frac{3}{4}$ " Bushing With Nut |

## ZEF46 | $\frac{1}{4}$ " x $\frac{3}{4}$ " Carriage Bolt and $\frac{1}{4}$ " Wing Nut



| CATALOG #   | WEIGHT |
|-------------|--------|
|             | lbs.   |
| ZEF460000EG | 0.03   |

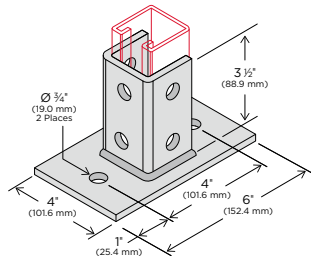


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# Post Bases

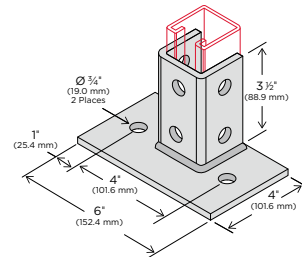
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZP10 | Post Base Single Channel 2 Hole Square



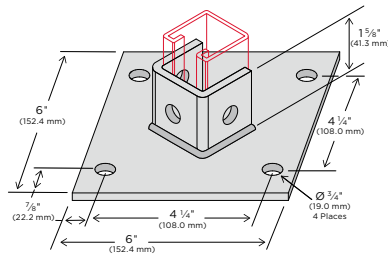
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP100000EG</b> | 2.79   |

## ZP11 | Post Base Single Channel 2 Hole Square Flush



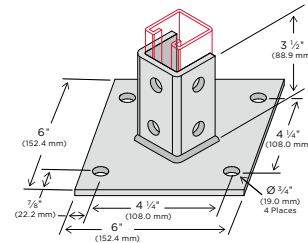
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP110000EG</b> | 2.79   |

## ZP12 | Post Base Single Channel 4 Hole Standard 1 5/8"



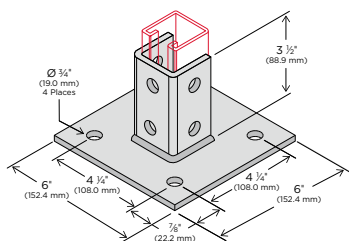
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP120000EG</b> | 2.96   |

## ZP13 | Post Base Single Channel 4 Hole Standard 3 1/2"



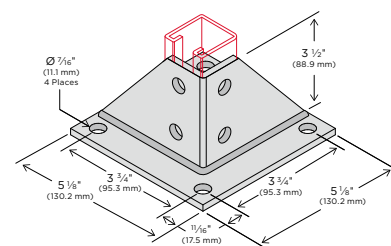
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP130000EG</b> | 3.56   |

## ZP14 | Post Base Single Channel 4 Hole Square 3 1/2"



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP140000EG</b> | 3.53   |

## ZP15 | Post Base Single Channel Gusset 4 Hole Square 3 1/2"



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP150000EG</b> | 2.88   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

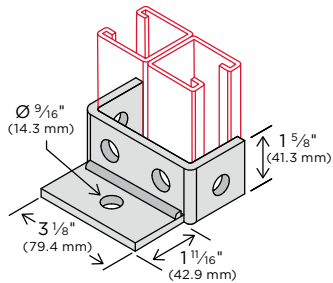


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# Post Bases

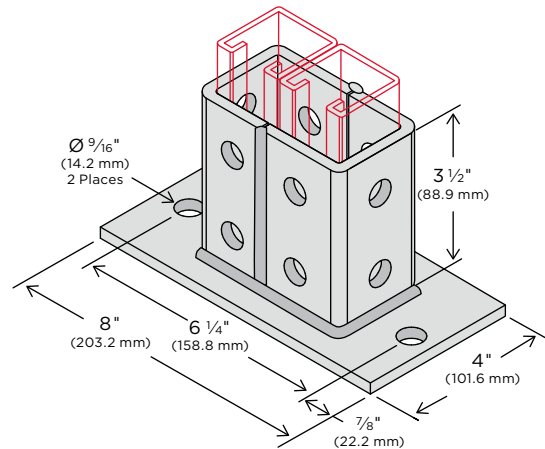
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZP16 | Post Base Double Channel 1 Hole Square 1 5/8"



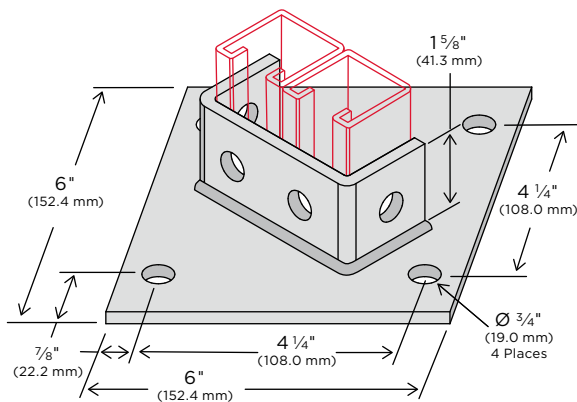
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZP160000EG | 1.16   |

## ZP17 | Post Base Double Channel 2 Hole Square 3 1/2" Boxed



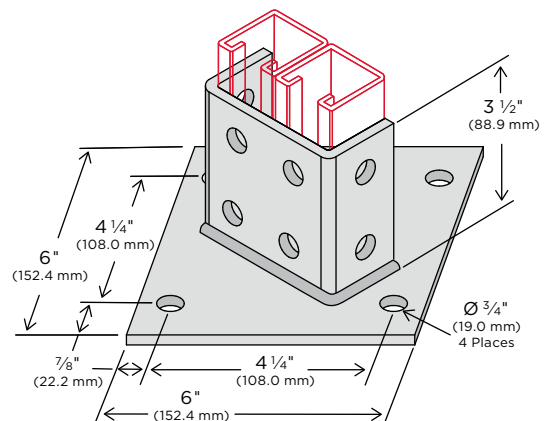
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZP170000EG | 3.11   |

## ZP18 | Post Base Double Channel 4 Hole Standard 1 5/8"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZP180000EG | 3.10   |

## ZP19 | Post Base Double Channel 4 Hole Standard 3 1/2"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZP190000EG | 3.87   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

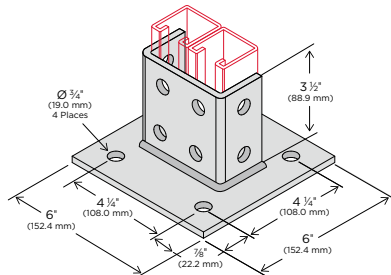


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# Post Bases

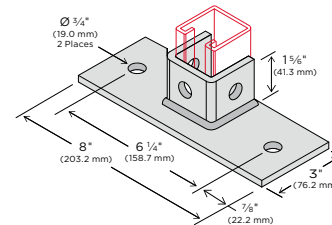
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZP20 | Post Base Double Channel 4 Hole Square 3 1/2"



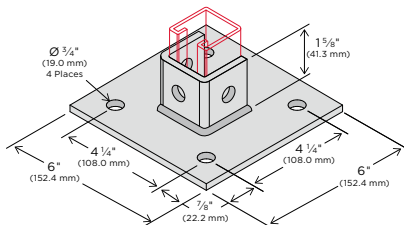
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP200000EG</b> | 3.88   |

## ZP21 | Post Base Single Channel 2 Hole Square Flush 1 5/8"



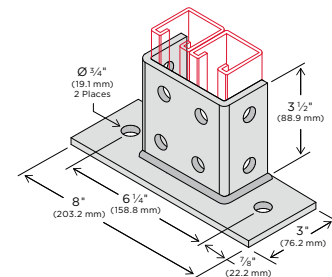
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP210000EG</b> | 2.30   |

## ZP22 | Post Base Single Channel 4 Hole Square 1 5/8"



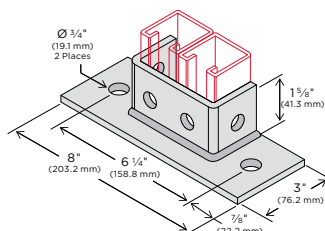
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP220000EG</b> | 2.96   |

## ZP23 | Post Base Double Channel 2 Hole Square Flush 3 1/2"



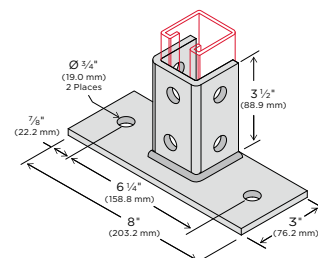
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP230000EG</b> | 3.20   |

## ZP24 | Post Base Double Channel 2 Hole Square Flush 1 5/8"



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP240000EG</b> | 2.5    |

## ZP26 | Post Base Single Channel 2 Hole Square Flush 3 1/2"



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZP260000EG</b> | 3.12   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 3/8" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

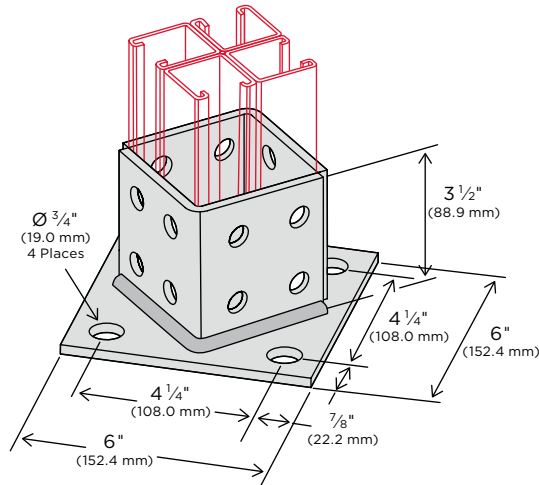


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# Post Bases

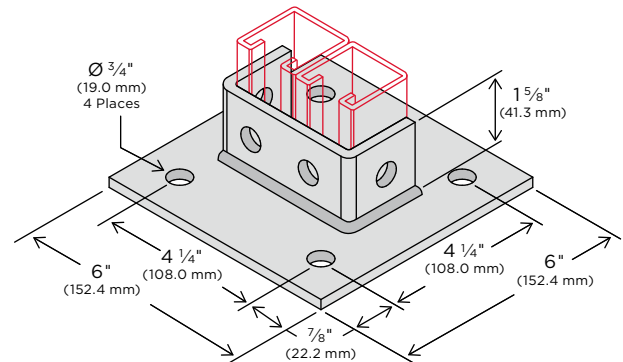
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZP27 | Post Base Four Channel Combinations 4 Hole Standard 3 1/2"



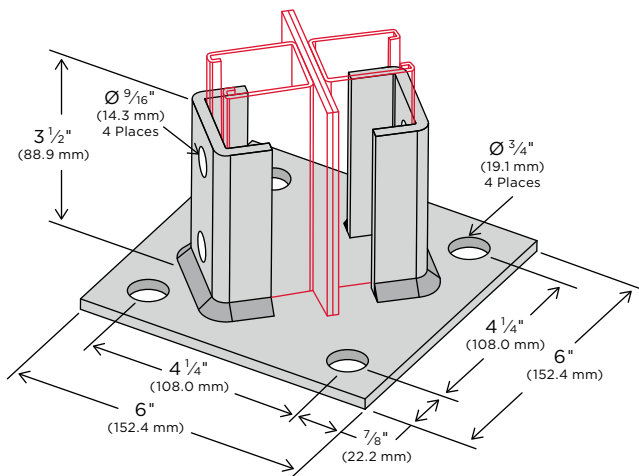
| CATALOG #  | WEIGHT |
|------------|--------|
| lbs.       |        |
| ZP270000EG | 5.50   |

## ZP28 | Post Base Double Channel 4 Hole Square 1 5/8"



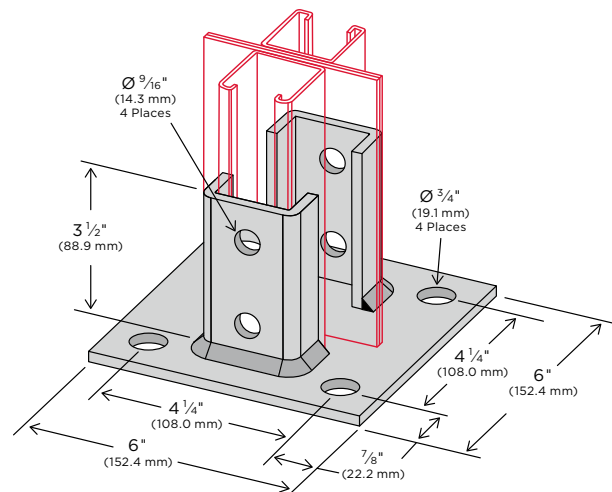
| CATALOG #  | WEIGHT |
|------------|--------|
| lbs.       |        |
| ZP280000EG | 3.30   |

## ZP29 | Post Base Double Channel 4 Hole Standard 3 1/2"



| CATALOG #  | WEIGHT |
|------------|--------|
| lbs.       |        |
| ZP290000EG | 3.88   |

## ZP30 | Post Base Double Channel 4 Hole Square 3 1/2"



| CATALOG #  | WEIGHT |
|------------|--------|
| lbs.       |        |
| ZP300000EG | 3.88   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



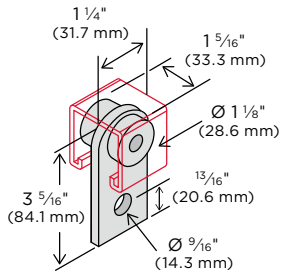
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# Rollers

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZR10 | Roller Trolley 2 Bearing Assembly



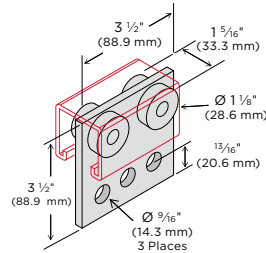
Stainless steel  
ball bearings  
(not to be  
lubricated)

Note: Plate also  
available in  
stainless steel

| FPM | RPM | DESIGN LOAD<br>12 GA. CHANNEL |      |
|-----|-----|-------------------------------|------|
|     |     | lbs.                          | kN   |
| 180 | 600 | 150                           | 0.67 |
| 90  | 300 | 225                           | 1.00 |
| 30  | 100 | 437                           | 1.94 |

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZR100000EG | 0.46   |

## ZR11 | Roller Trolley 4 Bearing Assembly



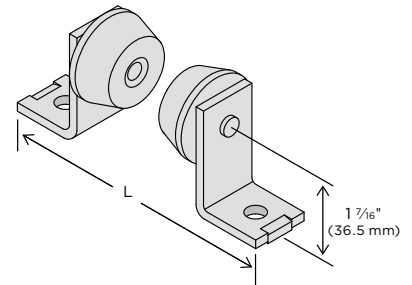
Stainless steel  
ball bearings  
(not to be  
lubricated)

Note: Plate also  
available in  
stainless steel

| FPM | RPM | DESIGN LOAD<br>12 GA. CHANNEL |      |
|-----|-----|-------------------------------|------|
|     |     | lbs.                          | kN   |
| 180 | 600 | 300                           | 1.33 |
| 90  | 300 | 450                           | 2.00 |
| 30  | 100 | 600                           | 2.67 |

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZR110000EG | 1.19   |

## ZR20 | Pipe Roller 1-4" Pipe

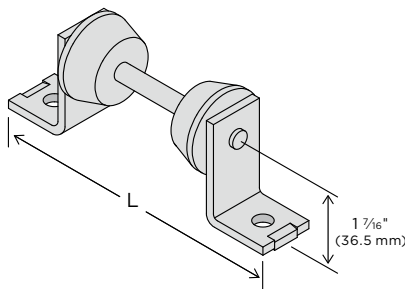


Max load rating of 500 lbs. (2.22 kN)  
with 12 ga. channel

See next page for dimensions L and CL  
(center line)

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZR201040EG | 2.61   |

## ZR21 | Pipe Roller

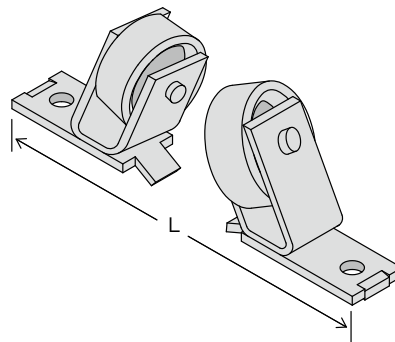


Max load rating of 750 lbs. (3.34 kN)  
with 12 ga. channel

See next page for dimensions L and CL  
(center line)

| CATALOG #  | WEIGHT | PIPE OD |         |
|------------|--------|---------|---------|
|            |        | lbs.    | in. mm  |
| ZR213740EG | 2.66   | 3 3/4-4 | 95-102  |
| ZR214360EG | 2.71   | 4 3/8-6 | 111-152 |
| ZR216380EG | 2.75   | 6 3/8-8 | 162-203 |
| ZR219010EG | 2.79   | 9-10    | 229-254 |

## ZR22 | Pipe Roller Heavy Duty 6"-16" Pipe

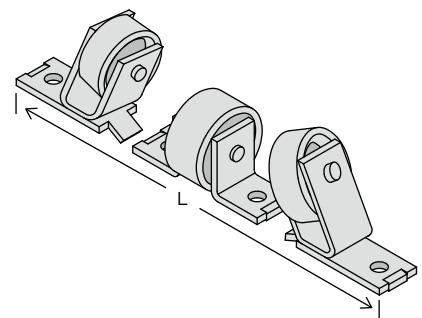


Max load rating of 1500 lbs. (6.67 kN)  
with 12 ga. channel

See page 73 for dimensions L and CL  
(center line)

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZR220000EG | 8.89   |

## ZR23 | Pipe Roller Heavy Duty 16"-24" Pipe



Max load rating of 2000 lbs. (8.90 kN)  
with 12 ga. channel

See page 73 for dimensions L and CL  
(center line)

| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZR230000EG | 14.72  |



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Rollers

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## DIMENSION INFORMATION FOR ZR20 & ZR21

| PIPE SIZE | PIPE COVERING THICKNESS |      | ACTUAL OD OF PIPE + SHIELD + INSULATION |       | DIMENSION L |       | DIMENSION CL |       |
|-----------|-------------------------|------|---|-------|-------------|-------|--------------|-------|
|           | in.                     | mm   | in.                                     | mm    | in.         | mm    | in.          | mm    |
| 3/4       | 0                       | 0.0  | 1 1/16                                  | 27.0  | 6 1/2       | 165.1 | 2 15/16      | 74.6  |
|           | 7/8                     | 22.2 | 3 1/4                                   | 82.6  | 6 1/2       | 165.1 | 4 1/8        | 104.8 |
|           | 1 1/16                  | 36.5 | 4 3/8                                   | 111.1 | 8 3/4       | 209.6 | 4 7/16       | 112.7 |
|           | 1 7/8                   | 47.6 | 5 3/8                                   | 136.5 | 8 3/4       | 209.6 | 4 15/16      | 125.4 |
| 1         | 0                       | 0.0  | 1 1/16                                  | 33.3  | 6 1/2       | 165.1 | 3 1/8        | 79.4  |
|           | 1 1/16                  | 27.0 | 3 5/8                                   | 92.1  | 7 1/4       | 184.2 | 4 1/4        | 108.0 |
|           | 1 1/16                  | 39.7 | 4 5/8                                   | 117.5 | 8 3/4       | 209.6 | 4 9/16       | 115.9 |
|           | 2 1/8                   | 54.0 | 5 3/4                                   | 146.1 | 8 3/4       | 209.6 | 5 1/8        | 130.2 |
| 1 1/4     | 0                       | 0.0  | 1 1/16                                  | 42.9  | 6 1/2       | 165.1 | 3 5/16       | 84.1  |
|           | 7/8                     | 22.2 | 3 3/8                                   | 98.4  | 7 1/4       | 184.2 | 4 5/16       | 109.5 |
|           | 1 1/8                   | 41.3 | 5 1/8                                   | 130.2 | 8 3/4       | 209.6 | 4 13/16      | 122.2 |
|           | 1 5/16                  | 49.2 | 6                                       | 152.4 | 8 3/4       | 209.6 | 5 1/4        | 133.4 |
| 1 1/2     | 2 1/16                  | 61.9 | 7 1/2                                   | 190.5 | 9 3/4       | 235.0 | 5 7/8        | 149.2 |
|           | 0                       | 0.0  | 1 7/8                                   | 47.6  | 6 1/2       | 165.1 | 3 3/8        | 85.7  |
|           | 1                       | 25.4 | 4 1/4                                   | 108.0 | 8 3/4       | 209.6 | 4 3/8        | 111.1 |
|           | 1 1/2                   | 38.1 | 5 1/4                                   | 133.4 | 8 3/4       | 209.6 | 4 7/8        | 123.8 |
| 2         | 2 5/16                  | 58.7 | 6 3/8                                   | 168.3 | 9 3/4       | 235.0 | 5 7/16       | 138.1 |
|           | 2 13/16                 | 71.4 | 7 3/4                                   | 196.9 | 9 3/4       | 235.0 | 6            | 152.4 |
|           | 0                       | 0.0  | 2 3/8                                   | 60.3  | 6 1/2       | 165.1 | 3 11/16      | 93.7  |
|           | 1 1/16                  | 27.0 | 4 3/4                                   | 120.7 | 8 3/4       | 209.6 | 4 5/8        | 117.5 |
| 2 1/2     | 1 1/16                  | 39.7 | 5 3/4                                   | 146.1 | 8 3/4       | 209.6 | 5 1/8        | 130.2 |
|           | 2 1/8                   | 54.0 | 7 1/8                                   | 181.0 | 9 3/4       | 235.0 | 5 11/16      | 144.5 |
|           | 2 5/8                   | 66.7 | 8 1/8                                   | 206.4 | 10 3/8      | 257.2 | 6 1/16       | 154.0 |
|           | 3 1/8                   | 79.4 | 9 1/8                                   | 231.8 | 10 3/8      | 257.2 | 6 5/8        | 168.3 |
| 3         | 0                       | 0.0  | 2 7/8                                   | 73.0  | 6 1/2       | 165.1 | 3 15/16      | 100.0 |
|           | 1 1/16                  | 27.0 | 5 3/8                                   | 136.5 | 8 3/4       | 209.6 | 4 15/16      | 125.4 |
|           | 1 7/8                   | 47.6 | 6 3/8                                   | 168.3 | 9 3/4       | 235.0 | 5 7/16       | 138.1 |
|           | 2 5/16                  | 58.7 | 7 3/4                                   | 196.9 | 9 3/4       | 235.0 | 6            | 152.4 |
| 3 1/2     | 2 7/8                   | 73.0 | 8 1/2                                   | 215.9 | 9 3/4       | 235.0 | 6 7/16       | 163.5 |
|           | 3 3/8                   | 85.7 | 9 3/4                                   | 247.7 | 9 3/4       | 235.0 | 7 1/16       | 179.4 |
|           | 0                       | 0.0  | 3 1/2                                   | 88.9  | 7 1/4       | 184.2 | 4 1/8        | 104.8 |
|           | 1                       | 25.4 | 5 7/8                                   | 149.2 | 8 3/4       | 209.6 | 5 1/4        | 133.4 |
| 4         | 1 1/16                  | 39.7 | 7 1/4                                   | 184.2 | 9 3/4       | 235.0 | 5 3/4        | 146.1 |
|           | 2 1/16                  | 52.4 | 8 1/4                                   | 209.6 | 10 3/8      | 257.2 | 6 1/8        | 155.6 |
|           | 2 5/16                  | 65.1 | 9 1/8                                   | 231.8 | 10 3/8      | 257.2 | 6 3/4        | 171.5 |
|           | 3 1/16                  | 77.8 | 10 1/8                                  | 257.2 | 10 3/8      | 257.2 | 7            | 177.8 |

| PIPE SIZE | PIPE COVERING THICKNESS |       | ACTUAL OD OF PIPE + SHIELD + INSULATION |       | DIMENSION L |       | DIMENSION CL |       |
|-----------|-------------------------|-------|---|-------|-------------|-------|--------------|-------|
|           | in.                     | mm    | in.                                     | mm    | in.         | mm    | in.          | mm    |
| 3 1/2     | 0                       | 0.0   | 4                                       | 101.6 | 7 1/4       | 184.2 | 4 3/8        | 111.1 |
|           | 1 1/4                   | 31.8  | 6 3/8                                   | 168.3 | 9 1/4       | 235.0 | 5 7/16       | 138.1 |
|           | 1 3/16                  | 46.0  | 7 3/8                                   | 187.3 | 9 1/4       | 235.0 | 5 13/16      | 147.6 |
|           | 2 1/4                   | 57.2  | 8 3/8                                   | 219.1 | 10 1/8      | 257.2 | 6 3/8        | 161.9 |
| 4         | 2 3/4                   | 69.9  | 9 3/8                                   | 238.1 | 10 1/8      | 257.2 | 6 3/4        | 171.5 |
|           | 3 5/16                  | 84.1  | 10 3/4                                  | 273.1 | 10 7/8      | 276.2 | 7 3/8        | 187.3 |
|           | 0                       | 0.0   | 4 1/2                                   | 114.3 | 8 3/4       | 209.6 | 4 1/2        | 114.3 |
|           | 1 1/16                  | 27.0  | 7 1/8                                   | 181.0 | 9 3/4       | 235.0 | 5 1/16       | 144.5 |
| 5         | 1 1/16                  | 39.7  | 8 1/8                                   | 206.4 | 10 1/8      | 257.2 | 6 1/16       | 154.0 |
|           | 2 1/16                  | 52.4  | 9 1/8                                   | 231.8 | 10 1/8      | 257.2 | 6 3/8        | 168.3 |
|           | 2 5/16                  | 65.1  | 10                                      | 254.0 | 10 1/8      | 257.2 | 7 1/16       | 179.4 |
|           | 3 1/16                  | 77.8  | 11 1/4                                  | 285.8 | 10 7/8      | 276.2 | 7 3/8        | 193.7 |
| 6         | 4 1/16                  | 103.2 | 13                                      | 330.2 | 10 7/8      | 276.2 | 8 1/16       | 217.5 |
|           | 0                       | 0.0   | 5 3/8                                   | 142.9 | 8 3/4       | 209.6 | 5 1/16       | 128.6 |
|           | 1                       | 25.4  | 8 3/4                                   | 209.6 | 10 1/8      | 257.2 | 6 1/8        | 155.6 |
|           | 1 1/2                   | 38.1  | 9 3/8                                   | 238.1 | 10 1/8      | 257.2 | 6 3/4        | 171.5 |
| 7         | 2                       | 50.8  | 10 3/8                                  | 263.5 | 10 7/8      | 276.2 | 7 1/8        | 181.0 |
|           | 2 5/16                  | 65.1  | 11 1/4                                  | 285.8 | 10 7/8      | 276.2 | 7 3/8        | 193.7 |
|           | 3 1/16                  | 77.8  | 12 3/8                                  | 314.3 | 10 7/8      | 276.2 | 8 1/8        | 206.4 |
|           | 4 1/16                  | 106.4 | 14 1/4                                  | 362.0 | 10 7/8      | 276.2 | 9 3/16       | 233.4 |
| 8         | 0                       | 0.0   | 6 3/8                                   | 168.3 | 9 3/4       | 235.0 | 5 7/16       | 138.1 |
|           | 1                       | 25.4  | 9                                       | 228.6 | 10 1/8      | 257.2 | 6 1/16       | 154.0 |
|           | 1 1/2                   | 38.1  | 10 3/8                                  | 263.5 | 10 7/8      | 276.2 | 7            | 177.8 |
|           | 2                       | 50.8  | 11                                      | 279.4 | 10 7/8      | 276.2 | 7 1/2        | 190.5 |
| 9         | 2 1/2                   | 63.5  | 12 3/8                                  | 314.3 | 10 7/8      | 276.2 | 8 3/16       | 208.0 |
|           | 3                       | 76.2  | 13 1/2                                  | 342.9 | 10 7/8      | 276.2 | 8 3/8        | 219.1 |
|           | 4 1/8                   | 104.8 | 15 1/8                                  | 384.2 | 10 7/8      | 276.2 | 9 1/16       | 246.1 |
|           | 0                       | 0.0   | 8 3/8                                   | 219.1 | 10 1/8      | 257.2 | 6 3/8        | 161.9 |
| 10        | 1 1/2                   | 38.1  | 12                                      | 304.8 | 10 7/8      | 276.2 | 8            | 203.2 |
|           | 2                       | 50.8  | 13                                      | 330.2 | 10 7/8      | 276.2 | 8 3/16       | 217.5 |
|           | 2 11/16                 | 68.3  | 14 1/2                                  | 368.3 | 10 7/8      | 276.2 | 9 1/16       | 236.5 |
|           | 3 1/8                   | 79.4  | 15 3/8                                  | 390.5 | 10 7/8      | 276.2 | 9 13/16      | 249.2 |
| 11        | 4 1/16                  | 106.4 | 17 3/8                                  | 441.3 | 10 7/8      | 276.2 | 10 7/8       | 276.2 |



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Rollers

Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## DIMENSION INFORMATION FOR ZR22

| PIPE SIZE | PIPE COVERING THICKNESS |       | DIMENSION L                      |       | DIMENSION CL                     |       |
|-----------|-------------------------|-------|----------------------------------|-------|----------------------------------|-------|
|           | in.                     | mm    | in.                              | mm    | in.                              | mm    |
| 6         | 0                       | 0.0   | 10 <sup>3</sup> / <sub>16</sub>  | 258.8 | 6 <sup>7</sup> / <sub>8</sub>    | 174.6 |
|           | 1                       | 25.4  | 10 <sup>1</sup> / <sub>2</sub>   | 266.7 | 7 <sup>7</sup> / <sub>8</sub>    | 200.0 |
|           | 1 1/2                   | 38.1  | 10 <sup>1</sup> / <sub>2</sub>   | 271.5 | 8 <sup>3</sup> / <sub>8</sub>    | 212.7 |
|           | 2                       | 50.8  | 10 <sup>13</sup> / <sub>16</sub> | 274.6 | 8 <sup>7</sup> / <sub>8</sub>    | 225.4 |
|           | 2 1/2                   | 63.5  | 10 <sup>15</sup> / <sub>16</sub> | 277.8 | 9 <sup>3</sup> / <sub>8</sub>    | 238.1 |
|           | 3                       | 76.2  | 11 <sup>3</sup> / <sub>8</sub>   | 288.9 | 9 <sup>7</sup> / <sub>8</sub>    | 250.8 |
| 8         | 4                       | 101.6 | 11 <sup>7</sup> / <sub>8</sub>   | 290.5 | 10 <sup>15</sup> / <sub>16</sub> | 277.8 |
|           | 0                       | 0.0   | 10 <sup>7</sup> / <sub>8</sub>   | 276.2 | 7 <sup>13</sup> / <sub>16</sub>  | 198.4 |
|           | 1                       | 25.4  | 11 <sup>3</sup> / <sub>16</sub>  | 284.2 | 8 <sup>7</sup> / <sub>8</sub>    | 225.4 |
|           | 1 1/2                   | 38.1  | 11 <sup>3</sup> / <sub>8</sub>   | 288.9 | 9 <sup>3</sup> / <sub>8</sub>    | 238.1 |
|           | 2                       | 50.8  | 11 1/2                           | 292.1 | 9 <sup>7</sup> / <sub>8</sub>    | 250.8 |
|           | 2 1/2                   | 63.5  | 11 <sup>5</sup> / <sub>8</sub>   | 295.3 | 10 <sup>7</sup> / <sub>16</sub>  | 265.1 |
| 10        | 3                       | 76.2  | 12 <sup>1</sup> / <sub>16</sub>  | 306.4 | 10 <sup>15</sup> / <sub>16</sub> | 277.8 |
|           | 4                       | 101.6 | 12 <sup>1</sup> / <sub>8</sub>   | 308.0 | 11 <sup>7</sup> / <sub>8</sub>   | 301.6 |
|           | 0                       | 0.0   | 11 <sup>15</sup> / <sub>16</sub> | 303.2 | 8 <sup>13</sup> / <sub>16</sub>  | 223.8 |
|           | 1                       | 25.4  | 12                               | 304.8 | 9 <sup>7</sup> / <sub>8</sub>    | 250.8 |
|           | 1 1/2                   | 38.1  | 11 <sup>15</sup> / <sub>16</sub> | 303.2 | 10 <sup>7</sup> / <sub>16</sub>  | 265.1 |
|           | 2                       | 50.8  | 10 <sup>3</sup> / <sub>4</sub>   | 273.1 | 10 <sup>15</sup> / <sub>16</sub> | 277.8 |
| 12        | 2 1/2                   | 63.5  | 12 <sup>7</sup> / <sub>16</sub>  | 315.9 | 11 <sup>3</sup> / <sub>8</sub>   | 288.9 |
|           | 3                       | 76.2  | 12 <sup>9</sup> / <sub>16</sub>  | 319.1 | 11 <sup>7</sup> / <sub>8</sub>   | 301.6 |
|           | 4                       | 101.6 | 13 <sup>1</sup> / <sub>4</sub>   | 336.6 | 12 <sup>13</sup> / <sub>16</sub> | 325.4 |
|           | 0                       | 0.0   | 12 <sup>5</sup> / <sub>16</sub>  | 312.7 | 9 <sup>3</sup> / <sub>4</sub>    | 247.7 |
|           | 1                       | 25.4  | 11 <sup>7</sup> / <sub>8</sub>   | 301.6 | 10 <sup>15</sup> / <sub>16</sub> | 277.8 |
|           | 1 1/2                   | 38.1  | 12 <sup>5</sup> / <sub>16</sub>  | 312.7 | 11 <sup>3</sup> / <sub>8</sub>   | 288.9 |
| 14        | 2                       | 50.8  | 12 <sup>3</sup> / <sub>8</sub>   | 314.3 | 11 <sup>7</sup> / <sub>8</sub>   | 301.6 |
|           | 2 1/2                   | 63.5  | 13                               | 330.2 | 12 <sup>9</sup> / <sub>16</sub>  | 312.7 |
|           | 3                       | 76.2  | 13 <sup>1</sup> / <sub>8</sub>   | 333.4 | 12 <sup>13</sup> / <sub>16</sub> | 325.4 |
|           | 4                       | 101.6 | 13 <sup>9</sup> / <sub>16</sub>  | 344.5 | 13 <sup>3</sup> / <sub>4</sub>   | 349.3 |
|           | 0                       | 0.0   | 12 <sup>13</sup> / <sub>16</sub> | 325.4 | 10 <sup>5</sup> / <sub>16</sub>  | 261.9 |
|           | 1                       | 25.4  | 12 <sup>15</sup> / <sub>16</sub> | 328.6 | 11 <sup>3</sup> / <sub>8</sub>   | 288.9 |
| 16        | 1 1/2                   | 38.1  | 13 <sup>1</sup> / <sub>8</sub>   | 333.4 | 11 <sup>7</sup> / <sub>8</sub>   | 301.6 |
|           | 2                       | 50.8  | 13 <sup>9</sup> / <sub>16</sub>  | 344.5 | 12 <sup>9</sup> / <sub>16</sub>  | 312.7 |
|           | 2 1/2                   | 63.5  | 13 <sup>15</sup> / <sub>16</sub> | 354.0 | 12 <sup>13</sup> / <sub>16</sub> | 325.4 |
|           | 3                       | 76.2  | 14 <sup>3</sup> / <sub>8</sub>   | 365.1 | 13 <sup>1</sup> / <sub>4</sub>   | 336.6 |
|           | 4                       | 101.6 | 14 <sup>3</sup> / <sub>4</sub>   | 374.7 | 14 <sup>1</sup> / <sub>4</sub>   | 362.0 |

## DIMENSION INFORMATION FOR ZR23

| PIPE SIZE | PIPE COVERING THICKNESS |       | ACTUAL OD OF PIPE + SHIELD + INSULATION |       | DIMENSION L                      |       | DIMENSION CL                   |       |
|-----------|-------------------------|-------|---|-------|----------------------------------|-------|--------------------------------|-------|
|           | in.                     | mm    | in.                                     | mm    | in.                              | mm    | in.                            | mm    |
| 16        | 0                       | 0.0   | 16                                      | 406.4 | 12 <sup>3</sup> / <sub>4</sub>   | 323.9 | 11 <sup>3</sup> / <sub>8</sub> | 288.9 |
|           | 1 1/2                   | 38.1  | 19 <sup>5</sup> / <sub>8</sub>          | 498.5 |                                  |       |                                |       |
|           | 2                       | 50.8  | 20 <sup>3</sup> / <sub>8</sub>          | 517.5 |                                  |       |                                |       |
|           | 2 1/2                   | 63.5  | 21 <sup>1</sup> / <sub>8</sub>          | 549.3 |                                  |       |                                |       |
|           | 3                       | 76.2  | 22 <sup>1</sup> / <sub>8</sub>          | 562.0 |                                  |       |                                |       |
|           | 4                       | 101.6 | 24 <sup>3</sup> / <sub>8</sub>          | 619.1 |                                  |       |                                |       |
| 18        | 0                       | 0.0   | 18                                      | 457.2 | 12 <sup>3</sup> / <sub>4</sub>   | 323.9 | 12 <sup>1</sup> / <sub>4</sub> | 311.2 |
|           | 1 1/2                   | 38.1  | 21 <sup>1</sup> / <sub>8</sub>          | 549.3 |                                  |       |                                |       |
|           | 2                       | 50.8  | 22 <sup>5</sup> / <sub>8</sub>          | 574.7 |                                  |       |                                |       |
|           | 2 1/2                   | 63.5  | 23 <sup>1</sup> / <sub>4</sub>          | 590.6 |                                  |       |                                |       |
|           | 3                       | 76.2  | 24 <sup>1</sup> / <sub>4</sub>          | 616.0 |                                  |       |                                |       |
|           | 4                       | 101.6 | 26 <sup>1</sup> / <sub>8</sub>          | 676.3 |                                  |       |                                |       |
| 20        | 0                       | 0.0   | 20                                      | 508.0 | 14 <sup>1</sup> / <sub>8</sub>   | 358.8 | 13 <sup>1</sup> / <sub>4</sub> | 336.6 |
|           | 1 1/2                   | 38.1  | 23 <sup>1</sup> / <sub>4</sub>          | 590.6 |                                  |       |                                |       |
|           | 2                       | 50.8  | 24 <sup>1</sup> / <sub>2</sub>          | 622.3 |                                  |       |                                |       |
|           | 2 1/2                   | 63.5  | 25 <sup>1</sup> / <sub>2</sub>          | 647.7 |                                  |       |                                |       |
|           | 3                       | 76.2  | 26 <sup>1</sup> / <sub>8</sub>          | 676.3 |                                  |       |                                |       |
|           | 4                       | 101.6 | 28 <sup>1</sup> / <sub>4</sub>          | 717.6 |                                  |       |                                |       |
| 24        | 0                       | 0.0   | 24                                      | 609.6 | 14 <sup>13</sup> / <sub>16</sub> | 376.2 | 15 <sup>1</sup> / <sub>4</sub> | 387.4 |
|           | 1 1/2                   | 38.1  | 27                                      | 685.8 |                                  |       |                                |       |
|           | 2                       | 50.8  | 28                                      | 711.2 |                                  |       |                                |       |
|           | 2 1/2                   | 63.5  | 29 <sup>1</sup> / <sub>4</sub>          | 743.0 |                                  |       |                                |       |
|           | 3                       | 76.2  | 30 <sup>1</sup> / <sub>2</sub>          | 774.7 |                                  |       |                                |       |
|           | 4                       | 101.6 | 32 <sup>7</sup> / <sub>8</sub>          | 835.0 |                                  |       |                                |       |
| 30        | 0                       | 0.0   | 30                                      | 762.0 | 15 <sup>7</sup> / <sub>8</sub>   | 403.2 | 16 <sup>1</sup> / <sub>4</sub> | 412.8 |



**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

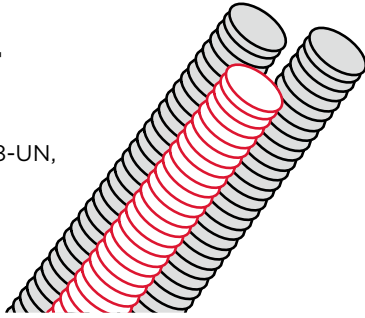
# Threaded Rod

Grade: Low Carbon Steel  
with Zinc Plating

Stock length: 10' and 6'

Diameter: 1/4" - 3/4"

Thread types: Coarse, 8-UN,  
National Fine (SAE).

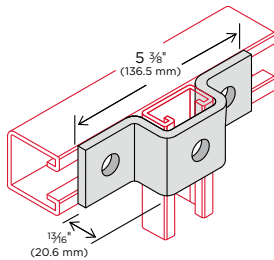


| CATALOG NUMBER | THREADED ROD    | WEIGHT/FT. | PIECES/TUBE |
|----------------|-----------------|------------|-------------|
|                |                 | lbs.       |             |
| TR00000010     | 1/4" x 10' Zinc | 0.121      | 50          |
| TR00000006     | 1/4" x 6' Zinc  | 0.121      | 50          |
| TR00000030     | 3/8" x 10' Zinc | 0.291      | 25          |
| TR00000026     | 3/8" x 6' Zinc  | 0.291      | 25          |
| TR00000050     | 1/2" x 10' Zinc | 0.522      | 12          |
| TR00000046     | 1/2" x 6' Zinc  | 0.522      | 12          |
| TR00000070     | 5/8" x 10' Zinc | 0.837      | 8           |
| TR00000066     | 5/8" x 6' Zinc  | 0.837      | 8           |
| TR00000080     | 3/4" x 10' Zinc | 1.224      | 5           |
| TR00000076     | 3/4" x 6' Zinc  | 1.224      | 5           |

# U-Fittings

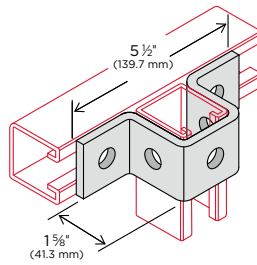
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZU10 | U-Fitting Cross 3 Hole 1 3/16"



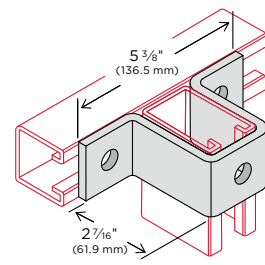
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU100000EG | 0.66   |

## ZU11 | U-Fitting Cross 5 Hole 1 5/8"



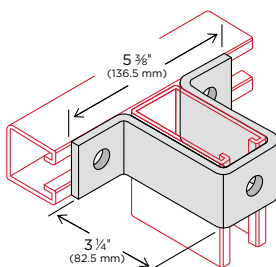
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU110000EG | 0.81   |

## ZU12 | U-Fitting Cross 3 Hole 2 7/16"



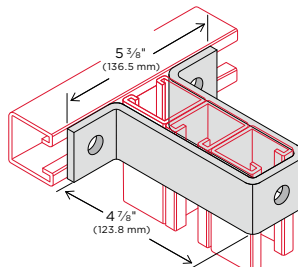
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU120000EG | 1.03   |

## ZU13 | U-Fitting Cross 3 Hole 3 1/4"



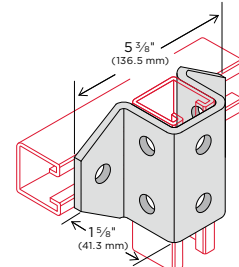
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU130000EG | 1.18   |

## ZU14 | U-Fitting Cross 3 Hole 4 7/8"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU140000EG | 1.59   |

## ZU15 | U-Fitting Cross 8 Hole 1 5/8"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU150000EG | 1.67   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/8" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

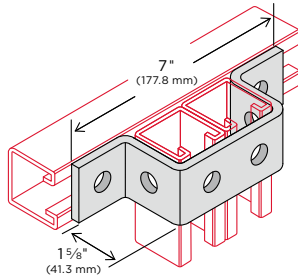


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# U-Fittings

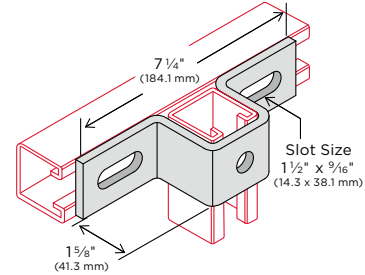
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZU16 | U-Fitting Cross 6 Hole 1 5/8" Double Channel



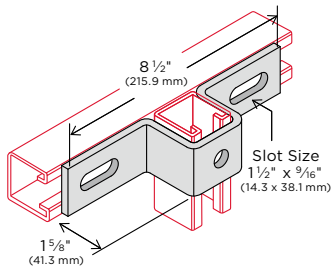
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU160000EG</b> | 0.95   |

## ZU20 | U-Fitting Cross 1 Hole 2 Slot 1 5/8" x 7 1/4"



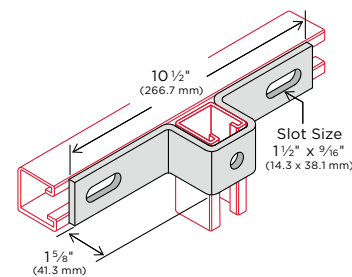
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU200000EG</b> | 0.98   |

## ZU21 | U-Fitting Cross 1 Hole 2 Slot 1 5/8" x 8 1/2"



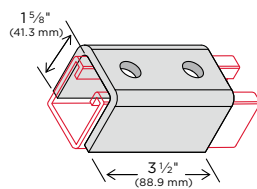
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU210000EG</b> | 1.15   |

## ZU22 | U-Fitting Cross 1 Hole 2 Slot 1 5/8" x 10 1/2"



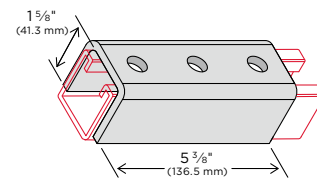
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU220000EG</b> | 1.35   |

## ZU30 | U-Fitting Splice 2 Hole 1 5/8" Channel



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU300000EG</b> | 1.19   |

## ZU31 | U-Fitting Splice 3 Hole 1 5/8" Channel



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU310000EG</b> | 1.83   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

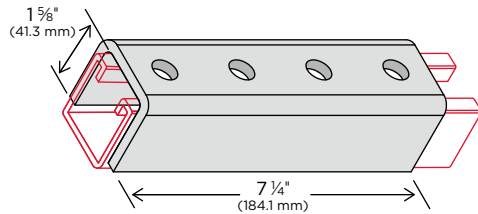


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# U-Fittings

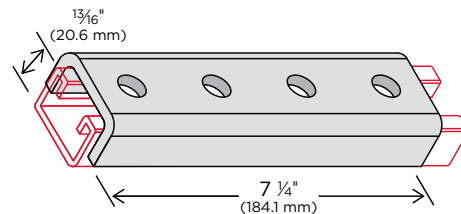
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZU32 | U-Fitting Splice 4 Hole 1 5/8" Channel



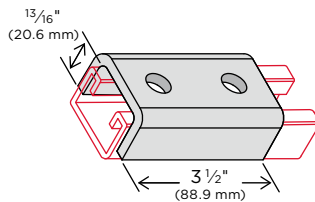
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU320000EG | 2.44   |

## ZU33 | U-Fitting Splice 4 Hole 1 3/16" Channel



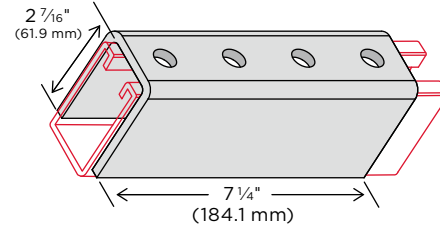
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU330000EG | 1.63   |

## ZU34 | U-Fitting Splice 2 Hole 1 3/16" Channel



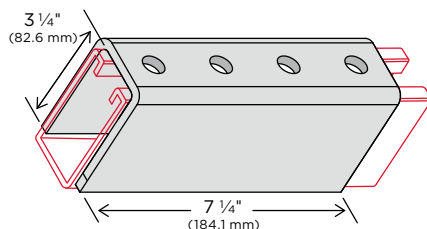
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU340000EG | 0.84   |

## ZU35 | U-Fitting Splice 4 Hole 2 7/16" Channel



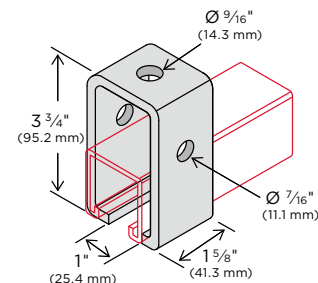
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU350000EG | 3.15   |

## ZU36 | U-Fitting Splice 4 Hole 3 1/4" Channel



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU360000EG | 3.80   |

## ZU40 | U-Fitting Trolley Support 3 Hole Standard



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZU400000EG | 1.00   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

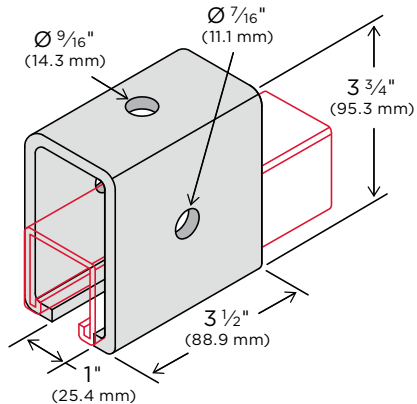


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# U-Fittings

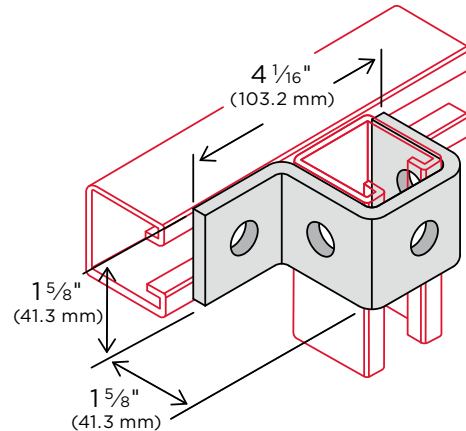
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZU41 | U-Fitting Trolley Support 3 Hole Heavy Duty



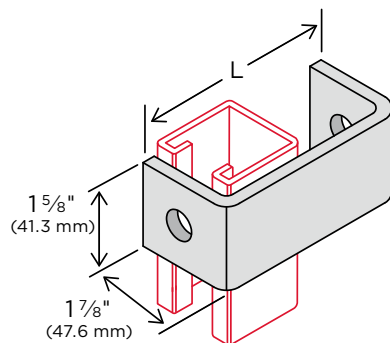
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU410000EG</b> | 2.20   |

## ZU50 | U-Fitting 4 Hole Cup Support



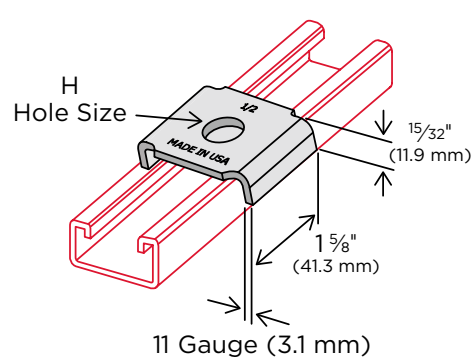
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZU500000EG</b> | 0.67   |

## ZU60 | U-Fitting Clevis 2 Hole



| CATALOG #         | WEIGHT |  | L   |       |
|-------------------|--------|--|-----|-------|
|                   | lbs.   |  | in. | mm    |
| <b>ZU600400EG</b> | 0.71   |  | 4   | 101.6 |
| <b>ZU600500EG</b> | 0.82   |  | 5   | 127.0 |
| <b>ZU600600EG</b> | 0.94   |  | 6   | 152.4 |
| <b>ZU600700EG</b> | 1.03   |  | 7   | 177.8 |
| <b>ZU600800EG</b> | 1.13   |  | 8   | 203.2 |

## ZU70 | Saddle Washer



| CATALOG #         | WEIGHT | BOLT SIZE | H (HOLE SIZE) |      |
|-------------------|--------|-----------|---------------|------|
|                   |        |           | in.           | mm   |
| <b>ZU700025EG</b> | 0.14   | 1/4       | 5/16          | 7.9  |
| <b>ZU700037EG</b> | 0.14   | 3/8       | 7/16          | 11.1 |
| <b>ZU700050EG</b> | 0.13   | 1/2       | 9/16          | 14.3 |
| <b>ZU700062EG</b> | 0.13   | 5/8       | 1 1/16        | 17.4 |
| <b>ZU700075EG</b> | 0.13   | 3/4       | 1 3/16        | 20.6 |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

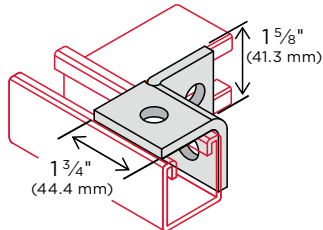


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# Wing Fittings

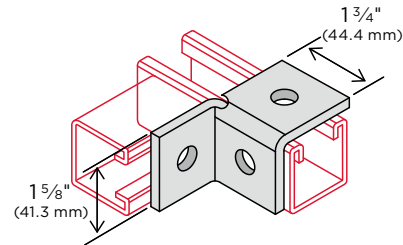
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZW10 | Wing Fitting Single Corner 3 Hole Right



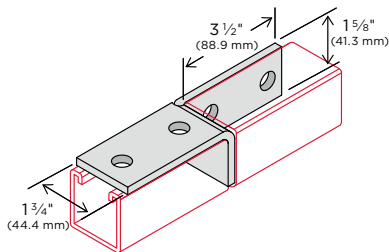
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW100000EG</b> | 0.53   |

## ZW11 | Wing Fitting Single Corner 3 Hole Left



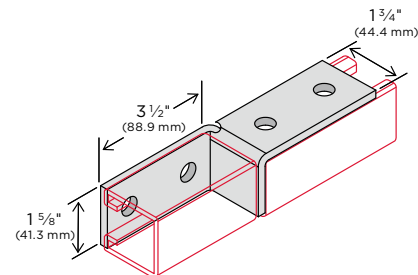
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW110000EG</b> | 0.53   |

## ZW12 | Wing Fitting Single Corner 4 Hole Right



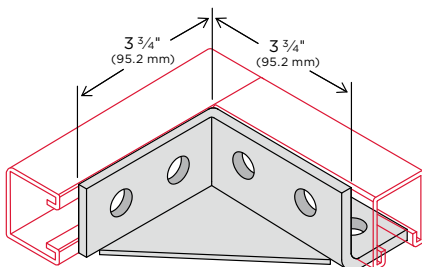
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW120000EG</b> | 0.97   |

## ZW13 | Wing Fitting Single Corner 4 Hole Left



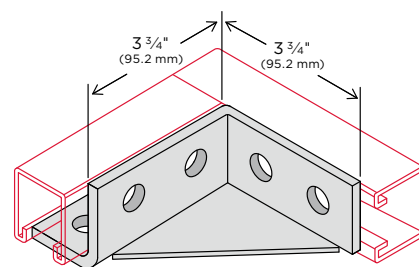
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW130000EG</b> | 0.86   |

## ZW14 | Wing Fitting Single Corner 6 Hole Gusset Right



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW140000EG</b> | 1.68   |

## ZW15 | Wing Fitting Single Corner 6 Hole Gusset Left



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW150000EG</b> | 1.68   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



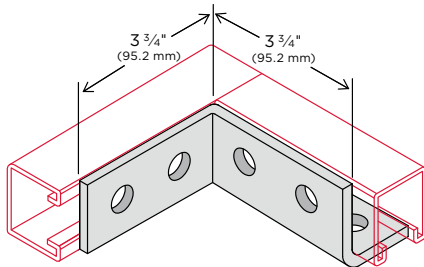
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# Wing Fittings

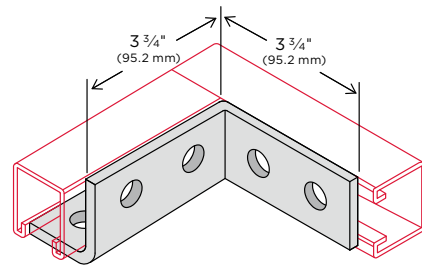
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZW16 | Wing Fitting Single Corner 6 Hole Right



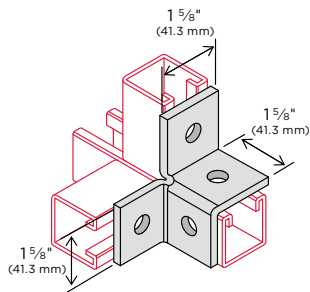
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW160000EG</b> | 1.10   |

## ZW17 | Wing Fitting Single Corner 6 Hole Left



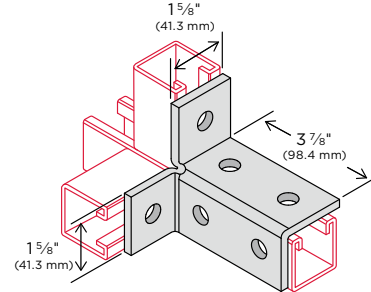
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW170000EG</b> | 1.10   |

## ZW20 | Wing Fitting Double Corner 4 Hole



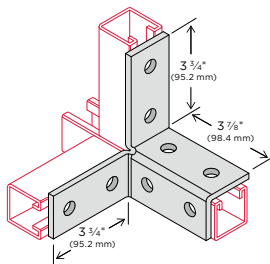
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW200000EG</b> | 0.69   |

## ZW21 | Wing Fitting Double Corner 6 Hole



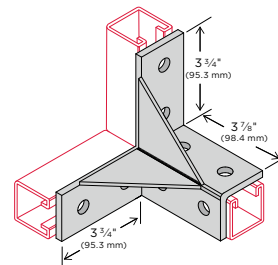
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW210000EG</b> | 1.12   |

## ZW22 | Wing Fitting Double Corner 8 Hole



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW220000EG</b> | 1.47   |

## ZW23 | Wing Fitting Double Corner 8 Hole Gusset



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW230000EG</b> | 2.05   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

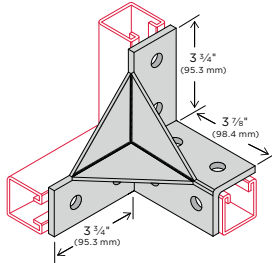


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# Wing Fittings

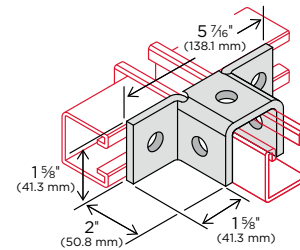
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZW24 | Wing Fitting Double Corner 8 Hole Double Gusset



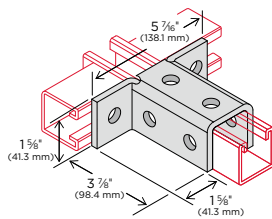
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW240000EG</b> | 2.26   |

## ZW30 | Wing Fitting Corner Connector 5 Hole Opposed



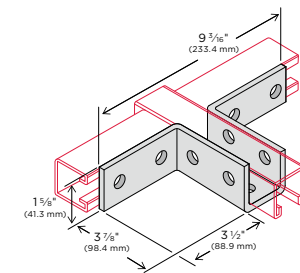
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW300000EG</b> | 0.94   |

## ZW31 | Wing Fitting Corner Connector 8 Hole Opposed



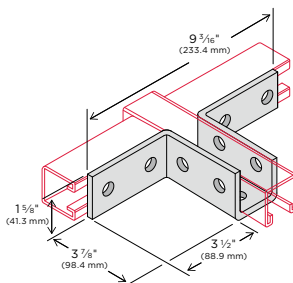
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW310000EG</b> | 1.56   |

## ZW32 | Wing Fitting Corner Connector 10 Hole Opposed



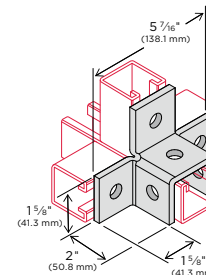
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW320000EG</b> | 1.95   |

## ZW33 | Wing Fitting Corner Connector 10 Hole Opposed Double Gusset



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW330000EG</b> | 2.94   |

## ZW40 | Wing Fitting Triple Corner 6 Hole



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW400000EG</b> | 1.04   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

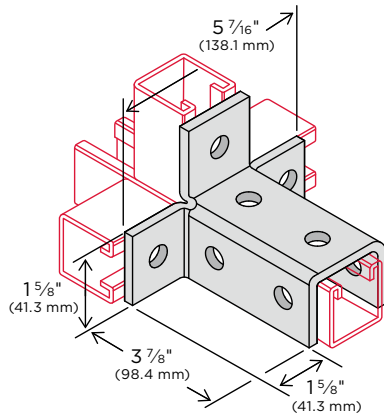


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# Wing Fittings

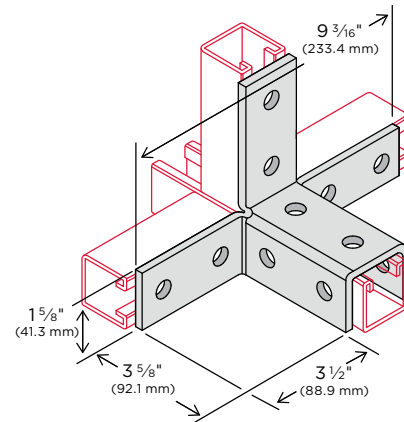
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZW41 | Wing Fitting Triple Corner 9 Hole



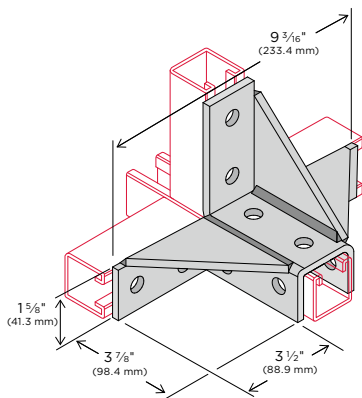
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW410000EG</b> | 1.57   |

## ZW42 | Wing Fitting Triple Corner 12 Hole



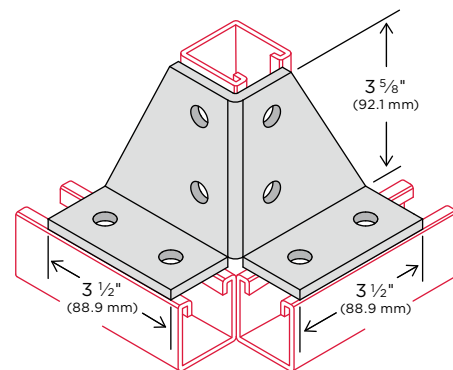
| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW420000EG</b> | 2.34   |

## ZW43 | Wing Fitting Triple Corner 12 Hole Gusset



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW430000EG</b> | 2.85   |

## ZW50 | Wing Fitting Double Corner Connector 8 Hole



| CATALOG #         | WEIGHT |
|-------------------|--------|
|                   | lbs.   |
| <b>ZW500000EG</b> | 2.14   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

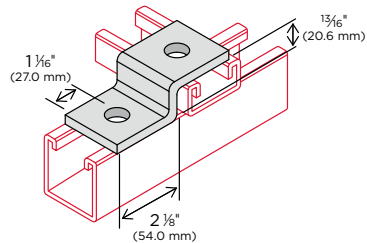


**WARNING:** These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Z-Fittings

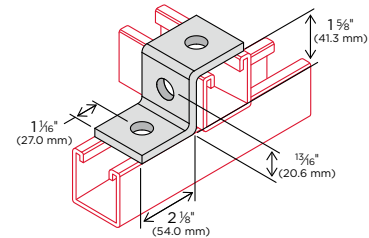
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZZ10 | Z-Fitting Cross 2 Hole 1<sup>3</sup>/<sub>16</sub>"



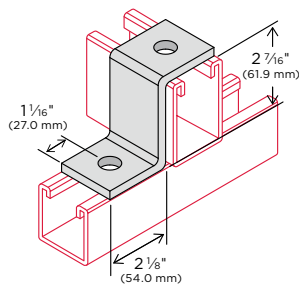
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ100000EG | 0.41   |

## ZZ11 | Z-Fitting Cross 2 Hole 1<sup>5</sup>/<sub>8</sub>"



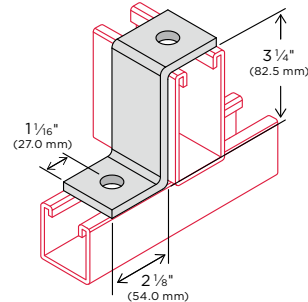
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ110000EG | 0.48   |

## ZZ12 | Z-Fitting Cross 2 Hole 2<sup>7</sup>/<sub>16</sub>"



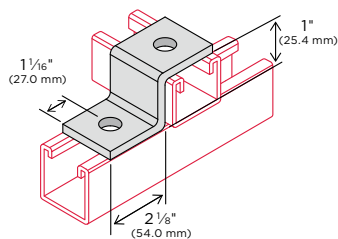
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ120000EG | 0.54   |

## ZZ13 | Z-Fitting Cross 2 Hole 3<sup>1</sup>/<sub>4</sub>"



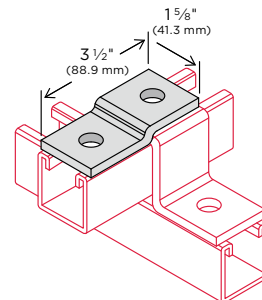
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ130000EG | 0.67   |

## ZZ14 | Z-Fitting Cross 2 Hole 1"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ140000EG | 0.45   |

## ZZ20 | Z-Fitting Offset Support 2 Hole



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ200000EG | 0.35   |

Material is 1<sup>5</sup>/<sub>8</sub>" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1<sup>3</sup>/<sub>16</sub>" (20.6) center to edge on 1<sup>7</sup>/<sub>8</sub>" (47.6) centers unless specified.

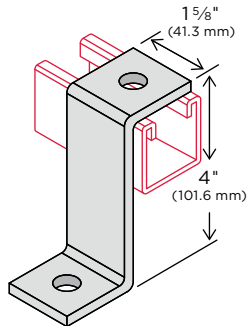


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# Z-Fittings

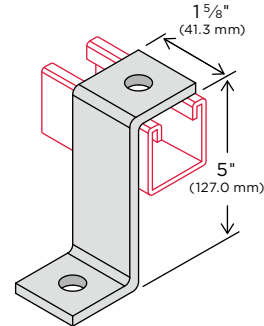
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZZ30 | Z-Fitting 2 Hole Support 4"



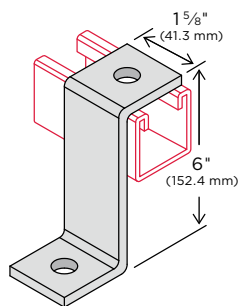
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ300000EG | 0.77   |

## ZZ31 | Z-Fitting 2 Hole Support 5"



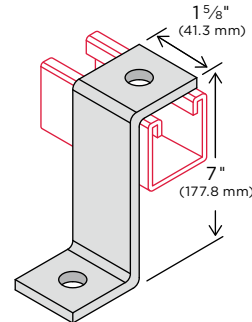
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ310000EG | 0.95   |

## ZZ32 | Z-Fitting 2 Hole Support 6"



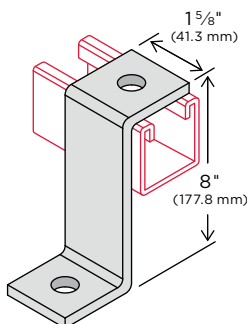
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ320000EG | 0.98   |

## ZZ33 | Z-Fitting 2 Hole Support 7"



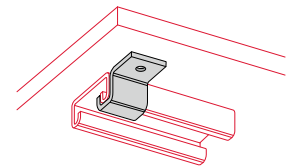
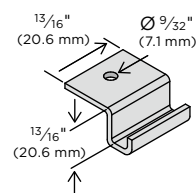
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ330000EG | 1.07   |

## ZZ34 | Z-Fitting 2 Hole Support 8"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ340000EG | 1.23   |

## ZZ40 | Z-Fitting Channel Hanger 13/16"



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ400000EG | 0.083  |

Note: Material is 11 gauge

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

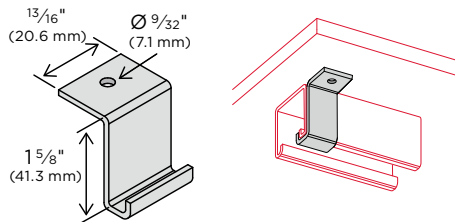


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# Z-Fittings

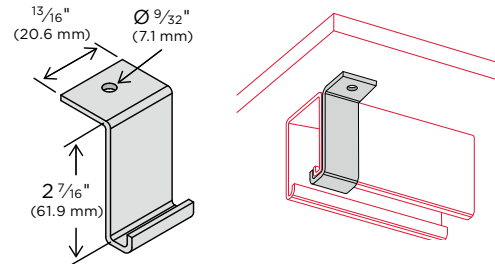
Standard finish is Electro-Galvanized (EG)  
Product finishes and materials are on [page 11](#)

## ZZ41 | Z-Fitting Channel Hanger 1 5/8"



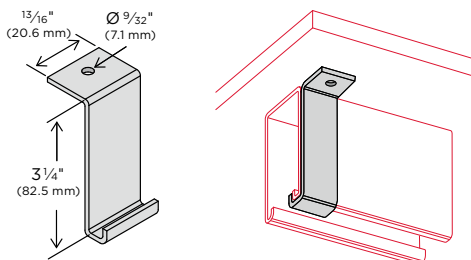
| CATALOG #  | WEIGHT | Note: Material is 11 gauge |
|------------|--------|----------------------------|
|            | lbs.   |                            |
| ZZ410000EG | 0.09   |                            |

## ZZ42 | Z-Fitting Channel Hanger 2 7/16"



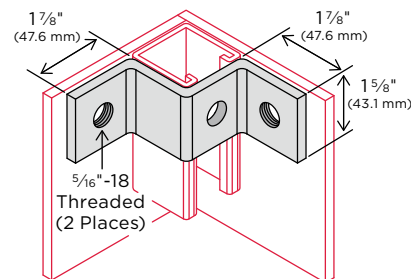
| CATALOG #  | WEIGHT | Note: Material is 11 gauge |
|------------|--------|----------------------------|
|            | lbs.   |                            |
| ZZ420000EG | 0.112  |                            |

## ZZ43 | Z-Fitting Channel Hanger 3 1/4"



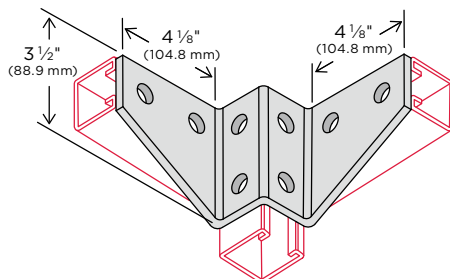
| CATALOG #  | WEIGHT | Note: Material is 11 gauge |
|------------|--------|----------------------------|
|            | lbs.   |                            |
| ZZ430000EG | 0.134  |                            |

## ZZ50 | Z-Fitting Corner Brace 3 Hole



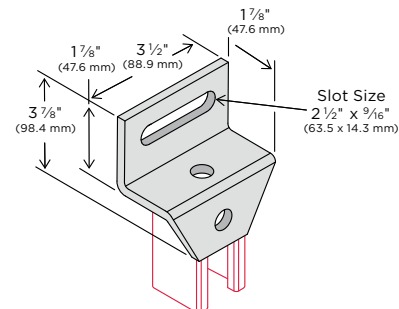
| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ500000EG | 0.67   |

## ZZ51 | Z-Fitting Corner Brace 8 Hole



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ510000EG | 2.03   |

## ZZ60 | Z-Fitting Slotted Support



| CATALOG #  | WEIGHT |
|------------|--------|
|            | lbs.   |
| ZZ600000EG | 0.97   |

Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



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# Rooftop Support Blocks

Standard finish is Pre-Galvanized Zinc (PG)  
Product finishes and materials are on [page 11](#)

## THE NEXT GENERATION OF ROOFTOP SUPPORT BLOCKS



### Rooftop Support Features:

- 100% Recycled Rubber
- Qualifies for LEED Credits
- Meets the Buy America Act and American Reinvestment Recovery Act (ARRA)
- Resistance to Freeze and Thaw
- Reflective Eco-green Stripes for Easy Visibility
- Easy to Change Strut Without Moving or Lifting Block

### Rooftop Support Applications:

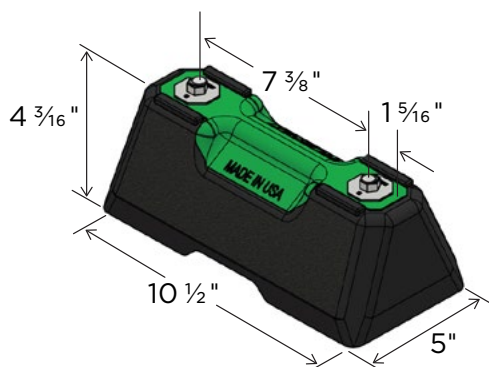
- Solar Racking
- Pipe & Conduit Supports
- HVAC, Duct, Cable Tray Supports
- Air Conditioning Supports
- Roof Walkway Supports

**Other support configurations available by special order.**

**Contact us for more information.**



## ZRSB | Plain Base



The ZRSB Rooftop Support is UV resistant and suitable for installation on most types of roofing material or other flat surfaces. Can be used as a curb (sleeper) replacement. Screw fasteners can be used to attach one or two hole pipe straps or a piece of strut (not included).

| CATALOG #  | WEIGHT | UNIFORM LOAD CAPACITY* |     |
|------------|--------|------------------------|-----|
|            | lbs.   | lbs.                   | kN  |
| ZRSB0000RB | 4.3    | 1000                   | 4.4 |

\*This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



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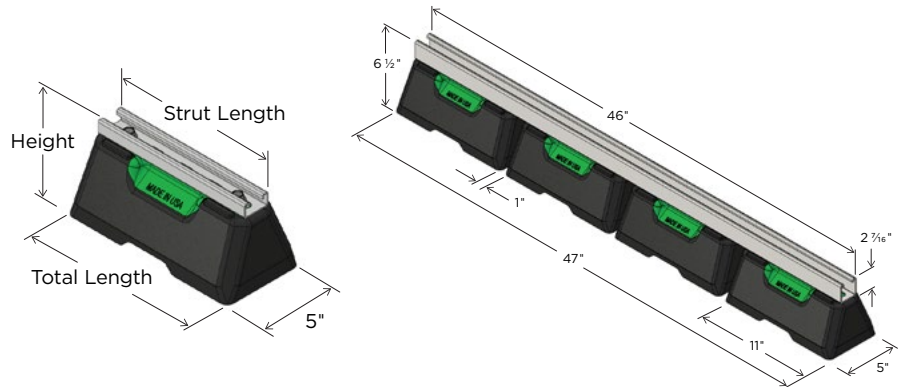
# Rooftop Support Blocks

Standard finish is Pre-Galvanized Zinc (PG)  
Product finishes and materials are on [page 11](#)

## ZRSB | Support With Metal Channel

The ZRSB Series provides a longer mounting surface with strut lengths up to 47.5".

Custom lengths are available upon request.



| CATALOG NUMBER  | NUMBER OF BASES | HEIGHT  | STRUT LENGTH | TOTAL LENGTH | WEIGHT | UNIFORM LOAD CAPACITY* |      |
|---|-----------------|---------|--------------|--------------|--------|------------------------|------|
|   |                 | in.     | in.          | in.          | lbs.   | lbs.                   | kN   |
| ZRSB SUPPORT WITH 1 1/4" PRE-GALV. 14 GAUGE STEEL CHANNEL |                 |         |              |              |        |                        |      |
| ZRSB1081PG  | 1               | 4 15/16 | 10           | 11           | 4.8    | 1000                   | 4.4  |
| ZRSB22481PG   | 2               |         | 24           | 25           | 9.7    | 2000                   | 8.8  |
| ZRSB33681PG   | 3               |         | 36           | 37           | 14.6   | 3000                   | 13.3 |
| ZRSB44881PG   | 4               |         | 48           | 49           | 19.5   | 4000                   | 17.8 |
| ZRSB SUPPORT WITH 1 1/2" PRE-GALV. 12 GAUGE STEEL CHANNEL |                 |         |              |              |        |                        |      |
| ZRSB1016PG  | 1               | 5 5/8   | 10           | 11           | 5.5    | 1000                   | 4.4  |
| ZRSB22416PG   | 2               |         | 24           | 25           | 11.4   | 2000                   | 8.8  |
| ZRSB33616PG   | 3               |         | 36           | 37           | 17.2   | 3000                   | 13.3 |
| ZRSB44816PG   | 4               |         | 48           | 49           | 23.0   | 4000                   | 17.8 |
| ZRSB SUPPORT WITH 2 1/4" PRE-GALV. 12 GAUGE STEEL CHANNEL |                 |         |              |              |        |                        |      |
| ZRSB1024PG  | 1               | 6 1/4   | 10           | 11           | 6.0    | 1000                   | 4.4  |
| ZRSB22424PG   | 2               |         | 24           | 25           | 12.4   | 2000                   | 8.8  |
| ZRSB33624PG   | 3               |         | 36           | 37           | 18.8   | 3000                   | 13.3 |
| ZRSB44824PG   | 4               |         | 48           | 49           | 25.2   | 4000                   | 17.8 |

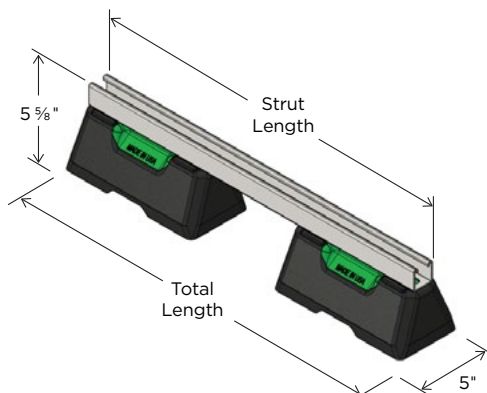
\* This load is only for the capacity of the components in this assembly.  
Please consult roofing manufacturer or engineer for roof load capacity.

## ZRSB—Bridge Series | Support With Metal Channel

Like all of the Rooftop Support Block supports, the ZRSB Bridge Rooftop Supports are perfect for supporting natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications.

The ZRSB Series provides a longer mounting surface with strut lengths up to 60".  
Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



| ZRSB BRIDGE SERIES LENGTH SUPPORTS WITH 2 ZRSB BASES WITH 1 1/2" PRE-GALVANIZED 12 GAUGE CHANNEL |              |              |              |        |                        |     |
|--|--------------|--------------|--------------|--------|------------------------|-----|
| CATALOG #  | NO. OF BASES | STRUT LENGTH | TOTAL LENGTH | WEIGHT | UNIFORM LOAD CAPACITY* |     |
|  |              | in.          | in.          | lbs.   | lbs.                   | kN  |
| ZRSB22816PG  | 2            | 28           | 29           | 12.3   | 2000                   | 8.8 |
| ZRSB23616PG  |              | 36           | 37           | 13.5   | 2000                   | 8.8 |
| ZRSB24216PG  |              | 42           | 43           | 14.4   | 1800                   | 8.0 |
| ZRSB25016PG  |              | 50           | 51           | 15.6   | 1400                   | 6.2 |
| ZRSB26016PG  |              | 60           | 61           | 17.1   | 900                    | 4.0 |

\*This load is only for the capacity of the components in this assembly.  
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# Technical Data

## SCHEDULE 40 & 80 IRON PIPE & PVC SCHEDULE 5, 10, 40 & 80 ALUMINUM SCHEDULE 5, 10 & 40 STAINLESS STEEL

| NOMINAL PIPE SIZE |     | OD     |       |
|-------------------|-----|--------|-------|
| in.               | mm  | in.    | mm    |
| 1/8               | 3   | 0.405  | 10.3  |
| 1/4               | 6   | 0.540  | 13.7  |
| 3/8               | 10  | 0.675  | 17.1  |
| 1/2               | 15  | 0.840  | 21.3  |
| 3/4               | 20  | 1.050  | 26.7  |
| 1                 | 25  | 1.315  | 33.4  |
| 1 1/4             | 32  | 1.660  | 42.2  |
| 1 1/2             | 40  | 1.900  | 48.3  |
| 2                 | 50  | 2.375  | 60.3  |
| 2 1/2             | 65  | 2.875  | 73.0  |
| 3                 | 80  | 3.500  | 88.9  |
| 3 1/2             | 90  | 4.000  | 101.6 |
| 4                 | 100 | 4.500  | 114.3 |
| 4 1/2             | 115 | 5.000  | 127.0 |
| 5                 | 125 | 5.563  | 141.3 |
| 6                 | 150 | 6.625  | 168.3 |
| 8                 | 200 | 8.625  | 219.1 |
| 10                | 250 | 10.750 | 273.1 |
| 12                | 300 | 12.750 | 323.9 |

All sizes over 12" Nominal Pipe Size = OD

## STANDARD PLASTIC PIPE

| NOMINAL PIPE SIZE |     | OD    |       |
|-------------------|-----|-------|-------|
| in.               | mm  | in.   | mm    |
| 1/2               | 15  | 0.600 | 15.2  |
| 3/4               | 20  | 0.856 | 21.7  |
| 1                 | 25  | 1.140 | 29.0  |
| 1 1/4             | 32  | 1.420 | 36.1  |
| 1 1/2             | 40  | 1.730 | 43.9  |
| 2                 | 50  | 2.250 | 57.2  |
| 3                 | 80  | 3.250 | 82.6  |
| 4                 | 100 | 4.100 | 104.1 |
| 6                 | 150 | 6.220 | 158.0 |

## ELECTRICAL METALLIC TUBING (EMT)

| NOMINAL PIPE SIZE |    | OD    |      |
|-------------------|----|-------|------|
| in.               | mm | in.   | mm   |
| 3/8               | 10 | 0.577 | 14.7 |
| 1/2               | 15 | 0.706 | 17.9 |
| 3/4               | 20 | 0.922 | 23.4 |
| 1                 | 25 | 1.163 | 29.5 |
| 1 1/4             | 32 | 1.510 | 38.4 |
| 1 1/2             | 40 | 1.740 | 44.2 |
| 2                 | 50 | 2.197 | 55.8 |

EMT sizes over 2 are the same as  
Schedule 40 iron pipe

## STANDARD COPPER TUBING

| NOMINAL PIPE SIZE |     | OD    |       |
|-------------------|-----|-------|-------|
| in.               | mm  | in.   | mm    |
| 1/4               | 6   | 0.375 | 9.5   |
| 3/8               | 10  | 0.500 | 12.7  |
| 1/2               | 15  | 0.625 | 15.9  |
| 5/8               | 17  | 0.750 | 19.1  |
| 3/4               | 20  | 0.875 | 22.2  |
| 1                 | 25  | 1.125 | 28.6  |
| 1 1/4             | 32  | 1.375 | 34.9  |
| 1 1/2             | 40  | 1.625 | 41.3  |
| 2                 | 50  | 2.125 | 54.0  |
| 2 1/2             | 65  | 2.625 | 66.7  |
| 3                 | 80  | 3.125 | 79.4  |
| 3 1/2             | 90  | 3.625 | 92.1  |
| 4                 | 100 | 4.125 | 104.8 |
| 5                 | 125 | 5.125 | 130.2 |
| 6                 | 150 | 6.125 | 155.6 |
| 7                 | 175 | 7.125 | 181.0 |
| 8                 | 200 | 8.125 | 206.4 |

## GLASS PIPE

| NOMINAL PIPE SIZE |     | OD    |       |
|-------------------|-----|-------|-------|
| in.               | mm  | in.   | mm    |
| 1/2               | 15  | 0.750 | 19.1  |
| 3/4               | 20  | 1.000 | 25.4  |
| 1                 | 25  | 1.312 | 33.3  |
| 1 1/2             | 40  | 1.844 | 46.8  |
| 2                 | 50  | 2.344 | 59.5  |
| 3                 | 80  | 3.406 | 86.5  |
| 4                 | 100 | 4.530 | 115.1 |
| 6                 | 150 | 6.656 | 169.1 |

Glass pipe has the same OD for both  
regular & heavy schedule.

## EXTRA HEAVY CAST IRON SOIL PIPE

| NOMINAL PIPE SIZE |       | OD    |  |
|-------------------|-------|-------|--|
| in.               | in.   | mm    |  |
| 2                 | 2.38  | 60.5  |  |
| 3                 | 3.50  | 88.9  |  |
| 4                 | 4.50  | 114.3 |  |
| 5                 | 5.50  | 139.7 |  |
| 6                 | 6.50  | 165.1 |  |
| 8                 | 8.62  | 218.9 |  |
| 10                | 10.75 | 273.1 |  |
| 12                | 12.75 | 323.9 |  |
| 15                | 15.88 | 403.4 |  |

## SERVICE WEIGHT CAST IRON SOIL PIPE

| NOMINAL PIPE SIZE |       | OD    |  |
|-------------------|-------|-------|--|
| in.               | in.   | mm    |  |
| 2                 | 2.30  | 58.4  |  |
| 3                 | 3.30  | 83.8  |  |
| 4                 | 4.30  | 109.2 |  |
| 5                 | 5.30  | 134.6 |  |
| 6                 | 6.30  | 160.0 |  |
| 8                 | 8.38  | 212.9 |  |
| 10                | 10.50 | 266.7 |  |
| 12                | 12.50 | 317.5 |  |
| 15                | 15.62 | 396.7 |  |

## SDR-35 & DR-28 GRAVITY SEWER PIPE

| NOMINAL PIPE SIZE |       | OD    |  |
|-------------------|-------|-------|--|
| in.               | in.   | mm    |  |
| 4                 | 4.22  | 107.2 |  |
| 6                 | 6.28  | 159.5 |  |
| 8                 | 8.40  | 213.4 |  |
| 10                | 10.50 | 266.7 |  |
| 12                | 12.50 | 317.5 |  |
| 15                | 15.30 | 388.6 |  |
| 18                | 18.70 | 475.0 |  |
| 21                | 22.05 | 560.1 |  |
| 24                | 24.80 | 629.9 |  |
| 27                | 27.95 | 709.9 |  |
| 30                | 32.00 | 812.8 |  |

## AWWA-C900, C905; PVC WATER PIPE DUCTILE IRON PIPE CENTRIFUGALLY SPUN CAST IRON PIPE

| NOMINAL PIPE SIZE |       | OD     |  |
|-------------------|-------|--------|--|
| in.               | in.   | mm     |  |
| 2                 | 2.50  | 63.5   |  |
| 2 1/4             | 2.75  | 69.8   |  |
| 3                 | 3.96  | 100.6  |  |
| 4                 | 4.80  | 121.9  |  |
| 6                 | 6.90  | 175.3  |  |
| 8                 | 9.05  | 229.9  |  |
| 10                | 11.10 | 281.9  |  |
| 12                | 13.20 | 335.3  |  |
| 14                | 15.30 | 388.6  |  |
| 16                | 17.40 | 442.0  |  |
| 18                | 19.50 | 495.3  |  |
| 20                | 21.60 | 548.6  |  |
| 24                | 25.80 | 655.3  |  |
| 30                | 32.00 | 812.8  |  |
| 36                | 38.30 | 972.8  |  |
| 42                | 44.50 | 1130.3 |  |
| 48                | 50.80 | 1290.3 |  |

# Technical Data

| OD    |      | DESCRIPTION |
|-------|------|-------------|
| in.   | mm   |             |
| 0.250 | 6.4  | SCO         |
| 0.375 | 9.5  | SCO/¼" SCC  |
| 0.500 | 12.7 | SCO/⅜" SCC  |
| 0.540 | 13.7 | ¼" SCR      |
| 0.577 | 14.7 | ⅜" SCE      |
| 0.625 | 15.9 | SCO/½" SCC  |
| 0.706 | 17.9 | ½" SCE      |
| 0.750 | 19.1 | SCO/⅝" SCC  |
| 0.773 | 19.6 | ½" SCU      |
| 0.840 | 21.3 | ½" SCR      |
| 0.875 | 22.2 | SCO/¾" SCC  |
| 0.922 | 23.4 | ¾" SCE      |
| 0.986 | 25.0 | ¾" SCU      |
| 1.000 | 25.4 | SCO         |
| 1.050 | 26.7 | ¾" SCR      |
| 1.125 | 28.6 | SCO/1" SCC  |
| 1.163 | 29.5 | 1" SCE      |
| 1.239 | 31.5 | 1" SCU      |
| 1.250 | 31.8 | SCO         |
| 1.315 | 33.4 | 1" SCR      |
| 1.375 | 34.9 | SCO/1¼" SCC |
| 1.500 | 38.1 | SCO         |
| 1.510 | 38.4 | 1¼" SCE     |
| 1.585 | 40.3 | 1¼" SCU     |
| 1.625 | 41.3 | SCO/1½" SCC |
| 1.660 | 42.2 | 1¼" SCR     |
| 1.740 | 44.2 | 1½" SCE     |
| 1.750 | 44.5 | SCO         |
| 1.820 | 46.2 | 1½" SCU     |
| 1.875 | 47.6 | SCO         |
| 1.900 | 48.3 | 1½" SCR     |
| 2.000 | 50.8 | SCO         |
| 2.125 | 54.0 | SCO/2" SCC  |
| 2.197 | 55.8 | 2" SCE      |
| 2.250 | 57.2 | SCO         |
| 2.286 | 58.1 | 2" SCU      |
| 2.375 | 60.3 | SCO/2" SCR  |
| 2.500 | 63.5 | SCO         |
| 2.625 | 66.7 | SCO/2½" SCC |
| 2.750 | 69.9 | SCO         |
| 2.875 | 73.0 | SCO/2½" SCR |
| 3.000 | 76.2 | SCO         |
| 3.125 | 79.4 | SCO/3" SCC  |
| 3.250 | 82.6 | SCO         |
| 3.375 | 85.7 | SCO         |
| 3.500 | 88.9 | SCO/3" SCR  |
| 3.625 | 92.1 | SCO/3½" SCC |

| OD     |       | DESCRIPTION |
|--------|-------|-------------|
| in.    | mm    |             |
| 3.750  | 95.3  | SCO         |
| 3.875  | 98.4  | SCO         |
| 4.000  | 101.6 | SCO/3½" SCR |
| 4.125  | 104.8 | SCO/4" SCC  |
| 4.250  | 108.0 | SCO         |
| 4.375  | 111.1 | SCO         |
| 4.500  | 114.3 | SCO/4" SCR  |
| 4.625  | 117.5 | SCO         |
| 4.750  | 120.7 | SCO         |
| 4.875  | 123.8 | SCO         |
| 5.000  | 127.0 | SCO         |
| 5.125  | 130.2 | SCO/5" SCC  |
| 5.250  | 133.4 | SCO         |
| 5.375  | 136.5 | SCO         |
| 5.500  | 139.7 | SCO         |
| 5.563  | 141.3 | 5" SCR      |
| 5.625  | 142.9 | SCO         |
| 5.750  | 146.1 | SCO         |
| 5.875  | 149.2 | SCO         |
| 6.000  | 152.4 | SCO         |
| 6.125  | 155.6 | SCO/6" SCC  |
| 6.250  | 158.8 | SCO         |
| 6.375  | 161.9 | SCO         |
| 6.500  | 165.1 | SCO         |
| 6.625  | 168.3 | SCO/6" SCR  |
| 6.750  | 171.5 | SCO         |
| 6.875  | 174.6 | SCO         |
| 7.000  | 177.8 | SCO         |
| 7.125  | 181.0 | SCO/7" SCC  |
| 7.250  | 184.2 | SCO         |
| 7.375  | 187.3 | SCO         |
| 7.500  | 190.5 | SCO         |
| 7.625  | 193.7 | SCO         |
| 7.750  | 196.9 | SCO         |
| 7.875  | 200.0 | SCO         |
| 8.000  | 203.2 | SCO         |
| 8.125  | 206.4 | SCO/8" SCC  |
| 8.250  | 209.6 | SCO         |
| 8.375  | 212.7 | SCO         |
| 8.500  | 215.9 | SCO         |
| 8.625  | 219.1 | SCO/8" SCR  |
| 8.750  | 222.3 | SCO         |
| 8.875  | 225.4 | SCO         |
| 9.000  | 228.6 | SCO         |
| 9.125  | 231.8 | SCO         |
| 10.750 | 273.1 | 10" SCR     |
| 12.750 | 323.9 | 12" SCR     |

# Technical Data

The following are the torque values used for determining the load ratings of products when attached to channel framing as specified by Metal Framing Manufacturers Association (MFMA) Standard #2:

| THREAD SIZE |      | TORQUE   |          |      |
|-------------|------|----------|----------|------|
| in.         | mm   | in.-lbs. | ft.-lbs. | Nm   |
| ¼           | 6.4  | 72       | 6        | 8.1  |
| ⅜           | 7.9  | 132      | 11       | 14.9 |
| ½           | 9.6  | 228      | 19       | 25.8 |
| ¾           | 11.1 | 600      | 50       | 67.8 |

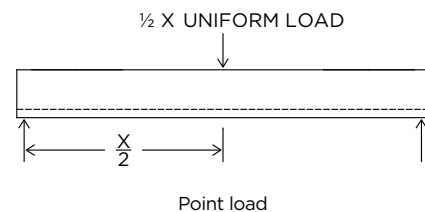
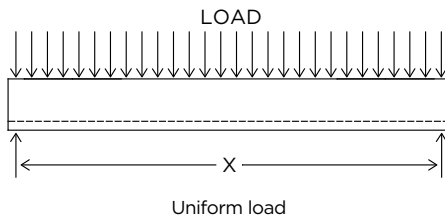
**NOTE:** Caution should be taken not to over tighten the set screw on iron beam clamps as this will cause distortion, a lower maximum load capability and possible breakage.

For beam clamps or other applications, the following torque values from Manufacturers Standardization Society (MSS) SP-69 are recommended unless otherwise specified.

| THREAD SIZE |      | TORQUE   |          |       |
|-------------|------|----------|----------|-------|
| in.         | mm   | in.-lbs. | ft.-lbs. | Nm    |
| ¼           | 6.4  | 40       | 3.3      | 4.5   |
| ⅜           | 7.9  | 50       | 4.2      | 5.6   |
| ½           | 9.6  | 60       | 5.0      | 6.8   |
| ¾           | 11.1 | 90       | 7.5      | 10.2  |
| 1           | 12.7 | 125      | 10.4     | 14.1  |
| 1 ¼         | 14.3 | 180      | 15.0     | 20.3  |
| 1 ½         | 15.8 | 250      | 20.8     | 28.2  |
| 1 ¾         | 19.0 | 400      | 33.3     | 45.2  |
| 2           | 22.2 | 665      | 55.4     | 75.1  |
| 2 ½         | 25.4 | 990      | 82.5     | 111.9 |

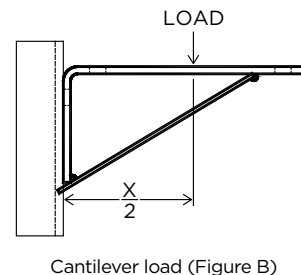
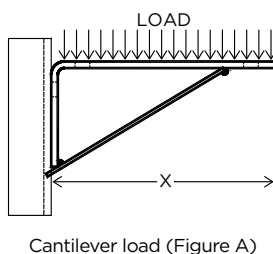
## Uniform Load and Point Load

When a distributed load has a constant value over the entire bracket or beam length, it is said to be uniformly loaded. This would be similar to loading identical boxes on a shelf side by side. A point load is when the force of the load is concentrated on one point along the bracket or beam. Using identical supports as shown below and the point load located ½ way between the supports, the point load rating will be ½ the uniform load rating. Load ratings are generally listed in pounds (lbs.) or kilo Newtons (kN).



## Cantilever Load

A cantilever bracket or beam is rigidly attached at one end and is completely free at the other end. A cantilever load is applied at one point or spread along a section of the length of a bracket or beam and causes a twisting load or moment at the mounting point. Load ratings for this type of bracket are generally listed in inch-pounds (in.-lbs.) or Newton meters (Nm). A uniformly applied load on a bracket (figure A) may be considered as a point load by taking the uniform load and expressing it as a single point load of the same force at a distance of ½ the total distance the load is spread over as shown in figure B. This is calculated by multiplying ½ the distance "X," in inches or meters, by the load expressed in pounds or Newtons.

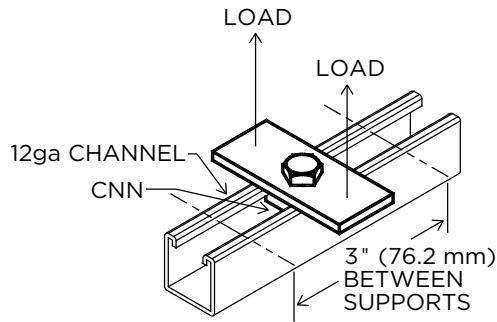


# Technical Data

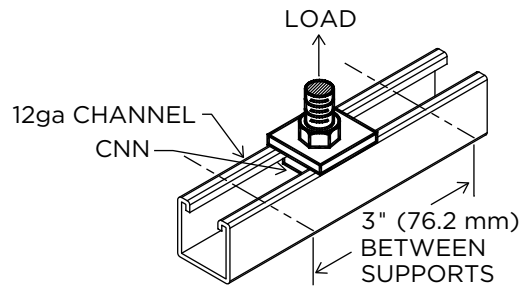
## Testing Methods for Strut Fittings

Fittings are tested for pullout of the channel by supporting the channel at 3" (76.2 mm) spacing and applying a load perpendicular to the channel with the fitting attached according to the recommended methods and mounting torque as stated in MFMA standards using channel meeting MFMA standards.

See page 89 for MFMA torque values.

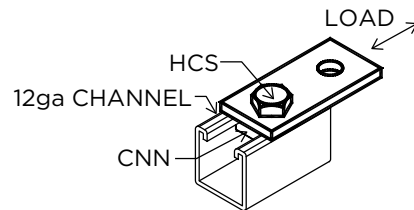


Pullout Test With Load on Fitting



Pullout Test With Load on Rod

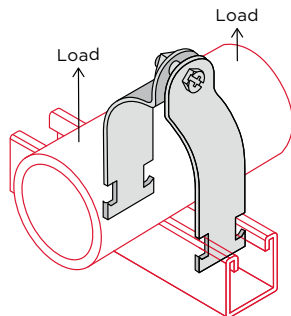
The channel nut sliding inside the channel is tested by supporting the channel by such method that the channel is stationary and applying a load parallel to the channel with the fitting attached according to the recommended methods and mounting torque as stated in MFMA standards using channel meeting MFMA standards.



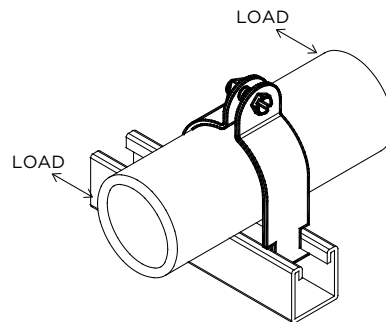
Slip Test for Strut Fittings

## Testing Methods for Strut Clamps

Strut clamps are tested for pullout of the channel by supporting the channel solidly and applying a load perpendicular to the channel. Strut clamps are tested for sliding in the channel by supporting the channel solidly and applying a load parallel to the channel. The clamps are attached according to the recommended methods using methods and channel meeting MFMA standards.



Pullout Test on Strut Clamp



Slip Test on Strut Clamp

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