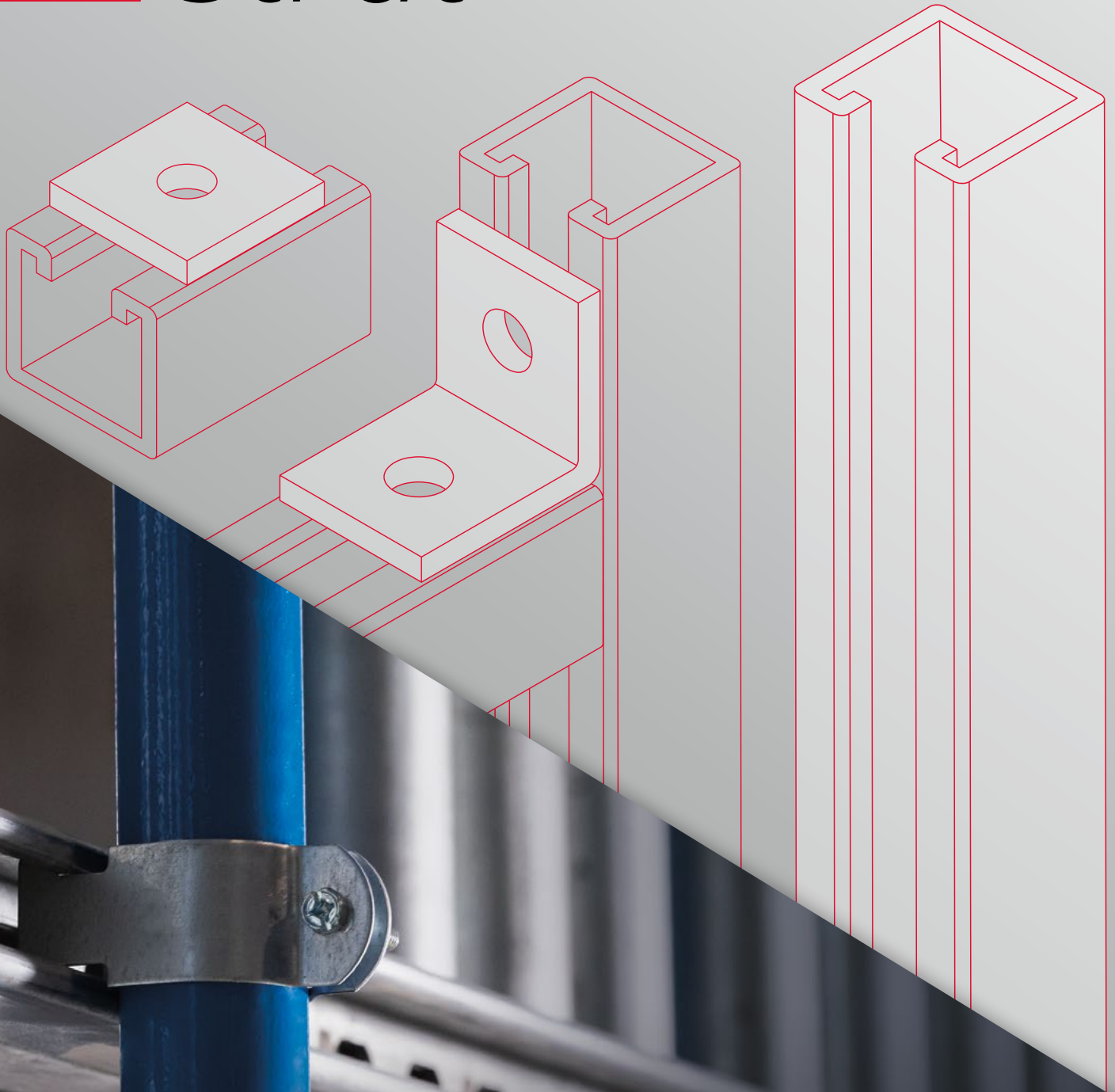


ZI-Strut®

 **Western Tube**
A ZEKELMAN COMPANY



PRODUCT CATALOG

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

Backed by the best service
in the industry.

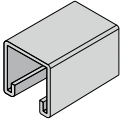
We work hard to exceed your expectations with superior domestic products, competitive pricing and the best customer service. Our high-quality, American-made strut is complemented by a complete line of accessories that are available in all finishes and materials, including 304 and 316 stainless steel.



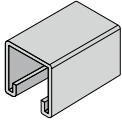
Contents

METAL FRAMING | PAGES 13-21

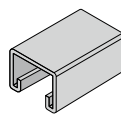
ZI12-158
1 1/8" x 1 1/8" Channel
12 Gauge



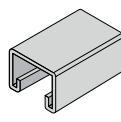
ZI14-158
1 1/8" x 1 1/8" Channel
14 Gauge



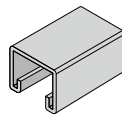
ZI12-1316
1 1/8" x 1 3/16" Channel
12 Gauge



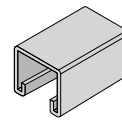
ZI14-1316
1 1/8" x 1 3/16" Channel
14 Gauge



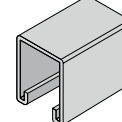
ZI12-1
1 1/8" x 1" Channel
12 Gauge



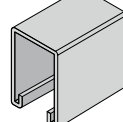
ZI12-138
1 1/8" x 1 1/8" Channel
12 Gauge



ZI12-2716
1 1/8" x 2 7/16" Channel
12 Gauge

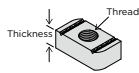


ZI12-314
1 1/8" x 3 1/4" Channel
12 Gauge

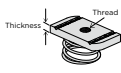


CHANNEL NUTS | PAGES 22-24

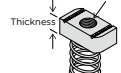
ZCNN (D)
Most Channel



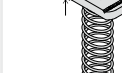
ZCNS (D)
1 3/16" & 1" Channel



ZCNR (D)
1 1/8" & 1 3/16" Channel



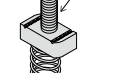
ZCNL (D)
2 1/16" & 3 1/4" Channel



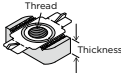
ZCNT (D)
Most Channel



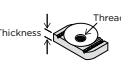
ZCND
1 1/8" & 1 1/8" Channel



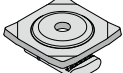
ZCNSQ
All Channel



ZCNC
All Channel

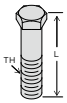


ZCNW
Most Channel



HARDWARE | PAGES 25-26

ZHCS
Hex Head Cap Screw



1/4"-20 to 1/2"-13

ZHN
Hex Nut



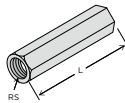
1/4"-20 to 3/4"-10

ZFW
Flat Washer



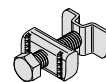
1/4" to 3/4"

ZRC
Rod Coupling



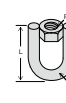
1/4"-20 to 1/2"-13

ZVRS
Rod Stiffener



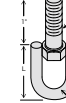
3/8" to 3/4"

ZSW10
Swivel Female



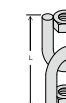
3/8"-16 to 1/2"-13

ZSW11
Swivel Male



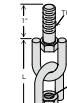
3/8"-16 to 1/2"-13

ZSW12
Swivel Female to Female



3/8"-16 to 1/2"-13

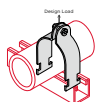
ZSW13
Swivel Male to Female



3/8"-16 to 1/2"-13

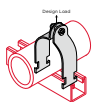
STRUT CLAMPS | PAGES 27-31

ZSCR
Rigid Strut Clamp



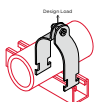
1/4"-12"

ZSCU
Universal Strut Clamp



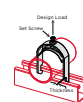
1/2"-2"

ZSCE
EMT Strut Clamp



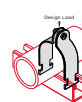
1/2"-2"

ZSCH
One Piece Strut Clamp



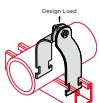
3/8"-4"

ZSCC
Copper Tubing Strut Clamp



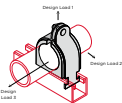
1/4"-6"

ZSCO
OD Strut Clamp



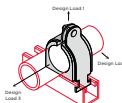
1/4"-9"

ZCCT
Cushioned Tubing Strut Clamp



1/4"-4 1/8"

ZCCP
Cushioned Pipe Strut Clamp



3/8"-5"

ZPW2500EP
Cushioned Pipe Wrap



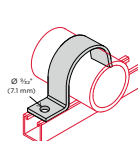
1/4"-8"

CONDUIT & TUBING CLAMPS | PAGE 32

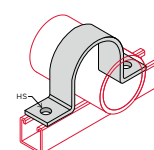
ZPCH
Pipe and Conduit Hanger | 1/2"-4"



ZTC1
OD Tubing Clamp | 1/4"-1"

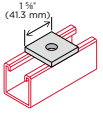
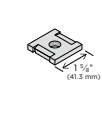
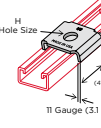
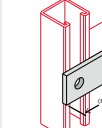
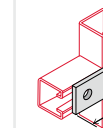
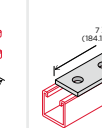
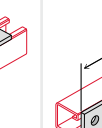
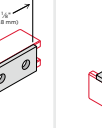
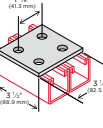
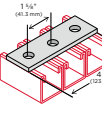
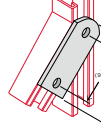
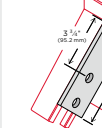
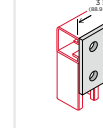
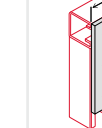


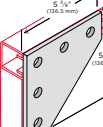
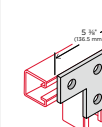

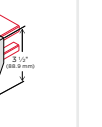
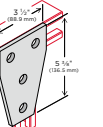
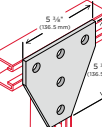
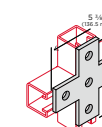


ZPS2
Pipe Strap | 1/2"-12"

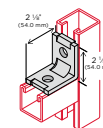
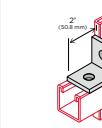
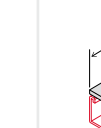
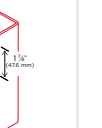
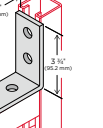
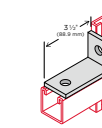
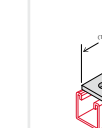
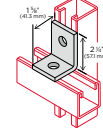
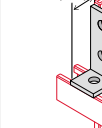

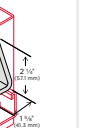
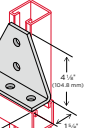
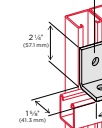
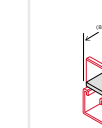
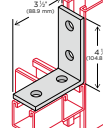
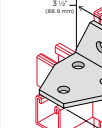

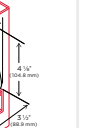
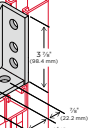
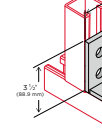
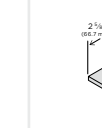


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FLAT FITTINGS | PAGES 33-36

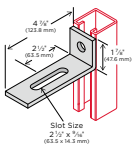
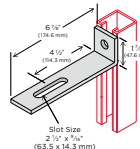
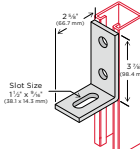
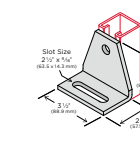
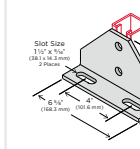
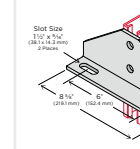
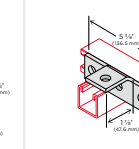
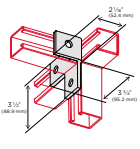
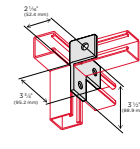
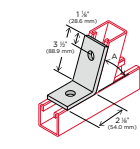
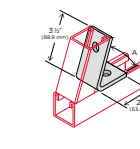
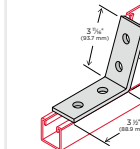
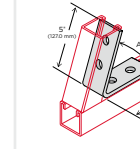
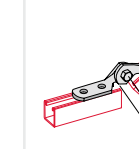
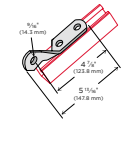
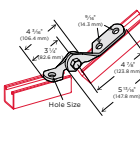
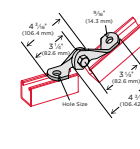
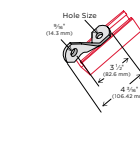
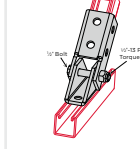
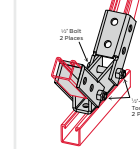
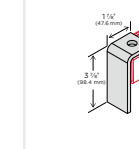
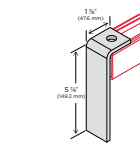

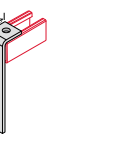
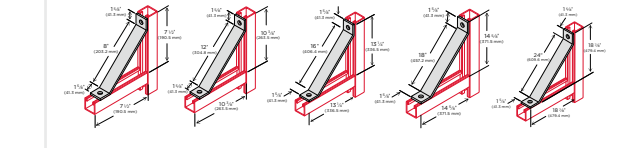
ZF09-ZF15 Square Washer  1 1/2" (41.3 mm) 3/4-3/8"	ZF19-ZF24 No Twist Square Washer  1 1/2" (41.3 mm) 3/4-3/4"	ZU70 Saddle Washer  H Hole Size 1 1/2" (41.3 mm) 11 Gauge (3.1 mm) 3/4-3/4"	ZF30 2 Hole Splice Plate  3 1/2" (88.9 mm)	ZF31 3 Hole Splice Plate  5 1/2" (139.5 mm)	ZF32 4 Hole Splice Plate  7 1/2" (184.1 mm)	ZF33 5 Hole Splice Plate  9 1/2" (238.0 mm)	ZF34 2 Hole Parallel Splice Plate  1 1/2" (41.3 mm) 3 1/2" (88.9 mm)
ZF35 4 Hole Parallel Splice Plate  1 1/2" (41.3 mm) 5 1/2" (139.5 mm)	ZF36 3 Hole Parallel Splice Plate  1 1/2" (41.3 mm) 4 1/2" (113.0 mm)	ZF40 2 Hole Swivel Plate  3 1/2" (88.9 mm) 5 1/2" (139.5 mm)	ZF41 3 Hole Swivel Plate  3 1/2" (88.9 mm) 7 1/2" (184.1 mm)	ZF50 3 Hole Corner Plate  3 1/2" (88.9 mm) 2 1/2" (63.5 mm)	ZF51 4 Hole Corner Plate  3 1/2" (88.9 mm) 5 1/2" (139.5 mm)	ZF52 3 Hole Corner Gusset Plate  3 1/2" (88.9 mm) 1 1/2" (41.3 mm)	ZF53 4 Hole Corner Gusset Plate  3 1/2" (88.9 mm) 5 1/2" (139.5 mm)
ZF54 5 Hole Corner Gusset Plate  5 1/2" (139.5 mm) 5 1/2" (139.5 mm)	ZF60 4 Hole Tee Plate  5 1/2" (139.5 mm) 3 1/2" (88.9 mm)	ZF61 3 Hole Tee Gusset Plate  3 1/2" (88.9 mm) 3 1/2" (88.9 mm)	ZF62 4 Hole Tee Gusset Plate  3 1/2" (88.9 mm) 5 1/2" (139.5 mm)	ZF63 5 Hole Tee Gusset Plate  5 1/2" (139.5 mm) 5 1/2" (139.5 mm)	ZF70 5 Hole Cross Plate  5 1/2" (139.5 mm) 5 1/2" (139.5 mm)	ZF71 7 Hole Cross Gusset Plate  9 1/4" (234.7 mm) 5 1/2" (139.5 mm)	

ANGLE FITTINGS | PAGES 37-46

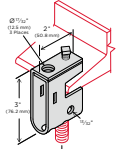
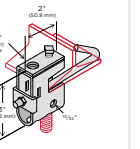
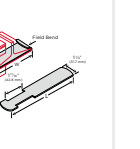
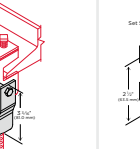
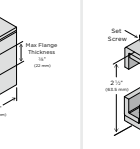
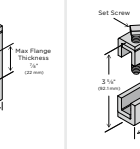
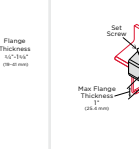

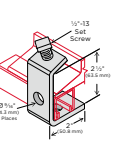
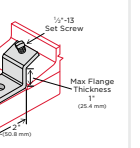
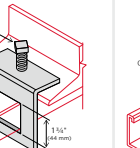
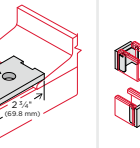
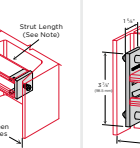
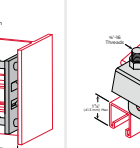
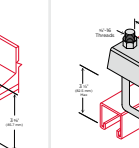
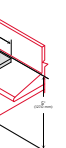
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ZL20 2 Hole Cross Corner Angle  1 1/2" (41.3 mm) 2 1/2" (63.5 mm)	ZL21 3 Hole Corner Angle  1 1/2" (41.3 mm) 4 1/2" (113.0 mm)	ZL22 3 Hole Cross Gusset Corner Angle  2 1/2" (63.5 mm) 3 1/2" (88.9 mm) 4 1/2" (113.0 mm)	ZL23 5 Hole Cross Gusset Corner Angle  4 1/2" (113.0 mm) 5 1/2" (139.5 mm) 1 1/2" (41.3 mm)	ZL24 4 Hole Gusset Shelf Angle  4 1/2" (113.0 mm) 2 1/2" (63.5 mm) 1 1/2" (41.3 mm)	ZL25 4 Hole Gusset Corner Angle  1 1/2" (41.3 mm) 2 1/2" (63.5 mm) 1 1/2" (41.3 mm)	ZL30 3 Hole 3 Way Corner Angle  3 1/2" (88.9 mm) 2 1/2" (63.5 mm)
ZL31 4 Hole 3 Way Corner Angle  3 1/2" (88.9 mm) 4 1/2" (113.0 mm)	ZL32 4 Hole 3 Way Gusset Corner Angle  3 1/2" (88.9 mm) 2 1/2" (63.5 mm) 4 1/2" (113.0 mm)	ZL33 5 Hole 3 Way Gusset Corner Angle  3 1/2" (88.9 mm) 4 1/2" (113.0 mm) 2 1/2" (63.5 mm)	ZL34 7 Hole Universal Gusset Corner Angle  3 1/2" (88.9 mm) 3 1/2" (88.9 mm) 1 1/2" (41.3 mm)	ZL35 4 Hole Gusset Corner Angle Left  4 1/2" (113.0 mm) 3 1/2" (88.9 mm) 3 1/2" (88.9 mm)	ZL36 4 Hole Gusset Corner Angle Right  3 1/2" (88.9 mm) 3 1/2" (88.9 mm) 1 1/2" (41.3 mm)	ZL40 2 Hole 2 5/8" Adjustable Corner Angle  2 5/8" (66.7 mm) 1 1/2" (41.3 mm) Slot Size 1 1/2" x 5/16" (38.1 x 14.3 mm)

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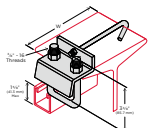
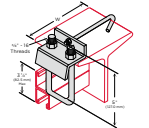
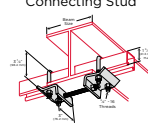
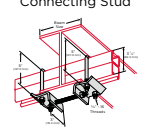
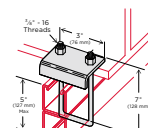
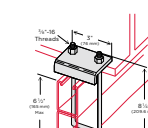
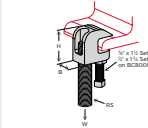
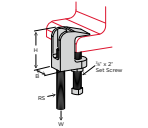
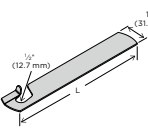
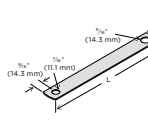
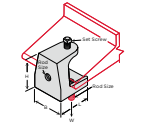
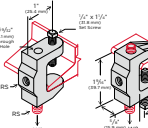
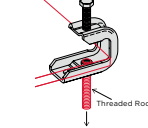
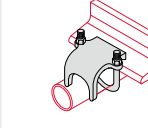
<p>ZL41 2 Hole 4 7/8" Adjustable Corner Angle</p> 	<p>ZL42 2 Hole 6 7/8" Adjustable Corner Angle</p> 	<p>ZL43 3 Hole Adjustable Corner Angle</p> 	<p>ZL44 2 Hole Adjustable Gusset Corner Angle</p> 	<p>ZL45 4 Hole 6 3/8" Adjustable Gusset Corner Angle</p> 	<p>ZL46 4 Hole 8 3/8" Adjustable Corner Angle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

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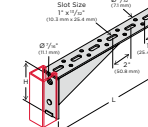
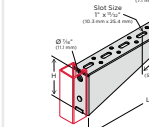
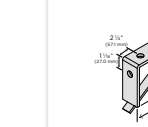

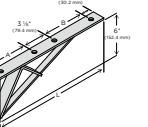
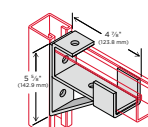
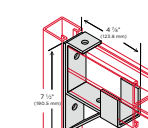
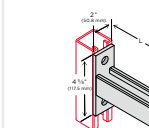
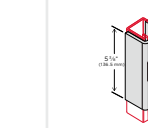
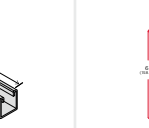
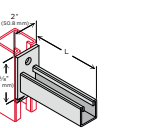
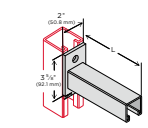
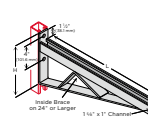
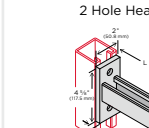



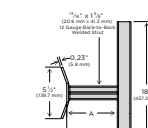
<p>ZBC10 Formed Steel Beam Clamp</p> 	<p>ZBC11 Formed Steel Beam Clamp With J-Hook</p> 	<p>ZBC13 Beam Clamp Anchor Strap</p> 	<p>ZBC14 Beam Clamp Swivel Adapter for ZBC10</p> 	<p>ZBC15 Formed Steel Beam Clamp</p> 	<p>ZBC16 Formed Steel Heavy Duty Beam Clamp</p> 	<p>ZBC17 Formed Steel Heavy Duty Beam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

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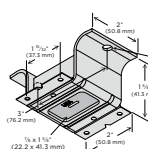
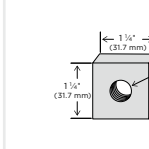
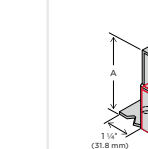
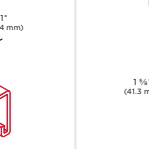
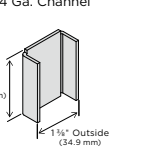
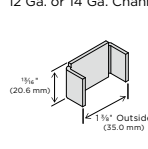
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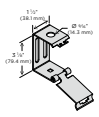
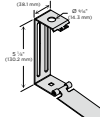
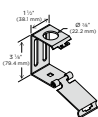
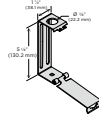
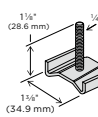
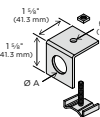
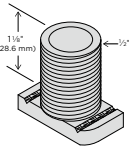
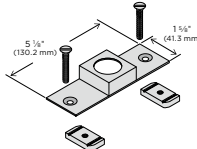
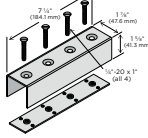
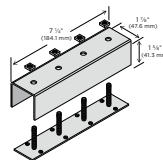
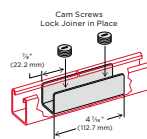
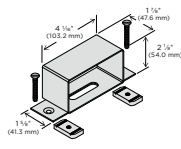
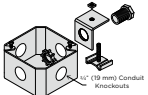
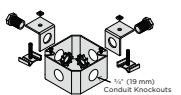
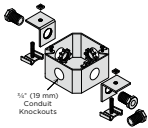
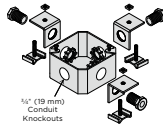
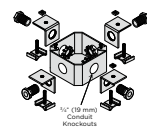
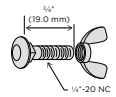
<p>ZBR8R Slotted Shelf Bracket (Right Hand)</p>  <p>6-18"</p>	<p>ZBR8L Slotted Shelf Bracket (Left Hand)</p>  <p>6-18"</p>	<p>ZBR20 Bracket 3 Hole</p>  <p>8 1/2-10 1/2"</p>	<p>ZBR21 Bracket 6 Hole</p>  <p>12 1/2-14 1/2"</p>	<p>ZBR22 Bracket With Brace 6 Hole</p>  <p>16 1/2-20 1/2"</p>	<p>ZBR30 Bracket for 1 1/2" Channel</p>  <p>4 1/2" (113.0 mm)</p>
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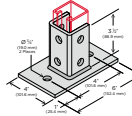
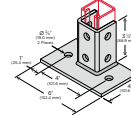
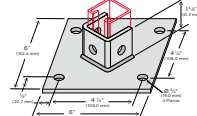
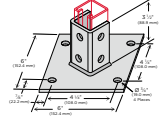
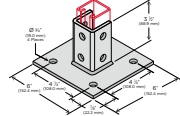
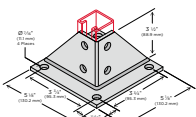
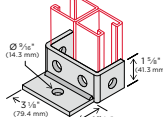
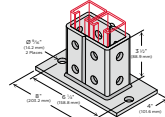
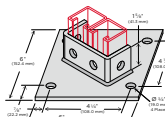
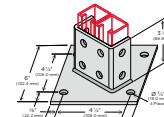
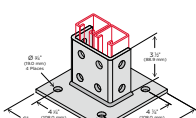
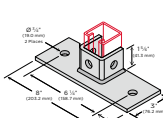
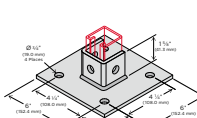
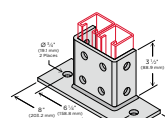
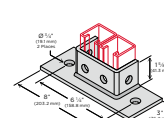
<p>ZCI Concrete Insert</p>  <p>1 1/2" (38.1 mm)</p>	<p>ZCIN Concrete Insert Nut</p>  <p>1 1/2" (31.7 mm)</p>	<p>ZCI20-ZCI22 Concrete End Cap Anchor</p>  <p>1 1/2" (31.8 mm)</p>	<p>ZEC10 End Cap for 1 1/2" 12 Ga. Channel</p>  <p>1 1/2" (41.3 mm)</p>	<p>ZEC11 End Cap for 1 1/2" 14 Ga. Channel</p>  <p>1 1/2" (41.3 mm)</p>	<p>ZEC12 End Cap for 1 1/2" 12 Ga. or 14 Ga. Channel</p>  <p>1 1/2" Outside (35.0 mm)</p>
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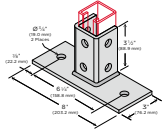
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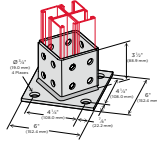
ZP26

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



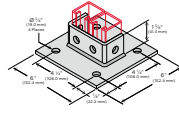
ZP27

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



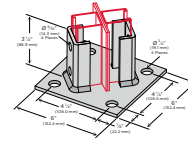
ZP28

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



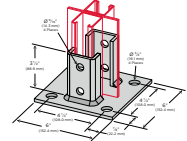
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Post Base Double Channel
4 Hole Square 3 1/2"



ZP30

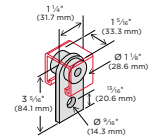
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4 Hole Square 3 1/2"



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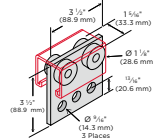
ZR10

Roller Trolley 2 Bearing



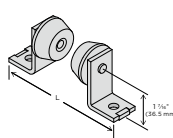
ZR11

Roller Trolley 4 Bearing



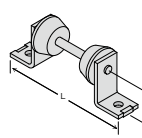
ZR20

Pipe Roller 1-4" Pipe



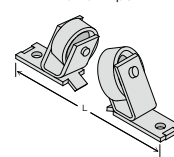
ZR21

Pipe Roller



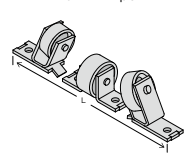
ZR22

Pipe Roller Heavy Duty
6-16" Pipe



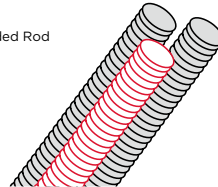
ZR23

Pipe Roller Heavy Duty
16-24" Pipe



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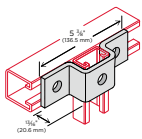
TR
Threaded Rod



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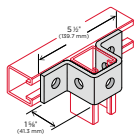
ZU10

Cross 3 Hole 1 1/4"



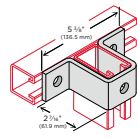
ZU11

Cross 5 Hole 1 1/4"



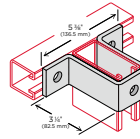
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Cross 3 Hole 2 1/4"



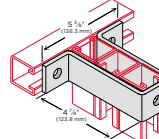
ZU13

Cross 3 Hole 3 1/4"



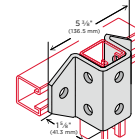
ZU14

Cross 3 Hole 4 1/4"



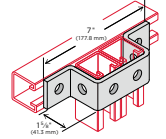
ZU15

Cross 8 Hole 1 1/4"



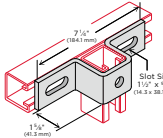
ZU16

Cross 6 Hole
1 1/4" Double Channel



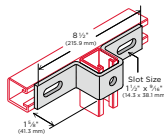
ZU20

Cross 1 Hole 2 Slot



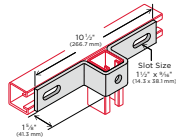
ZU21

Cross 1 Hole 2 Slot



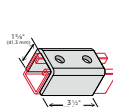
ZU22

Cross 1 Hole 2 Slot



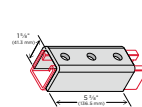
ZU30

Splice 2 Hole 1 1/4"



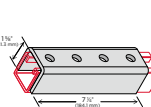
ZU31

Splice 3 Hole 1 1/4"



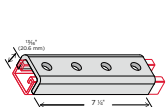
ZU32

Splice 4 Hole 1 1/4"



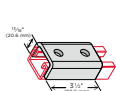
ZU33

Splice 4 Hole 1 1/4"



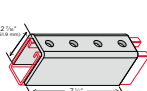
ZU34

Splice 2 Hole 1 1/4"



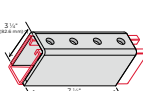
ZU35

Splice 4 Hole 2 1/4"



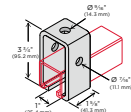
ZU36

Splice 4 Hole 3 1/4"



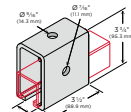
ZU40

Trolley Support 3 Hole
Standard



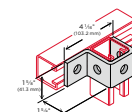
ZU41

Trolley Support 3 Hole
Heavy Duty



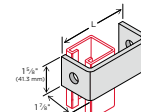
ZU50

4 Hole Cup Support



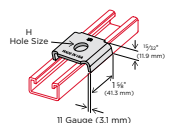
ZU60

Clevis 2 Hole



ZU70

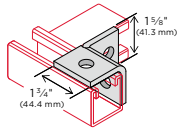
Saddle Washer



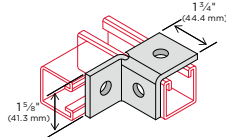
Contents

WING FITTINGS | PAGES 78-81

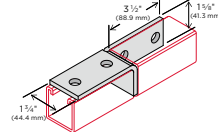
ZW10
Single 3 Hole Right



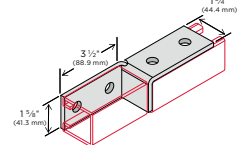
ZW11
Single 3 Hole Left



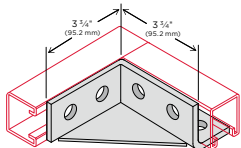
ZW12
Single 4 Hole Right



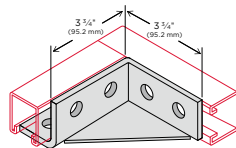
ZW13
Single 4 Hole Left



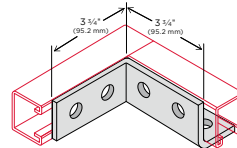
ZW14
Single 6 Hole Gusset Right



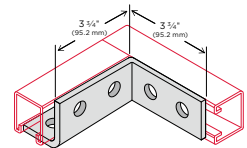
ZW15
Single 6 Hole Gusset Left



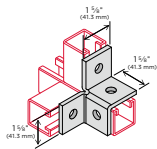
ZW16
Single 6 Hole Right



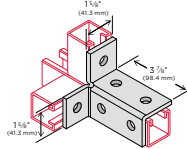
ZW17
Single 6 Hole Left



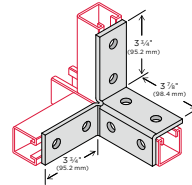
ZW20
Double Corner 4 Hole



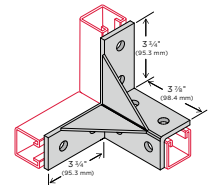
ZW21
Double Corner 6 Hole



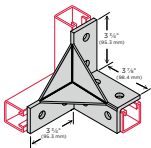
ZW22
Double Corner 8 Hole



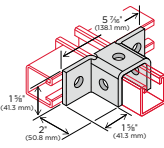
ZW23
Double Corner 8 Hole Gusset



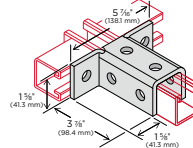
ZW24
Double Corner 8 Hole Double Gusset



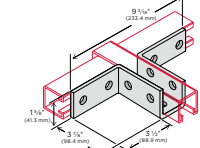
ZW30
Connector 5 Hole



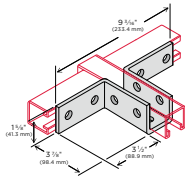
ZW31
Connector 8 Hole



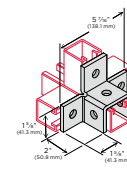
ZW32
Connector 10 Hole



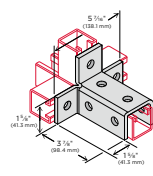
ZW33
Connector 10 Hole Double Gusset



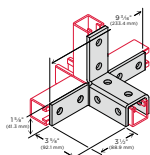
ZW40
Triple Corner 6 Hole



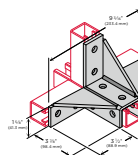
ZW41
Triple Corner 9 Hole



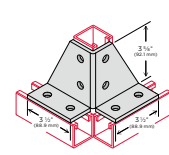
ZW42
Triple Corner 12 Hole



ZW43
Triple Corner 12 Hole Gusset



ZW50
Double Connector 8 Hole



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<p>ZZ30 2 Hole Support 4"</p>	<p>ZZ31 2 Hole Support 5"</p>	<p>ZZ32 2 Hole Support 6"</p>	<p>ZZ33 2 Hole Support 7"</p>	<p>ZZ34 2 Hole Support 8"</p>	<p>ZZ40 Channel Hanger 1³/₁₆"*</p>
<p>ZZ41 Channel Hanger 1³/₁₆"*</p>	<p>ZZ42 Channel Hanger 2⁷/₁₆"*</p>	<p>ZZ43 Channel Hanger 3¹/₄"*</p>	<p>ZZ50 Corner Brace 3 Hole</p>	<p>ZZ51 Corner Brace 8 Hole</p>	<p>ZZ60 Slotted Support</p>

ROOFTOP SUPPORT BLOCKS | PAGES 85-86

<p>ZRSB Rooftop Support Block Plain Base</p>	<p>ZRSB Rooftop Support Block With 1³/₁₆"*, 1³/₁₆" & 2⁷/₁₆" Channel</p>	<p>ZRSB — Bridge Series Rooftop Support Blocks With 1³/₁₆" Channel</p>
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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 μm to 12.7 μm).

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 μm) or 1.5 oz. per square foot (0.46 kg per square meter) per side.

YC—Yellow Zinc Dichromate

A 0.2 mil (5 μm) 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 μm) 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 μm) 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

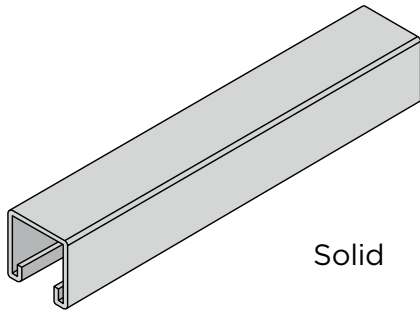
Plain strut is thoroughly cleaned to remove all residual mill oils and rolling lubricants. The cleaned strut is then pre-treated with a phosphoric coating for additional corrosion resistance and improved paint adherence. From here, a high grade of polyester powder paint is electrostatically applied. 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.

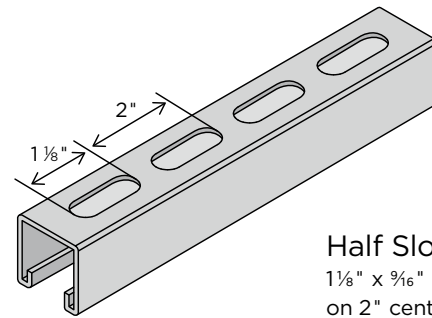
Metal Framing

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

Punching Options

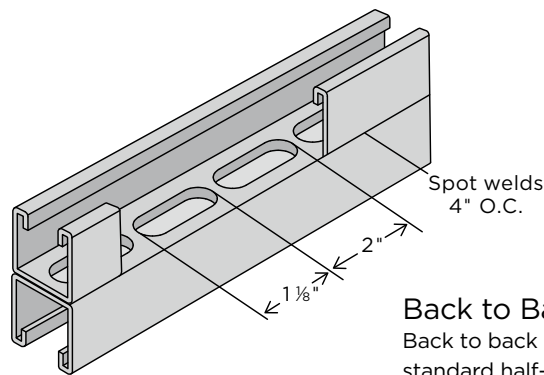


Solid

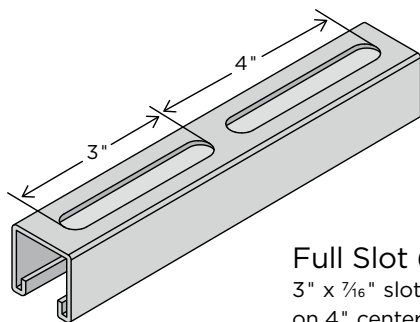


Half Slot (HS)

1 1/8" x 3/16" slots punched on 2" centers

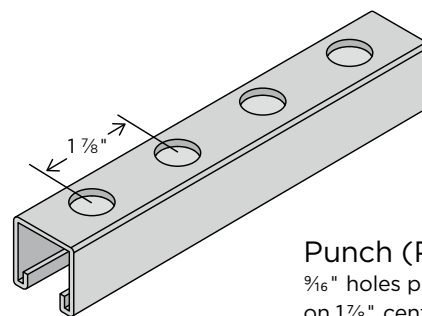


Back to Back (BTB)
 Back to back channel with standard half-slots



Full Slot (FS)

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

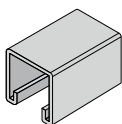


Punch (P)

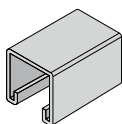
3/16" holes punched on 1 7/8" centers

METAL FRAMING | PAGES 12-20

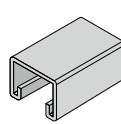
Z112-158
 1 1/8" x 1 1/8" Channel
 12 Gauge



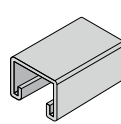
Z114-158
 1 1/8" x 1 1/8" Channel
 14 Gauge



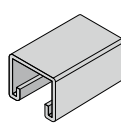
Z112-1316
 1 1/8" x 1 3/16" Channel
 12 Gauge



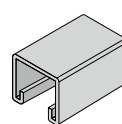
Z114-1316
 1 1/8" x 1 3/16" Channel
 14 Gauge



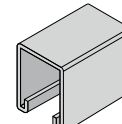
Z112-1
 1 1/8" x 1" Channel
 12 Gauge



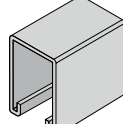
Z112-138
 1 1/8" x 1 1/8" Channel
 12 Gauge



Z112-2716
 1 1/8" x 2 7/16" Channel
 12 Gauge



Z112-314
 1 1/8" x 3 1/4" Channel
 12 Gauge



Metal Framing

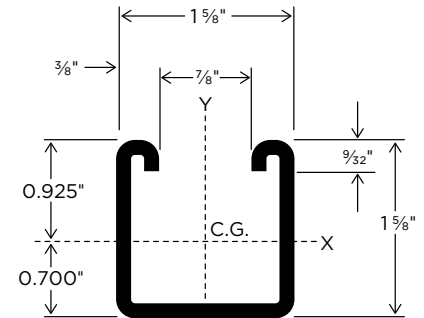
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

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

ELEMENTS OF SECTION

CATALOG #	STOCK #	PUNCH	LENGTH	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI12-158	5201210000	Solid	10	1.89	0.583	0.188	0.203	0.581	0.257	0.316	0.680	500
	5201010000	HS										500
	5201110000	FS										500
	—	P										—
ZI12-158 BTB	5211110000	HS/BTB*	10	3.78	1.166	0.920	0.566	0.910	0.514	0.632	0.680	250
	5201220000	Solid	500									
ZI12-158	5201020000	HS	20	1.89	0.583	0.188	0.203	0.581	0.257	0.316	0.680	500
	5201120000	FS										500
	—	P										—
ZI12-158 BTB	5211120000	HS/BTB*	20	3.78	1.166	0.920	0.566	0.910	0.514	0.632	0.680	300

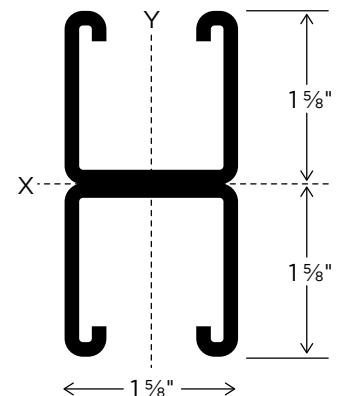
I: Moment of inertia
 S: Section modulus
 R: Radius of gyration
 *BTB is welded back to back



ZI12-158

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.
ZI12-158	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
ZI12-158 BTB	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	



ZI12-158 BTB

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

Metal Framing

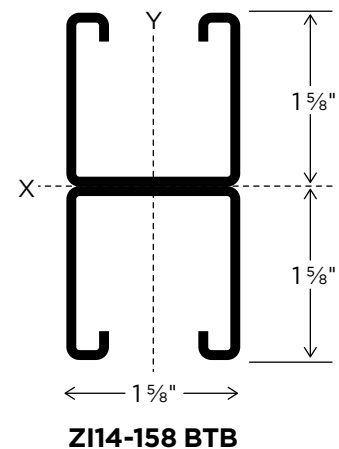
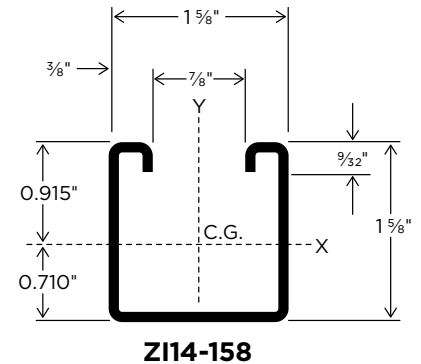
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

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

ELEMENTS OF SECTION

CATALOG #	STOCK #	PUNCH	LENGTH	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI14-158	5203310000	Solid										500
	5203010000	HS	10	1.35	0.398	0.142	0.155	0.597	0.177	0.215	0.655	500
	5203210000	FS										500
	—	P										—
ZI14-158 BTB	5203110000	HS/BTB*	10	2.70	0.796	0.685	0.421	0.927	0.354	0.430	0.655	250
	5203320000	Solid										500
ZI14-158	5203020000	HS	20	1.35	0.398	0.142	0.155	0.597	0.177	0.215	0.655	500
	5203220000	FS										500
	—	P										—
ZI14-158 BTB	5203120000	HS/BTB*	20	2.70	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 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.
ZI14-158	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
ZI14-158 BTB	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

Metal Framing

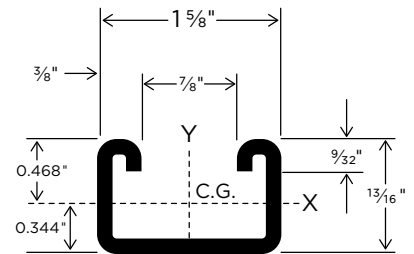
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

Z112-1316 | 1 5/8" x 1 3/16" Channel
 Metal thickness is 12 gauge (0.105").

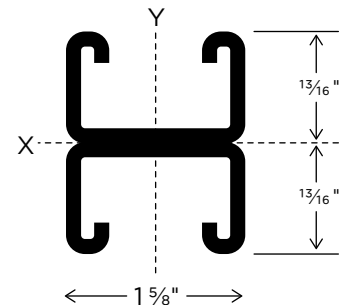
ELEMENTS OF SECTION

CATALOG #	STOCK #	PUNCH	LENGTH	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
Z112-1316	5205310000	Solid	10	1.27	0.375	0.032	0.066	0.291	0.126	0.155	0.577	500
	5205010000	HS										500
	5205210000	FS										500
	—	P										—
Z112-1316 BTB	5205110000	HS/BTB*	10	2.54	0.750	0.148	0.182	0.442	0.252	0.311	0.577	250
	5205320000	Solid	—	—	—	—	—	—	—	—	—	500
Z112-1316	5205020000	HS	20	1.27	0.375	0.032	0.066	0.291	0.126	0.155	0.577	500
	5205220000	FS										500
	—	P										—
Z112-1316 BTB	5205120000	HS/BTB*	20	2.54	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



Z112-1316



Z112-1316 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.
Z112-1316	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	—
Z112-1316 BTB	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.



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

Metal Framing

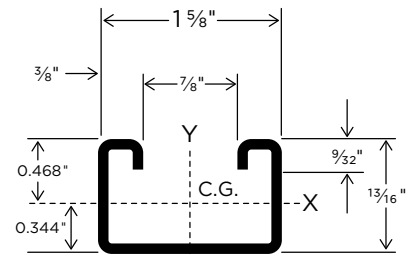
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

ZI14-1316 | 1 5/8" x 1 3/16" Channel
 Metal thickness is 14 gauge (0.075").

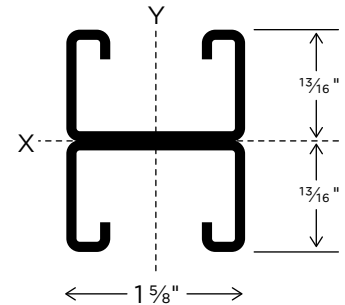
ELEMENTS OF SECTION

CATALOG #	STOCK #	PUNCH	LENGTH	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI14-1316	5202310000	Solid	10	1.00	0.275	0.028	0.060	0.319	0.116	0.142	0.649	500
	5202010000	HS										500
	5202110000	FS										500
	-	P										-
ZI14-1316 BTB	5202210000	HS/BTB*	10	2.00	0.550	0.121	0.149	0.469	0.232	0.284	0.649	250
	5202320000	Solid	-	-	-	-	-	-	-	-	-	500
ZI14-1316	5202020000	HS	20	1.00	0.275	0.028	0.060	0.319	0.116	0.142	0.649	500
	5202120000	FS										500
	-	P										-
ZI14-1316 BTB	5202220000	HS/BTB*	20	2.00	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.
ZI14-1316	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	-	-	-	-
ZI14-1316 BTB	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
	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.



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

Metal Framing

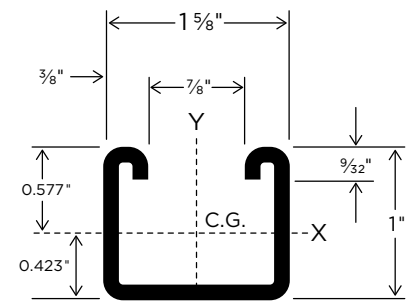
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

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

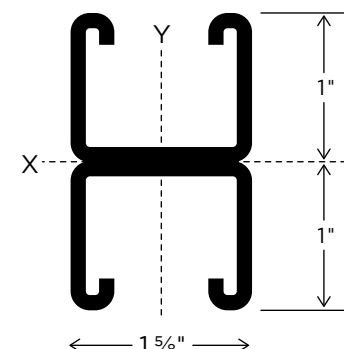
ELEMENTS OF SECTION

CATALOG #	STOCK #	PUNCH	LENGTH	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI12-1	5204310000	Solid	10	1.41	0.418	0.066	0.099	0.364	0.157	0.193	0.594	500
	5204010000	HS										500
	5204210000	FS										500
	-	P										-
ZI12-1 BTB	5204110000	HS/BTB*	10	2.83	0.836	0.306	0.268	0.552	0.314	0.386	0.604	250
ZI12-1	5204320000	Solid	20	1.41	0.418	0.066	0.099	0.364	0.157	0.193	0.594	500
	5204020000	HS										500
	5204220000	FS										500
	-	P										-
ZI12-1 BTB	5204120000	HS/BTB*	20	2.83	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



ZI12-1



ZI12-1 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.
ZI12-1	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
ZI12-1 BTB	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
	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.



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

Metal Framing

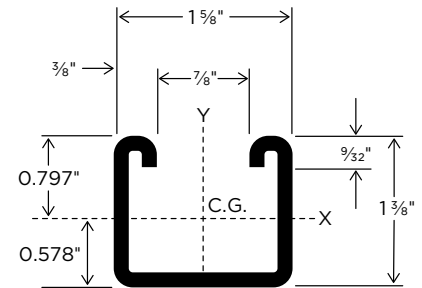
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

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
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI12-138	—	Solid										—
	5206010000	HS	10	1.704	0.500	0.134	0.168	0.517	0.219	0.269	0.662	500
	5206210000	FS										500
	—	P										—
ZI12-138 BTB	5206110000	HS/BTB*	10	3.408	1.000	0.602	0.438	0.775	0.438	0.538	0.662	250
	—	Solid										—
ZI12-138	5206020000	HS	20	1.704	0.500	0.134	0.168	0.517	0.219	0.269	0.662	500
	5206220000	FS										500
	—	P										—
ZI12-138 BTB	5206120000	HS/BTB*	20	3.408	1.000	0.602	0.438	0.775	0.438	0.538	0.662	300

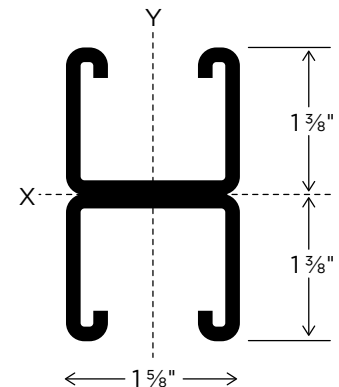
I: Moment of inertia
 S: Section modulus
 R: Radius of gyration
 *BTB is welded back to back



ZI12-138

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.
ZI12-138	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
ZI12-138 BTB	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	



ZI12-138 BTB

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

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	WEIGHT	AREA OF SECTION	AXIS X-X			AXIS Y-Y			BUNDLE QTY
						ft.	lbs./ft.	in. ²	I (in. ⁴)	S (in. ³)	R (in.)	
		Solid										
Z112-2716	5207010000	HS	10	2.47	0.725	0.520	0.395	0.847	0.337	0.415	0.682	400
	5207210000	FS										400
		P										
Z112-2716 BTB	5207110000	HS/BTB*	10	4.94	1.450	2.865	1.175	1.405	0.674	0.830	0.682	250
		Solid										
Z112-2716	5207020000	HS	20	2.47	0.725	0.520	0.395	0.847	0.337	0.415	0.682	400
	5207220000	FS										400
		P										
Z112-2716 BTB	5207120000	HS/BTB*	20	4.94	1.450	2.865	1.175	1.405	0.674	0.830	0.682	300

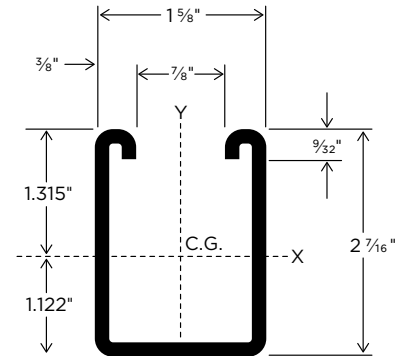
I: Moment of inertia
 S: Section modulus
 R: Radius of gyration
 *BTB is welded back to back

BEAM AND COLUMN LOADS DATA

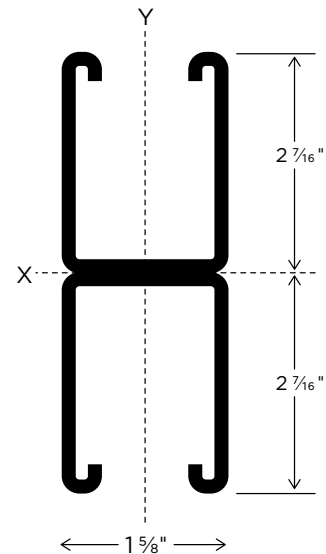
CATALOG #	BEAM SPAN OR UNBRACED COLUMN HEIGHT	UNIFORM LOAD AT STRESS OF 25,000 PSI	DEFLECTION AT STRESS OF 25,000 PSI	UNIFORM LOAD WHEN MAXIMUM DEFLECTION = SPAN/240	MAXIMUM ALLOWABLE LOAD OF COLUMN
	in.	lbs.	in.	lbs.	lbs.
Z112-2716	18	4400	0.022	4400	10500
	24	3280	0.039	3280	9800
	30	2650	0.062	2650	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
Z112-2716 BTB	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



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

Metal Framing

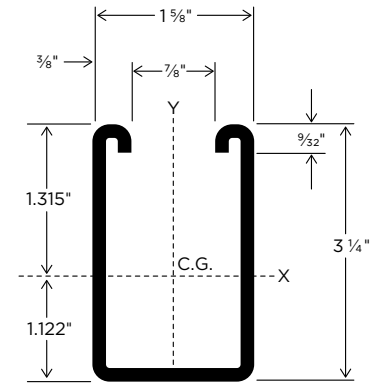
Standard finish is Pre-Galvanized (PG)
 Product finishes and materials are on [page 12](#)

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. ²	I (in. ⁴)	S (in. ³)	R (in.)	
ZI12-314	—	Solid										
	5208010000	HS	10	3.06	0.898	1.111	0.640	1.112	0.438	0.539	0.698	300
	5208210000	FS										300
	—	P										—
ZI12-314 BTB	5208110000	HS/BTB*	10	6.12	1.796	6.344	1.920	1.879	0.876	1.078	0.698	250
	—	Solid										—
ZI12-314	5208020000	HS	20	3.06	0.898	1.111	0.640	1.112	0.438	0.539	0.698	300
	5208220000	FS										300
	—	P										—
ZI12-314 BTB	5208120000	HS/BTB*	20	6.12	1.796	6.344	1.920	1.879	0.876	1.078	0.698	300

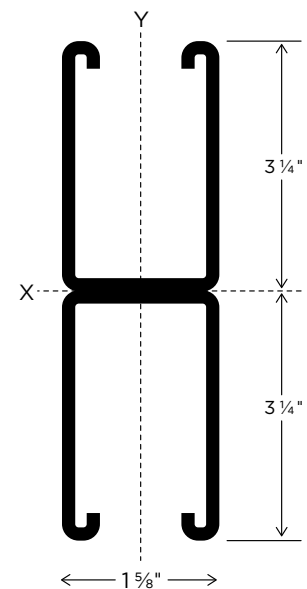
I: Moment of inertia
 S: Section modulus
 R: Radius of gyration
 *BTB is welded back to back



ZI12-314

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.
ZI12-314	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	—
ZI12-314 BTB	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	—



ZI12-314 BTB

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.



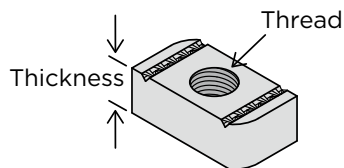
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

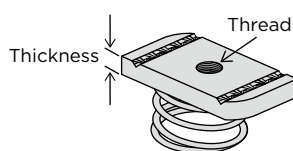


CATALOG #	THREAD SIZE	THICKNESS		WEIGHT
		in.	mm	
ZCNN20010EG	10-24	0.25	6.3	0.096
ZCNN20025EG	¼"-20	0.25	6.3	0.096
ZCNN30031EG	⅝"-18	0.37	9.4	0.096
ZCNN30037EG	¾"-16	0.37	9.4	0.084
ZCNN30050EG	½"-13	0.37	9.4	0.076
ZCNN30M10EG	M10	0.37	9.4	0.076
ZCNN40050EG*	½"-13	0.50	12.7	0.108
ZCNN40M12EG*	M12	0.50	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 1⅜" channel

ZCNS | Channel Nut Short Spring

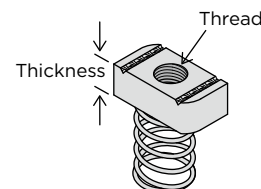
For 1⅜" & 1" channel



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	¾"-16	0.25	6.3	0.060
ZCNS30037EG	¾"-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

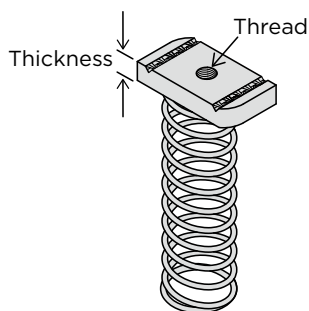
For 1⅜" & 1⅝" channel



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	¾"-16	0.25	6.3	0.066
ZCNR30037EG	¾"-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

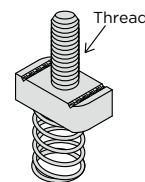
For 2⅞" & 3¼" channel



CATALOG #	THREAD SIZE	THICKNESS		WEIGHT
		in.	mm	
ZCNL20025EG	¼"-20	0.25	6.3	0.10
ZCNL30037EG	¾"-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	⅝"-16	1	25.4	0.13
ZCND37112EG	⅝"-16	1⅞	28.6	0.13
ZCND37125EG	⅝"-16	1¼	31.8	0.14
ZCND37150EG	⅝"-16	1½	38.1	0.15
ZCND37162EG	⅝"-16	1⅞	41.3	0.16
ZCND37212EG	⅝"-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



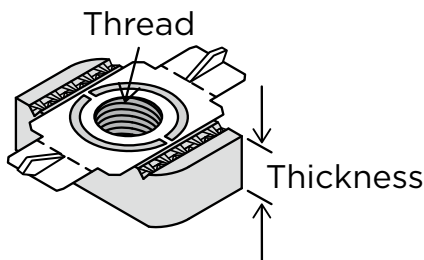
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Channel Nuts

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

ZCNSQ | Channel Squeeze Nut

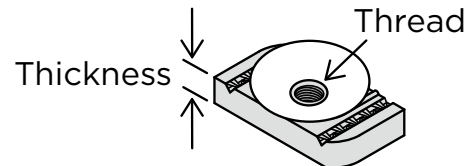
For all channel sizes



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

ZCNC | Channel Cone Nut

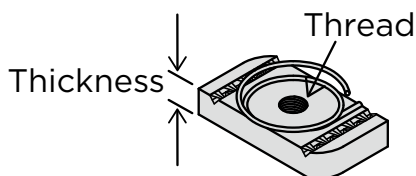
For all channel sizes



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

ZCNT | Channel Nut Top Spring

For all channel sizes except as noted

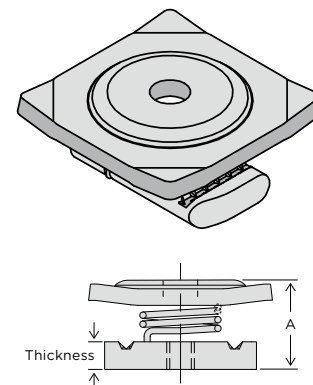


CATALOG #	THREAD SIZE	THICKNESS		WEIGHT
		in.	mm	lbs.
ZCNT20025EG	¼"-20	0.25	6.3	0.093
ZCNT30037EG	⅜"-16	0.37	9.4	0.093
ZCNT30050EG	½"-13	0.37	9.4	0.092
ZCNT40050EG*	½"-13	0.50	12.7	0.101

*Cannot be used with 1⅜" channel

ZCNW | Combo Nut Washer

For all channel sizes except as noted



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

*Cannot be used with 1⅜" channel



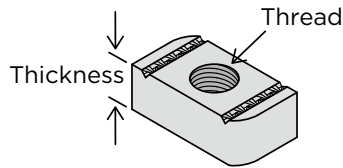
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

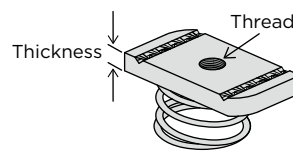


CATALOG #	THREAD SIZE	THICKNESS		WEIGHT
		in.	mm	
ZCNN2D025EG	¼"-20	0.25	6.3	0.061
ZCNN3D031EG	⅝"-18	0.37	9.4	0.096
ZCNN3D037EG	¾"-16	0.37	9.4	0.084
ZCNN3D050EG	½"-13	0.37	9.4	0.076
ZCNN4D050EG*	½"-13	0.50	12.7	0.108
ZCNN3D062EG	⅝"-11	0.37	9.4	0.097
ZCNN4D062EG*	⅝"-11	0.50	12.7	0.130
ZCNN3D075EG	¾"-10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

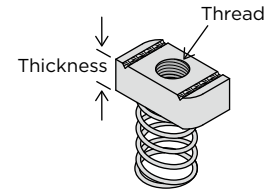
For 1⅜" & 1" channel



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

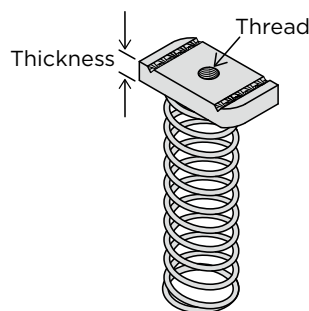
For 1⅜" & 1⅝" channel



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

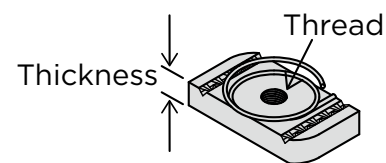
For 2⅞" & 3¼" channel



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

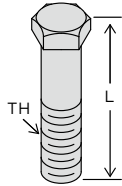


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Hardware

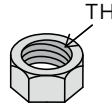
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZHCS | Hex Head Cap Screw



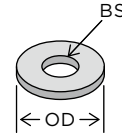
CATALOG #	THREAD SIZE	LENGTH		WEIGHT
		in.	lbs.	
ZHCS2507EG	¼"-20	¾	0.015	
ZHCS2510EG	¼"-20	1	0.018	
ZHCS2512EG	¼"-20	1¼	0.021	
ZHCS2515EG	¼"-20	1½	0.024	
ZHCS3707EG	⅜"-16	¾	0.036	
ZHCS3710EG	⅜"-16	1	0.042	
ZHCS3712EG	⅜"-16	1¼	0.049	
ZHCS3715EG	⅜"-16	1½	0.056	
ZHCS3720EG	⅜"-16	2	0.072	
ZHCS5010EG	½"-13	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



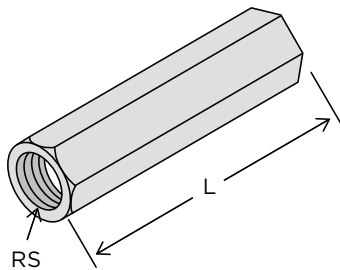
CATALOG #	THREAD SIZE	WEIGHT
		lbs.
ZHN0025EG	¼"-20	0.009
ZHN0037EG	⅜"-16	0.016
ZHN0050EG	½"-13	0.038
ZHN0062EG	⅝"-11	0.073
ZHN0075EG	¾"-10	0.119

ZFW | Flat Washer



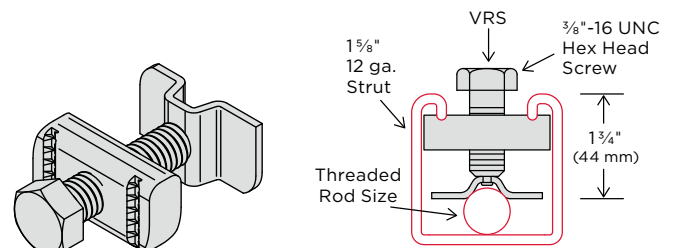
CATALOG #	BS	OD		WEIGHT
		in.	mm	
ZFW0025EG	¼	¾	19.0	0.008
ZFW0037EG	⅜	1	25.4	0.015
ZFW0050EG	½	1⅝	34.9	0.039
ZFW0062EG	⅝	1¾	44.4	0.077
ZFW0075EG	¾	2	50.8	0.110

ZRC | Rod Coupling



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

ZVRS | Rod Stiffener



CATALOG #	BOLT SIZE	ROD DIAMETER		ROOT AREA	RADIUS OF GYRATION	DESIGN LOAD	
		in.	mm			lbs.	kN
ZVRS0000EG	⅝"-⅝	⅜"-16	9.5	0.068	0.074	730	3.3
		½"-13	12.7	0.126	0.100	1350	6.0
		⅝"-11	15.9	0.202	0.127	2160	9.6

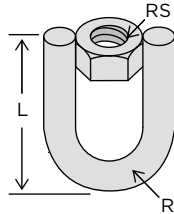


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Hardware

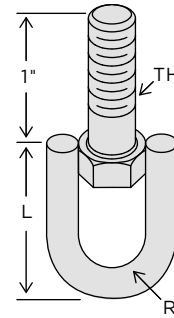
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZSW10 | Swivel Female



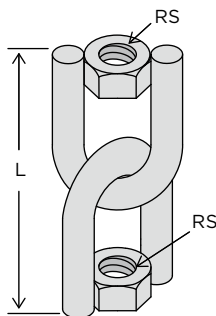
CATALOG #	WEIGHT	RS	L		R		DESIGN LOAD	
			in.	mm	in.	mm	lbs.	kN
ZSW100037EG	0.13	3/8"-16	1 3/4	44.4	1/4	6.3	620	2.76
ZSW100050EG	0.17	1/2"-13	2	50.8	3/8	9.4	1150	5.12

ZSW11 | Swivel Male



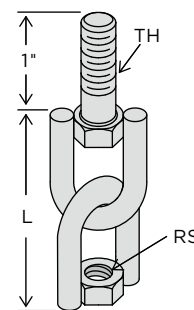
CATALOG #	WEIGHT	TH	L		R		DESIGN LOAD	
			in.	mm	in.	mm	lbs.	kN
ZSW110037EG	0.15	3/8"-16	1 3/4	44.4	1/4	6.3	620	2.76
ZSW110050EG	0.20	1/2"-13	2	50.8	3/8	9.4	1150	5.12

ZSW12 | Swivel Female to Female



CATALOG #	WEIGHT	RS	L		DESIGN LOAD	
			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	
				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

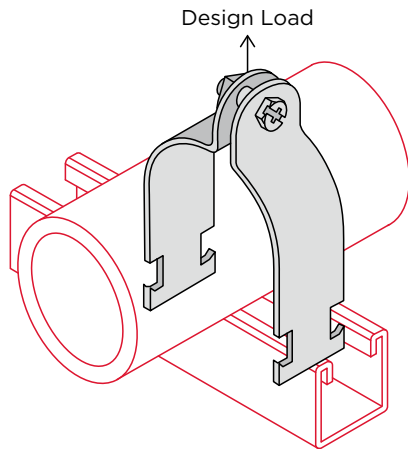


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Strut Clamps

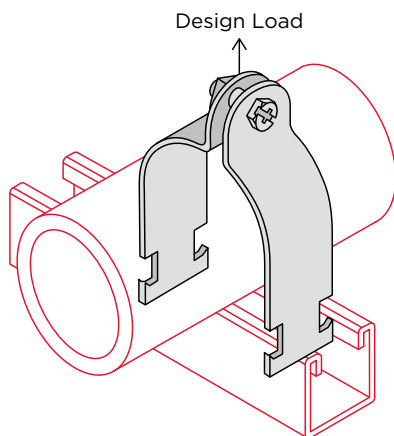
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZSCR | Rigid Strut Clamp



CATALOG #	PIPE SIZE		OD		DESIGN LOAD		WEIGHT
	in.	mm	in.	mm	lbs.	kN	lbs.
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	lbs.
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

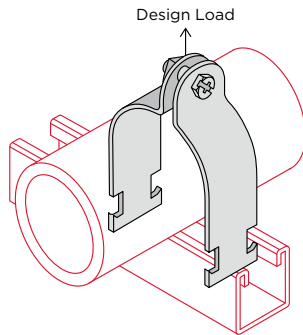
*These clamps are designed to fit both pipe (rigid conduit) and thin-walled tubing (EMT) in the corresponding sizes.

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

Strut Clamps

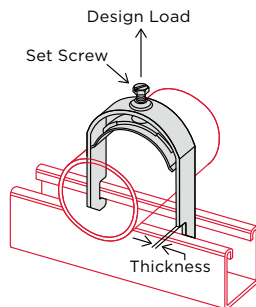
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZSCE | EMT Strut Clamp



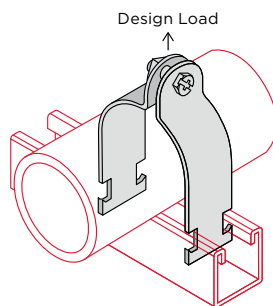
CATALOG #	EMT SIZE		OD		DESIGN LOAD		WEIGHT
	in.	mm	in.	mm	lbs.	kN	lbs.
ZSCE0050EG	½	15	0.706	17.9	400	1.78	0.10
ZSCE0075EG	¾	20	0.922	23.4	400	1.78	0.11
ZSCE0100EG	1	25	1.163	29.5	600	2.67	0.14
ZSCE0125EG	1¼	32	1.510	38.4	600	2.67	0.16
ZSCE0150EG	1½	40	1.740	44.2	800	3.56	0.26
ZSCE0200EG	2	50	2.197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



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	¾	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

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).

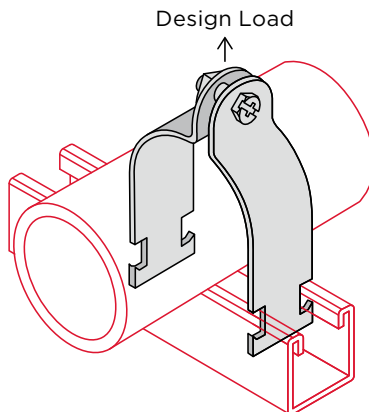


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Strut Clamps

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

ZSCO | OD Strut Clamp



CATALOG #	SIZE OD			DESIGN LOAD		WEIGHT	CATALOG #	SIZE OD			DESIGN LOAD		WEIGHT	CATALOG #	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	9⅞	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	9¾	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	6¾	6.625	168.3	1000	4.45	0.89								

Other sizes available upon request.

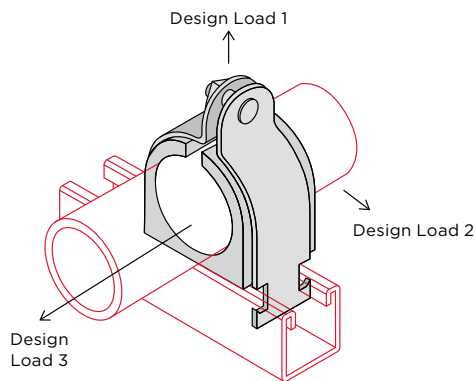


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Strut Clamps

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

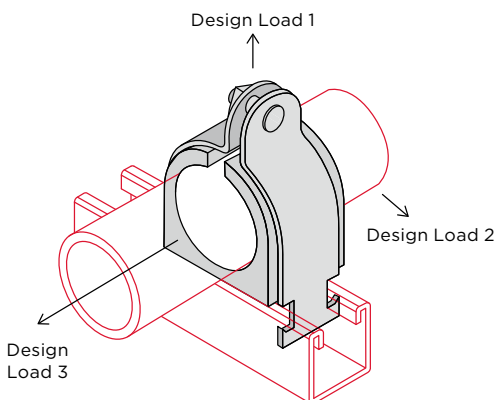
ZCCT | Cushioned Tubing Strut Clamp



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	600	2.67	75	0.33	75	0.33	0.15
ZCCT0075YC	¾	0.750	19.0							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	800	3.56	125	0.56	125	0.56	0.26
ZCCT0150YC	1 ½	1.500	38.1							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	1000	4.45	200	0.89	150	0.67	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							0.75
ZCCT0412YC	4 ⅛	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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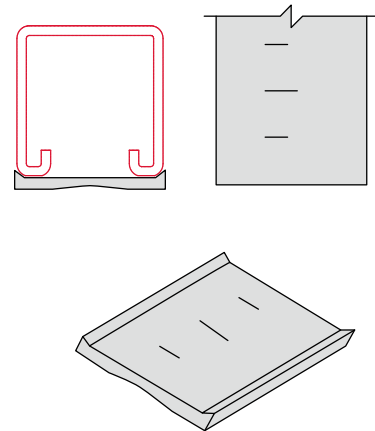
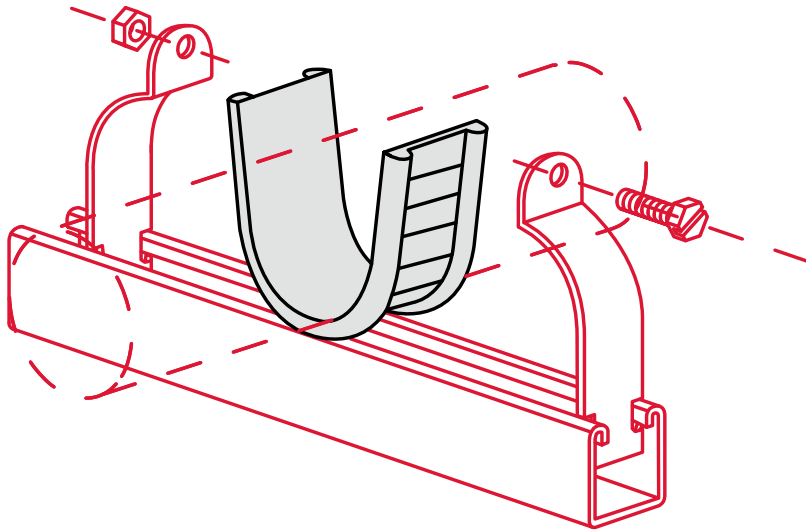
Strut Clamps

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

COPPER TUBING

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

THIN-WALL EMT CONDUIT

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

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



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Conduit & Tubing Clamps

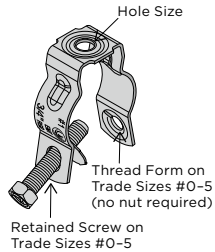
Product finishes and materials are on [page 11](#)

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.

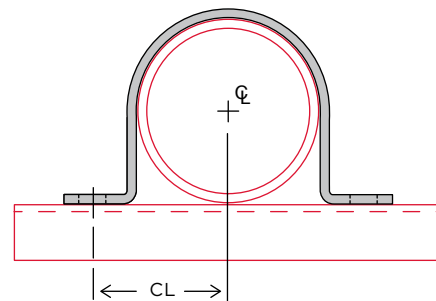
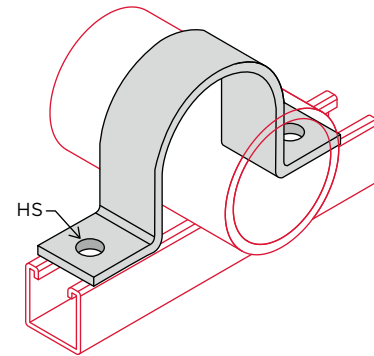


CATALOG #	TRADE SIZE	CONDUIT SIZE (INCHES)		HOLE SIZE	BOX QTY
		EMT	RIGID		
ZPCH0	0	½	¾, ½	¼	100
ZPCH037				¾	
ZPCH1	1	¾	¾	¼	100
ZPCH137				¾	
ZPCH2	2	1	1	¼	100
ZPCH237				¾	
ZPCH2.5	2.5	1¼	—	¼	100
ZPCH2.537				¾	
ZPCH3	3	1½	1¼	¼	50
ZPCH337				¾	
ZPCH4	4	—	1½	⅝	50
ZPCH437				¾	
ZPCH5	5	2	2	⅝	50
ZPCH537				¾	
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

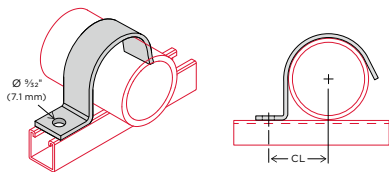
ZPS2 | Pipe Strap

Standard finish is Electro-Galvanized (EG).



ZTC1 | OD Tubing Clamp

Standard finish is Electro-Galvanized (EG).



CATALOG #	WEIGHT	TUBING OD		CL		
		lbs.	in.	mm	in.	mm
ZTC10025EG	0.040		¼	6.3	½	12.7
ZTC10031EG	0.042		⅝	7.9	⅝	14.3
ZTC10037EG	0.052		¾	9.5	⅝	14.3
ZTC10050EG	0.058		½	12.7	¾	15.9
ZTC10062EG	0.071		¾	15.8	1⅝	17.5
ZTC10075EG	0.077		¾	19.0	¾	19.0
ZTC10087EG	0.087		⅞	22.2	1⅝	20.6
ZTC10100EG	0.100		1	25.4	1⅝	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	3⅝	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

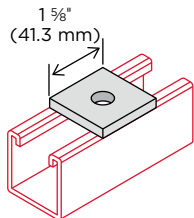


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Flat Fittings

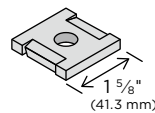
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZF09-ZF15 Square Washer



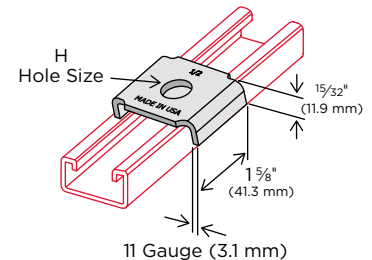
CATALOG #	BOLT SIZE		HOLE SIZE		WEIGHT lbs.
	in.	mm	in.	mm	
ZF100025EG	1/4	6	5/16	7.9	0.18
ZF090031EG	5/16	7	3/8	9.5	0.17
ZF110037EG	3/8	8	7/16	11.1	0.17
ZF120050EG	1/2	12	9/16	14.3	0.15
ZF130062EG	5/8	16	1 1/16	17.5	0.15
ZF140075EG	3/4	20	1 3/16	20.6	0.14
ZF150087EG	7/8	22	1 5/16	23.8	0.13

ZF19-ZF24 No Twist Square Washer



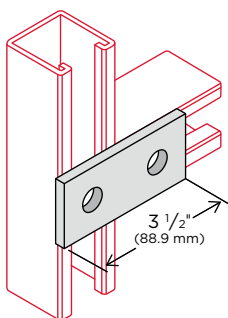
CATALOG #	BOLT SIZE		WEIGHT lbs.
	in.	mm	
ZF190031EG	5/16	8	0.17
ZF200025EG	1/4	6	0.17
ZF210037EG	3/8	8	0.17
ZF220050EG	1/2	12	0.16
ZF230062EG	5/8	16	0.15
ZF240075EG	3/4	20	0.14

ZU70 Saddle Washer



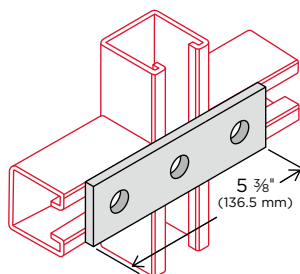
CATALOG #	BOLT SIZE in.	H (HOLE SIZE)		WEIGHT lbs.
		in.	mm	
ZU700025EG	1/4	5/16	7.9	0.14
ZU700037EG	3/8	7/16	11.1	0.14
ZU700050EG	1/2	9/16	14.3	0.13
ZU700062EG	5/8	1 1/16	17.4	0.13
ZU700075EG	3/4	1 3/16	20.6	0.13

ZF30 2 Hole Splice Plate



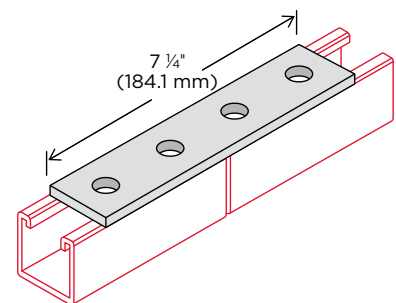
CATALOG #	WEIGHT lbs.
ZF300000EG	0.34

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.

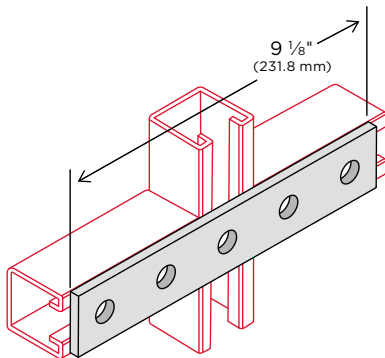
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Flat Fittings

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

ZF33

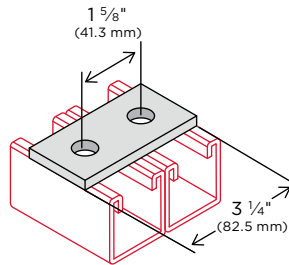
5 Hole Splice Plate



CATALOG #	WEIGHT
	lbs.
ZF330000EG	0.93

ZF34

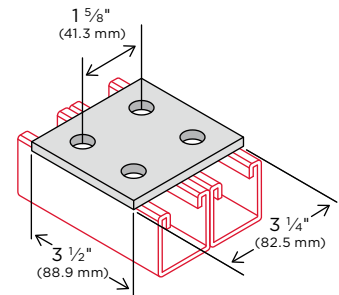
2 Hole Parallel Splice Plate



CATALOG #	WEIGHT
	lbs.
ZF340000EG	0.31

ZF35

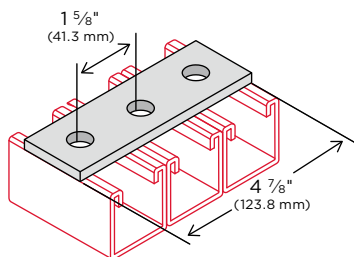
4 Hole Parallel Splice Plate



CATALOG #	WEIGHT
	lbs.
ZF350000EG	0.76

ZF36

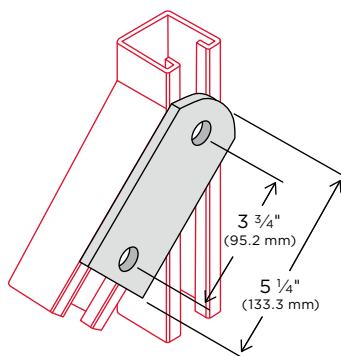
3 Hole Parallel Splice Plate



CATALOG #	WEIGHT
	lbs.
ZF360000EG	0.45

ZF40

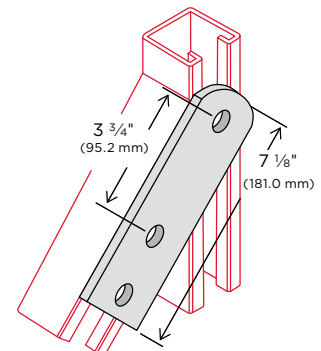
2 Hole Swivel Plate



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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

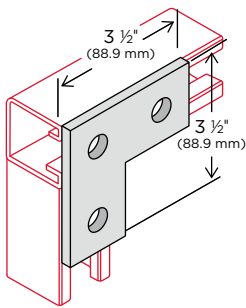
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Flat Fittings

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

ZF50

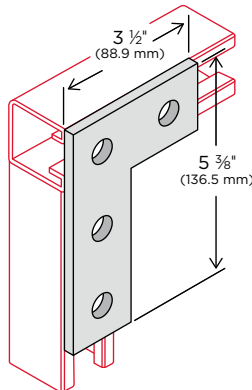
3 Hole Corner Plate



CATALOG #	WEIGHT
	lbs.
ZF500000EG	0.60

ZF51

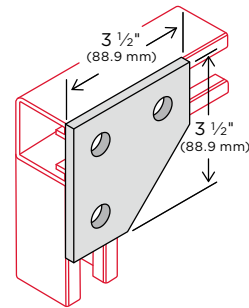
4 Hole Corner Plate



CATALOG #	WEIGHT
	lbs.
ZF510000EG	0.71

ZF52

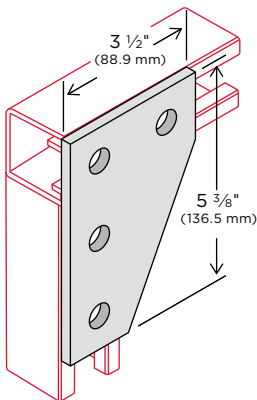
3 Hole Corner Gusset Plate



CATALOG #	WEIGHT
	lbs.
ZF520000EG	0.65

ZF53

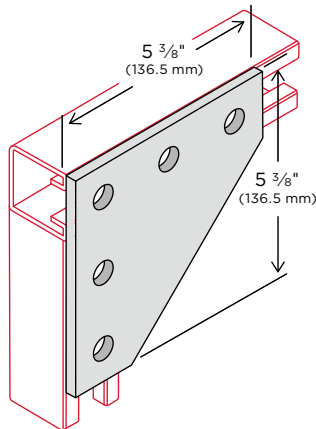
4 Hole Corner Gusset Plate



CATALOG #	WEIGHT
	lbs.
ZF530000EG	0.95

ZF54

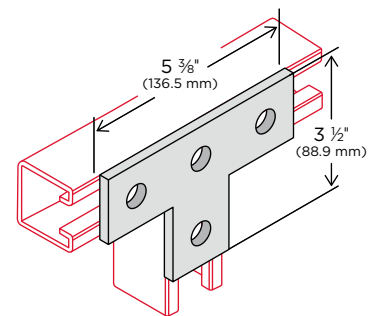
5 Hole Corner Gusset Plate



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 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

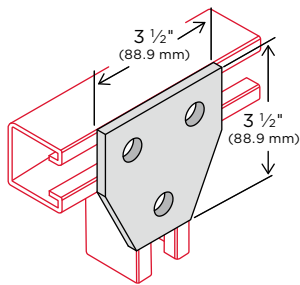
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Flat Fittings

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

ZF61

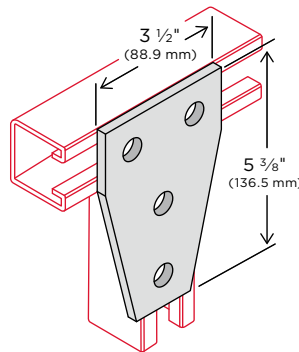
3 Hole Tee Gusset Plate



CATALOG #	WEIGHT
	lbs.
ZF610000EG	0.64

ZF62

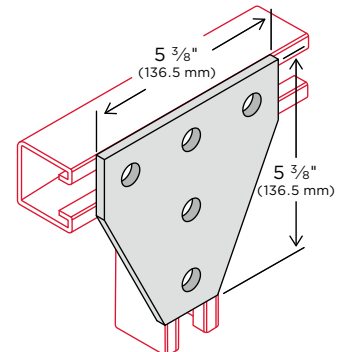
4 Hole Tee Gusset Plate



CATALOG #	WEIGHT
	lbs.
ZF620000EG	0.97

ZF63

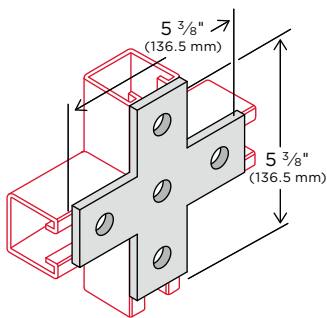
5 Hole Tee Gusset Plate



CATALOG #	WEIGHT
	lbs.
ZF630000EG	1.39

ZF70

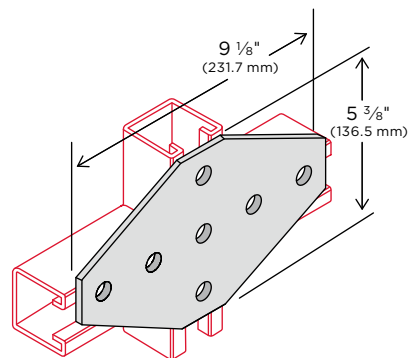
5 Hole Cross Plate



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 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

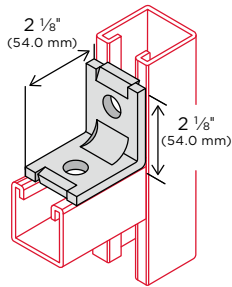
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL10

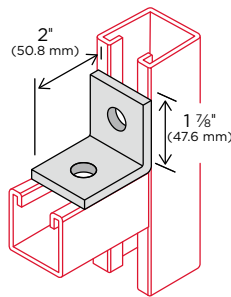
2 Hole No Twist Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL10000EG	0.36

ZL11

2 Hole Corner Angle

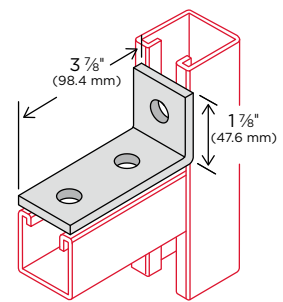


Note: Also available with 7/16" hole size for 3/8" hardware as catalog number ZL110037EG.

CATALOG #	WEIGHT
	lbs.
ZL11000EG	0.36

ZL12

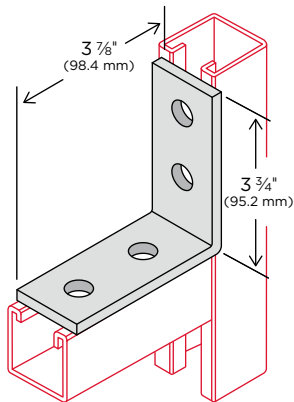
3 Hole Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL12000EG	0.40

ZL13

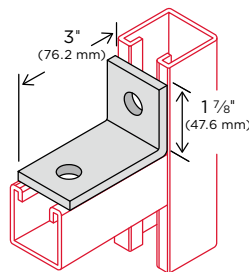
4 Hole Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL13000EG	0.76

ZL14

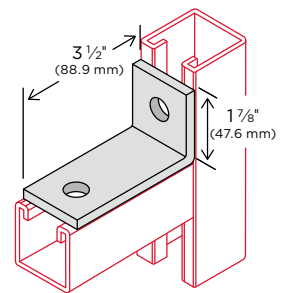
2 Hole 3" Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL14000EG	0.45

ZL15

2 Hole 3 1/2" Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL15000EG	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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

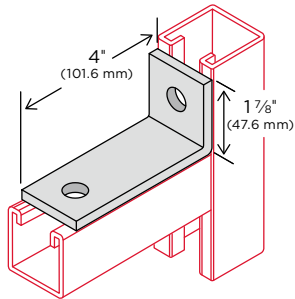
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL16

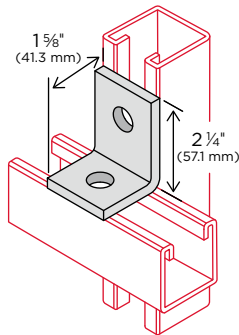
2 Hole 4" Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL160000EG	0.54

ZL20

2 Hole Cross Corner Angle

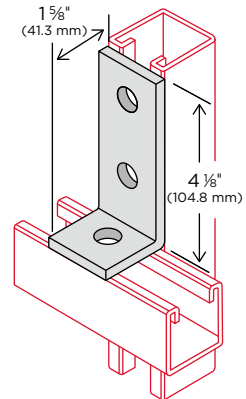


Note: Also available with 7/16" hole size for 3/8" hardware as catalog number ZL110037EG.

CATALOG #	WEIGHT
	lbs.
ZL200000EG	0.34

ZL21

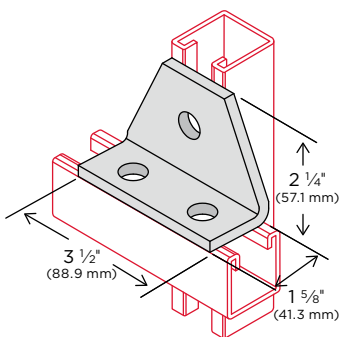
3 Hole Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL210000EG	0.52

ZL22

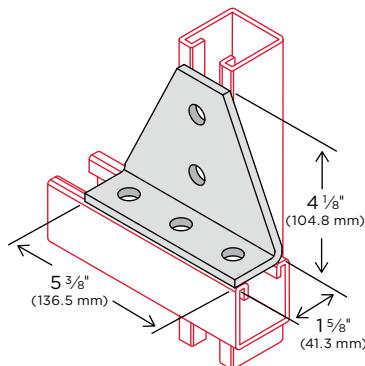
3 Hole Cross Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL220000EG	0.65

ZL23

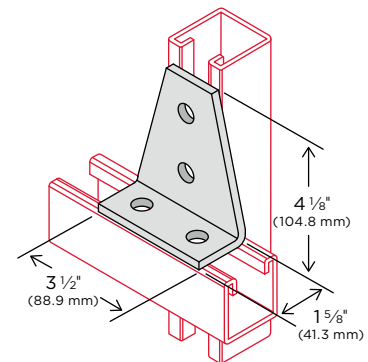
5 Hole Cross Gusset Corner Angle



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.

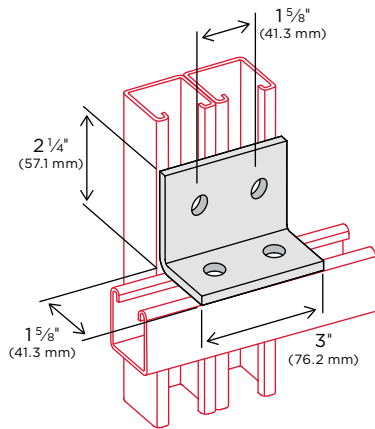
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL25

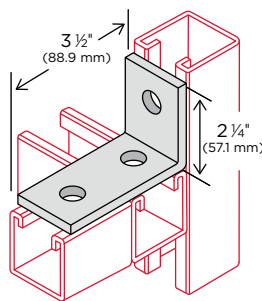
4 Hole Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL250000EG	0.75

ZL30

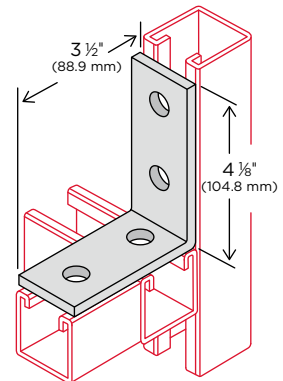
3 Hole 3 Way Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL300000EG	0.52

ZL31

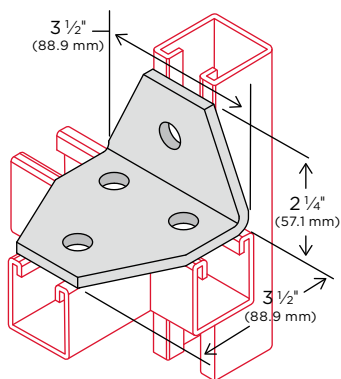
4 Hole 3 Way Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL310000EG	0.71

ZL32

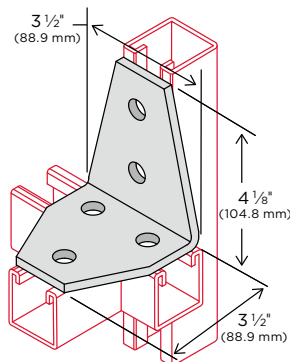
4 Hole 3 Way Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL320000EG	0.96

ZL33

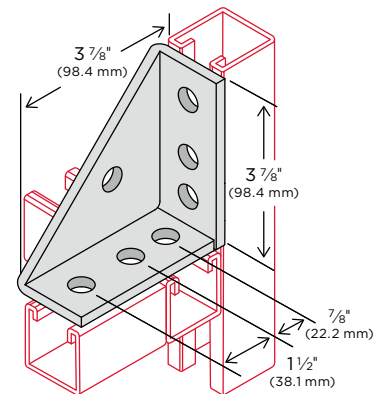
5 Hole 3 Way Gusset Corner Angle



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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.



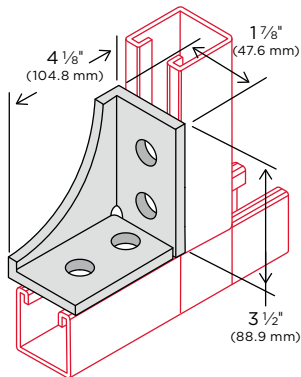
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL35

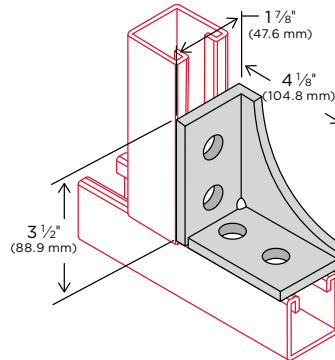
4 Hole Gusset Corner Angle Left



CATALOG #	WEIGHT
	lbs.
ZL350000EG	1.15

ZL36

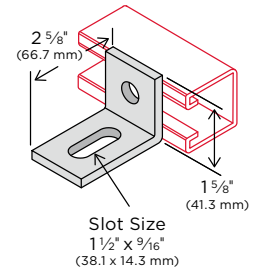
4 Hole Gusset Corner Angle Right



CATALOG #	WEIGHT
	lbs.
ZL360000EG	1.20

ZL40

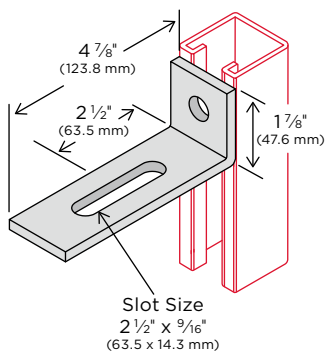
2 Hole 2 5/8" Adjustable Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL400000EG	0.35

ZL41

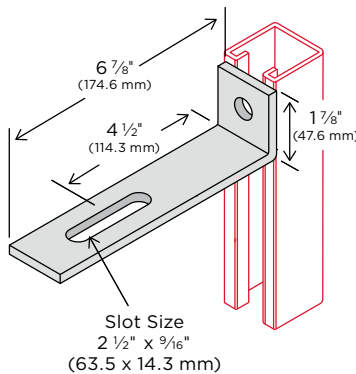
2 Hole 4 7/8" Adjustable Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL410000EG	0.58

ZL42

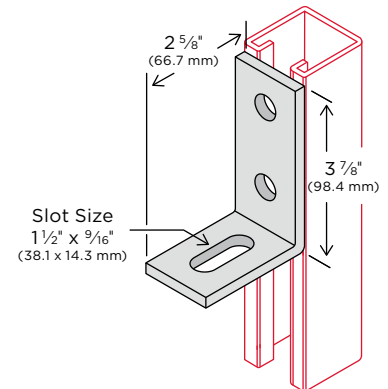
2 Hole 6 7/8" Adjustable Corner Angle



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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

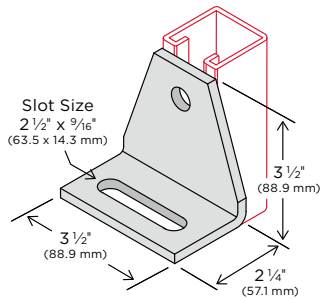
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL44

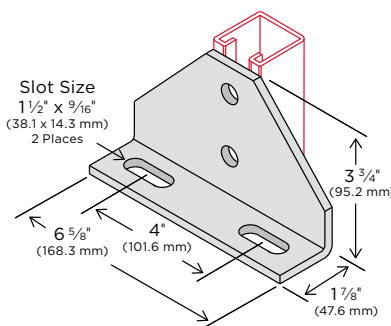
2 Hole Adjustable Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL440000EG	0.87

ZL45

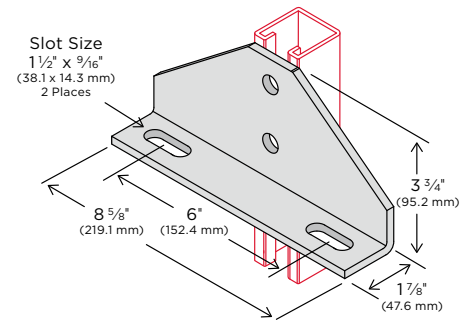
4 Hole 6 5/8" Adjustable Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL450000EG	1.62

ZL46

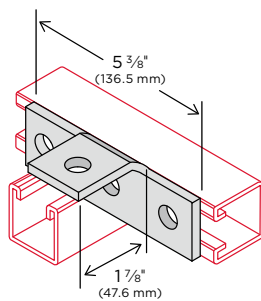
4 Hole 8 5/8" Adjustable Gusset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL460000EG	2.40

ZL50

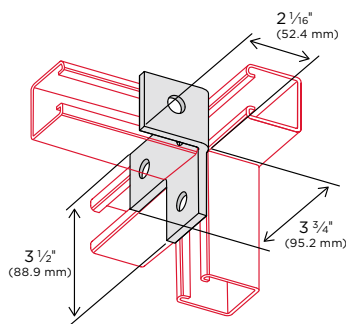
4 Hole Offset Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL500000EG	0.71

ZL51

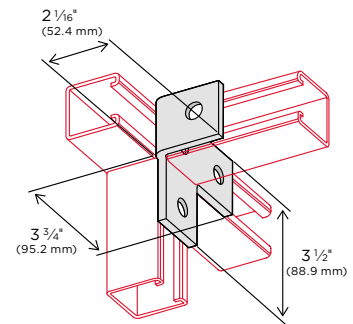
4 Hole Offset Bent Tee Left



CATALOG #	WEIGHT
	lbs.
ZL510000EG	0.71

ZL52

4 Hole Offset Bent Tee Right



CATALOG #	WEIGHT
	lbs.
ZL520000EG	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.

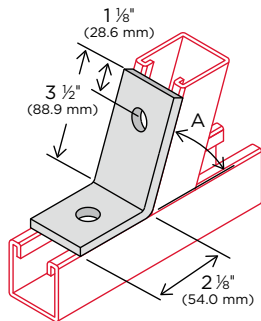


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

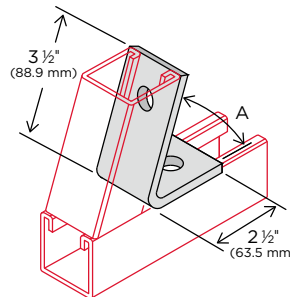
ZL60 | 2 Hole Open Corner Angle



"A" is available in any angle up to 90°
 Dimensions shown may vary based on specified angle "A"

CATALOG #	A	WEIGHT
		lbs.
ZL60000EG	45°	0.58
ZL600030EG	30°	0.58
ZL600060EG	60°	0.58

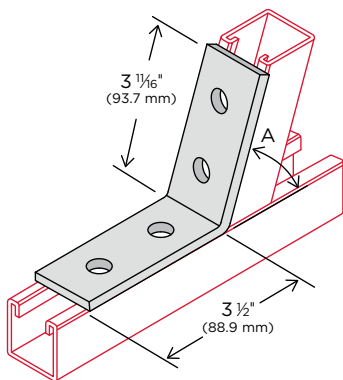
ZL61 | 2 Hole Closed Corner Angle



"A" is available in any angle up to 90°
 Dimensions shown may vary based on specified angle "A"

CATALOG #	A	WEIGHT
		lbs.
ZL61000EG	45°	0.56
ZL610030EG	30°	0.56
ZL610060EG	60°	0.56

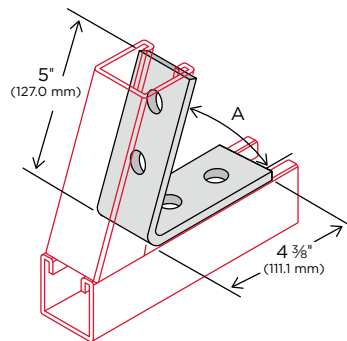
ZL62 | 4 Hole Open Corner Angle



"A" is available in any angle up to 90°
 Dimensions shown may vary based on specified angle "A"

CATALOG #	A	WEIGHT
		lbs.
ZL62000EG	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
		lbs.
ZL63000EG	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 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

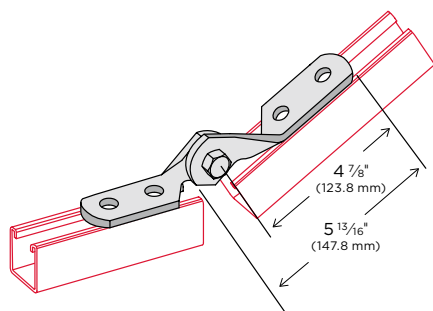
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Angle Fittings

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

ZL64

4 Hole Adjustable Corner Angle

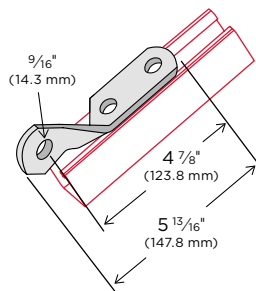


Note: Supplied pre-assembled with 1/2" grade 5 bolt and nylock nut

CATALOG #	WEIGHT
	lbs.
ZL640000EG	1.26

ZL64H

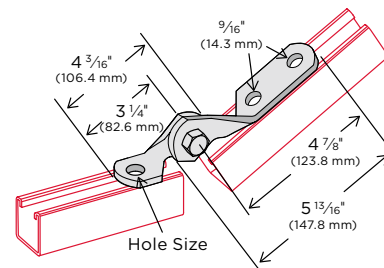
2 Hole Adjustable Angle Half



CATALOG #	WEIGHT
	lbs.
ZL64H0050EG	0.53

ZL65

3 Hole Adjustable Corner Angle

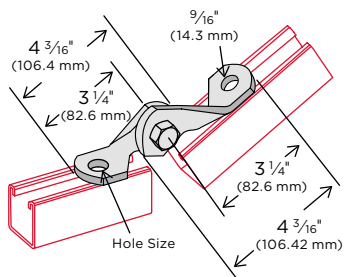


Note: Supplied pre-assembled with 1/2" grade 5 bolt and nylock nut

CATALOG #	WEIGHT	BOLT SIZE		HOLE SIZE	
		lbs.	in.	mm	in.
ZL650037EG	1.07	3/8	8	7/16	11.1
ZL650050EG	1.07	1/2	12	9/16	14.3
ZL650062EG	1.07	5/8	16	11/16	17.5

ZL66

2 Hole Adjustable Corner Angle

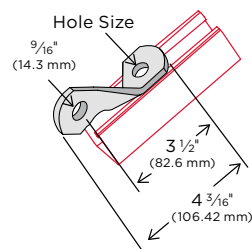


Note: Supplied pre-assembled with 1/2" grade 5 bolt and nylock nut

CATALOG #	WEIGHT	BOLT SIZE		HOLE SIZE	
		lbs.	in.	mm	in.
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	11/16	17.5

ZL66H

1 Hole Adjustable Angle Half



CATALOG #	WEIGHT	BOLT SIZE		HOLE SIZE	
		lbs.	in.	mm	in.
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	11/16	17.5

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.

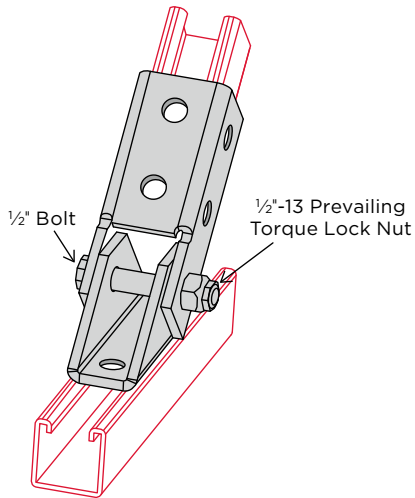


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

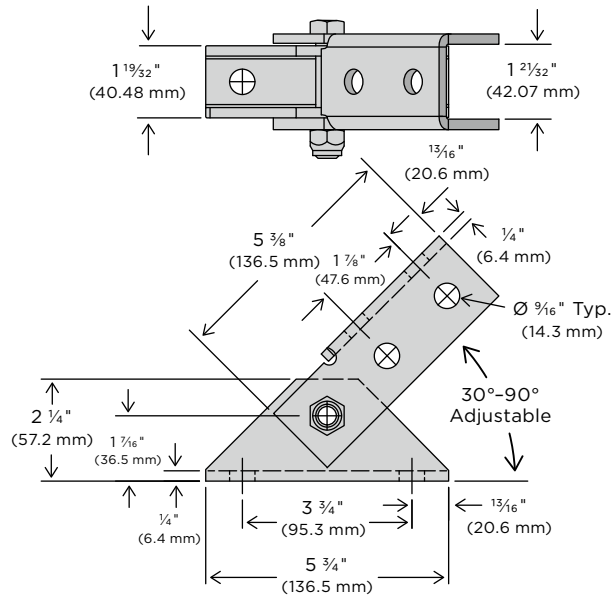
Angle Fittings

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

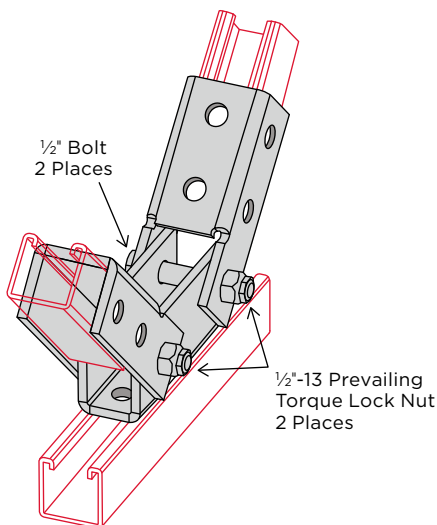
ZL67 | Adjustable Brace Fitting



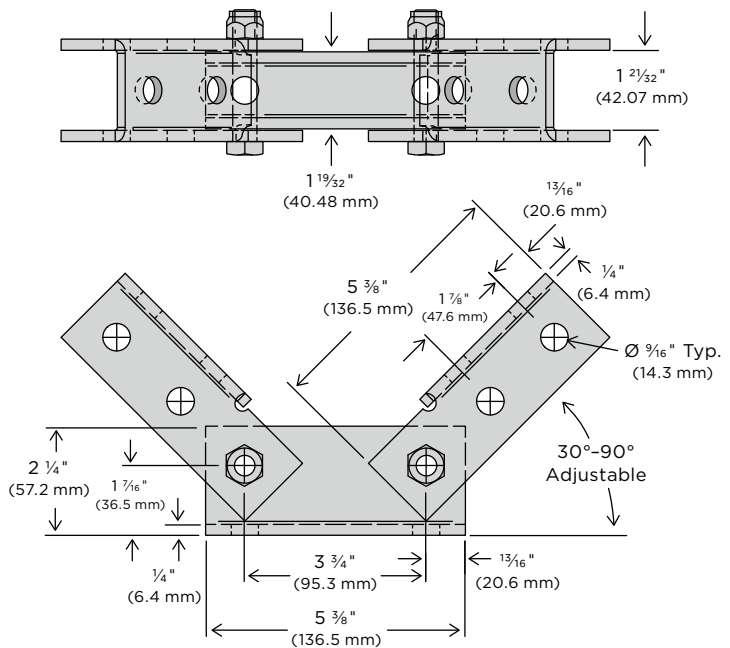
CATALOG #	WEIGHT
	lbs.
ZL670000EG	3.07



ZL68 | Double Adjustable Brace Fitting



CATALOG #	WEIGHT
	lbs.
ZL680000EG	4.97



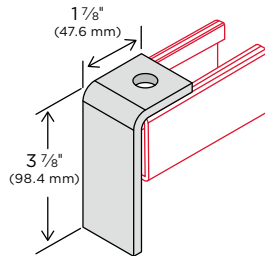
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Angle Fittings

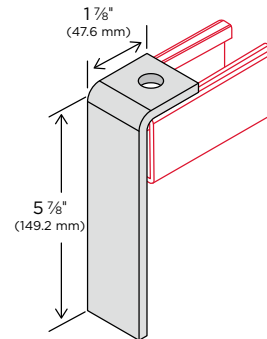
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZL70 | 1 Hole 3 7/8" Corner Angle



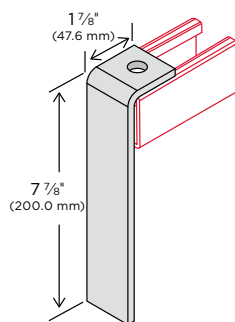
CATALOG #	WEIGHT
	lbs.
ZL70000EG	0.56

ZL71 | 1 Hole 5 7/8" Corner Angle



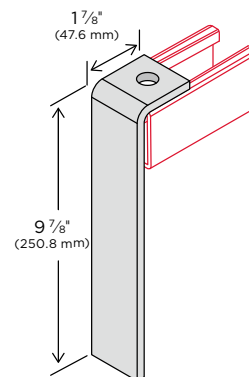
CATALOG #	WEIGHT
	lbs.
ZL71000EG	0.85

ZL72 | 1 Hole 7 7/8" Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL72000EG	1.00

ZL73 | 1 Hole 9 7/8" Corner Angle



CATALOG #	WEIGHT
	lbs.
ZL73000EG	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.

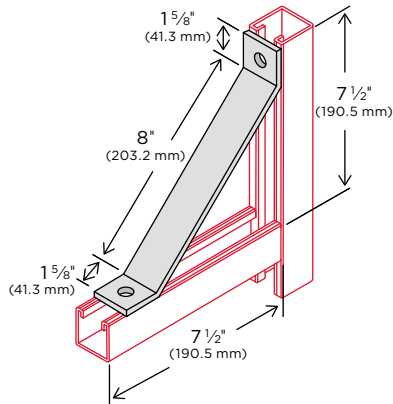


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Angle Fittings

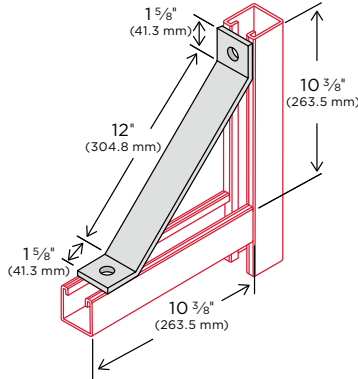
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZL80 | 8" Angle Brace



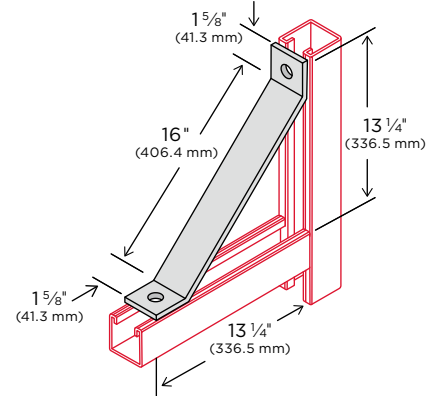
CATALOG #	WEIGHT
	lbs.
ZL800000EG	1.19

ZL81 | 12" Angle Brace



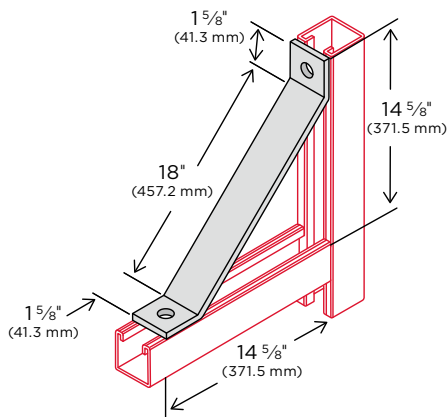
CATALOG #	WEIGHT
	lbs.
ZL810000EG	1.65

ZL82 | 16" Angle Brace



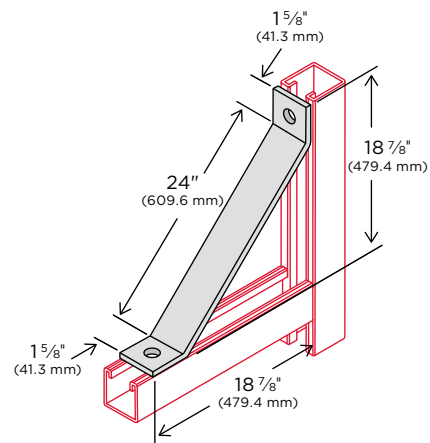
CATALOG #	WEIGHT
	lbs.
ZL820000EG	2.18

ZL83 | 18" Angle Brace



CATALOG #	WEIGHT
	lbs.
ZL830000EG	2.34

ZL84 | 24" Angle Brace



CATALOG #	WEIGHT
	lbs.
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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Beam Clamps

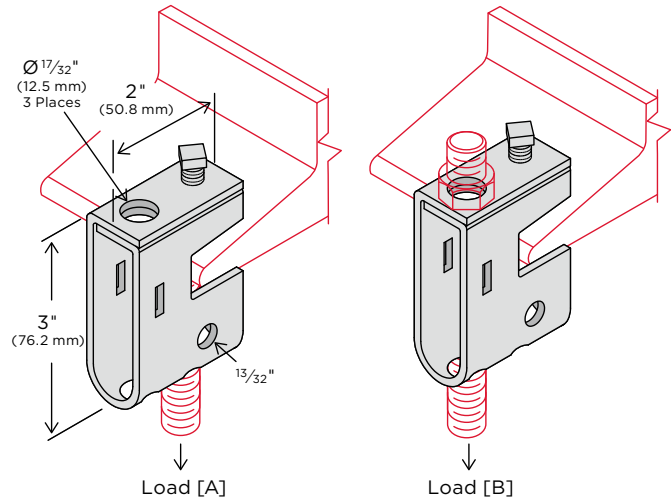
Product finishes and materials are on [page 11](#)

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.
ZBC10000EG	A	500	2.22	0.42
ZBC10000EG	B	300	1.33	0.42

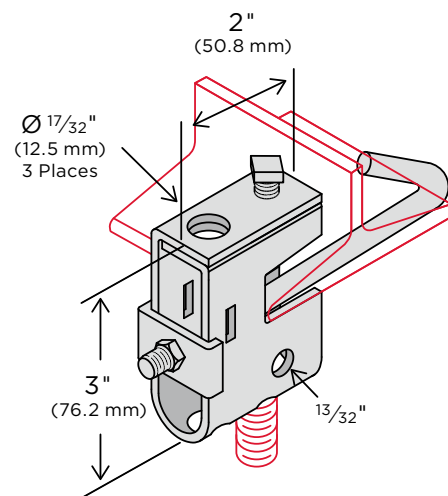


ZBC11 | Formed Steel Beam Clamp With J-Hook

Standard finish is Electro-Galvanized (EG).

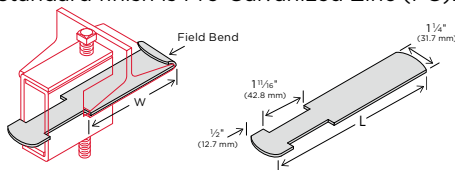
Maximum rod size 1/2" (12 mm)
Maximum flange thickness 3/4" (19 mm)
Design loads are the same as model ZBC10.

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).

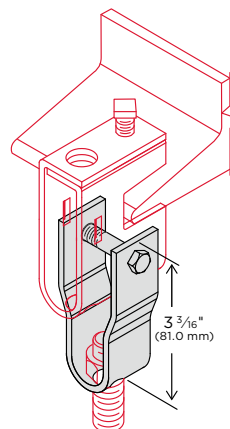


CATALOG #	WEIGHT	L		W* (MAX)	
		lbs.	in.	mm	in.
ZBC130600PG	0.23	9	228	6	152
ZBC130900PG	0.30	12	305	9	228
ZBC131200PG	0.38	15	381	12	305
ZBC131500PG	0.45	18	457	15	381

*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.	lbs.	kN
ZBC14000EG	0.3	500	2.22	

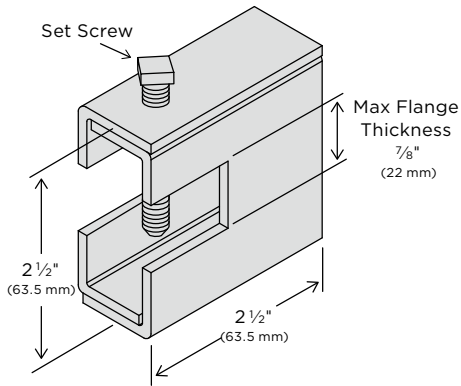


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Beam Clamps

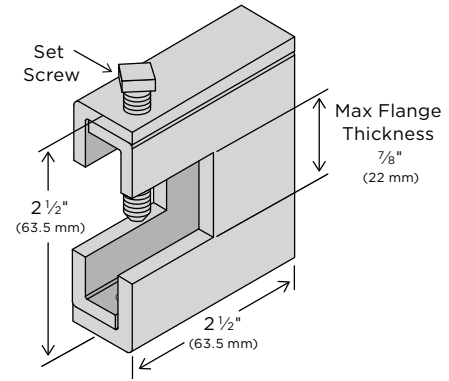
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZBC15 | Formed Steel Beam Clamp



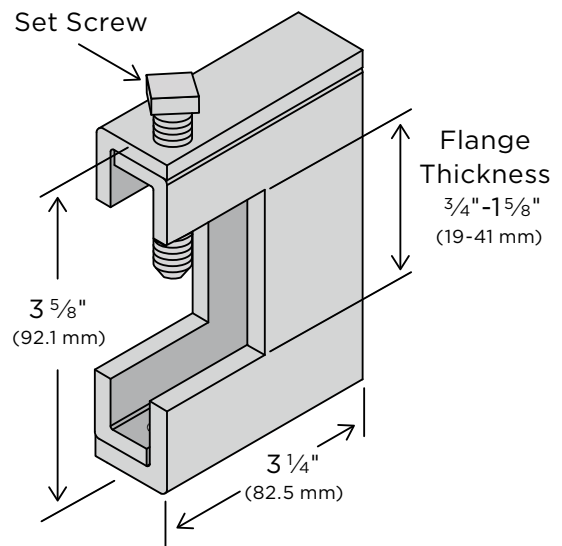
CATALOG #	WEIGHT	ROD SIZE	SET SCREW	THICKNESS	DESIGN LOAD	
	lbs.	in.		in.	lbs.	kN
ZBC150025EG	0.62	1/4	3/8"-16	3/8	650	2.89
ZBC150037EG	0.60	3/8	3/8"-16	3/8	650	2.89
ZBC150050EG	0.94	1/2	1/2"-13	3/16	1100	4.89
ZBC150062EG	1.18	5/8	1/2"-13	1/4	1600	7.12

ZBC16 | Formed Steel Heavy Duty Beam Clamp



CATALOG #	WEIGHT	ROD SIZE	SET SCREW	THICKNESS	DESIGN LOAD	
	lbs.	in.		in.	lbs.	kN
ZBC160037EG	0.96	3/8	1/2"-13	3/16	1100	4.89
ZBC160050EG	1.22	1/2	1/2"-13	1/4	1600	7.12
ZBC160062EG	1.60	5/8	5/8"-11	3/16	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	3/8	1/2"-13	3/16	800	3.56
ZBC170037EG	1.51	3/8	1/2"-13	3/16	800	3.56
ZBC170050EG	1.93	1/2	1/2"-13	1/4	1300	5.78
ZBC170062EG	3.11	5/8	5/8"-11	3/16	1900	8.45

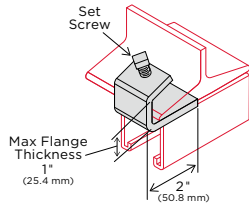


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Beam Clamps

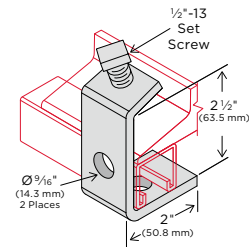
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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

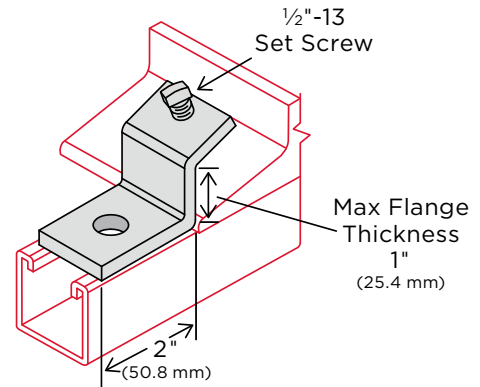
ZBC22 | Strut to Beam Clamp C-Type, Parallel



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

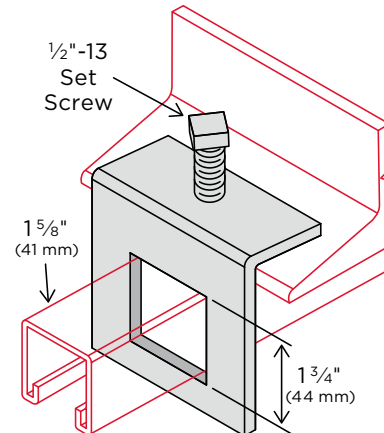
3/8" (9.5) material thickness



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



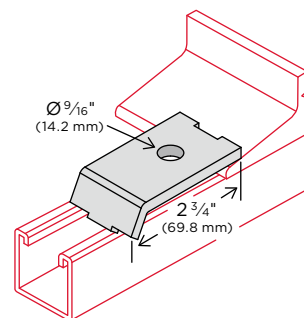
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

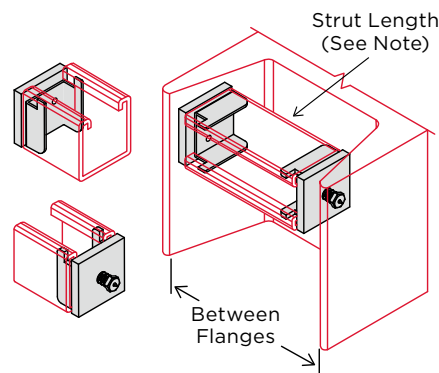


CATALOG #	WEIGHT	DESIGN LOAD WHEN USED IN PAIRS	
		lbs.	kN
ZBC700000EG	0.29	1100	4.89

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.

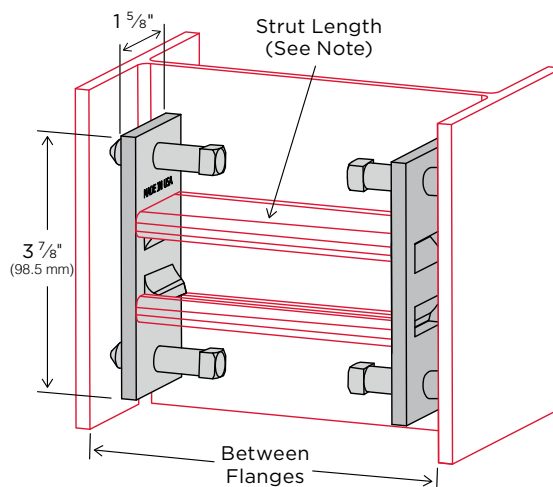


CATALOG #	WEIGHT	DESIGN LOAD WHEN USED AS A SET	
		lbs.	kN
ZBC500000EG	0.54	500	2.22

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.

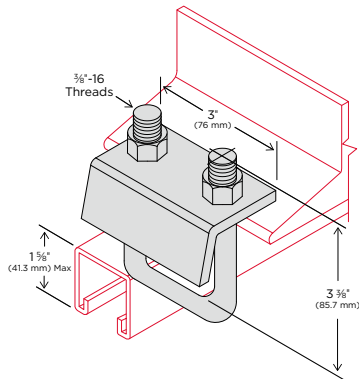
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

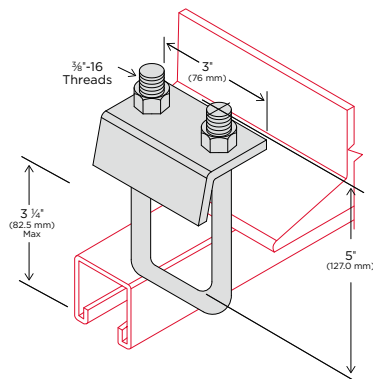


For 1/8" & 1 1/8" channel
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	DESIGN LOAD WHEN USED IN PAIRS		
	WEIGHT lbs.	lbs.	kN
ZBC60000EG	0.72	1200	5.34

ZBC61

Strut to Beam Clamp With Square U-Bolt

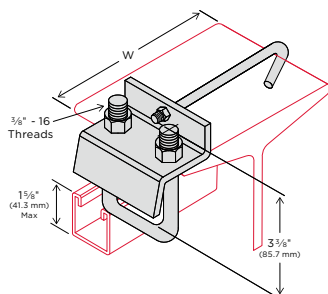


For 2 1/8" & 3 1/4" channel
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	DESIGN LOAD WHEN USED IN PAIRS		
	WEIGHT lbs.	lbs.	kN
ZBC61000EG	0.79	1200	5.34

ZBC62

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

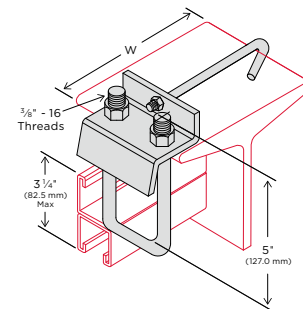


For 1/8" & 1 1/8" channel
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	WEIGHT			W
	lbs.	in.	mm	
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 1/8" & 3 1/4" channel
 For use with flanges up to 3/4" (19.1 mm) thick

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

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.



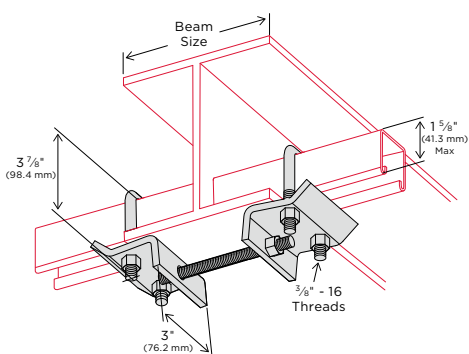
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

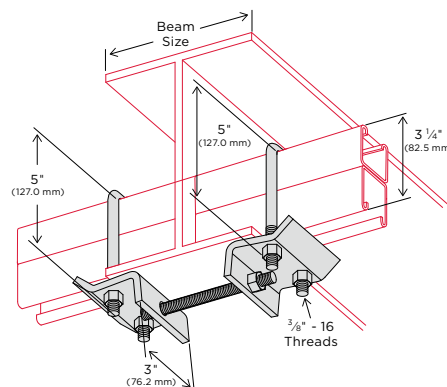


For 1³/₁₆" & 1¹/₈" channel
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	WEIGHT		BEAM SIZE	
	lbs.	in.	in.	mm
ZBC641200EG	2.90	9-12	228-305	

ZBC65

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

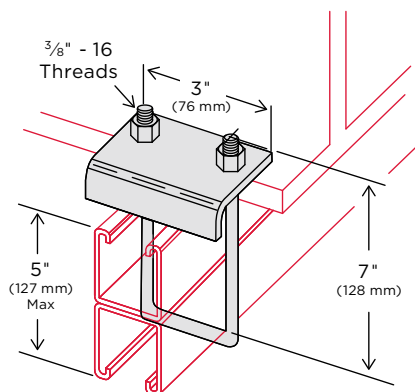


For 2⁷/₁₆" & 3¹/₄" channel
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	WEIGHT		BEAM SIZE	
	lbs.	in.	in.	mm
ZBC651200EG	3.2	9-12	228-305	

ZBC66

Strut to Beam Clamp With Square U-Bolt

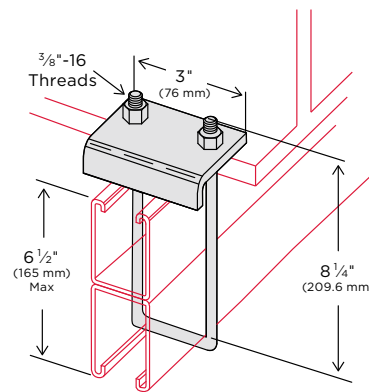


For 5" maximum
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	WEIGHT	DESIGN LOAD WHEN USED IN PAIRS	
		lbs.	kN
ZBC660000EG	0.92	1200	5.34

ZBC68

Strut to Beam Clamp With Square U-Bolt



For 6¹/₂" maximum
 For use with flanges up to 3/4" (19.1 mm) thick

CATALOG #	WEIGHT	DESIGN LOAD WHEN USED IN PAIRS	
		lbs.	kN
ZBC680000EG	1.26	1200	5.34

Material is 1⁵/₁₆" (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 1⁷/₈" (47.6) centers unless specified.

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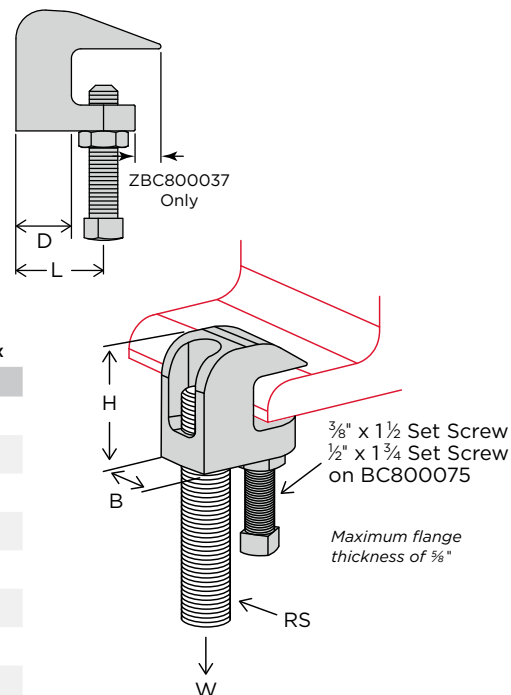
Beam Clamps

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.
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

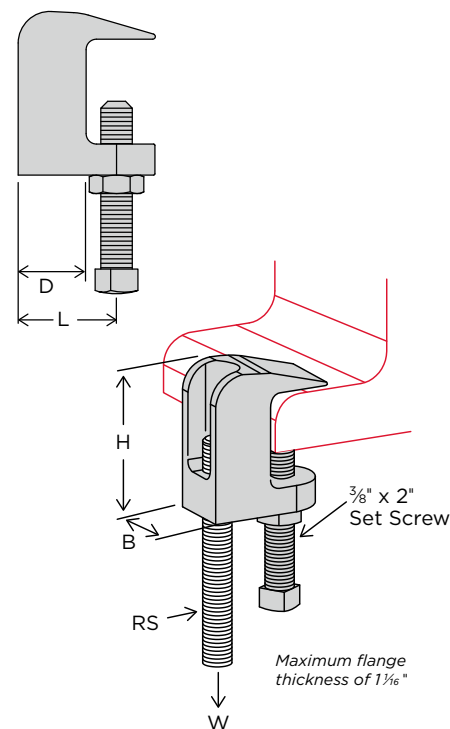
Note: Do not over tighten set screw.



ZBC81 | Wide Mouth Malleable Iron Universal Beam Clamp

CATALOG #	ROD SIZE (RS)	MAX LOAD (W)	MAX PIPE SIZE	B	L	H	D	WEIGHT	BOX
								lbs.	in.
ZBC810037PL	3/8"-16	400	4	3/8	1 1/4	1 13/16	3/16	0.41	50
ZBC810037EG	3/8"-16	400	4	3/8	1 1/4	1 13/16	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 7/8	2 1/4	3/8	0.75	20
ZBC810062EG	5/8"-11	600	8	1 1/4	1 7/8	2 1/4	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

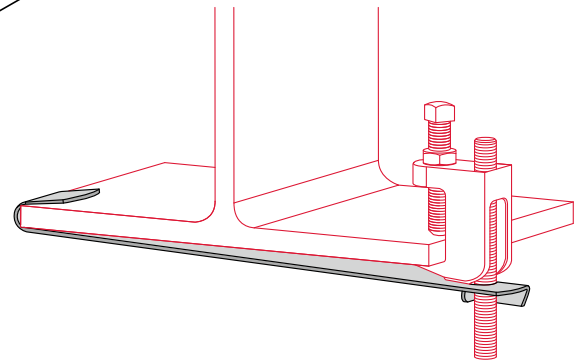
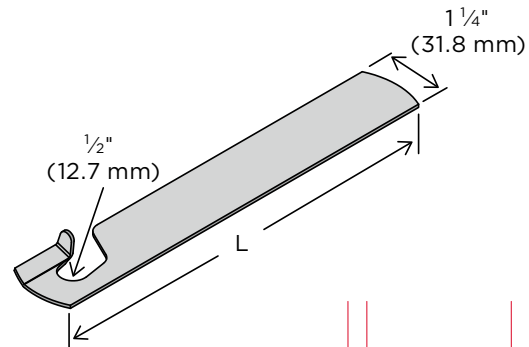
Standard finish is Pre-Galvanized Zinc (PG)
 Product finishes and materials are on [page 11](#)

ZRBS | Retrofit Beam Clamp Retaining Strap



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

CATALOG #	GAUGE	BEAM SIZE		LENGTH		WEIGHT lbs.
		in.	kN	in.	mm	
ZRBS0600PG	16 Gauge (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

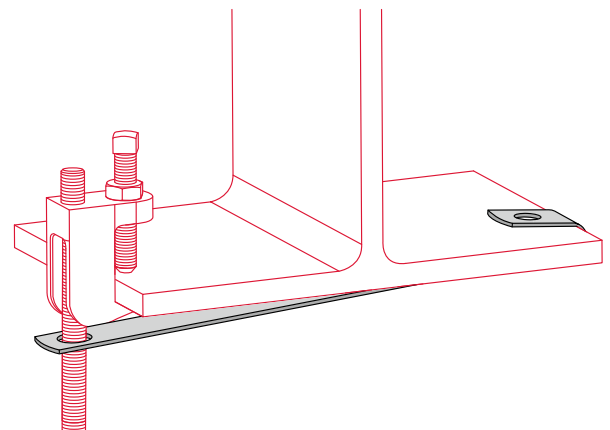
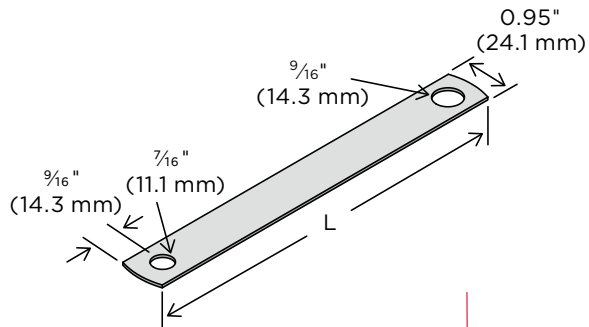


ZRS | Beam Clamp Retaining Strap



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

CATALOG #	GAUGE	BEAM SIZE		LENGTH		WEIGHT lbs.
		in.	kN	in.	mm	
ZRS0600PG	16 Gauge (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.



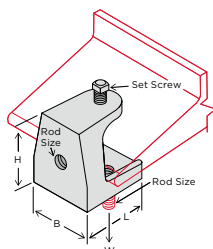
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Beam Clamps

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

ZBC90

Malleable Iron Rod Support Beam Clamp



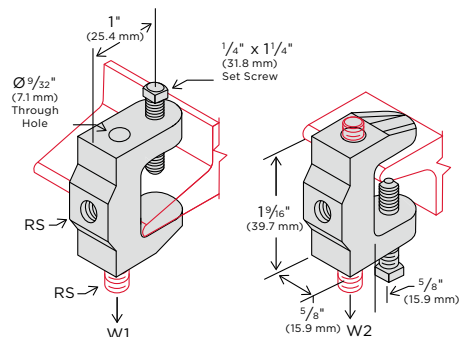
Maximum flange thickness of 1/2"

CATALOG #	WEIGHT lbs.	ROD SIZE	SET SCREW SIZE		MAX LOAD (W)	
			lbs.	kN	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

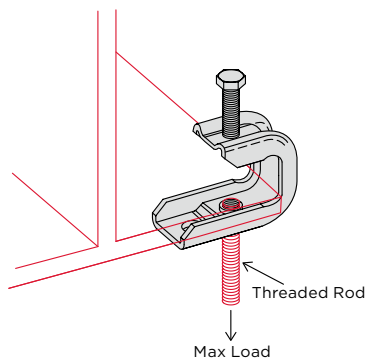


Maximum flange thickness of 5/8"

CATALOG #	WEIGHT lbs.	ROD SIZE (RS)	MAXIMUM LOAD (W1)		MAXIMUM 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.

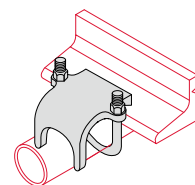
ZBC92 | Light Duty Beam Clamp



CATALOG #	WEIGHT lbs.	ROD SIZE	MAXIMUM FLANGE THICKNESS	MAX LOAD (W)	
			in.	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 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

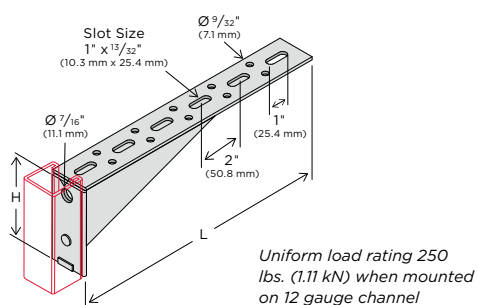
Material is 1 1/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Brackets

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

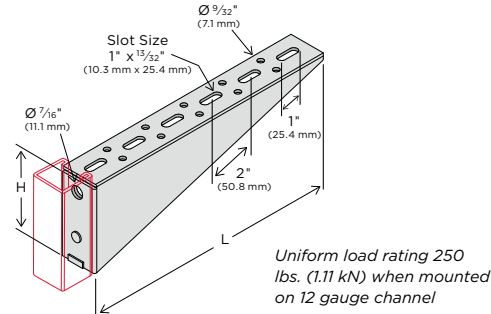
ZBR8R | Slotted Shelf Bracket (Right Hand)



Uniform load rating 250 lbs. (1.11 kN) when mounted on 12 gauge channel

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 ⁷ / ₈	73.0	
ZBR8R1000EG	1.14	10	254.0	2 ⁷ / ₈	73.0	
ZBR8R1200EG	1.49	12	304.8	3 ¹ / ₈	87.3	
ZBR8R1400EG	1.74	14	355.6	3 ⁵ / ₈	100.0	
ZBR8R1600EG	2.25	16	406.4	4 ¹ / ₈	112.7	
ZBR8R1800EG	2.55	18	457.2	4 ⁵ / ₈	125.4	

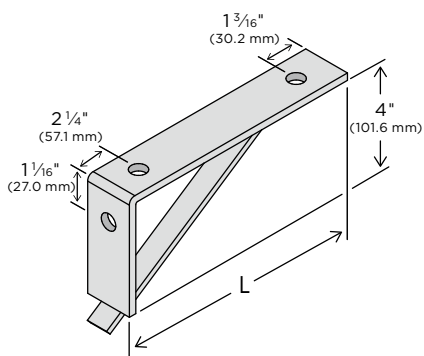
ZBR8L | Slotted Shelf Bracket (Left Hand)



Uniform load rating 250 lbs. (1.11 kN) when mounted on 12 gauge channel

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 ⁷ / ₈	73.0	
ZBR8L1000EG	1.14	10	254.0	2 ⁷ / ₈	73.0	
ZBR8L1200EG	1.49	12	304.8	3 ¹ / ₈	87.3	
ZBR8L1400EG	1.74	14	355.6	3 ⁵ / ₈	100.0	
ZBR8L1600EG	2.25	16	406.4	4 ¹ / ₈	112.7	
ZBR8L1800EG	2.55	18	457.2	4 ⁵ / ₈	125.4	

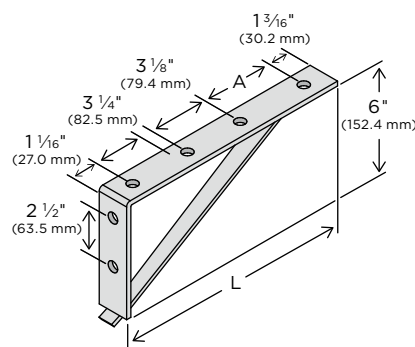
ZBR20 | Bracket 3 Hole



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 ³ / ₄	146.0	900	4.00	

*When mounted on 12 gauge channel

Material is 1⁵/₈" (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 1⁷/₈" (47.6) centers unless specified.

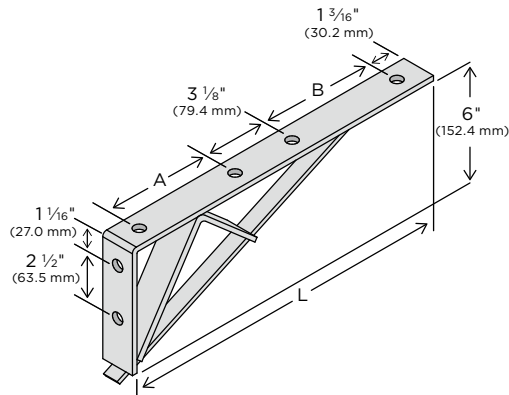


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Brackets

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

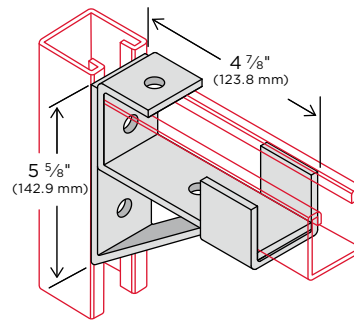
ZBR22 | Bracket With Brace 6 Hole



CATALOG #	WEIGHT		L		A		B		UNIFORM LOAD*	
	lbs.	in.	mm	in.	mm	in.	mm	lbs.	kN	
ZBR221650EG	3.81	16½	419.1	5¼	133.3	5¼	146.0	1200	5.34	
ZBR221850EG	4.16	18½	469.9	5¼	133.3	7¼	196.8	1100	4.89	
ZBR222050EG	4.61	20½	520.7	7¼	184.1	7¼	196.8	900	4.00	

*When mounted on 12 gauge channel

ZBR30 | Bracket for 1 5/8" Channel

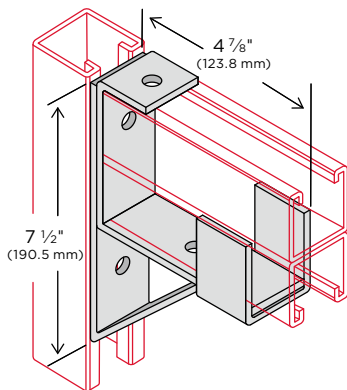


Maximum moment 5800 in.-lbs.
(655 Nm) when mounted on
12 gauge channel

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

CATALOG #	WEIGHT
	lbs.
ZBR30000EG	2.46

ZBR31 | Bracket for 3 1/4" Channel

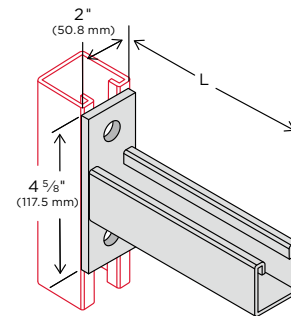


Maximum moment 12500 in.-lbs.
(1412 Nm) when mounted on
12 gauge channel

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

CATALOG #	WEIGHT
	lbs.
ZBR31000EG	2.84

ZBR40 | Bracket 1 5/8" Channel 2 Hole



CATALOG #	WEIGHT		L		UNIFORM LOAD*	
	lbs.	in.	mm	lbs.	kN	
ZBR40060EG	1.85	6	152.4	1250	5.56	
ZBR40090EG	2.31	9	228.6	1000	4.45	
ZBR40120EG	2.36	12	304.8	750	3.34	
ZBR40180EG	3.28	18	457.2	500	2.22	
ZBR40240EG	4.49	24	609.6	350	1.56	

*When mounted on 12 gauge channel

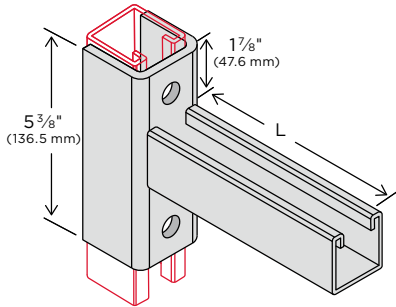
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Brackets

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

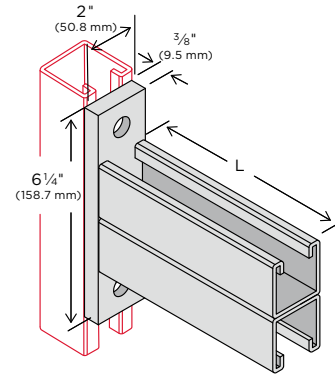
ZBR41 | Bracket Channel Wrap Around 1 5/8" Channel



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

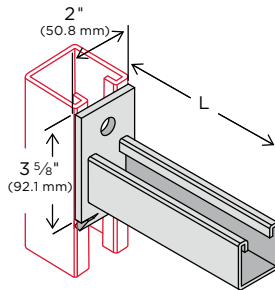
ZBR42 | Bracket Double 1 5/8" Channel



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

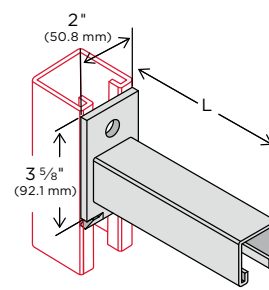
ZBR43 | Bracket Channel Notched, Up



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

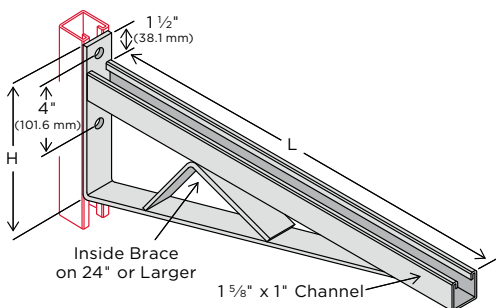
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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

Brackets

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

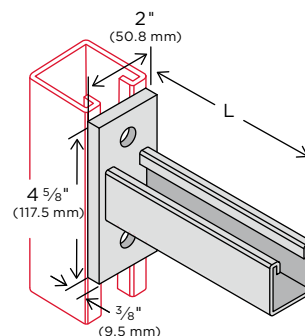
ZBR45 | Bracket Channel



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

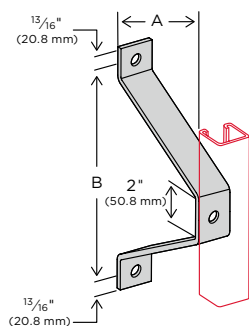
ZBR46 | Bracket 1 5/8" Channel 2 Hole Heavy



CATALOG #	WEIGHT		L		UNIFORM LOAD*	
	lbs.	in.	mm	lbs.	kN	
ZBR460600EG	1.850	6	152.4	1250	5.56	
ZBR460900EG	2.510	9	228.6	1000	4.45	
ZBR461200EG	3.380	12	304.8	750	3.34	
ZBR461800EG	4.010	18	457.2	500	2.22	
ZBR462400EG	5.090	24	609.6	350	1.56	

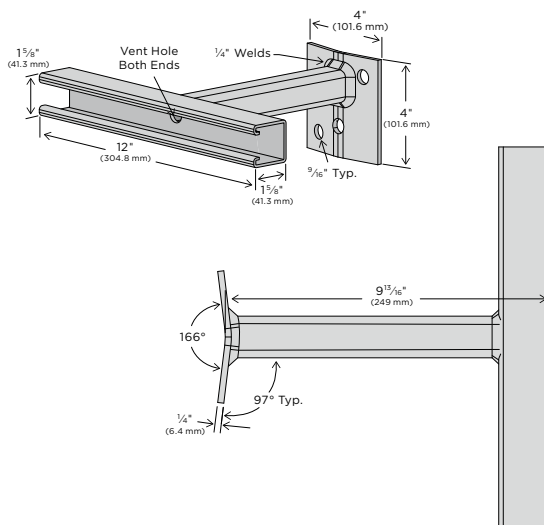
*When mounted on 12 gauge channel

ZBR47 | Ladder Bracket



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

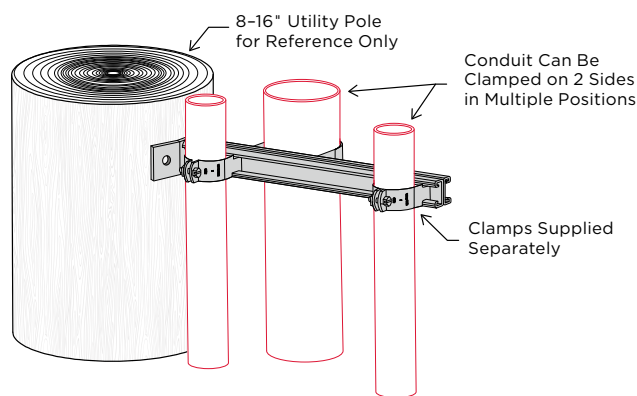
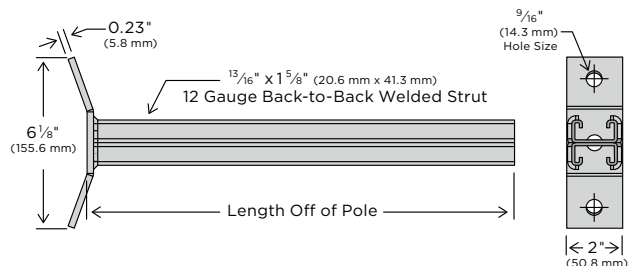
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Brackets

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

ZPB1 | Extended Riser Bracket

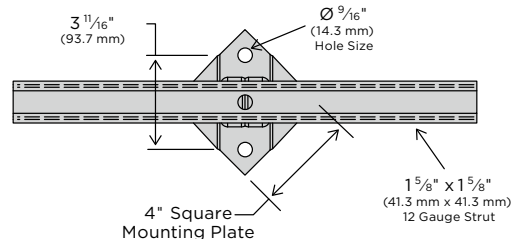
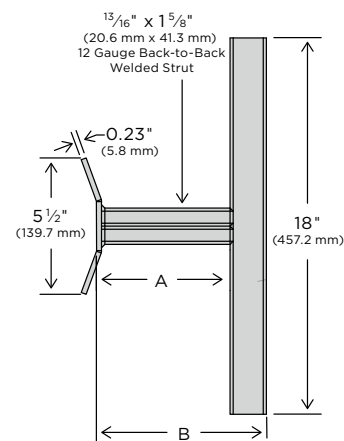
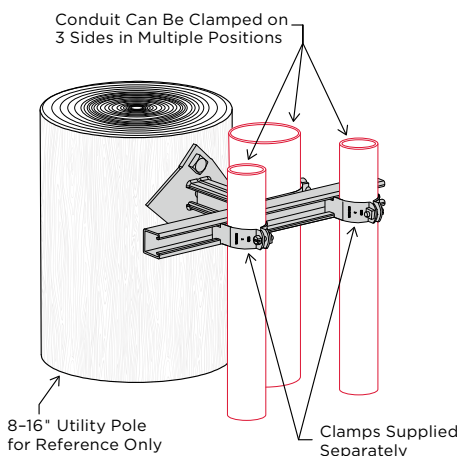
- With $1\frac{3}{16}$ " strut back-to-back
- Standard finish: Hot-Dip Galvanized
- Conduit can be clamped on 2 sides and in multiple positions
- Can also be supplied in 304 or 316 stainless steel upon request
- One-piece design allows for ease of installation (lag screws not supplied)



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

ZPB5 | Standoff Riser Bracket

- With $1\frac{3}{16}$ " 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	
ZPB50618HD	6	152	7 $\frac{7}{8}$	200	5.16
ZPB50918HD	8 $\frac{1}{2}$	216	10 $\frac{7}{8}$	276	5.82

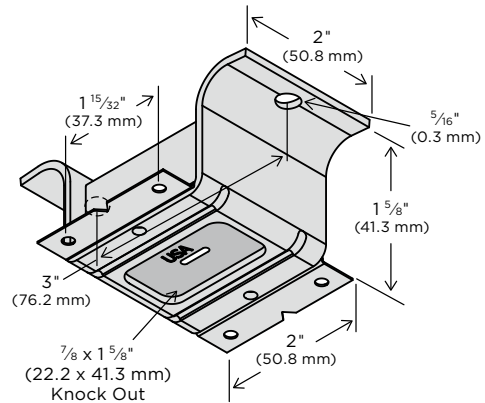


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Concrete Inserts

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

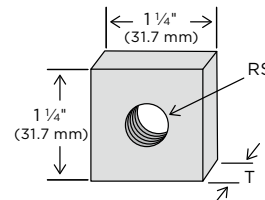
ZCI | Concrete Insert



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

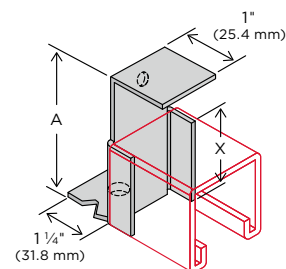
ZCIN | Concrete Insert Nut

CATALOG #		WEIGHT lbs.	RS	T (THICKNESS) in.
PLAIN FINISH	EG FINISH			
ZCIN0025PL	ZCIN0025EG	0.11	¼"-20	¼
ZCIN0037PL	ZCIN0037EG	0.16	⅜"-16	¼
ZCIN0050PL	ZCIN0050EG	0.20	½"-13	⅜
ZCIN0062PL	ZCIN0062EG	0.18	⅝"-11	⅜
ZCIN0075PL	ZCIN0075EG	0.17	¾"-10	½
ZCIN0087PL	ZCIN0087EG	0.15	⅞"-9	½



ZCI20, ZCI21, ZCI22 | Concrete End Cap Anchor

CATALOG #	FOR USE WITH 12 GAUGE CHANNEL	X in.	A in.	WEIGHT lbs.
	in.			
ZCI20000EG	1½ x 1½	1.415	3½	0.10
ZCI21000EG	1½ x 1½	1.170	2½	0.10
ZCI22000EG	1½ x 1	0.790	2½	0.10



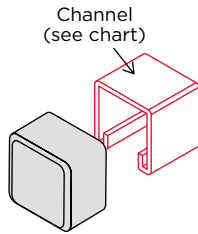
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

End Caps

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

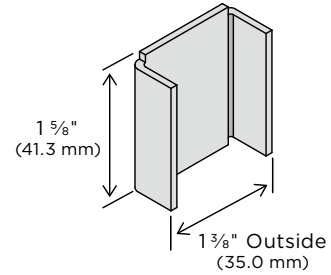
ZEC07, ZEC08, ZEC09 | Plastic End Cap

Standard finish is Vinyl (VC)



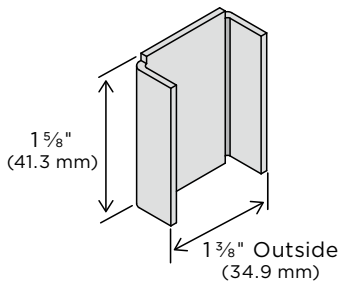
CATALOG #	FOR USE WITH CHANNEL	WEIGHT lbs.	COLOR
	in.		
ZEC080000VC	1 5/8 x 1 3/16	0.03	White
ZEC08000RVC			Red
ZEC090000VC	1 1/4 x 1 1/4	0.04	White
ZEC09000RVC			Red
ZEC070000VC	1 1/4 x 3/4	0.05	White
ZEC07000RVC			Red

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



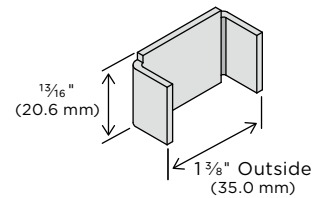
CATALOG #	WEIGHT lbs.
ZEC100000EG	0.08

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



CATALOG #	WEIGHT lbs.
ZEC110000EG	0.08

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



CATALOG #	WEIGHT lbs.
ZEC120000EG	0.04



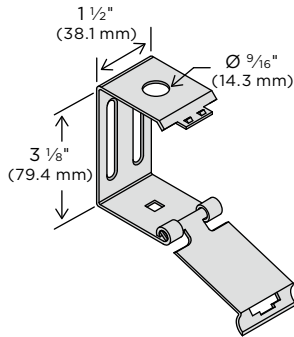
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

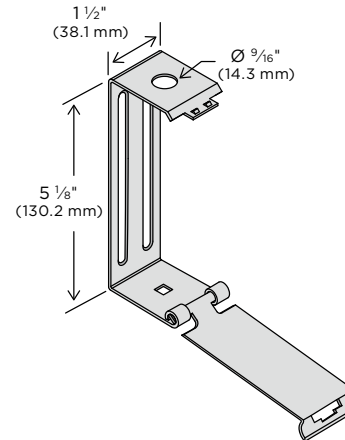


Maximum loading 120 lbs. (0.53 kN)
 May be used as a channel hanger
 ZEF46 required for fixture attachment (page 66)

CATALOG #	WEIGHT
	lbs.
ZEF10000EG	0.35

ZEF11 | Hinged Fluorescent Fixture Hanger

3 1/4" channel, 9/16" hole

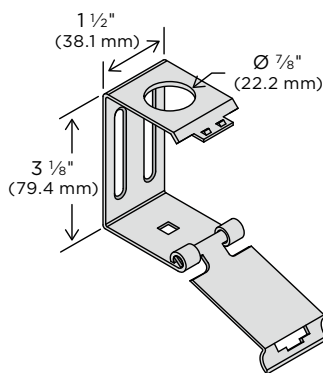


Maximum loading 120 lbs. (0.53 kN)
 May be used as a channel hanger
 ZEF46 required for fixture attachment (page 66)

CATALOG #	WEIGHT
	lbs.
ZEF11000EG	0.44

ZEF12 | Hinged Fluorescent Fixture Hanger

1 5/8" channel, 7/8" hole

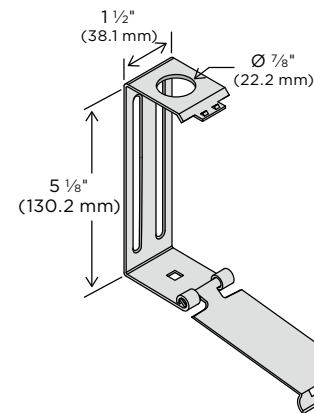


Maximum loading 120 lbs. (0.53 kN)
 May be used as a channel hanger
 ZEF46 required for fixture attachment (page 66)

CATALOG #	WEIGHT
	lbs.
ZEF12000EG	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.
ZEF13000EG	0.45

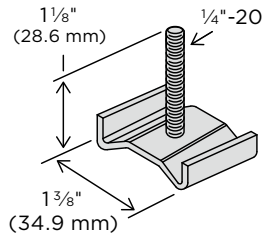


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Electrical

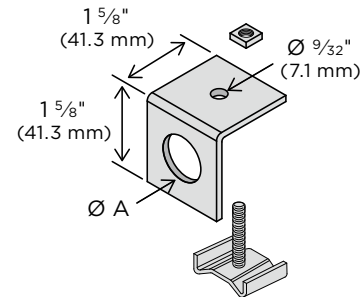
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZEF19 | Fixture Stud Nut



CATALOG #	WEIGHT
	lbs.
ZEF190000EG	0.03

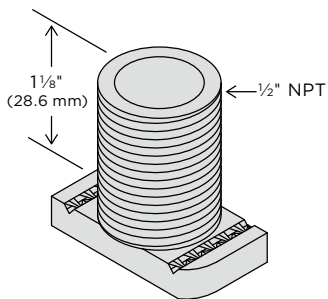
ZEF20 | End Cap Knock Out With Hardware



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

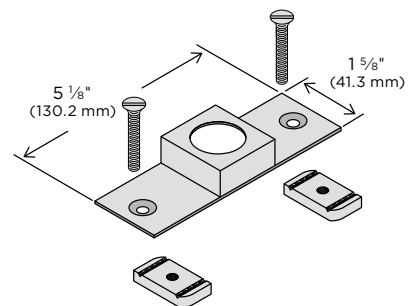
CATALOG #	WEIGHT		Ø A
	lbs.	in.	mm
ZEF200050EG	0.26	1/2	12.7
ZEF200075EG	0.21	3/4	19.0

ZEF21 | Wiring Stud Standard finish is Aluminum (AL)



CATALOG #	WEIGHT
	lbs.
ZEF210000AL	0.07

ZEF22 | Conduit Connection Plate With Hardware



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

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

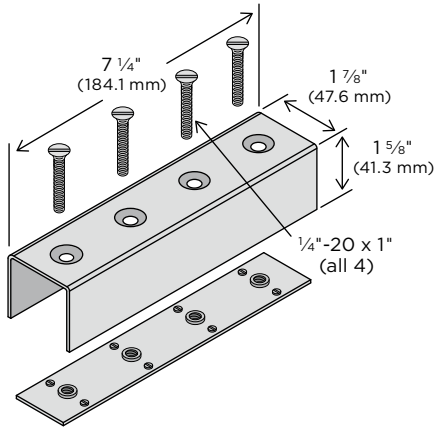


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Electrical

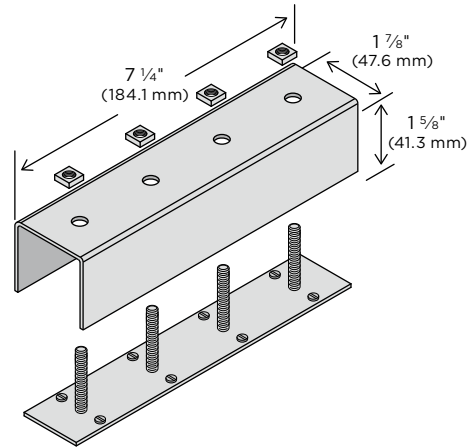
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



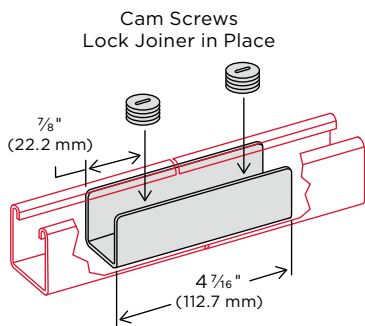
CATALOG #	WEIGHT
	lbs.
ZEF30000EG	1.06

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



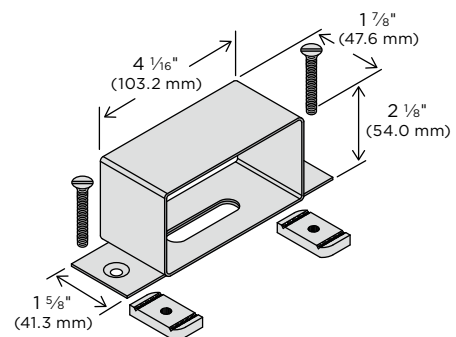
CATALOG #	WEIGHT
	lbs.
ZEF31000EG	1.05

ZEF33 | Inside Strut Joiner for 1 3/16" or 1 5/8" 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.
ZEF40000EG	0.92

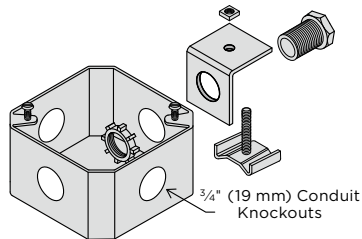


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Electrical

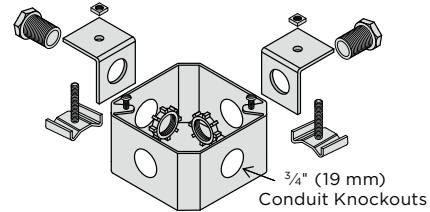
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZEF41 | Junction Box Universal With 1 Conduit Attachment



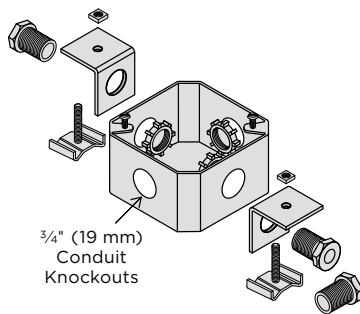
CATALOG #	WEIGHT	Includes:
	lbs.	
ZEF410000EG	1.92	Qty 1—ZEF200075EG Qty 1— $\frac{3}{4}$ " Bushing With Nut

ZEF42 | Junction Box Universal With 2 Connectors at 90°



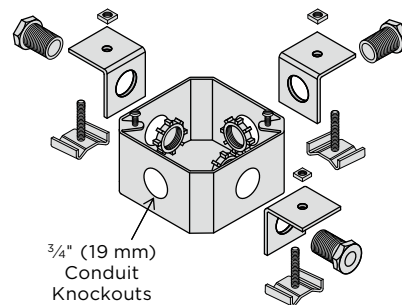
CATALOG #	WEIGHT	Includes:
	lbs.	
ZEF420000EG	2.34	Qty 2—ZEF200075EG Qty 2— $\frac{3}{4}$ " Bushing With Nut

ZEF43 | Junction Box Universal With 2 Connectors Opposite



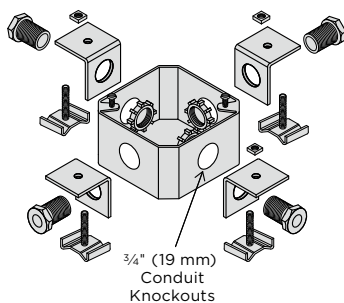
CATALOG #	WEIGHT	Includes:
	lbs.	
ZEF430000EG	2.34	Qty 2—ZEF200075EG Qty 2— $\frac{3}{4}$ " Bushing With Nut

ZEF44 | Junction Box Universal With 3 Conduit Attachments



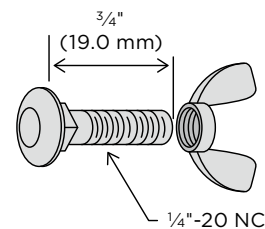
CATALOG #	WEIGHT	Includes:
	lbs.	
ZEF440000EG	2.55	Qty 3—ZEF200075EG Qty 3— $\frac{3}{4}$ " Bushing With Nut

ZEF45 | Junction Box Universal with 4 Connectors



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

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



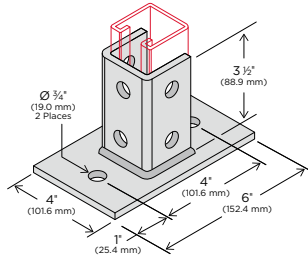
CATALOG #	WEIGHT
	lbs.
ZEF460000EG	0.03

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Post Bases

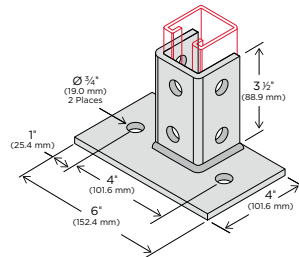
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZP10 | Post Base Single Channel
 2 Hole Square



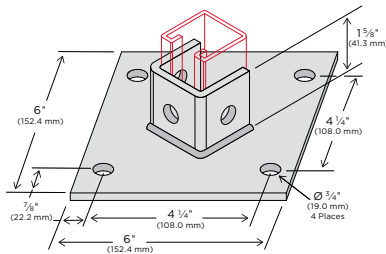
CATALOG #	WEIGHT
	lbs.
ZP100000EG	2.79

ZP11 | Post Base Single Channel
 2 Hole Square Flush



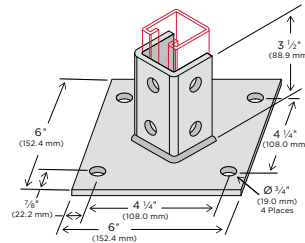
CATALOG #	WEIGHT
	lbs.
ZP110000EG	2.79

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



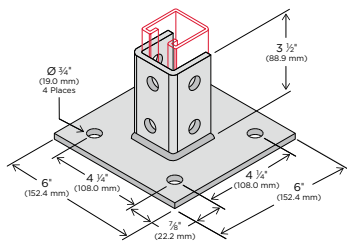
CATALOG #	WEIGHT
	lbs.
ZP120000EG	2.96

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



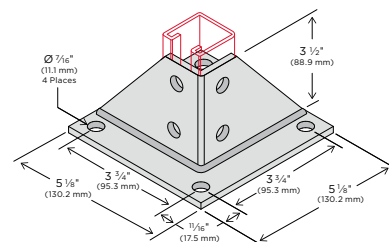
CATALOG #	WEIGHT
	lbs.
ZP130000EG	3.56

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



CATALOG #	WEIGHT
	lbs.
ZP140000EG	3.53

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



CATALOG #	WEIGHT
	lbs.
ZP150000EG	2.88

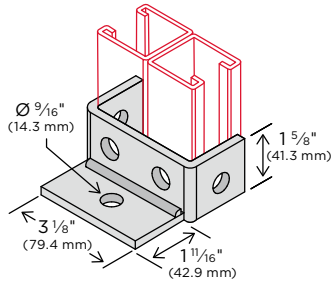
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 3/8" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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

Post Bases

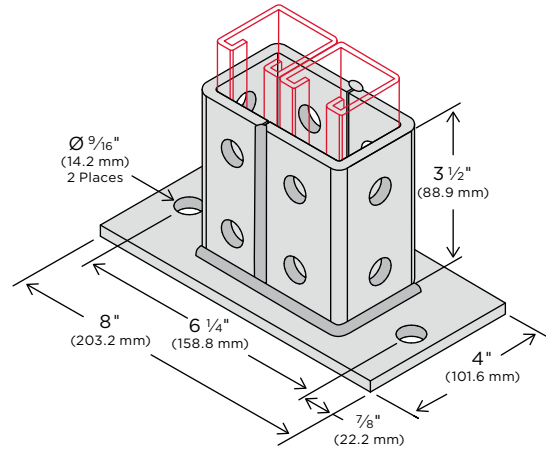
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



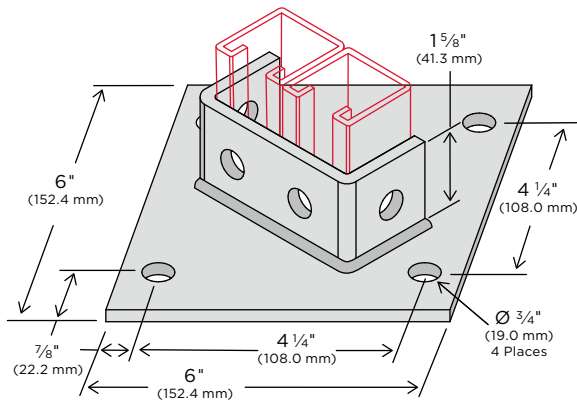
CATALOG #	WEIGHT
	lbs.
ZP160000EG	1.16

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



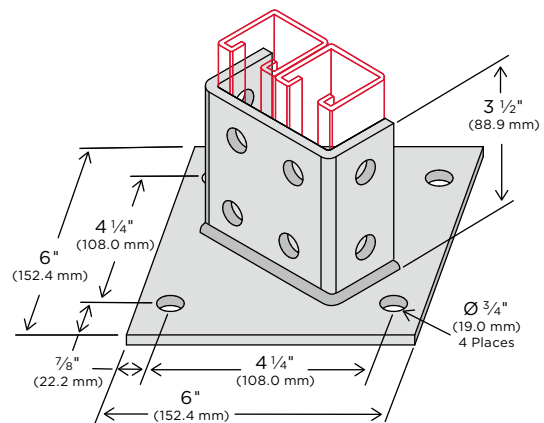
CATALOG #	WEIGHT
	lbs.
ZP170000EG	3.11

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

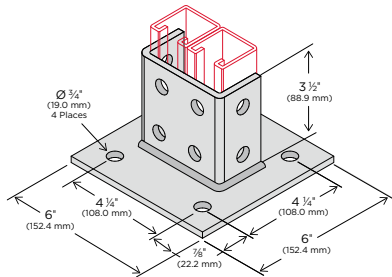
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Post Bases

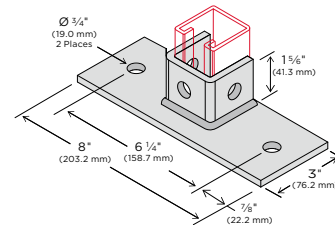
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



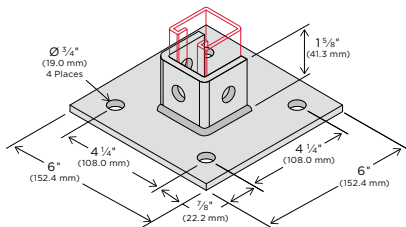
CATALOG #	WEIGHT
	lbs.
ZP200000EG	3.88

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



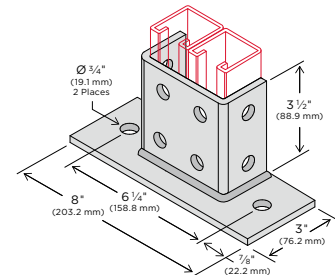
CATALOG #	WEIGHT
	lbs.
ZP210000EG	2.30

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



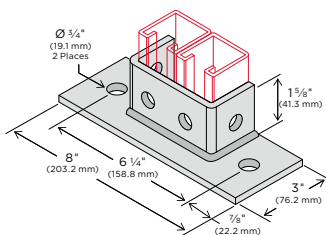
CATALOG #	WEIGHT
	lbs.
ZP220000EG	2.96

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



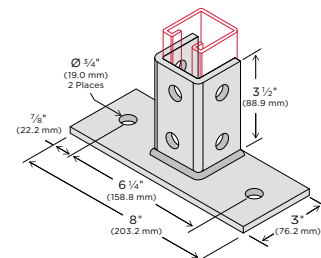
CATALOG #	WEIGHT
	lbs.
ZP230000EG	3.20

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



CATALOG #	WEIGHT
	lbs.
ZP240000EG	2.5

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



CATALOG #	WEIGHT
	lbs.
ZP260000EG	3.12

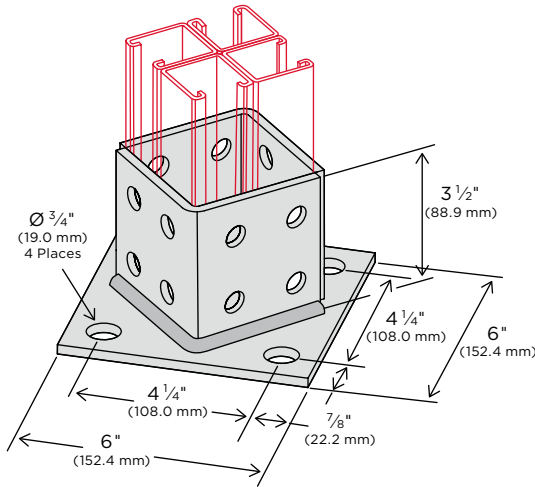
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 3/8" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Post Bases

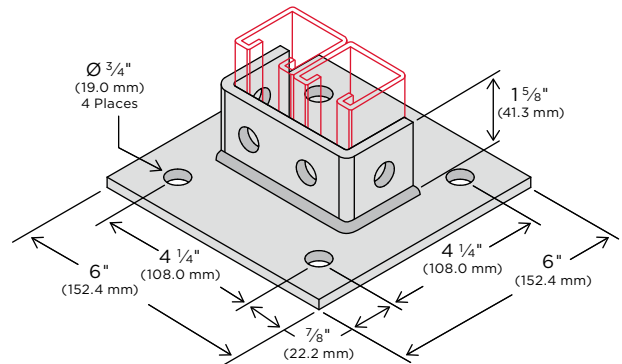
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



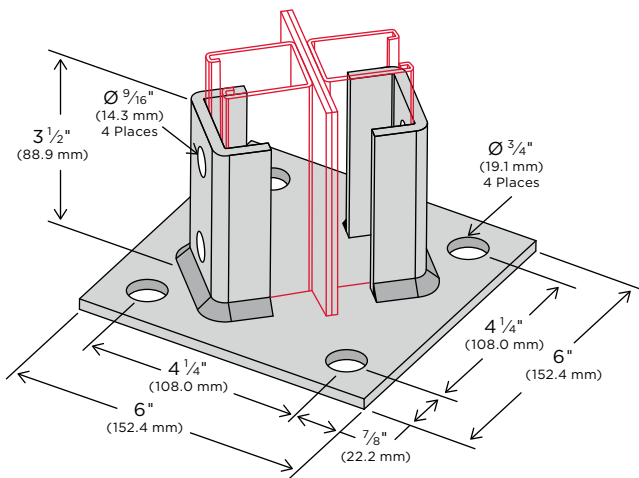
CATALOG #	WEIGHT
	lbs.
ZP270000EG	5.50

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



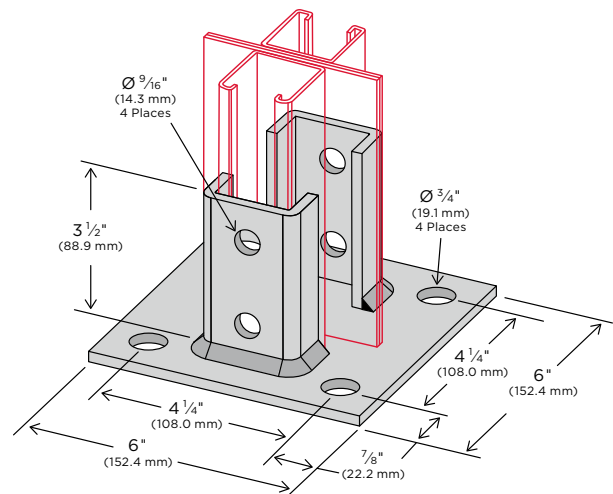
CATALOG #	WEIGHT
	lbs.
ZP280000EG	3.30

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

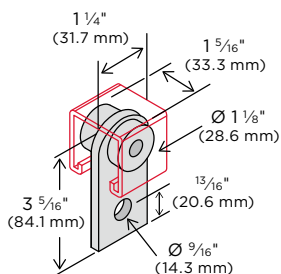
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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

Rollers

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

ZR10 | Roller Trolley 2 Bearing Assembly



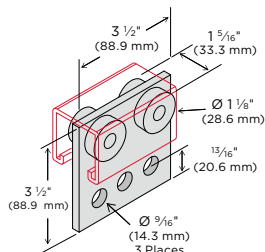
Stainless steel ball bearings (not to be lubricated)

Note: Plate also available in stainless steel

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

CATALOG #	WEIGHT
	lbs.
ZR10000EG	0.46

ZR11 | Roller Trolley 4 Bearing Assembly



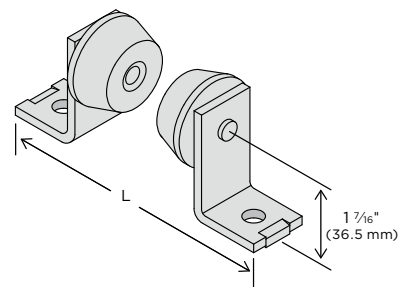
Stainless steel ball bearings (not to be lubricated)

Note: Plate also available in stainless steel

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

CATALOG #	WEIGHT
	lbs.
ZR11000EG	1.19

ZR20 | Pipe Roller 1-4" Pipe

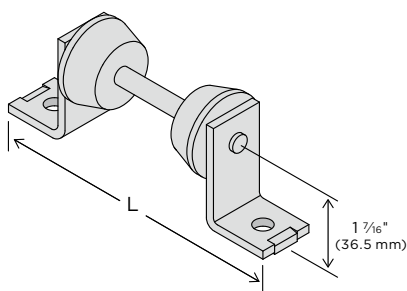


Max load rating of 500 lbs. (2.22 kN)
 with 12 ga. channel

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

CATALOG #	WEIGHT
	lbs.
ZR201040EG	2.61

ZR21 | Pipe Roller

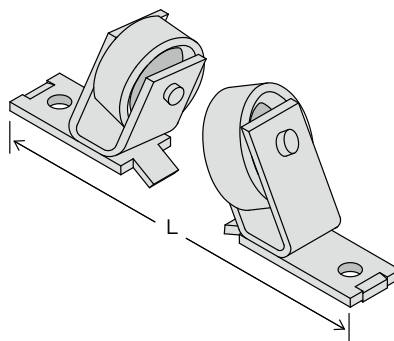


Max load rating of 750 lbs. (3.34 kN)
 with 12 ga. channel

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

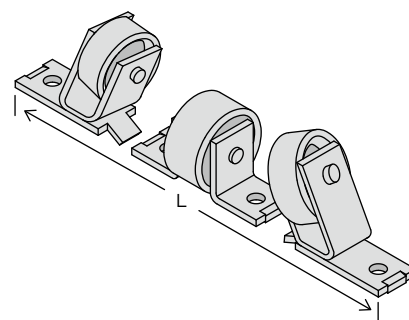


Max load rating of 1500 lbs. (6.67 kN)
 with 12 ga. channel

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



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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
¾	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 1/4	209.6	4 7/16	112.7
	1 7/8	47.6	5 3/8	136.5	8 1/4	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 9/16	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 3/8	130.2
1 ¼	0	0.0	1 1/16	42.9	6 1/2	165.1	3 5/16	84.1
	7/8	22.2	3 7/8	98.4	7 1/4	184.2	4 5/16	109.5
	1 5/8	41.3	5 1/8	130.2	8 1/4	209.6	4 13/16	122.2
	1 11/16	49.2	6	152.4	8 1/4	209.6	5 1/4	133.4
1 ½	2 7/16	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 3/16	58.7	6 3/8	168.3	9 1/4	235.0	5 7/16	138.1
	2 13/16	71.4	7 3/4	196.9	9 1/4	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 1/4	209.6	4 5/8	117.5
2 ½	1 9/16	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 1/4	235.0	5 11/16	144.5
	2 5/8	66.7	8 3/8	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 1/4	209.6	4 15/16	125.4
	1 7/8	47.6	6 3/8	168.3	9 1/4	235.0	5 7/16	138.1
	2 3/16	58.7	7 3/4	196.9	9 1/4	235.0	6	152.4
3 ½	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 1/4	209.6	5 1/4	133.4
4	1 9/16	39.7	7 1/4	184.2	9 1/4	235.0	5 3/4	146.1
	2 1/16	52.4	8 1/4	209.6	10 1/8	257.2	6 1/8	155.6
	2 5/16	65.1	9 3/8	238.1	10 1/8	257.2	6 3/4	171.5
	3 1/16	77.8	10 1/8	257.2	10 7/8	276.2	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 ½	0	0.0	4	101.6	7 1/4	184.2	4 3/8	111.1
	1 1/4	31.8	6 5/8	168.3	9 1/4	235.0	5 7/16	138.1
	1 13/16	46.0	7 3/8	187.3	9 1/4	235.0	5 13/16	147.6
	2 1/4	57.2	8 5/8	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 1/4	235.0	5 1/16	144.5
5	1 9/16	39.7	8 3/8	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 5/8	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 3/16	217.5
	0	0.0	5 3/8	142.9	8 3/4	209.6	5 1/16	128.6
	1	25.4	8 1/4	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 1/4	235.0	5 7/16	138.1
	1	25.4	9	228.6	10 1/8	257.2	6 9/16	166.7
	1 1/2	38.1	10 3/8	257.2	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 5/8	219.1
	4 1/8	104.8	15 1/8	384.2	10 7/8	276.2	9 11/16	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 9/16	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
12	4 1/16	106.4	17 3/8	441.3	10 7/8	276.2	10 7/8	276.2



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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 3/16	258.8	6 7/8	174.6
	1	25.4	10 1/2	266.7	7 7/8	200.0
	1 1/2	38.1	10 1 1/16	271.5	8 3/8	212.7
	2	50.8	10 1 3/16	274.6	8 7/8	225.4
	2 1/2	63.5	10 1 5/16	277.8	9 3/8	238.1
	3	76.2	11 3/8	288.9	9 7/8	250.8
	4	101.6	11 7/16	290.5	10 1 5/16	277.8
8	0	0.0	10 7/8	276.2	7 1 3/16	198.4
	1	25.4	11 3/16	284.2	8 7/8	225.4
	1 1/2	38.1	11 3/8	288.9	9 3/8	238.1
	2	50.8	11 1/2	292.1	9 7/8	250.8
	2 1/2	63.5	11 5/8	295.3	10 7/16	265.1
	3	76.2	12 1/16	306.4	10 1 5/16	277.8
	4	101.6	12 1/8	308.0	11 7/8	301.6
10	0	0.0	11 5/16	303.2	8 1 3/16	223.8
	1	25.4	12	304.8	9 7/8	250.8
	1 1/2	38.1	11 5/16	303.2	10 7/16	265.1
	2	50.8	10 3/4	273.1	10 1 5/16	277.8
	2 1/2	63.5	12 7/16	315.9	11 3/8	288.9
	3	76.2	12 9/16	319.1	11 7/8	301.6
	4	101.6	13 1/4	336.6	12 1 3/16	325.4
12	0	0.0	12 5/16	312.7	9 3/4	247.7
	1	25.4	11 7/8	301.6	10 1 5/16	277.8
	1 1/2	38.1	12 5/16	312.7	11 3/8	288.9
	2	50.8	12 3/8	314.3	11 7/8	301.6
	2 1/2	63.5	13	330.2	12 5/16	312.7
	3	76.2	13 1/8	333.4	12 1 3/16	325.4
	4	101.6	13 9/16	344.5	13 3/4	349.3
14	0	0.0	12 1 3/16	325.4	10 5/16	261.9
	1	25.4	12 1 5/16	328.6	11 3/8	288.9
	1 1/2	38.1	13 1/8	333.4	11 7/8	301.6
	2	50.8	13 9/16	344.5	12 5/16	312.7
	2 1/2	63.5	13 1 3/16	354.0	12 1 3/16	325.4
	3	76.2	14 3/8	365.1	13 1/4	336.6
	4	101.6	14 3/4	374.7	14 1/4	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 3/4	323.9	11 3/8	288.9
	1 1/2	38.1	19 5/8	498.5				
	2	50.8	20 3/8	517.5				
	2 1/2	63.5	21 1/8	549.3				
	3	76.2	22 1/8	562.0				
	4	101.6	24 3/8	619.1				
	18	0	0.0	18				
1 1/2		38.1	21 1/8	549.3				
2		50.8	22 5/8	574.7				
2 1/2		63.5	23 1/4	590.6				
3		76.2	24 1/4	616.0				
4		101.6	26 3/8	676.3				
20		0	0.0	20	508.0	14 1/8	358.8	13 1/4
	1 1/2	38.1	23 1/4	590.6				
	2	50.8	24 1/2	622.3				
	2 1/2	63.5	25 1/2	647.7				
	3	76.2	26 3/8	676.3				
	4	101.6	28 1/4	717.6				
	24	0	0.0	24	609.6			
1 1/2		38.1	27	685.8				
2		50.8	28	711.2				
2 1/2		63.5	29 1/4	743.0				
3		76.2	30 1/2	774.7				
4		101.6	32 7/8	835.0				
30		0	0.0	30	762.0	15 7/8	403.2	16 1/4



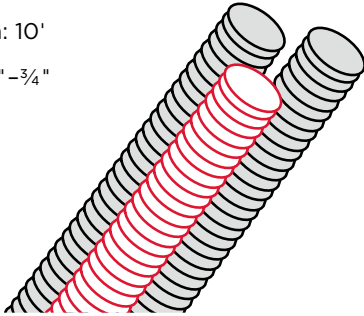
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Threaded Rod

Grade Low Carbon

Stock length: 10'

Diameter: ¼" - ¾"



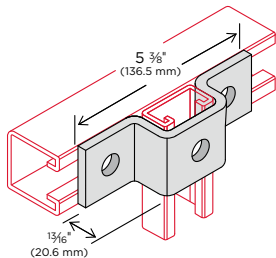
CATALOG NUMBER	THREADED ROD	WEIGHT PER 100'	PIECES (10')/TUBE
		lbs.	
TR00000010	¼" x 10' Zinc	12.1	50
TR00000030	⅜" x 10' Zinc	29.1	25
TR00000050	½" x 10' Zinc	52.2	12
TR00000070	⅝" x 10' Zinc	83.7	8
TR00000080	¾" x 10' Zinc	122.4	5

U-Fittings

Standard finish is Electro-Galvanized (EG)

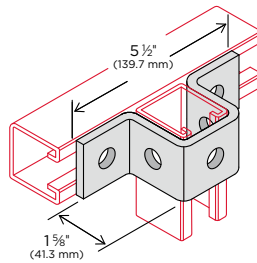
Product finishes and materials are on [page 11](#)

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



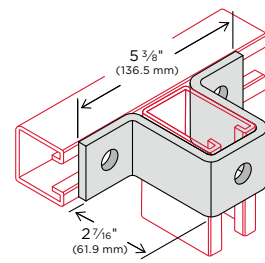
CATALOG #	WEIGHT
	lbs.
ZU100000EG	0.66

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



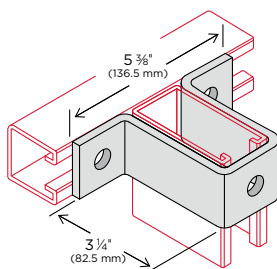
CATALOG #	WEIGHT
	lbs.
ZU110000EG	0.81

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



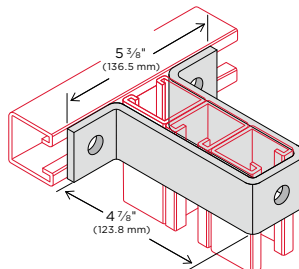
CATALOG #	WEIGHT
	lbs.
ZU120000EG	1.03

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



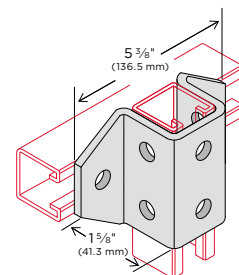
CATALOG #	WEIGHT
	lbs.
ZU130000EG	1.18

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 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

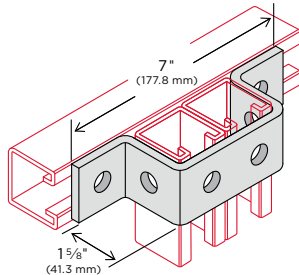


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U-Fittings

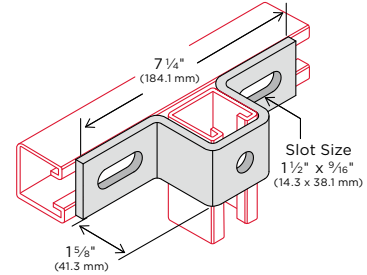
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



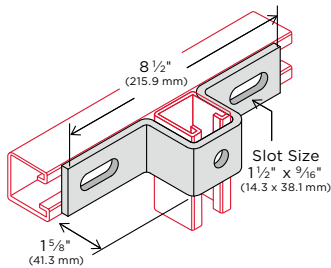
CATALOG #	WEIGHT
	lbs.
ZU160000EG	0.95

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



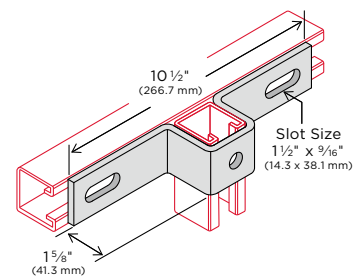
CATALOG #	WEIGHT
	lbs.
ZU200000EG	0.98

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



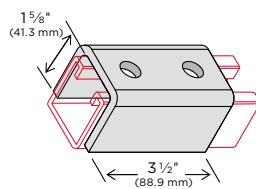
CATALOG #	WEIGHT
	lbs.
ZU210000EG	1.15

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



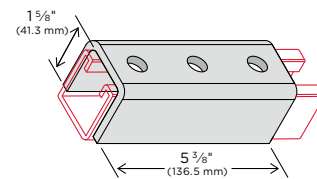
CATALOG #	WEIGHT
	lbs.
ZU220000EG	1.35

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



CATALOG #	WEIGHT
	lbs.
ZU300000EG	1.19

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



CATALOG #	WEIGHT
	lbs.
ZU310000EG	1.83

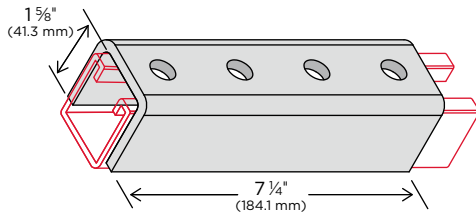
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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U-Fittings

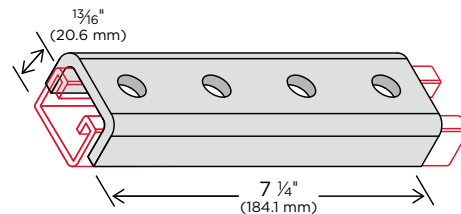
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



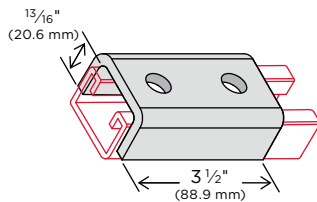
CATALOG #	WEIGHT
	lbs.
ZU320000EG	2.44

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



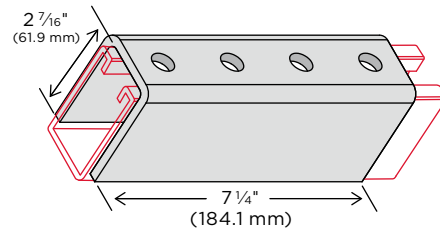
CATALOG #	WEIGHT
	lbs.
ZU330000EG	1.63

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



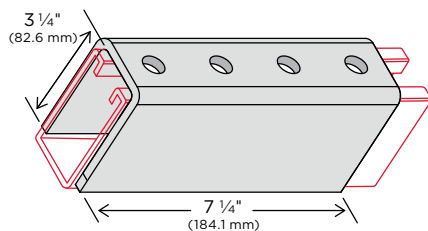
CATALOG #	WEIGHT
	lbs.
ZU340000EG	0.84

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



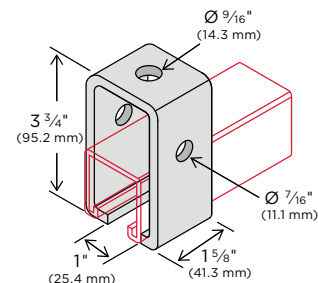
CATALOG #	WEIGHT
	lbs.
ZU350000EG	3.15

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

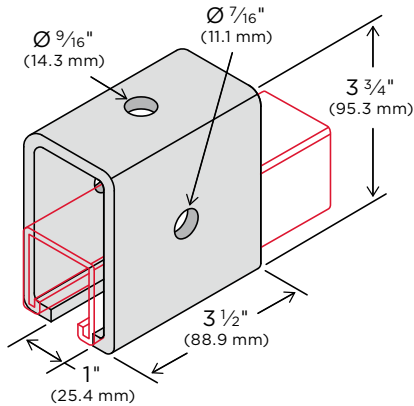
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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U-Fittings

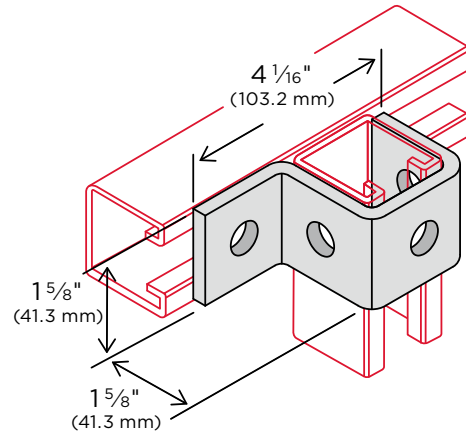
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZU41 | U-Fitting Trolley Support 3 Hole Heavy Duty



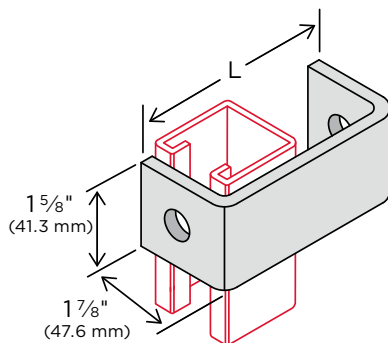
CATALOG #	WEIGHT
	lbs.
ZU410000EG	2.20

ZU50 | U-Fitting 4 Hole Cup Support



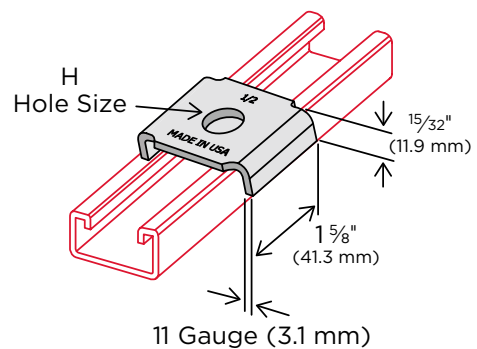
CATALOG #	WEIGHT
	lbs.
ZU500000EG	0.67

ZU60 | U-Fitting Clevis 2 Hole



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

ZU70 | Saddle Washer



CATALOG #	WEIGHT	BOLT SIZE	H (HOLE SIZE)	
			in.	mm
ZU700025EG	0.14	¼	⅝	7.9
ZU700037EG	0.14	⅜	⅞	11.1
ZU700050EG	0.13	½	⅞	14.3
ZU700062EG	0.13	⅝	1⅞	17.4
ZU700075EG	0.13	¾	1⅞	20.6

Material is 1½" (41.3) wide x ¼" (6.3) thick unless specified. Holes are ⅝" (14.3) diameter, 1⅜" (20.6) center to edge on 1⅞" (47.6) centers unless specified.

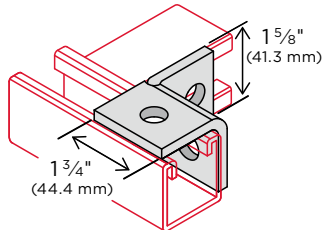


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Wing Fittings

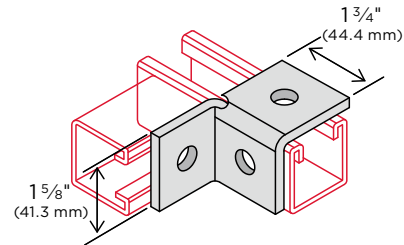
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZW10 | Wing Fitting Single Corner 3 Hole Right



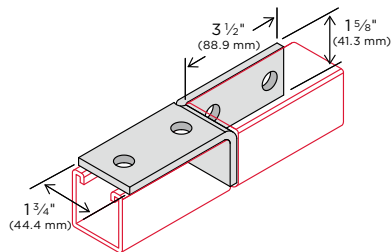
CATALOG #	WEIGHT
	lbs.
ZW100000EG	0.53

ZW11 | Wing Fitting Single Corner 3 Hole Left



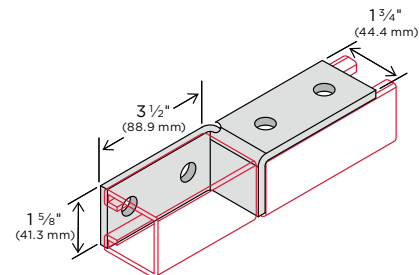
CATALOG #	WEIGHT
	lbs.
ZW110000EG	0.53

ZW12 | Wing Fitting Single Corner 4 Hole Right



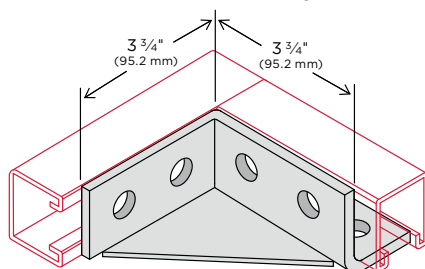
CATALOG #	WEIGHT
	lbs.
ZW120000EG	0.97

ZW13 | Wing Fitting Single Corner 4 Hole Left



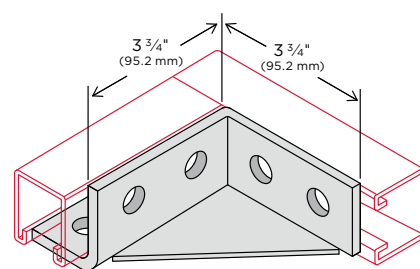
CATALOG #	WEIGHT
	lbs.
ZW130000EG	0.86

ZW14 | Wing Fitting Single Corner 6 Hole Gusset Right



CATALOG #	WEIGHT
	lbs.
ZW140000EG	1.68

ZW15 | Wing Fitting Single Corner 6 Hole Gusset Left



CATALOG #	WEIGHT
	lbs.
ZW150000EG	1.68

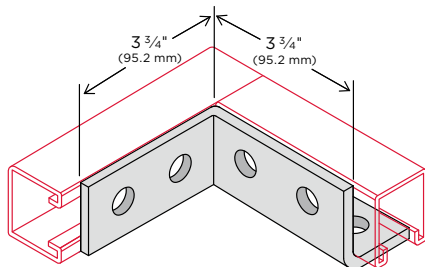
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Wing Fittings

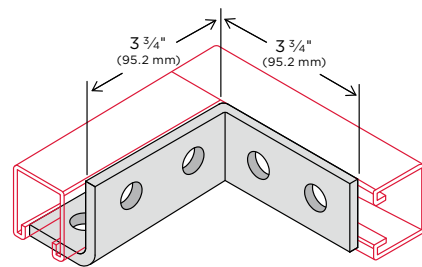
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZW16 | Wing Fitting Single Corner
 6 Hole Right



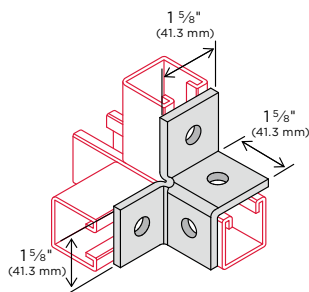
CATALOG #	WEIGHT
	lbs.
ZW160000EG	1.10

ZW17 | Wing Fitting Single Corner
 6 Hole Left



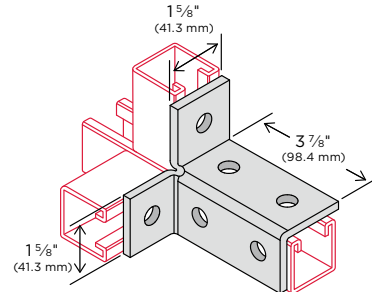
CATALOG #	WEIGHT
	lbs.
ZW170000EG	1.10

ZW20 | Wing Fitting Double Corner
 4 Hole



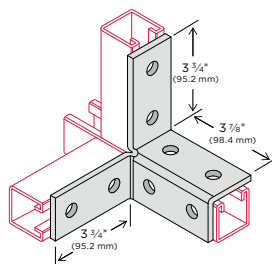
CATALOG #	WEIGHT
	lbs.
ZW200000EG	0.69

ZW21 | Wing Fitting Double Corner
 6 Hole



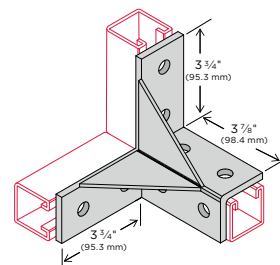
CATALOG #	WEIGHT
	lbs.
ZW210000EG	1.12

ZW22 | Wing Fitting Double Corner
 8 Hole



CATALOG #	WEIGHT
	lbs.
ZW220000EG	1.47

ZW23 | Wing Fitting Double Corner
 8 Hole Gusset



CATALOG #	WEIGHT
	lbs.
ZW230000EG	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, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

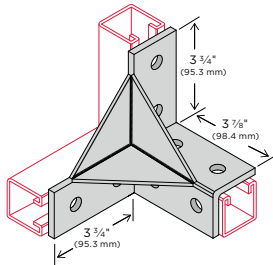


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Wing Fittings

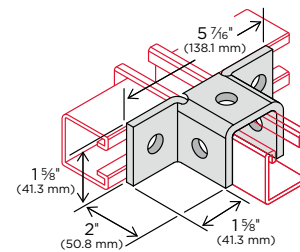
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZW24 | Wing Fitting Double Corner 8 Hole Double Gusset



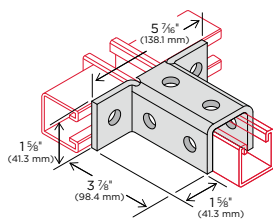
CATALOG #	WEIGHT
	lbs.
ZW240000EG	2.26

ZW30 | Wing Fitting Corner Connector 5 Hole Opposed



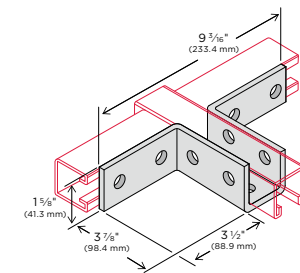
CATALOG #	WEIGHT
	lbs.
ZW300000EG	0.94

ZW31 | Wing Fitting Corner Connector 8 Hole Opposed



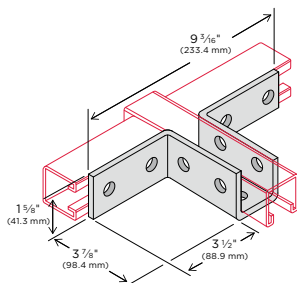
CATALOG #	WEIGHT
	lbs.
ZW310000EG	1.56

ZW32 | Wing Fitting Corner Connector 10 Hole Opposed



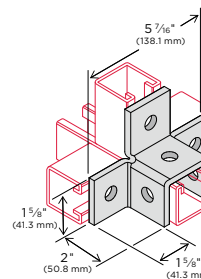
CATALOG #	WEIGHT
	lbs.
ZW320000EG	1.95

ZW33 | Wing Fitting Corner Connector 10 Hole Opposed Double Gusset



CATALOG #	WEIGHT
	lbs.
ZW330000EG	2.94

ZW40 | Wing Fitting Triple Corner 6 Hole



CATALOG #	WEIGHT
	lbs.
ZW400000EG	1.04

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.

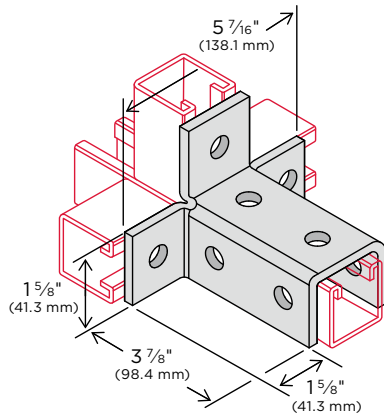


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Wing Fittings

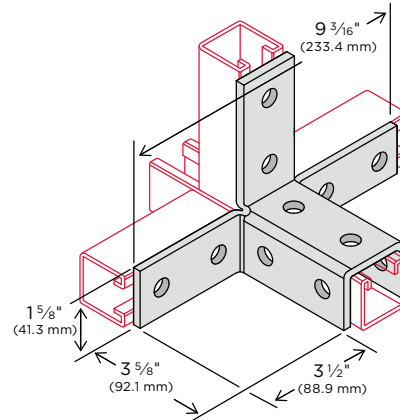
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZW41 | Wing Fitting Triple Corner 9 Hole



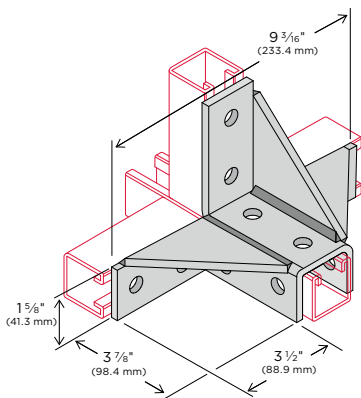
CATALOG #	WEIGHT
	lbs.
ZW410000EG	1.57

ZW42 | Wing Fitting Triple Corner 12 Hole



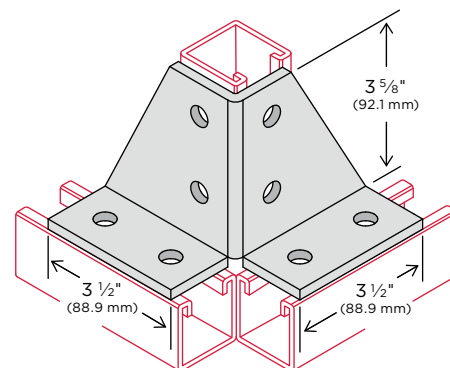
CATALOG #	WEIGHT
	lbs.
ZW420000EG	2.34

ZW43 | Wing Fitting Triple Corner 12 Hole Gusset



CATALOG #	WEIGHT
	lbs.
ZW430000EG	2.85

ZW50 | Wing Fitting Double Corner Connector 8 Hole



CATALOG #	WEIGHT
	lbs.
ZW500000EG	2.14

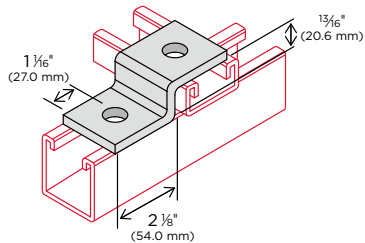
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 5/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Z-Fittings

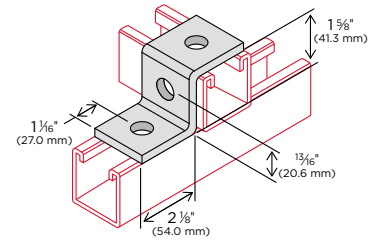
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZZ10 | Z-Fitting Cross 2 Hole 1 3/16"



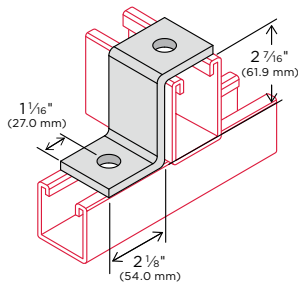
CATALOG #	WEIGHT
	lbs.
ZZ10000EG	0.41

ZZ11 | Z-Fitting Cross 2 Hole 1 5/8"



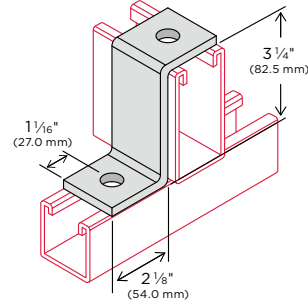
CATALOG #	WEIGHT
	lbs.
ZZ11000EG	0.48

ZZ12 | Z-Fitting Cross 2 Hole 2 7/16"



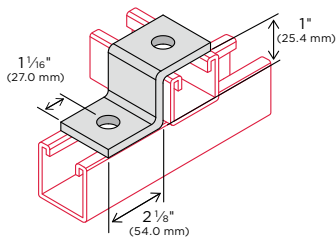
CATALOG #	WEIGHT
	lbs.
ZZ12000EG	0.54

ZZ13 | Z-Fitting Cross 2 Hole 3 1/4"



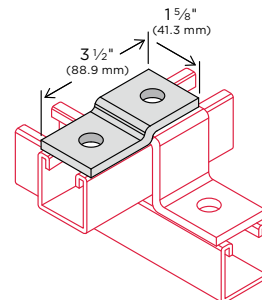
CATALOG #	WEIGHT
	lbs.
ZZ13000EG	0.67

ZZ14 | Z-Fitting Cross 2 Hole 1"



CATALOG #	WEIGHT
	lbs.
ZZ14000EG	0.45

ZZ20 | Z-Fitting Offset Support 2 Hole



CATALOG #	WEIGHT
	lbs.
ZZ20000EG	0.35

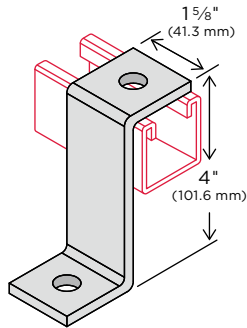
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/16" (14.3) diameter, 1 3/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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

Z-Fittings

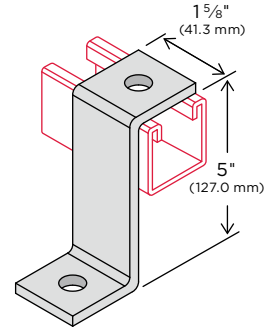
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

ZZ30 | Z-Fitting 2 Hole Support 4"



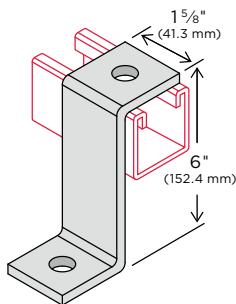
CATALOG #	WEIGHT
	lbs.
ZZ30000EG	0.77

ZZ31 | Z-Fitting 2 Hole Support 5"



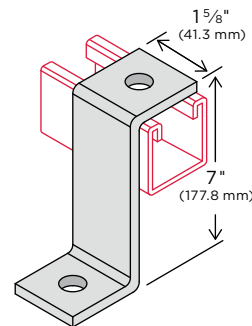
CATALOG #	WEIGHT
	lbs.
ZZ31000EG	0.95

ZZ32 | Z-Fitting 2 Hole Support 6"



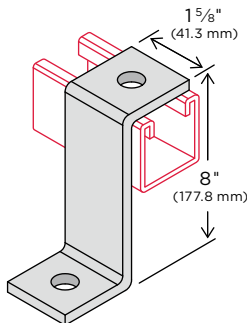
CATALOG #	WEIGHT
	lbs.
ZZ32000EG	0.98

ZZ33 | Z-Fitting 2 Hole Support 7"



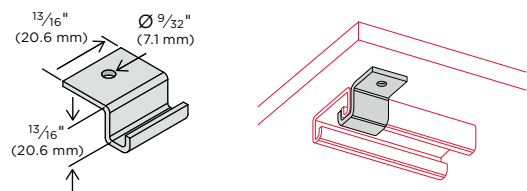
CATALOG #	WEIGHT
	lbs.
ZZ33000EG	1.07

ZZ34 | Z-Fitting 2 Hole Support 8"



CATALOG #	WEIGHT
	lbs.
ZZ34000EG	1.23

ZZ40 | Z-Fitting Channel Hanger 13/16"



CATALOG #	WEIGHT	Note: Material is 11 gauge
	lbs.	
ZZ40000EG	0.083	

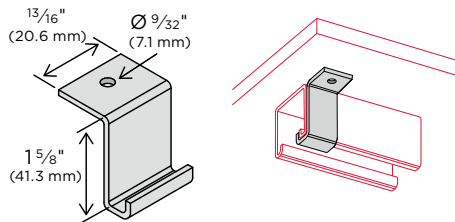
Material is 1 5/8" (41.3) wide x 1/4" (6.3) thick unless specified. Holes are 9/32" (14.3) diameter, 13/16" (20.6) center to edge on 1 7/8" (47.6) centers unless specified.

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Z-Fittings

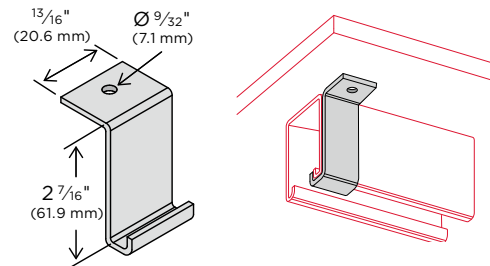
Standard finish is Electro-Galvanized (EG)
 Product finishes and materials are on [page 11](#)

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



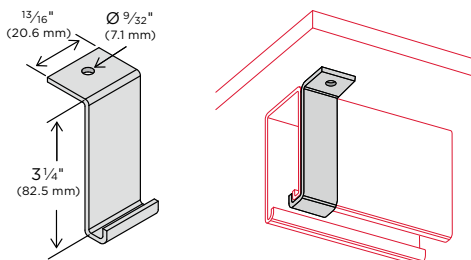
CATALOG #	WEIGHT	
	lbs.	<i>Note: Material is 11 gauge</i>
ZZ410000EG	0.09	

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



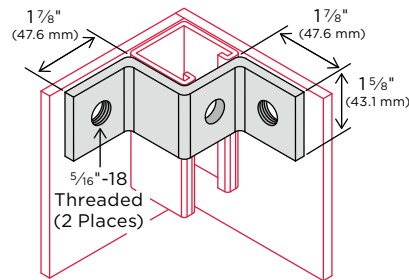
CATALOG #	WEIGHT	
	lbs.	<i>Note: Material is 11 gauge</i>
ZZ420000EG	0.112	

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



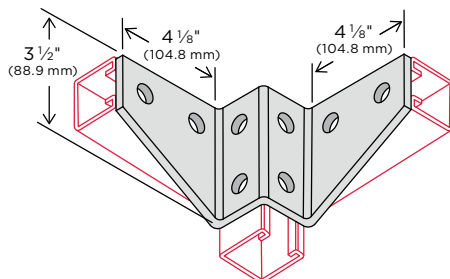
CATALOG #	WEIGHT	
	lbs.	<i>Note: Material is 11 gauge</i>
ZZ430000EG	0.134	

ZZ50 | Z-Fitting Corner Brace 3 Hole



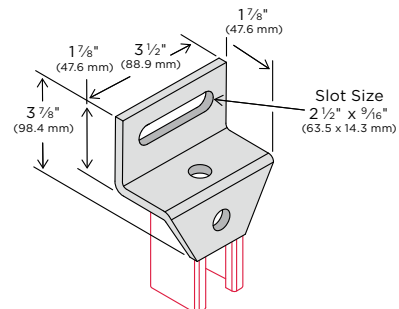
CATALOG #	WEIGHT
	lbs.
ZZ500000EG	0.67

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

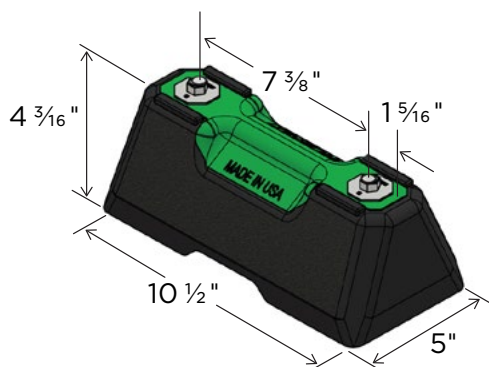
Rooftop Support Applications:

- 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.	lbs.	kN
ZRSB0000RB	4.3	1000	1000	4.4

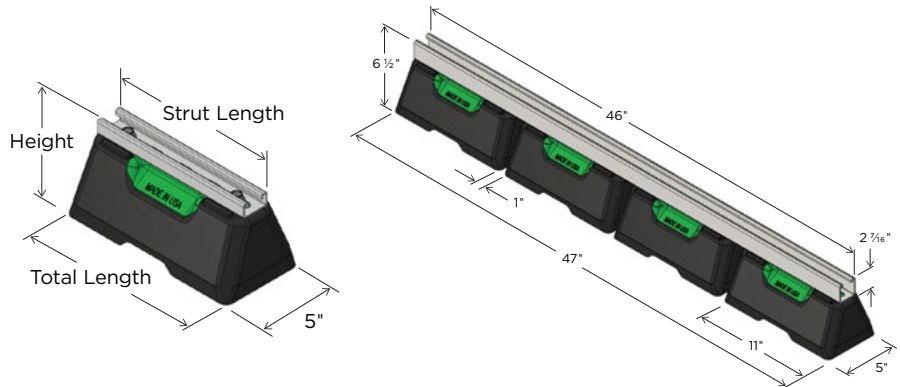
*This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

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

Rooftop Support Blocks

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

ZRSB | Support With Metal Channel



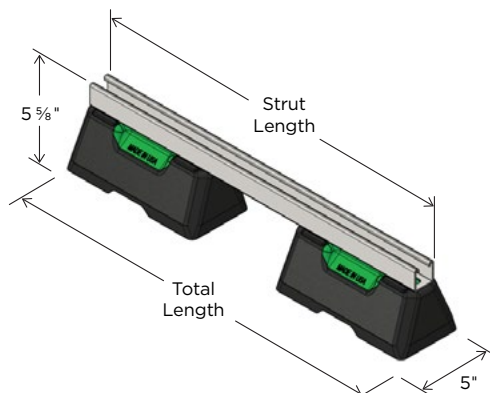
The ZRSB Series provides a longer mounting surface with strut lengths up to 47.5".

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 3/16" PRE-GALV. 14 GAUGE STEEL CHANNEL							
ZRSB1081PG	1	4 13/16	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 5/8" 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 5/8" 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.
 Please consult roofing manufacturer or engineer for roof load capacity.



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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
⅝	11.1	600	50	67.8

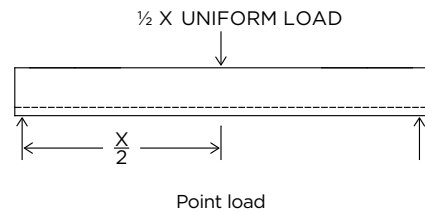
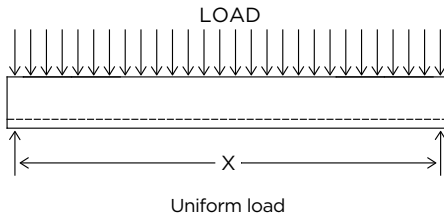
NOTE: Caution should be taken not to over tighten the set screw on iron beam clamps as this will cause distortion, a lower maximum load capability and possible breakage.

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
⅝	11.1	90	7.5	10.2
¾	12.7	125	10.4	14.1
⅞	14.3	180	15.0	20.3
1	15.8	250	20.8	28.2
1 ¼	19.0	400	33.3	45.2
1 ½	22.2	665	55.4	75.1
1 ¾	25.4	990	82.5	111.9

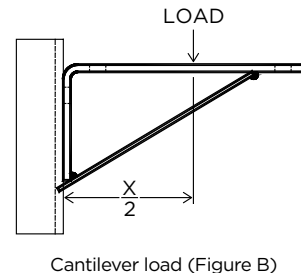
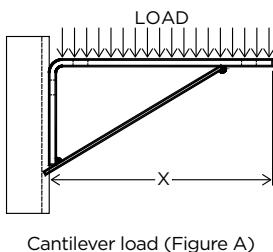
Uniform Load and Point Load

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

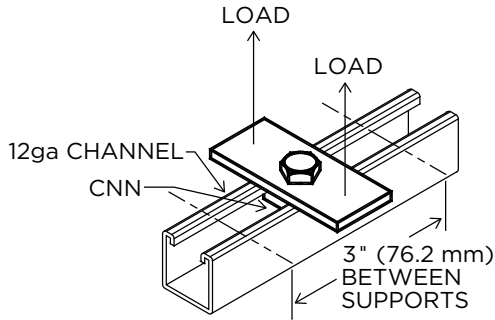
A cantilever bracket or beam is rigidly attached at one end and is completely free at the other end. A cantilever load is applied at one point or spread along a section of the length of a bracket or beam and causes a twisting load or moment at the mounting point. Load ratings for this type of bracket 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.



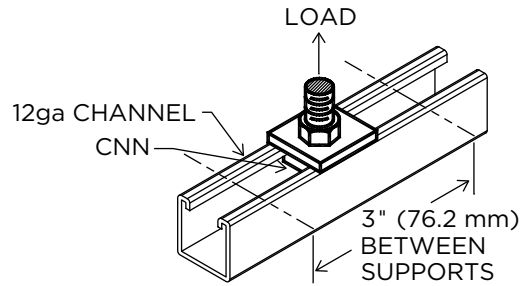
Technical Data

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.

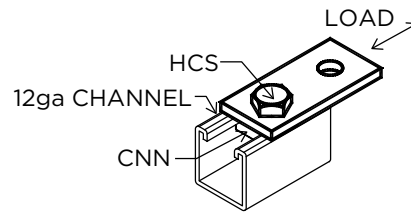


Pullout Test With Load on Fitting



Pullout Test With Load on Rod

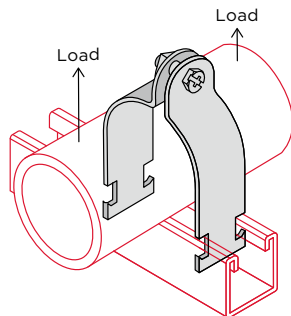
The channel nut sliding inside the channel is tested by supporting the channel by such method that the channel is stationary and applying a load parallel to the channel with the fitting attached according to the recommended methods and mounting torque as stated in MFMA standards using channel meeting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



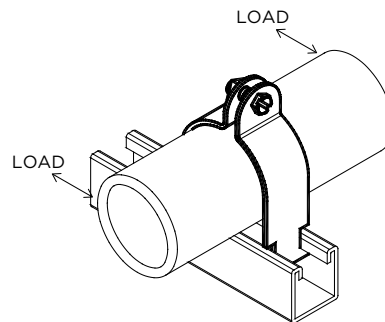
Slip Test for Strut Fittings

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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ZI-Strut®



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