A Broad and Versatile Metal Framing Line Backed

More Than 8,000 Quality Products

The Power–Strut metal framing system can be regarded as a basic building material. Our metal framing system is an erector set concept, using channel and fittings to solve many applications. You can conceal metal framing in the basic structure of a building or run it along the surface of walls, ceilings and floors. An endless array of fittings provide freedom to work at virtually any angle along any surface to shape a support system that fits your exact needs.

Available finishes include hot–dipped galvanized, pregalvanized, electro–galvanized and painted, along with material choices of steel, stainless steel and aluminum.

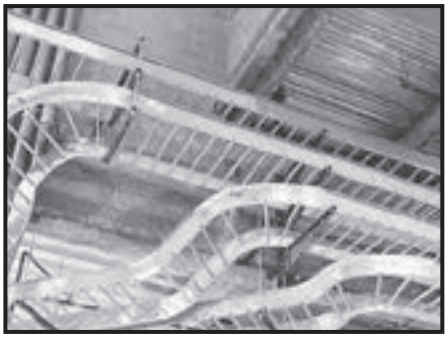
Beyond its versatility as a basic building material, metal framing is popular for more exotic applications such as clean rooms, satellite dish supports, x–ray supports, storage racks, theater screens, tunnel stanchions and offshore platform catwalks. While the uses of metal framing are truly unlimited, they fall in to three major categories.

Electrical Systems

Versatile metal framing is widely used by electrical contractors to support conduit, panel boxes, raceway systems and other electrical components. In addition, Power–Strut channel can be used as a wiring raceway. Products marked with the UL symbol in this catalog are listed by Underwriter's Laboratories for use in raceway applications.

Channel raceways or support systems can be attached to ceilings, wood or steel beams, inside columns or imbedded in concrete. Trapeze systems can support conduit from either the top or bottom.

As a lighting support system, metal framing helps assure proper alignment over long spans. As a raceway system, channel offers an opportunity to reduce construction costs through more efficient use of installation labor. The exceptional versatility of channel gives contractors more flexibility in solving miscellaneous problems which may arise at the job site.



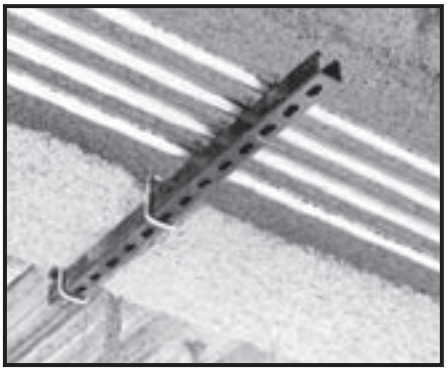
by a Leading Reputation for Quality and Service.

Mechanical Systems That Reduce Costs

For mechanical support of HVAC, plumbing and fire protection systems, the versatility of metal framing systems is unmatched. It is by far the most popular framing system with contractors because the wide variety of fittings and support devices available help solve virtually any support problem without expensive welding.

Piping stanchions, ceiling and wall-mounted supports and tunnel supports are common metal framing applications. Concrete insert, shelf bracket, wall and ceiling-mounted systems provide flexible solutions to any piping support applications.

In addition, pipe support products such as Power-Wrap and cushioned clamps provide insulation to prevent potential damage from noise, vibration, temperature variations and metal-to-metal contact.



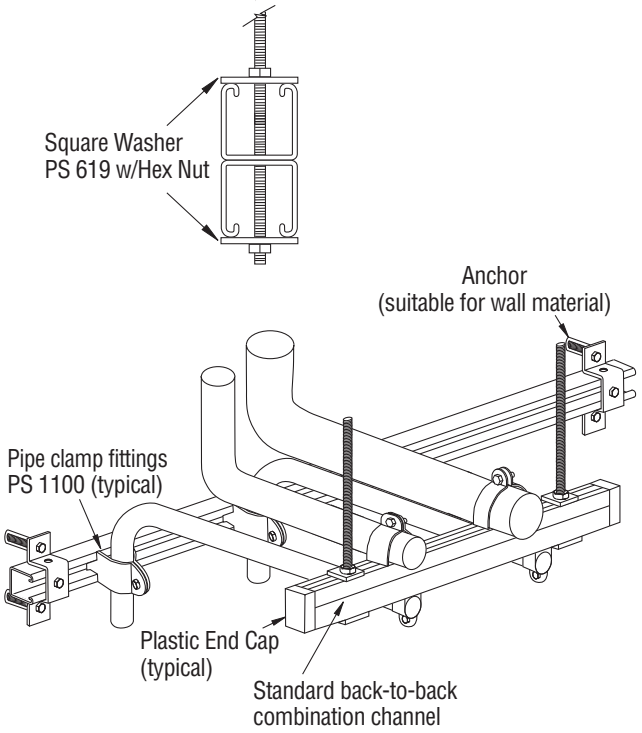
OEM Components and Maintenance

Metal Framing systems provide convenient solutions for maintenance and retrofit requirements in processing and manufacturing facilities. Also, Power-Strut products can be used as cost-effective components in OEM applications. For example, channel can be used as conveyor stands and side rails or provide framing for panel cabinetry products, or for generator, motor and pump supports.

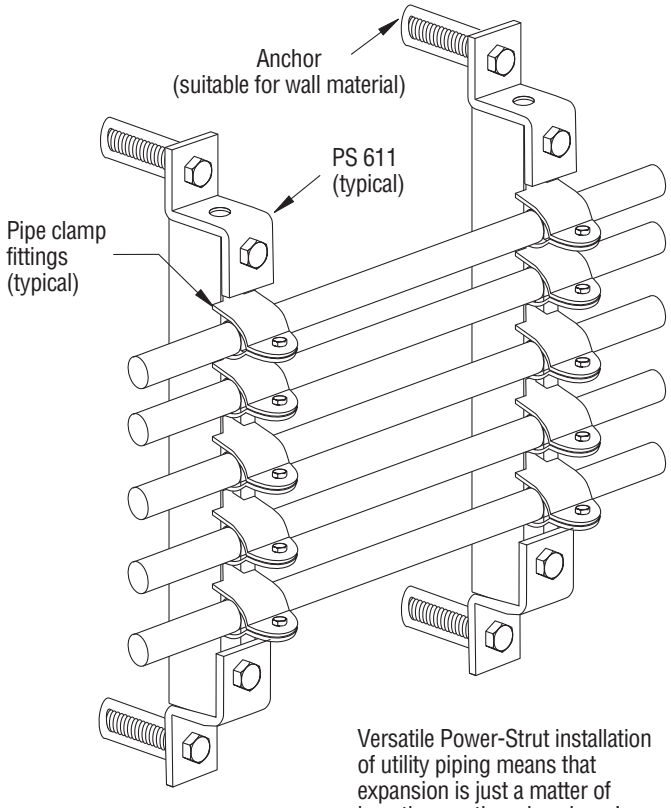
The complete line of products and leading reputation for quality and service make Power-Strut your practical choice for metal framing. Contact your local Power-Strut representative for additional information.

EXAMPLE APPLICATIONS

Overhead Support Vertical to Horizontal

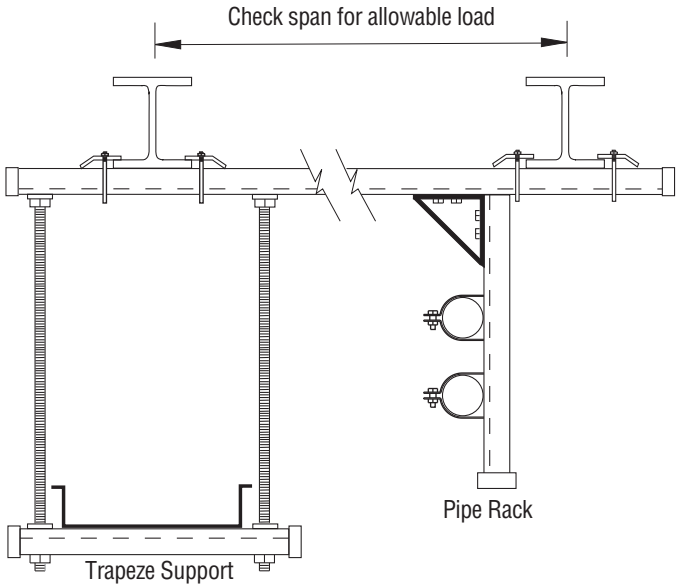


Wall Mount Organize & Control MultiShelf or Utility Support

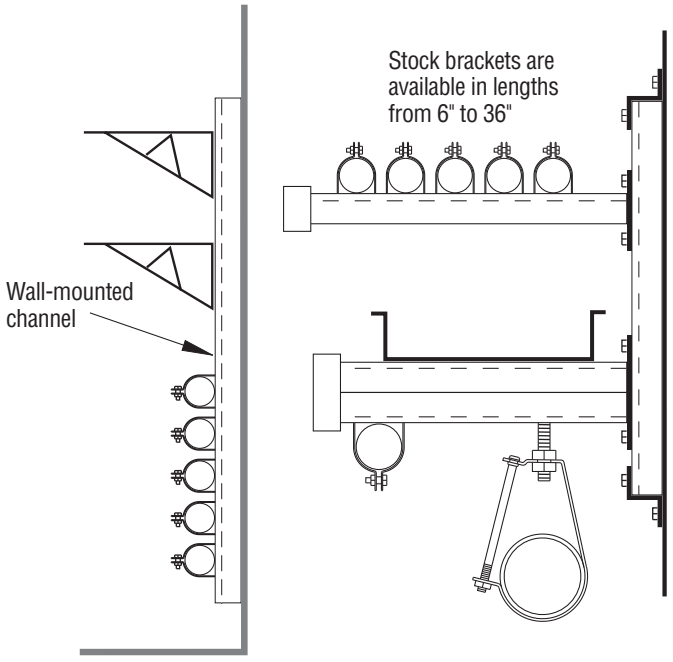


Versatile Power-Strut installation of utility piping means that expansion is just a matter of inserting another pipe clamp!

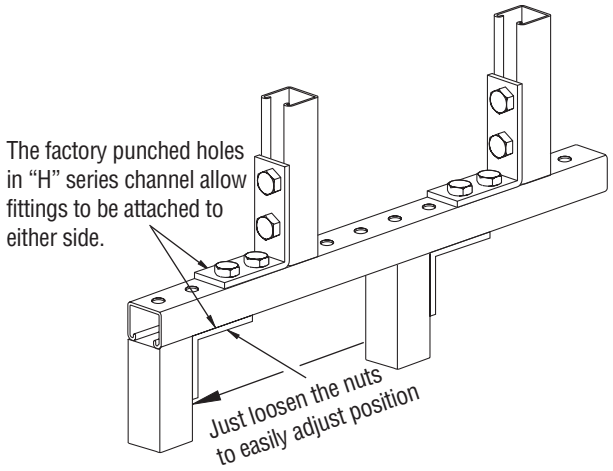
Overhead Multi-Use Support Systems Using Channel Attached to "I" Beams



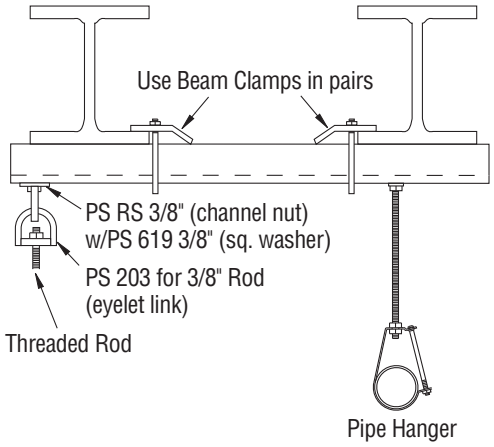
Wall Mounted Brackets



Standard Channel and Fitting Assembly

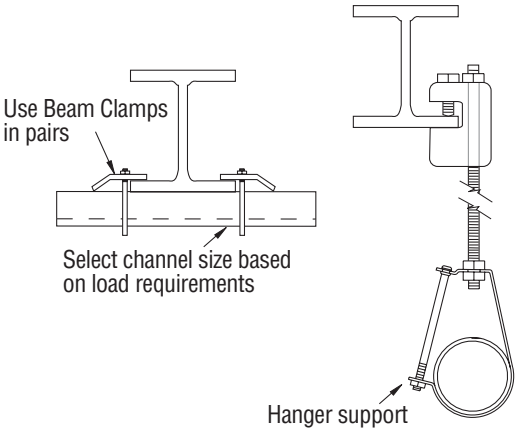


Supports for Threaded Rod Attachments Between Beams



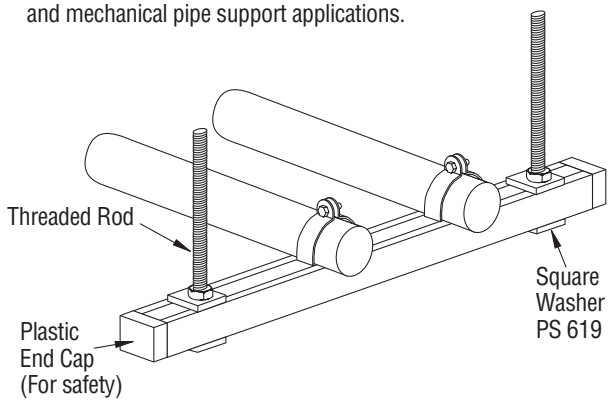
Select channel size based on load requirements

Supports for Threaded Rod Attachments to Single Beams

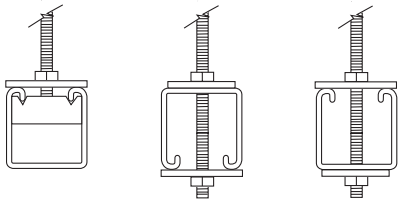


Trapeze Support System

Power-Strut metal framing is ideal for electrical and mechanical pipe support applications.

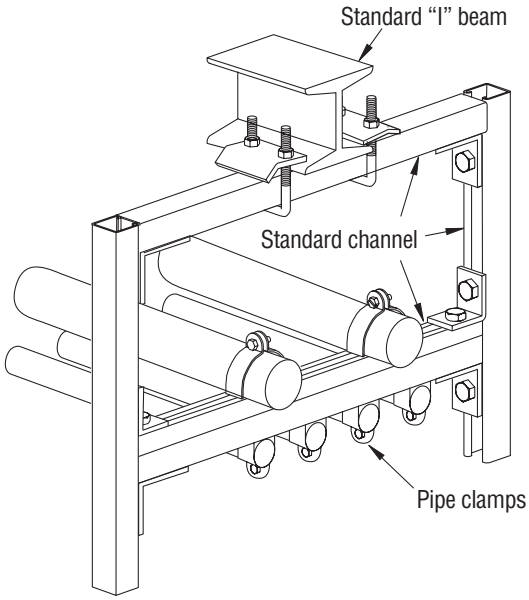


Acceptable Methods to Hang Channels

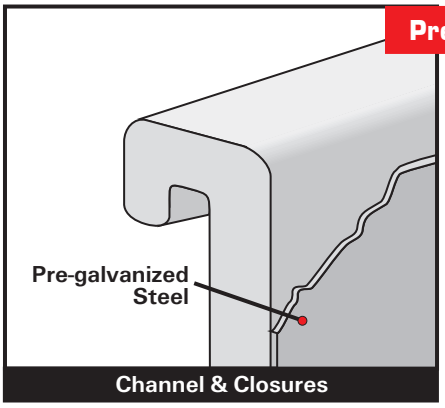


Pre-slotted channel allow through channel connections

Ganged Pipe Support



Pregalvanized (PG)

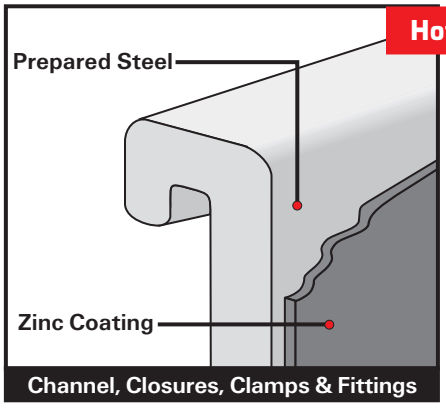


Channel & Closures

Material (steel strip) is coated with zinc by hot-dip process prior to roll-forming or press operations.

The zinc coating conforms to ASTM A653, Grade 90 General Requirement for Steel Sheet, Zinc–Coated (Galvanized) by Hot Dip Process.

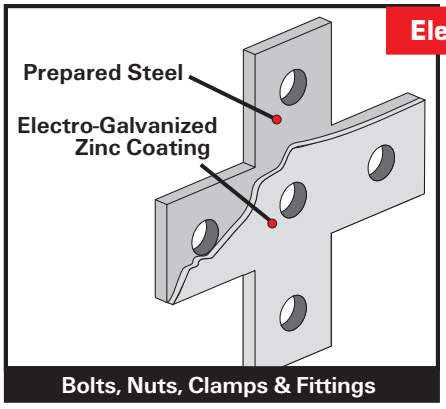
Hot-Dipped Galvanized (HG)



Channel, Closures, Clamps & Fittings

Material is coated with zinc after being roll-formed or after all manufacturing operations are completed, conforming to ASTM A123 or A153.

Electro-Galvanized (EG)



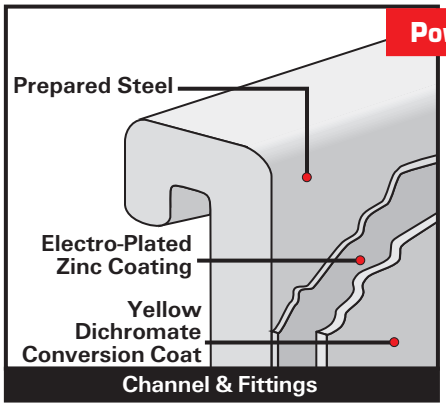
Bolts, Nuts, Clamps & Fittings

Fittings and hardware are electrolytically coated with zinc to commercial standards (ASTM-B633 Type III C1).

SC1 (mild) has a Zinc coating of 0.2 and is recommended for dry indoor use. SC1 is the standard finish thickness.

SC3 (Severe) has a Zinc coating of 0.5 mill and is the standard finish thickness only on UL Listed raceway products.

Power-Gold (ZD)



Channel & Fittings

An Electro-galvanized zinc plate is applied with a cohesive molecular bond to the steel base metal, in compliance with the ASTM B633 standard. Yellow Dichromate is applied over the zinc and results in a gold appearance which acts as a nonporous barrier sealant.

SC1 (mild), recommended for dry indoor use, has a Zinc coating of 0.2 and is the standard finish thickness

SC3 (Severe) has a Zinc coating of 0.5 mill and is the standard finish thickness only on UL Listed raceway products.

ZINC COATING

Power-Strut products are available in four types of zinc coatings:

- Electroplated (EG)
- Pregalvanized (PG)
- Hot-Dipped Galvanized (HG)
- Yellow Dichromate (ZD)

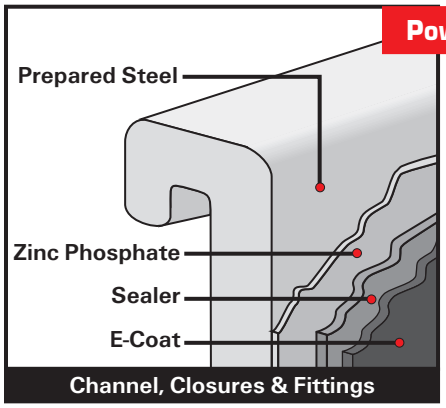
Zinc coatings offer two types of protection:

1. **Barrier:** The zinc coating protects the steel substrate from direct contact with the environment.
2. **Sacrificial:** The zinc coating will protect scratches, cut edges, etc. through an anodic sacrificial process.

The service life of zinc coating is directly related to the zinc coating thickness as shown below.

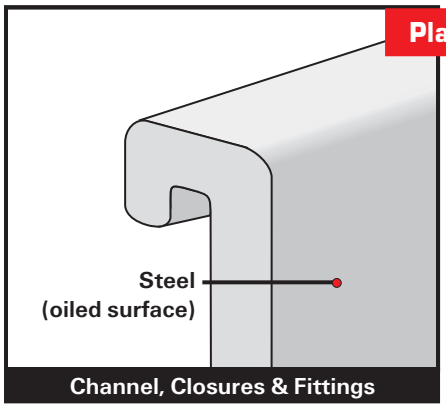
COMPARISON OF ZINC GALVANIZED FINISHES

Finish	Zinc Thickness
Hot-Dipped Galvanized	2.6 MIL
Pregalvanized	0.75 MIL
Electro-Galvanized (SC1)	0.2 MIL
Electro-Galvanized (SC3)	0.5 MIL
Power-Gold (SC1)	0.2 MIL
Power-Gold (SC3)	0.5 MIL



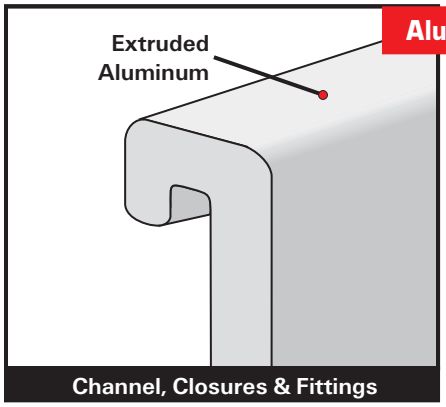
Power-Green® (GR)

Channel and parts are cleaned and phosphated. Immediately afterward, a uniform coat of rust-inhibiting thermoset epoxy paint is applied by cathodic electro-deposition and thoroughly baked.



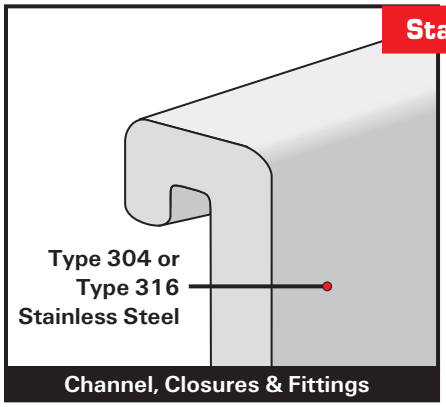
Plain (PL)

Plain finish designation means that the channel retains the oiled surface applied to the raw steel during the rolling process. The fittings have the original oiled surface of the bar-stock material.



Aluminum (AL)

Channel is extruded aluminum in accordance with ASTM B221 Type 6063-T6.



Stainless Steel (SS)

Material in accordance with ASTM A240 (Type 304 or type 316).

POWER-GREEN® TECHNICAL DATA

STEEL SUBSTRATE PREPARATION
Eight stage continuous cleaning, rinse, zinc phosphate conversion coating and sealer.

COATING
Thermoset epoxy

Color: Federal Highway Green Color Tolerance Chart PR Color No. 4.

Hardness: 2H+

Coating Process: Cathodic Electrodeposition.

PERFORMANCE
Salt Spray:

Scribed: exceeds 400 hrs per ASTM B117. (⅛ Creep)

Unscribed: exceeds 600 hours per ASTM B117. (6% Red Rust)

ENVIRONMENTAL ISSUES
Formulated as a "heavy metal"- free coating (trace elements only).

Outgassing in service: essentially none at 350°F for 24 hrs.

Finishes (Ordering):

When ordering, add the finish to the part number.

Examples: PS 200-10 PG
PS 200-10 ZD
PS 200-10 GR
PS 200-10 HG

SPECIFICATIONS

Materials:

Channel* & Closures – Pregalvanized
ASTM A653 Grade 33, Steel Sheet Zinc Coated by Hot Dip Process

Channel* – Plain, Painted or Hot Dip Galvanized
ASTM A–1011 Grade 33, Hot Rolled Carbon Steel Sheet and Strip, Structural Quality

Channel* – Stainless Steel
ASTM A–240, Type 304, Heat Resisting Chromium and Chromium–Nickel Stainless Steel Plate, Sheet, Strip for Pressure Vessel

Channel* – Aluminum
ASTM B–221, Type 6063 T6, Aluminum Alloy Extruded Bar, Rod, Wire, Shape and Tube

Closures – Plain, Painted or Hot Dip Galvanized
ASTM A1008, Steel, Strip, Carbon, Cold–Rolled

Fittings* – Steel
ASTM A575, A576, A635, A1011 SS Grade 33, A1011 HSLAS Grade 45 or A36

Fittings* – Aluminum
ASTM B–209

Accessories – Steel
ASTM A575, A576, A635, A1011 SS Grade 33, A1011 HSLAS Grade 45, A653 Grade 33 or A36

Pipe Clamps – Steel
A–1011SS Grade 33

Pipe Clamps – Stainless Steel
ASTM A–240, Type 304

Pipe Clamps – Aluminum
ASTM B-209, 5052, H32 Grade, Sheet and Plate

Channel Nuts
ASTM (1/4" & 5/16") A1011 SS Grade 33, (3/8", 7/16" & 1/2") A576 Grade 1015 Modified, (5/8" & 3/4") A36 or A675 Grade 60, (7/8") A36, Case hardened to RC25 min.

Hex Nuts and Bolts
ASTM A–563, Grade A and ASTM A–307, Grade A

Threaded Rod
Low Carbon Steel
Yield = 32 ksi min.
Tensile = 52 ksi min

* Channel referenced is 1⅝" wide, fittings referenced are for 1⅝" channel.
† Some ¼" fittings are produced from A-36 Structural Steel.

Product Load Testing

Product testing is an important Part of Power-Strut's Quality Assurance Program. We utilize our own testing facilities, as well as those of independent testing laboratories, to determine design loads with proper and adequate safety factors. These design loads are indicated, where applicable, throughout the catalog. Loads are based on AISI Specification For The Design Of Cold-Formed Steel Structural Members, 2007 Edition.

Destructive and non-destructive testing procedures are used to test for variables such as corrosion, conductivity, electro-static dissipation, ultra-violet resistance, wind resistance, dimensional accuracy, material integrity and slip resistance.

In short, if there's a specification to meet, Power-Strut will develop a test to quantify and verify it. Using design properties of the Power-Strut framing members, load data given in this catalog, and/or design procedures of the American Iron & Steel Institute Specification For The Design Of Cold-Formed Steel Structural Members, 2007 Edition, it is possible to design any type of structure within the capabilities of the system.

Assemblies or connections that cannot be calculated using provisions of the AISI specifications must be established by application-specific tests.

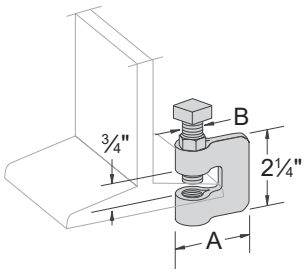
We reserve the right to make specification changes without notice.

While every effort has been made to assure the accuracy of information contained in this catalog at the time of publication, we cannot accept responsibility for inaccuracies resulting from undetected errors or omissions.

BEAM CLAMPS

Finish: Painted Green, or Electro-galvanized **Order By:** No. and Finish **Note:** Use in pairs or with other support

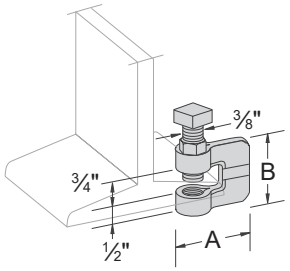
PS 95 – "C" Clamp



Rod Size	A	B	Load Rating	Wt./100 pcs
⅜"	2 5/16"	⅜"	330	35
½"	2¼"	½"	380	41
⅝"	2⅜"	⅝"	450	67
¾"	2¼"	½"	500	72

Material: Steel

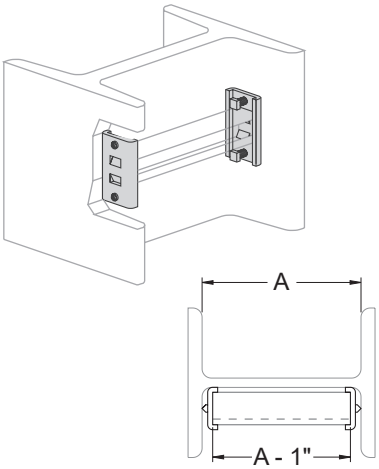
PS 86 – "C" Clamp



Rod Size	A	B	Load Rating	Wt./100 pcs
⅜"	1 11/16"	1¾"	400	38
½"	1 23/32"			52
⅝"	1 15/16"	2"	450	68
¾"	2 1/32"		600	128

Material: Malleable Iron, Steel Set Screw

PS 2654 & PS 2654A – Column Attachment



PS 2654 Use with PS 200

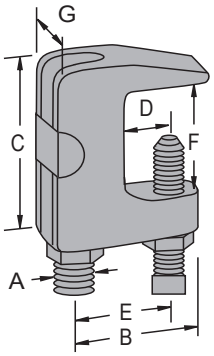
PS 2654A Use with PS 500

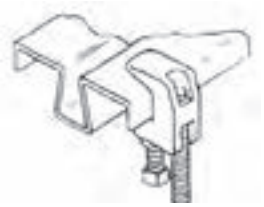
Slip Rating: 800 lbs.

Note: Column attachment can only be used in pairs.

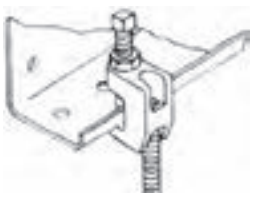
Weight/100 pcs: 41 lbs.

PS 93 – Universal "C" Clamp





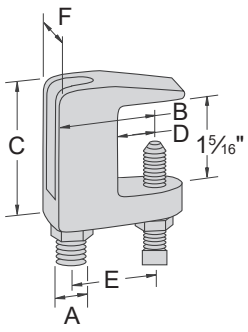
At least one full thread must be exposed

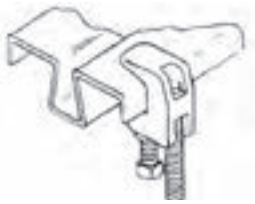


Part No.	Rod Size A	DIMENSIONS (Inches) B	C	D	E	Max. Pipe Size	Max. Load (Lbs.)	Wt/100 pcs
PS 93 ⅜	⅜	1⅝	2	¾	⅞	2	400	28
PS 93 ½	½	1⅝	2	¾	⅞	3½	500	34
• Maximum temperature of 450˚ F								

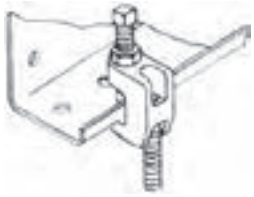
Material: Malleable Iron, Steel Set Screw

PS 94 – Wide Throat Top Beam "C" Clamp





At least one full thread must be exposed



Part No.	Rod Size A	DIMENSIONS (Inches) B	C	D	E	F	Max Pipe Size	Max. Load (Lbs.)	Wt/100 pcs
PS 94 ⅝	⅝	1¾	2¼	¾	1¼	1	5	600	66
PS 94 ¾	¾	1⅞	2⅜	¾	1⅜	1¼	8	800	83
• Maximum temperature of 450˚ F									

Material: Malleable Iron, Steel Set Screw