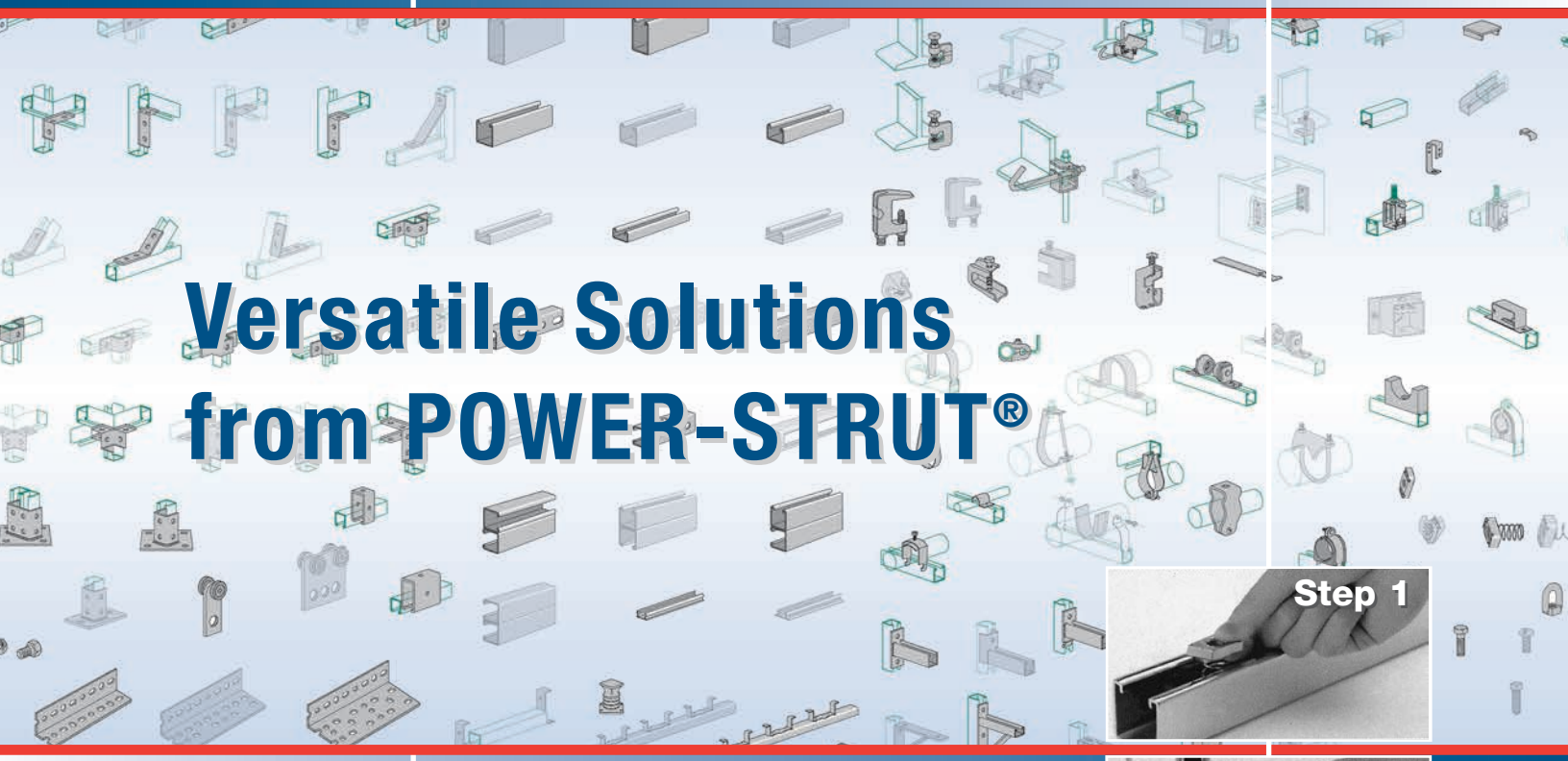
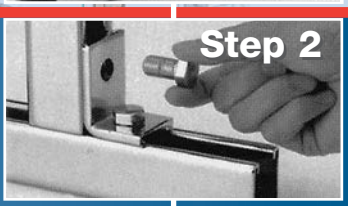
POWER-STRUT®

POWER-STRUT® Quick Reference Guide



Versatile Solutions from POWER-STRUT®



- Channels, Fittings, & Accessories
- Electrical Raceway Components
- Concrete Inserts
- Brackets & Clamps®
- Available Finish Information
- Recommended installation methods

ALLIED ELECTRICAL™ Group

Electrical Infrastructure Solutions™

www.alliedeg.com

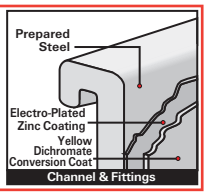
Versatile Solutions from POWER-STRUT®

FINISHES

Power-Strut is available in multiple finishes to Fit your environmental or cost requirements.

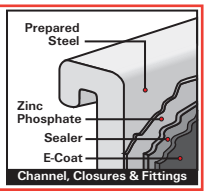
POWER-GOLD™

A 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.



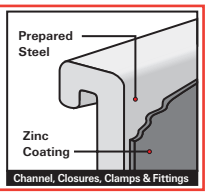
POWER-GREEN®

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



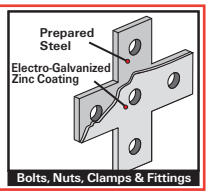
Hot Dip Galvanized

Material is coated with zinc after being roll-formed or after all manufacturing operations are completed, conforming to ASTM specification No. A123 or A153.



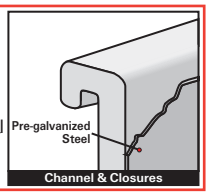
Electro-Galvanized

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



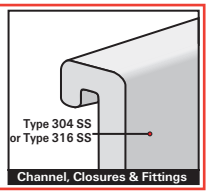
Pre-Galvanized

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.



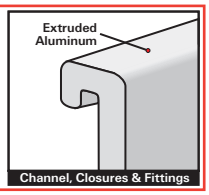
Stainless Steel

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



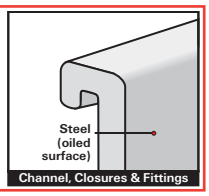
Aluminum

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



Plain

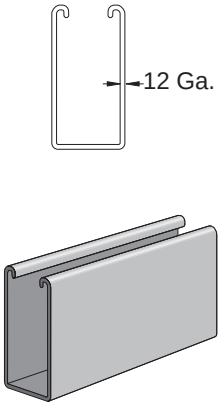
Plain finish designation means that the channel retains the oiled surface applied to the raw steel during the rolling process. The fittings have the original oiled surface of the bar-stock material.



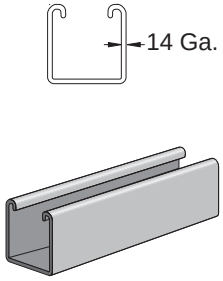
CHANNEL STYLES

Power-Strut channel shown here comes in various depths and gauges to provide a range of strength.

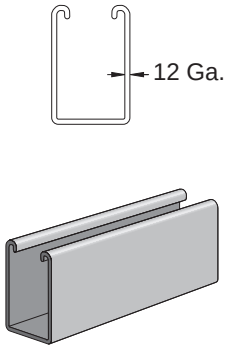
PS 100 – 1 5/8" x 3 1/4"



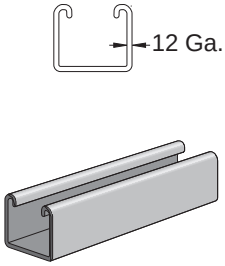
PS 210 – 1 5/8" x 1 5/8"



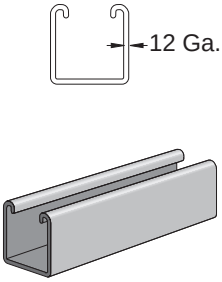
PS 150 – 1 5/8" x 2 7/16"



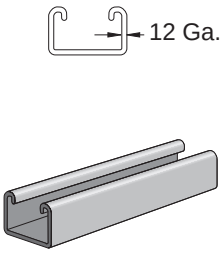
PS 300 – 1 5/8" x 1 3/8"



PS 200 – 1 5/8" x 1 5/8"



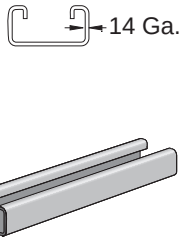
PS 400 – 1 5/8" x 1"



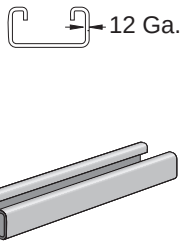
CHANNEL TYPE/SIZES

Power-Strut channel is made from cold-rolled steel in various depths and gauges. This roll forming produces a uniform channel section held to MFMA-2 specifications.

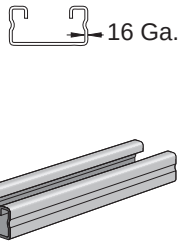
PS 500 – 1 5/8" x 13/16"



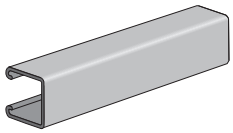
PS 520 – 1 5/8" x 13/16"



PS 560 – 1 5/8" x 13/16"

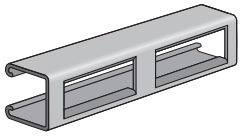


Standard Channel



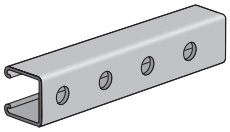
Slotted Back (SB)

2 3/4" x 7/8" Slots on 3" Centers



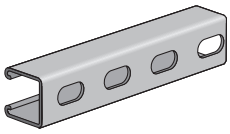
Holes (H)

9/16" Holes on 1 7/8" Centers

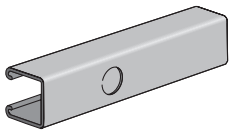


Elongated Holes (EH)

1 1/8" x 9/16" Slots on 2" Centers

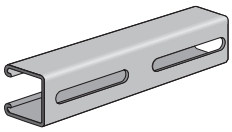


Knockouts (K06)

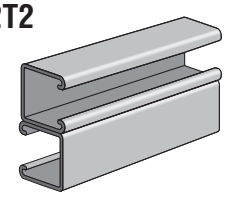


Slotted (S)

13/32" x 3" Slots on 4" Centers

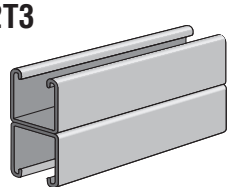


PS 200 2T2



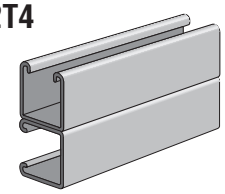
Welded Channel

PS 200 2T3



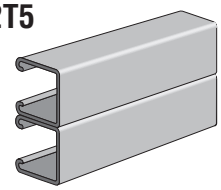
Welded Channel

PS 200 2T4



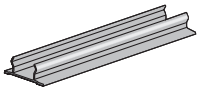
Welded Channel

PS 200 2T5



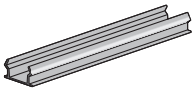
Welded Channel

PS 707



Channel Closure Strip

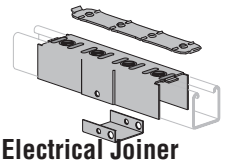
PS 6151

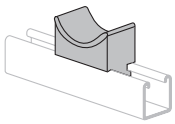


Channel Closure Strip

ELECTRICAL

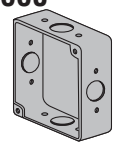
Power-Strut offers a versatile means of supporting lighting, conduits, cable & other portions of an electrical system. Power-Strut is listed as an electrical raceway by Underwriters Laboratories as specified by the NEC

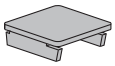
PS 649…

Electrical Joiner

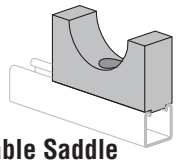
PS 1500

Porcelain Insulator

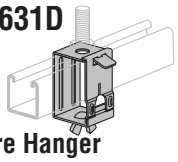
PS 2625

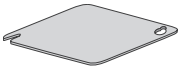
Wiring Stud Nut

PS 2660

Junction Box

PS 655…

End Cap

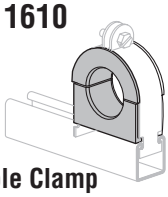
PS 1510

Cable Saddle

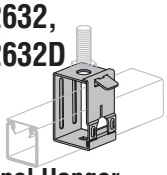
PS 2631, PS 2631D

Fixture Hanger

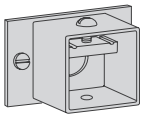
PS 2661

Junction Box Cover

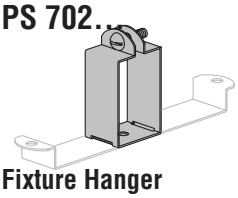
PS 658, PS 659

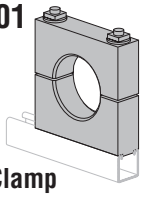
Channel Hanger

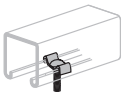
PS 1610

Cable Clamp

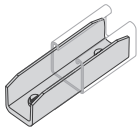
PS 2632, PS 2632D

Channel Hanger

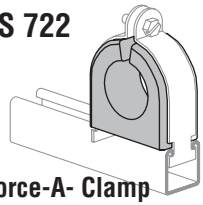
PS 2662 A

Hub Assembly

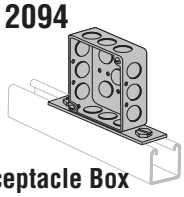
PS 702…

Fixture Hanger

PS 1801

Cable Clamp

PS 2636

Fixed Stud Nut

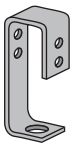
PS 2800…

Inside Strut Joiner

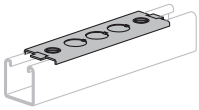
PS 722

Porce-A- Clamp

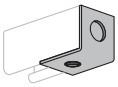
PS 2094

Receptacle Box

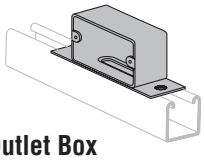
PS 2637

Fixture Nut

PS 3301

Fixture Hanger

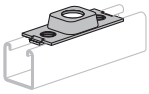
PS 791

Adapter Plate

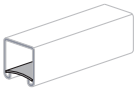
PS 2511…

End Cap with Knock-Out

PS 2639

Outlet Box

PS 803

Fixture Wiring Nipple

PS 2560…

Connector Fitting

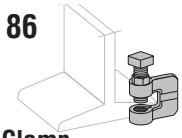
PS 2640

Wire Retainer

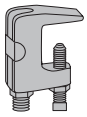
BEAM CLAMPS

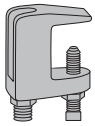
Designed for every loading condition

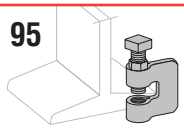
PS 85

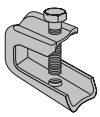
Rod Support

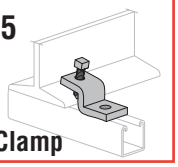
PS 86

"C" Clamp

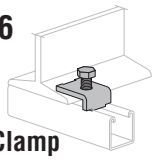
PS 93

Universal "C" Clamp

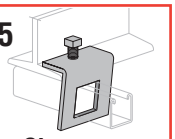
PS 94

Wide "C" Clamp

PS 95

"C" Clamp

PS 135X

Light Duty Beam Clamp

PS 685

Beam Clamp

PS 686

Beam Clamp

PS 855

"I" Beam Clamp

from light to heavy duty.

PS 858, PS 865
Hvy. Duty Beam Clamp

PS 871
Safety Anchor Strap

PS 907, PS 998
"I" Beam Clamp

PS 2622
Beam Clamp

PS 2626
Beam Clamp

PS 2651
Beam Clamp

PS 2654
Column Attachment

PS 2656
U Bolt Clamp

PS 2657
Double U Bolt Clamp

PIPE & CONDUIT CLAMPS

Conduit and O.D. Tubing clamps formed from punch press dies and are available in a wide variety of sizes.

PS 004T THRU PS 106N
Cush-a-Clamp

PS 51
5/8"
Electrical Joiner

PS 52E
Par. Pipe & Conduit Clamp

PS 67
Conduit Hanger

PS 69, PS 70
E-Z Grip Hanger

PS 270
Conduit Clamp

PS 1000..
EMT Conduit Clamp

PS 1450
One Hole Clamp

PS 1901
2 Piece Pipe Roller

PS 1902
Pipe Roller Assemb.

PS 3101
Cable & Conduit Hanger

PS 3126
Pipe Strap

PS 3138
Parallel Pipe Clamp

PS 3792
Power Wrap

BRACKETS

Pipe, shelf, or fitting and channel brackets designed to eliminate field fabrication and to speed installation.

PS 651
Channel Bracket

PS 661
Channel Bracket

PS 708
Channel Bracket

PS 732
Shelf Bracket

PS 808
Channel Bracket

PS 809
Dbl. Channel Bracket

PS 825 R or L
Single Pipe Axle Support

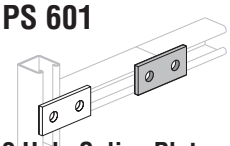
PS 826
Dbl. Pipe Axle Support

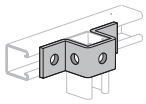
PS 838 R or L
Shelf Bracket

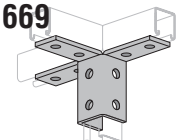
PS 3282
Channel Bracket

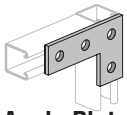
FITTINGS

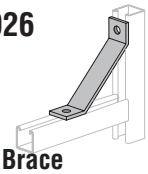
Power-Strut has a wide variety of Fittings to meet all of your application requirements. All Power-Strut fittings are formed in punch press dies from mild, pickled & oiled, bar or strip steel. Plain or electro-galvanized fittings meet the requirements for ASTM k575 & A-576, or ASTM A-36.

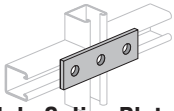
PS 601

2 Hole Splice Plate

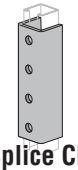
PS 613

"U" Support

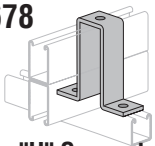
PS 669

12 Hole Triple Wing C.

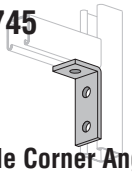
PS 719

Flat Angle Plate

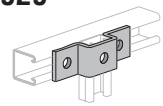
PS 926

Strut Brace

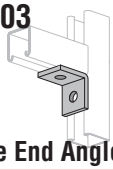
PS 602

3 Hole Splice Plate

PS 616

4 Hole Splice Clevis

PS 678

3 Hole "U" Support

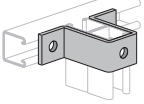
PS 745

3 Hole Corner Angle

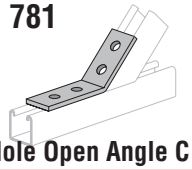
PS 929

"U" Support

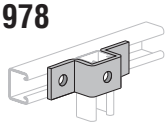
PS 603

2 hole End Angle C.

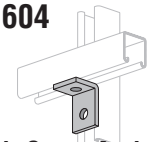
PS 619

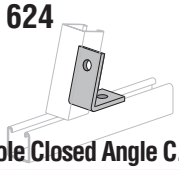
Square Washer

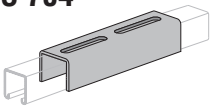
PS 679

"U" Support

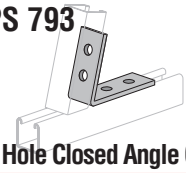
PS 781

4 Hole Open Angle C.

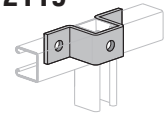
PS 978

"U" Support

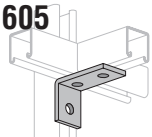
PS 604

2 Hole Corner Angle C.

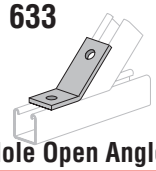
PS 624

2 Hole Closed Angle C.

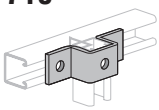
PS 704

Slotted Joiner

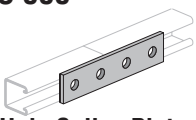
PS 793

4 Hole Closed Angle C.

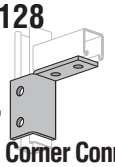
PS 2119

"U" Support

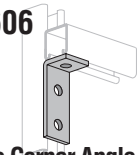
PS 605

3 Hole Corner Angle C.

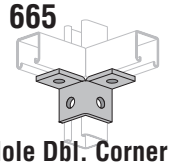
PS 633

2 Hole Open Angle C.

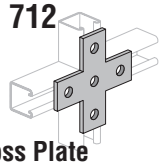
PS 710

"U" Support

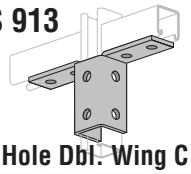
PS 888

4 Hole Splice Plate

PS 2128

L or R,
4 Hole Corner Connector

PS 606

3 Hole Corner Angle C.

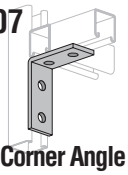
PS 665

4 Hole Dbl. Corner C.

PS 712

Cross Plate

PS 913

10 Hole Dbl. Wing C.

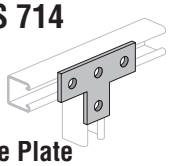
PS 2504

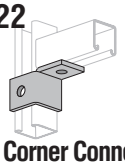
Guided Square Washer

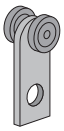
PS 607

4 Hole Corner Angle C.

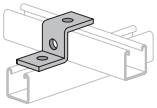
PS 667

8 Hole Dbl. Corner C.

PS 714

Tee Plate

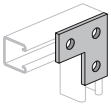
PS 922

L or R,
2 Hole Corner Connector

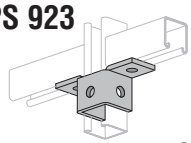
PS 2521

2 Wheel Trolley

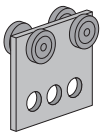
PS 611

Zee Support

PS 668

6 Hole Trible Wing C.

PS 718

Flat Angle Plate

PS 923

5 Hole Dbl. Wing C.

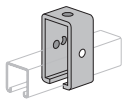
PS 2522

4 Wheel Trolley

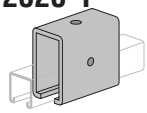
FASTENERS

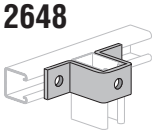
Power-Strut nuts, bolts, and threaded rod
Work with all your strut needs

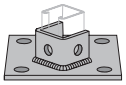
CHANNEL NUTS

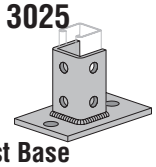
Channel nuts are Cold Form with 6 sharp teeth, then case hardened.

PS 2528

Trolley Beam Std. Support

PS 2528-1

Trolley Beam Hvy. Support

PS 2648

"U" Support

PS 3013

Post Base

PS 3025

Post Base

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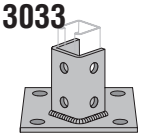
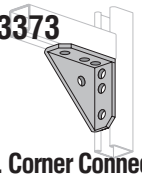
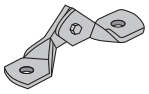
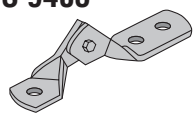

Post Base

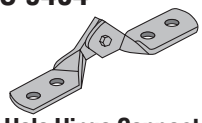
PS 3064

Dbl. Column Post Base

PS 3373

Univ. Corner Connector

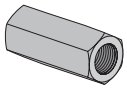
PS 9402

2 Hole Hinge Connector

PS 9403

3Hole Hinge Connector

PS 9404

4 Hole Hinge Connector

PS 83

Hex Nut

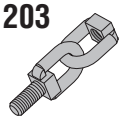
PS 135

Rod Coupling

PS 146

Threaded Rod

PS 202

Eyelet

PS 203

Linked Eyelet w Stud

PS 204

Linked Eyelet

PS 205

Eyelet with Stud

PS 209

Flat Washer

PS 211

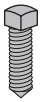
Lock Washer

PS 230

Fender Washer

PS 6024

Hex Screw

PS 6064

Square Set Screw

PS 6072

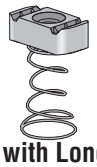
Round Head Screw

PS 6075

Sloted Hex Screw

PS 6108

Square Nut

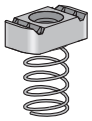
PS LS

Clamp Nut with Long Spring

PS NS

Clamp Nut no Spring

PS NS S

Shallow Clamp Nut no Spring

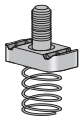
PS RS

Clamp Nut with Long Spring

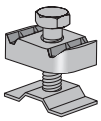
PS SS

Clamp Nut with Short Spring

PS TG

Top Grip Nut

PS 517

Channel Nut with Stud

PS 3500

Seismic Rod Stiffener

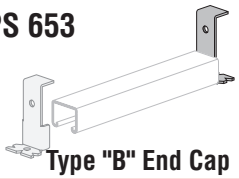
CONCRETE INSERTS

A selection of heavy-duty to light-duty "continuous" & "spot" concrete inserts is available for use in pre-cast, pre-stressed or poured-in-place concrete floors, walls or ceilings.

PS 152

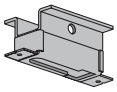
Insert

PS 653



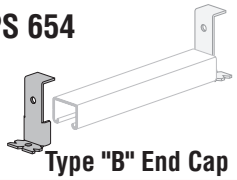
Type "B" End Cap

PS 285



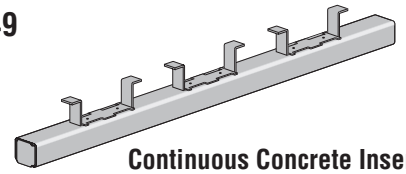
Lt. Weight Concrete Insert

PS 654



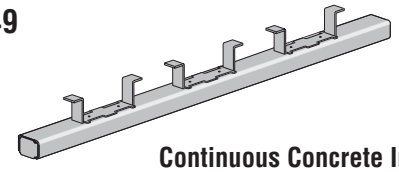
Type "B" End Cap

PS 349



Continuous Concrete Insert (1 ⅝" x 1 ⅜")

PS 449



Continuous Concrete Insert (1 ⅝" x 1")

POWER-STRUT VERSATILITY, EASY AS 1, 2, 3

1

Insert the clamping nut anywhere along the continuous slot channel. A 90° clockwise turn positions the nut's grooves and teeth with the inturned channel edges.

2

The Power-Strut fitting provides the connection of channels.

3

Tighten the bolt(s) to secure the connection.

VERSATILE SOLUTIONS . . .

Power-Strut with its highly rated family of framing support solutions and accessories offers you:

- A variety of channel types produced in steel, aluminum, or stainless steel
- Products available in multiple finishes
- Aickinstrut Non-Metallic Framing System also available
- Widest selection of Components
- Customer and technical support team
- A range of shipping options
- Quick Service

Here you'll learn more about Power-Strut products, accessories, and their installation.

Lets Talk Strut!

KEY PRODUCTS

Below is a list of Power-Struts key products. These products are well stocked and available on short notice.

Key Channel and Fittings

- PS200 EH - 1 ⅝" x 1 ⅝", 10' Channel
- PS500 EH - 1 ⅝" x 13⁄16", 10' Channel
- PS RS - Clamp Nut with Long Spring
- PS603 - 2 Hole End Angle
- PS607 - 4 Hole Corner Angle
- PS9404 - 4 hole Hinge Connector

Key Brackets and Clamps

- PS 1100 - Pipe Clamps
- PS 1300 - Tubing Clamps
- PS270 - Conduit Clamp
- PS651 - Channel Bracket
- PS106N - Cush-a-Clamp Assembly U-Bolt
- PS732 - Shelf Bracket

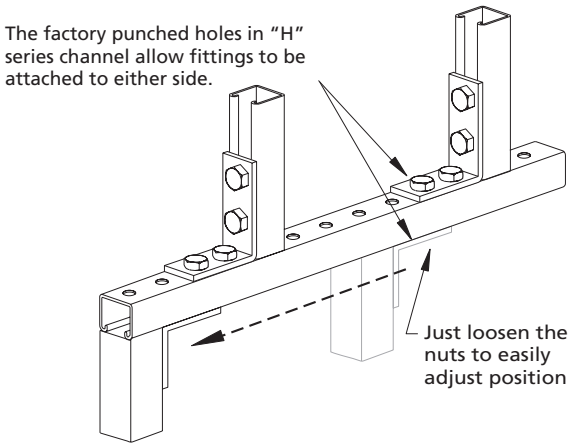
Other Key products

- PS2094 - 4" Receptacle Box with Knock-outs
- PS2803 - "Cross" Inside Strut Joiner
- PS712 - Cross Plate
- PS349 & PS449 - Concrete Inserts
- PS3373 - Univ. Corner Connector
- PS146 - Threaded Rod

GENERAL INFORMATION

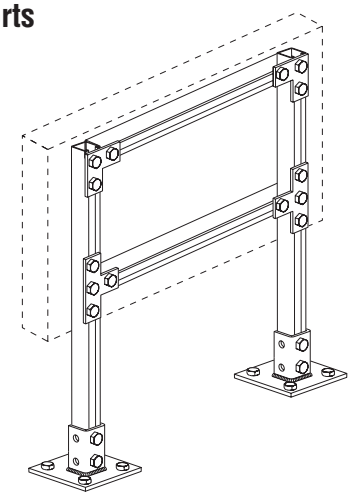
Her are some examples of easy to create support structures. Use eye and hearing protection when cutting and fitting channel.

Standard Channel and Fitting Assembly



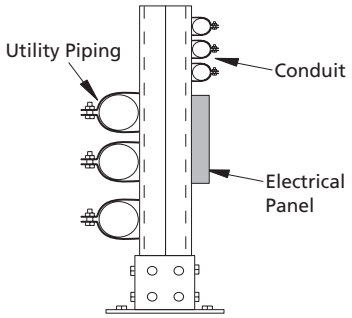
Electrical Panel Supports

Metal framing is ideal for mounting electrical or telecommunication panels. It allows you to create a floor stand, suspend panels from an overhead beam or even attach panels to adjacent structural steel. Bracing may be added for heavier load requirements.



Floor Mounted Stand

Island stands allow you to mount equipment or piping on both sides in trenches and in service aisles.



OVERVIEW, LOAD, AND ORDERING INFORMATION

This is an reference overview only. Always contact your local representative to make sure your ordering the correct products and accessories.

Overview and Load Information

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, pre-galvanized, 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, tun-nel stanchions and offshore platform catwalks. While the uses of metal framing are truly unlimited, they fall into three major categories.

Power-Strut is an excellent solution in;

- **Electrical Lighting and Raceway Systems**
- **Mechanical Systems That Reduce Costs**
- **Mechanical Support of HVAC**
- **Plumbing and Fire Protection Systems**
- **OEM Components and Maintenance**

With over 8000 products it would be impossible to list all load information here. Load specifications are listed in the Power-Strut Engineering Catalog or is available from you local representative.

Ordering Information

For ordering information please contact your local Power-Strut sales representative.

For our quick list of available sales representatives go to our website. The regional sales representatives are list by state and can be found at **www.alliedeg.com**.

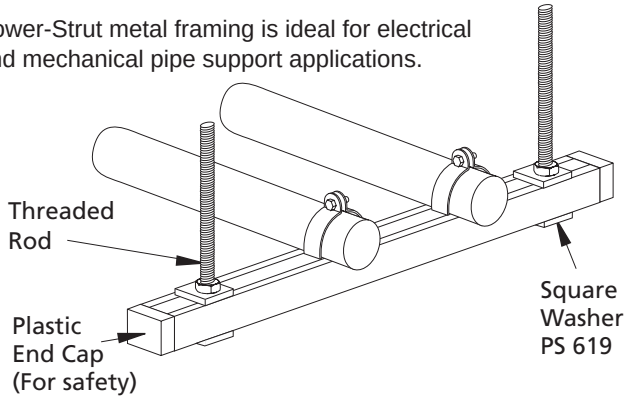
If you can't find a local representative, or have a technical questions call us at **800-882-5543.**

OVERHEAD SUPPORTS

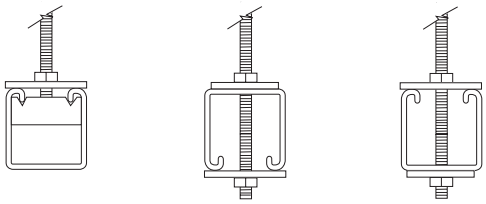
Here are examples of proper ways to install overhead support systems. It is recommended, for safety reasons that overhead installations should require two technicians whenever possible.

Trapeze Support System

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

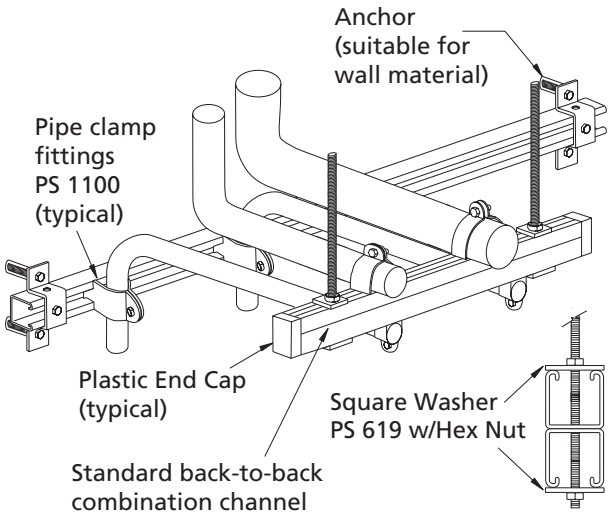


Acceptable Methods to Hang Channels

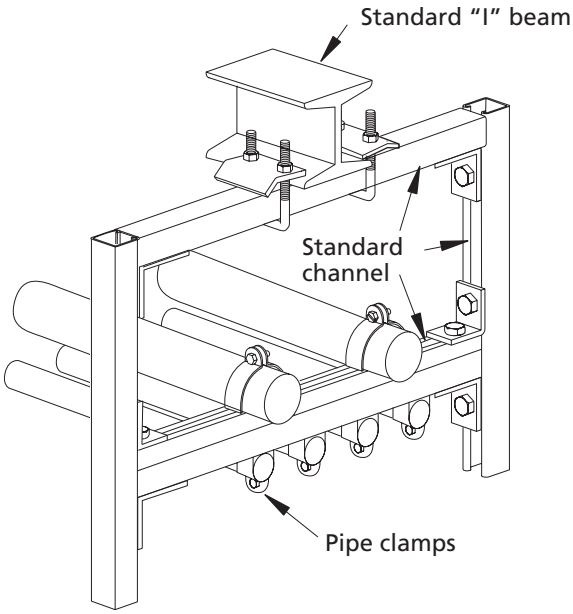


Pre-slotted channel allow through channel connections.

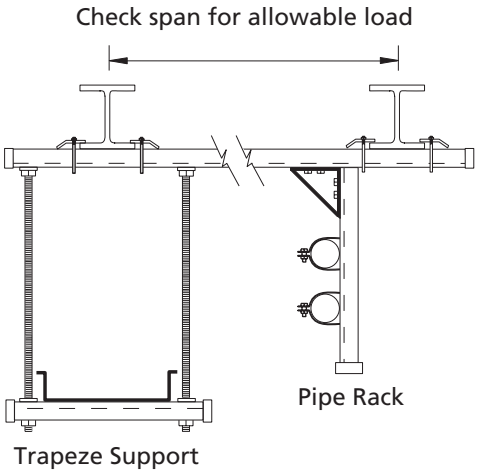
Vertical to Horizontal



Ganged Pipe Support



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

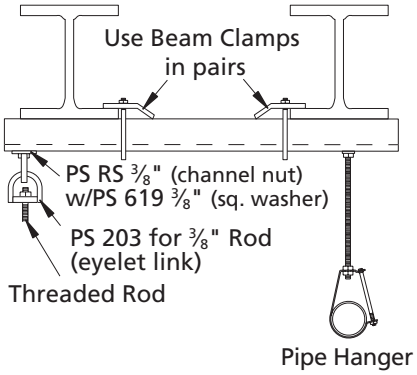


WALL MOUNT

Wall mounting is an optional way to install Power-Strut in locations where overhead support space is limited.

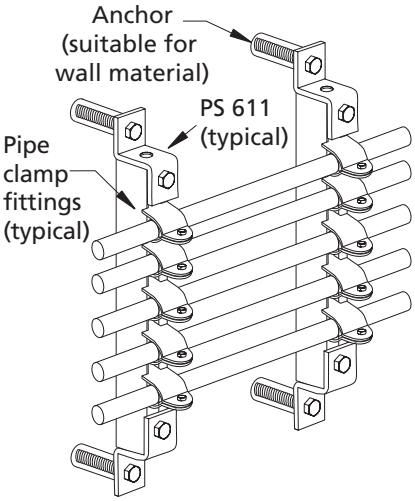
Supports for Threaded Rod Attachments Between Beams

Select channel size based on load requirements.



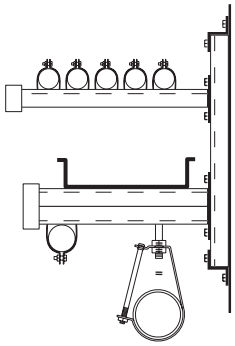
Organize & Control

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

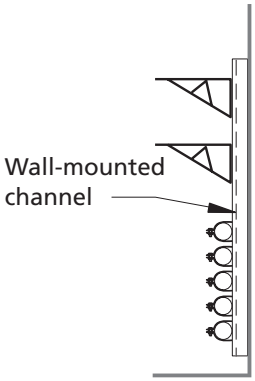


Brackets

Stock brackets are available in lengths from 6" to 36".

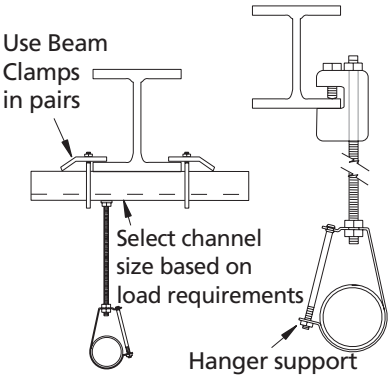


Multi-Shelf or Utility Support



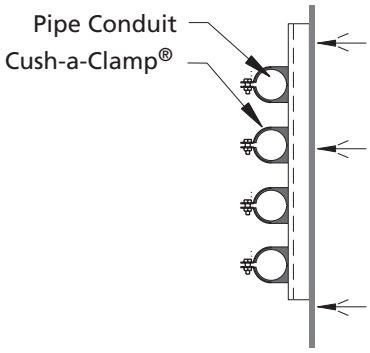
Supports for Threaded Rod Attachments to Single Beams

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

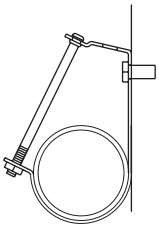


Cushioned Clamps

Improperly clamped tubes/pipes invite line failure. Power-Strut's Cush-a-Clamp® cushioned clamp provides protection against vibration, shock, surge noise and temperature variations.



Wall-Mounted Single Lines



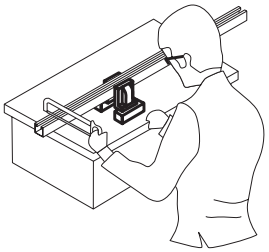
Versatile Solutions from POWER-STRUT®

RECOMMENDED METHODS

Here are recommended methods to use when cutting and fitting channel. Please use eye and hearing protection.

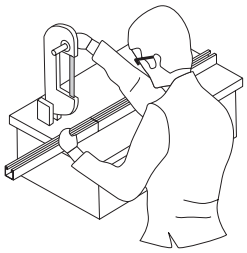
Ordinary Hacksaw

Using a hacksaw is a safe and accurate way for cutting any channel to the needed length.



Electric Band Saw

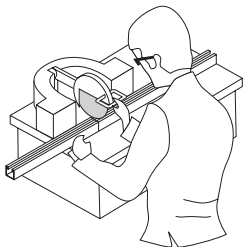
A table top electric band saw is a fast and accurate way of cutting channels to size. However, use caution since the saw blade may leave slightly rough or burred edges.



Cut-Off Saw

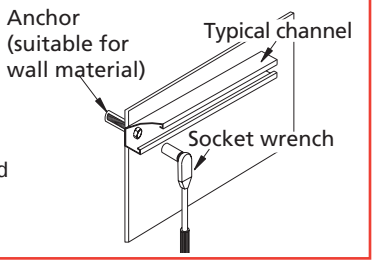
Low RPM cut-off saws with abrasive blades provide superior cuts.

Power table saws with carbon blades are not recommended since the blades cause large burrs and make handling the channel dangerous.



Wall Anchor

NOTE: For commonly used bolts (e.g., 3⁄8"), most standard socket heads will fit into the channel opening. For 1⁄2" or larger bolts, a special socket head must be used.

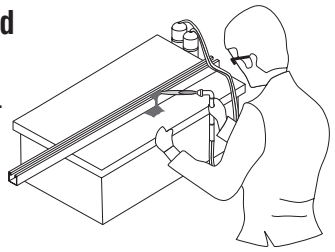


WARNINGS INFORMATION

Below are a few things not to do when you are cutting or working with channel.

Torch – Do not use this method

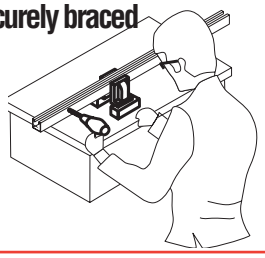
Use of a torch for cutting channel is not recommended. This technique is not accurate and can weaken the channel.



Hole Drilling – Make sure piece securely braced

Field drilling may be necessary for certain applications.

Improper drilling (e.g., holes too large, holes too close together, holes near bends) may cause structural weakness.



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METHODS/WARNINGS

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