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

Electrical Infrastructure Solutions™
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 non-porous 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 C).

**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”
- 12 Ga.

**PS 210** – 1 5⁄8” x 1 5⁄8”
- 14 Ga.

**PS 150** – 1 5⁄8” x 2 7⁄16”
- 12 Ga.

**PS 300** – 1 5⁄8” x 1 3⁄8”
- 12 Ga.

**PS 200** – 1 5⁄8” x 1 5⁄8”
- 12 Ga.

**PS 400** – 1 5⁄8” x 1”
- 12 Ga.
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.

**Standard Channel**
- PS 500 – 1 5/8" x 13/16"
- 14 Ga.

**Slotted Back (SB)**
- PS 520 – 1 5/8" x 13/16"
- 12 Ga.
- 2 3/4" x 1/4" Slots on 3" Centers

**Holes (H)**
- PS 560 – 1 5/8" x 13/16"
- 16 Ga.
- 9/16" Holes on 1 7/8" Centers

**Elongated Holes (EH)**
- PS 500 2T2
- PS 200 2T3
- PS 200 2T4
- PS 200 2T5
- 1 1/8" x 9/16" Slots on 2" Centers

**Knockouts (K06)**
- PS 707
- Channel Closure Strip

**Slotted (S)**
- PS 6151
- Channel Closure Strip

**Welded Channel**
- PS 200 2T2
- PS 200 2T3
- PS 200 2T4
- PS 200 2T5
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.

**ELECTRICAL**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>PS 649...</td>
<td>Electrical Joiner</td>
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<tr>
<td>PS 1500</td>
<td>Porcelain Insulator</td>
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<tr>
<td>PS 2625</td>
<td>Wiring Stud Nut</td>
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<tr>
<td>PS 2660</td>
<td>Junction Box</td>
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<td>PS 655...</td>
<td>End Cap</td>
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<tr>
<td>PS 1510</td>
<td>Cable Saddle</td>
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<tr>
<td>PS 2631,</td>
<td>Fixture Hanger</td>
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<td>PS 2631D</td>
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<tr>
<td>PS 658, PS</td>
<td>Channel Hanger</td>
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<td>659</td>
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<tr>
<td>PS 1610</td>
<td>Cable Clamp</td>
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<td>Channel Hanger</td>
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<td>PS 2632D</td>
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<td>PS 702...</td>
<td>Fixture Hanger</td>
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<tr>
<td>PS 1801</td>
<td>Cable Clamp</td>
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<tr>
<td>PS 2636</td>
<td>Fixed Stud Nut</td>
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<tr>
<td>PS 2800...</td>
<td>Inside Strut Joiner</td>
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<tr>
<td>PS 93</td>
<td>Universal &quot;C&quot; Clamp</td>
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<tr>
<td>PS 94</td>
<td>Wide &quot;C&quot; Clamp</td>
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<tr>
<td>PS 95</td>
<td>&quot;C&quot; Clamp</td>
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<tr>
<td>PS 135X</td>
<td>Light Duty Beam Clamp</td>
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<td>PS 685</td>
<td>Beam Clamp</td>
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<td>PS 686</td>
<td>Beam Clamp</td>
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<tr>
<td>PS 855</td>
<td>&quot;I&quot; Beam Clamp</td>
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**BEAM CLAMPS**

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<tr>
<td>PS 85</td>
<td>Rod Support</td>
</tr>
<tr>
<td>PS 86</td>
<td>&quot;C&quot; Clamp</td>
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<tr>
<td>PS 93</td>
<td>Universal &quot;C&quot; Clamp</td>
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<tr>
<td>PS 94</td>
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from light to heavy duty.

**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**
- **PS 52E**
- **PS 67**
- **PS 1901**
- **PS 69, PS 70**
- **PS 270**
- **PS 1000**
- **PS 3138**
- **PS 3126**

**BRACKETS**

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

- **PS 858, PS 865**
- **PS 871**
- **PS 907, PS 998**
- **PS 2622**
- **PS 2626**
- **PS 2651**
- **PS 2654**
- **PS 2656**
- **PS 2657**
- **PS 851**
- **PS 809**
- **PS 825 R or L**
- **PS 826**
- **PS 838 R or L**
- **PS 871**
- **PS 907, PS 998**
- **PS 2622**
- **PS 2626**
- **PS 2651**
- **PS 2654**
- **PS 2656**
- **PS 2657**
- **PS 3126**
- **PS 3138**
- **PS 3282**

**DOUBLE U BOLT CLAMP**

EMT Conduit Clamp

**Cush-a-Clamp**

**One Hole Clamp**

**Electrical Joiner**

**2 Piece Pipe Roller**

**Par. Pipe & Conduit Clamp**

**Pipe Roller Assemb.**

**Conduit Hanger**

**Cable & Conduit Hanger**

**E-Z Grip Hanger**

**Pipe Strap**

**Conduit Clamp**

**Parallel Pipe Clamp**

**EMT Conduit Clamp**

**Power Wrap**
Versatile Solutions from POWER-STRUT®

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.
Versatile Solutions from POWER-STRUT®

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.

**Key Channel and Fittings**
- PS200 EH - 1 5⁄8" x 1 5⁄8", 10' Channel
- PS500 EH - 1 5⁄8" 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

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**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.

**Let's Talk Strut!**

**Key Products**

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

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**CONCRETE INSERTS**

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.

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.
**Overview, Load, and Ordering 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, tunnel 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 your 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](http://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.

**Ganged Pipe Support**

**Vertical to Horizontal**

**Overhead Multi-Use Support Systems Using Channel Attached to “I” Beams**

Check span for allowable load
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.

**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!

**Organize & Control**
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.

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

**Multi-Shelf or Utility Support**

**Wall-Mounted Single Lines**
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 burns 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.

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.

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**

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