

# POWER-STRUT® Engineering Catalog



- Channels, Fittings, & Accessories
- **Electrical Raceway Components**
- Concrete Inserts
- Cush-A-Clamps<sup>®</sup>
- Power-Angles<sup>™</sup>
- Aickinstrut® Family of Fiberglass
  Channel & Accessories



ALLIED ELECTRICAL" Group

Electrical Infrastructure Solutions"



# The Power to Build!

experience in metal framing. framing is the result of over one half century of The present line of Power-Strut continuous slot meta

This complete line includes channels, fittings and accessories for any framing or support solution... large or small, heavy or light.

go into production of the Power-Strut system. Power-Strut is proud of the exacting standards of research, design, engineering and manufacturing that

allowable stresses applicable to the Power-Strut Material certified by the Canadian Standards Association (CSA.) by the Underwriters' Laboratories, Inc. (U.L.) and Specification. Electrical Power-Strut products are listed been established through testing and are based on Maximum recommended load ratings for channels have





#### The **Power-Strut Connection, Easy as** N W Ħ

1. Insert the clamping nut anywhere along the continuous slot channel. A 90° clockwise turn positions the of the channel. grooves and teeth in the nut with the inserted edges



5 The Power-Strut fitting provides the connection of channels



3. Tighten the bolt(s) to secure the connection.





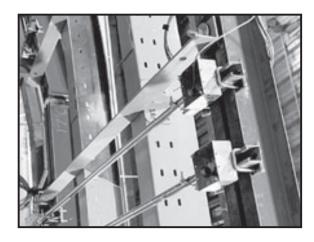
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**WARNING:** Power-Strut products are carefully designed and manufactured to the listed standards, as applicable. However, Power-Strut reserves the right to revise product design without notification. Power-Strut products included in this catalog are intended for installation and service only as described or specified herein. Care should be exercised by installers and end-users to install, use and maintain these products properly to avoid any possible on-the-job accidents.



# 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.

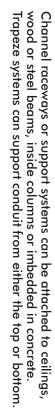
Available finishes include hot–dipped galvanized, pregalvanized, electro–galvanized and painted, along with material choices of steel, stainless steel and aluminum.

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 into 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.



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. As a lighting support system, metal framing helps assure proper





# by a Leading Reputation for Quality and Service.

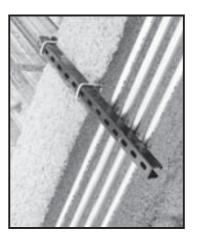


## Mechanical Systems That Reduce Costs

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.

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

In addition, pipe support products such as Power-Wrap and cush-ioned 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.

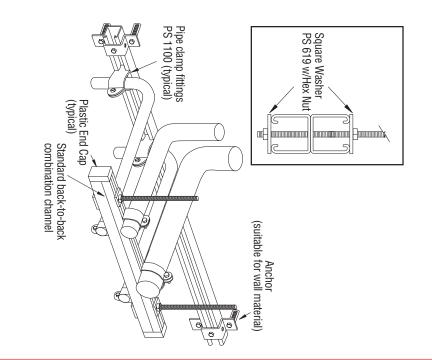
The complete line of products and leading reputation for quality and service make Power-Strut your practical choice for metal framing. Contact your local Power-Strut representative for additional information.



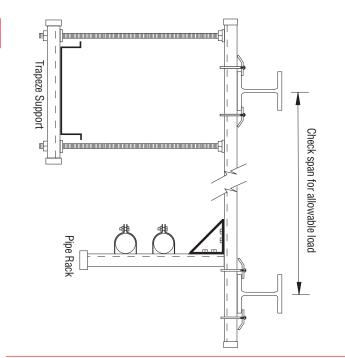
# **EXAMPLE APPLICATIONS**



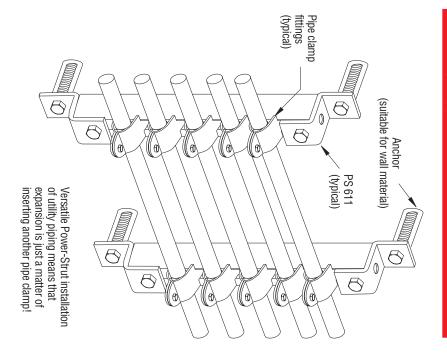
## Overhead Support Vertical to Horizontal



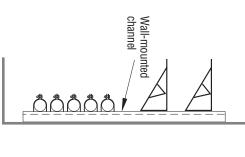
## Overhead Multi-Use Support Systems Using Channel Attached to "I" Beams

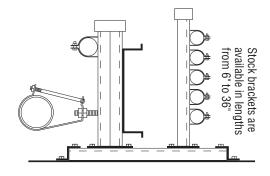


# Wall Mount Organize & Control MultiShelf or Utility Support



#### Wall Mounted Brackets

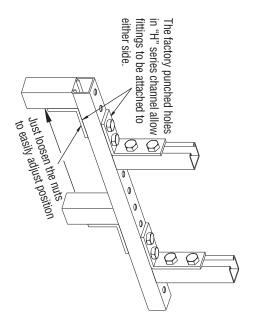




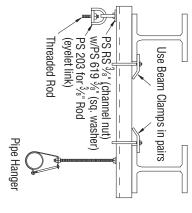


# **EXAMPLE APPLICATIONS**

## Standard Channel and Fitting Assembly

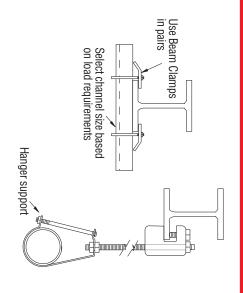


# Supports for Threaded Rod Attachments Between Beams

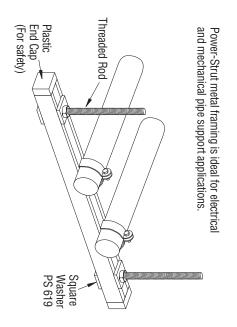


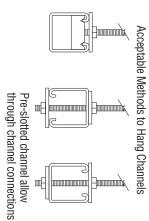
Select channel size based on load requirements

# Supports for Threaded Rod Attachments to Single Beams

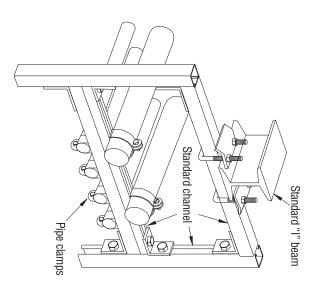


#### **Trapeze Support System**

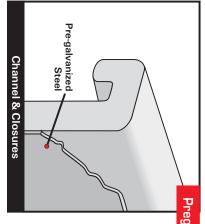




#### Ganged Pipe Support



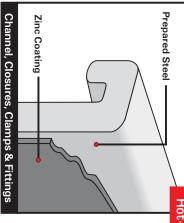




#### Pregalvanized (PG)

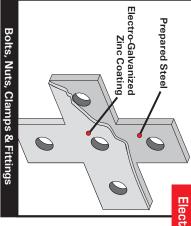
Material (steel strip) is coated with zinc by hot-dip process prior to roll-forming or press operations.

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)

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

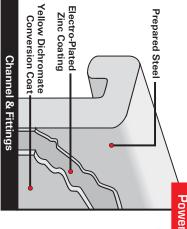


#### Electro-Galvanized (EG)

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)

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.

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.

#### 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.
- 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

Power-Gold (SC3)	Power-Gold (SC1)	Electro-Galvanized (SC3)	Electro-Galvanized (SC1)	Pregalvanized	Hot-Dipped Galvanized	Finish Zinc 1
0.5 MIL	0.2 MIL	0.5 MIL	0.2 MIL	0.75 MIL	2.6 MIL	Zinc Thickness



#### Zinc Phosphate Prepared Steel Channel, Closures E-Coat -Sealer œ د Fittings

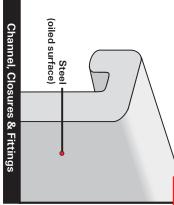
#### Power-Green® (GR)

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

## Steel (oiled surface)

#### Plain (PL)

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





#### Aluminum (AL)

**Extruded Aluminum** 

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



## STEEL SUBSTRATE PREPARATION

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

#### COATING

Thermoset epoxy

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

Hardness: 2H+

Coating Process: Cathodic Electrodeposition.

#### PERFORMANCE

Salt Spray:

Scribed: exceeds 400 hrs per ASTM B117. (1/8 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.



#### Stainless Steel (SS)

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

#### Finishes (Ordering):

Type 304 or Type 316 Stainless Steel

Channel, Closures & Fittings

the part number. When ordering, add the finish to

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

#### 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

14" Nominal Thickness – ASTM A–575 and A576† 36" Nominal Thickness – A36 (Structural Steel)

#### Fittings\* – Aluminum

ASTM B-209

#### Accessories – Steel

Less than 1/4" Nominal Thickness – ASTM A-569, 1008-1010 Grade, or (when Pre–Galvanized) ASTM A-527/ Coating Designation G90

#### 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** 

Grade 60, Case Hardened to RC25 min ASTM (3/8" & 1/2") A-576 Grade 1015M, A-675 (1/4")

#### Hex Nuts and Bolts

ASTM A–563, Grade A and ASTM A–307, Grade A

#### **Threaded**

Low Carbon Steel Yeild = 32 ksi min. Tensile = 52 ksi min

#### **Product Load Testing**

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, 2001 Edition. those of independent testing laboratories, to determine design Product testing is an important Part of Power-Strut's Quality Assurance Program. We utilize our own testing facilities, as well as

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

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 Specificathe capabilities of the system. tion For The Design Of Cold-Formed Steel Structural Members, 2001 Edition, it is possible to design any type of structure within

Assemblies or connections that cannot be calculated using provisions of the AISI specifications must be established by applicationspecific 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

Channel referenced is 15%" wide, fittings referenced are for 15%" channel.

Some ¼" fittings are produced from A-36 Structural Steel



PS ML47	PS 51746	0000	PS 20945		PS 602445	Fasteners	PS 520 2T338	PS 30032	PS 200 2T428	PS 10022	Channel
PS ML47   PS 350048   PS KW48   PS 20248   PS 20348   PS 20448   PS 20448   PS 20548	PS LS47	0m	PS 23046 PS 23146	0	PS 607245		PS 520 2T338 PS 56040 PS 560 2T340 PS 615242 PS 615342 PS 905042	PS 300 2T332	PS 200 2T528 PS 200 3T628 PS 200 PLA29 PS 200 PLC29 PS 21030 PS 210 2T330	PS 100 2T322	
PS KW48	47 PS RS47		PS 23146	0	PS 607545		PS 560 2T340	PS 40034	PS 200 3T628	22 PS 15024	
PS 20248	PS SS47	0	PS 21146		PS 606445		PS 615242	PS 400 2T334	PS 200 PLA29	24 PS 150 2T324	
PS 20348	PS NS47		PS 328146 PS 14646		PS 610845		PS 615342	PS 50036	PS 200 PLC29	24 PS 20026	
PS 20448	PS NS S47	0/3	PS 14646		PS 611245 PS 8345		PS 905042	36 PS 500 2T336	PS 21030	.26 PS 200 2T326	
PS 20548	.47 PS TG47		PS 13546		PS 8345			PS 52038	PS 210 2T330	PS 200 2T228	



PS 205455	PS 211354		PS 74854 PS 3326 R or L54	PS 92754		PS 304953	PS 80652 PS 252052		PS 211251 PS 60352		PS 744 51		PS 62151	PS 60150		General Fittings
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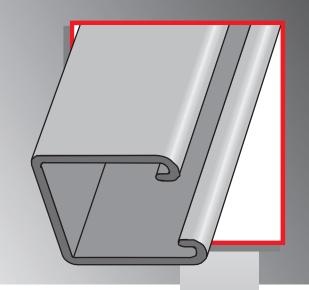
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Pultruded Stair Treads 141		1" Molded Grating134	Fiberglass AickinGrate®	Aickinzap131 Aickincoat131		Fiberglass Sealers,	Hat Section129		Square Bar 128	Equal Leg Angle 127	Fiberglass /	Power-Rack Stanchions 125	TFF	Molded Beam Clamps123	Fiberglass /
Aickinplate142	A	1" Molded 1" Molded 1"/2" Molded 1"/2" Molded Grating134 Grating134 Grating			TOTAL STATE OF THE		Hard Section 129   Flight Channel 129   Toe Plate   Square Bar 130   Square Tube   Fixed Connector 130   Connectors		Rectangular Tube 128	Channel127	Fiberglass Aickinshapes®	Wall Brackets125	77	Cope-Glas Beam Clamps123	Aickinstrut® (cont.)
Molded Grating Pultruded Grating Molded Grating Floor Clip143 Clip143 Pedestals143		1: 0		Distributor Display131		Coatings & Prom	Toe Plate130	No.	Round Rod128	I-Beam127	٧	Heavy Duty Post Base126	0	Beam Clip123	iont.)
Pultruded Grating Clip143	20/1	134   Crating134		Distributor Literature Display131	加加	Promotional Material	Square Bar130		Flat Strip129	Wide Flange I-Beam127		Stands126		Threaded Rod 124	
Molded Grating Floor Pedestals143		"I" Bar Pultruded Grating136-137		Distributor Distributor Literature Adj. Pipe Clamp Rigid Pipe Clamp Aickinstrut Sample Display	0	rial	Square Tube130		Round Tube129	Flat Sheet128				Rod Couplers 124 Duraclamp 124	
		"T" Bar Pultruded Molded Grating138-139 Stair Treads141		Rigid Pipe Clamp Sample131	9		Fixed Connector 130		Door Frame129	Embedment Angle 128				Duraclamp124	
		Molded Stair Treads141		Aickinstrut Sample Box131			Handrail Connectors130		Threshold129	Square Tube128				Channel Hangers124	



Power-Strut channel sections are produced by multiple sets of forming rolls which cold-work strip steel into the channel configuration. This type of roll forming produces a uniform channel section held to the specifications of MFMA-4.

#### MATERIALS:

Plain and painted green channels are formed from structural quality strip steel which conforms to the requirements of ASTM A-1011 SS Grade 33. Pre-galvanized channel conforms to the requirements of ASTM A-653 Grade 33.

#### STANDARD LENGTHS:

Stock lengths are 10 and 20 feet. Special lengths are available upon request.

#### STANDARD FINISHES:

Standard Power-Strut channel is available in plain, painted green, zinc dichromate or pre-galvanized finishes.

## ORDERING INFORMATION:

When ordering, add the length or size and finish to the part number. See page 8 - 9 for finish abbreviations and an example.

2.2	1.80	Column Load
2.0	1.67	Beam Loads
Safety Factor to Ultimate Strength	Safety Factor to Yield Strength	Type of Load



**PS 100** – 15/8" x 31/4" x 12 ga

See Pages 22-23



**PS 210** – 15%" x 15%" x 14 ga

See Pages 30-31



**PS 500** – 15/8" x <sup>13</sup>/16" x 14 ga

See Pages 36-37



**PS 600J** – <sup>13</sup>/<sub>16</sub>" x <sup>13</sup>/<sub>16</sub>" x 19 ga

Page 96 See Junior Channel



**PS 700J** – <sup>13</sup>/<sub>6</sub>" x <sup>13</sup>/<sub>32</sub>" x 19 ga.

Page 97 See Junior Channel



**PS 150** – 15/8" x 27/16" x 12 ga

See Pages 24-25

See Pages 26-29

**PS 200** – 15%" x 15%" x 12 ga



**PS 300** – 15%" x 13%" x 12 ga

See Pages 32 -33



**PS 520** – 15/8" x 13/16" x 12 ga

See Pages 38-39



**PS 400** – 15%" x 1" x 12 ga

See Pages 34-35



**PS 560** – 15/8" x 13/16" x 16 ga

See Pages 40-41



# Maximum Allowable Pull-Out and Slip Loads

1/4"-20	5/16"-18	3/8"-16	1/2"-13	1/4"-20	5/16"-18	3/8"-16	1/2"-13	1/4"-20	5/16"-18	3/8"-16	1/2"-13	1/4"-20	5/16"-18	3%"-16	5/16"-14	1/2"-13	5%"-11	3/4"-10	Size-Thread	Channel Nut
	PS 560	16 Gauge		PS 500	PS 210	T cauge	14 Gaune	PS 320	PS 400		19 Gailine		PS 300	PS 200	PS 150	PS 100	12 Gauge		Gauge Channel	Allowable
600	800	1,000	1,000	600	800	1,000	1,400	600	800	1,000	1,500	600	800	1,000	1,400	2,000	2,500	2,500	Strength (Lbs.)	Pull-Out
300	400	750	1,000	300	400	750	1,000	300	500	800	1,500	300	500	800	1,000	1,500	1,500	1,700	to Slip (Lbs.)	Resistance
6	11	19	50	6	11	19	50	6	11	19	50	6	<b>=</b>	19	35	50	*100	*125	FtLbs.	Torque

\* May require %" or ½ thick fitting.

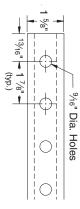
Nut design loads include a minimum safety factor of 3.

Note: Refer to the Channel Nut Selection Chart on page 44 for the part number



#### Channel with Holes (H)

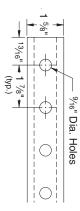




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PS 150 2T3	wailable
PS 200	able
PS 200 2T3	With
PS 210	These
PS 300	
PS 300 2T3	Select
PS 400	Chan
PS 500	nel T
PS 500 2T3	ypes:
PS 520	]
PS 560	

## Channel with Holes on Three Sides (H3)

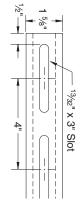




PS 100  PS 150  PS 150  PS 150 2T3  ■ PS 200  PS 200 2T3  PS 210  PS 300  PS 300 2T3  PS 400  PS 500  PS 500
PS 150 2T3  PS 200  PS 200 2T3  PS 200 2T3  PS 210  PS 300  PS 300 2T3  PS 400  PS 500  PS 500  PS 500 2T3  PS 520  PS 520
PS 200 2T3 With These Select Channel Types: PS 300 PS 300 2T3 PS 400 PS 500 PS 500 2T3 PS 520
PS 200 2T3 With These Select Channel Types: PS 300 PS 300 2T3 PS 400 PS 500 PS 500 2T3 PS 520
PS 210 PS 300 PS 300 2T3 PS 400 PS 500 PS 500 2T3 PS 520
PS 300 PS 300 2T3 PS 400 PS 500 PS 500 PS 500 2T3 PS 520
PS 300 PS 300 2T3 PS 400 PS 500 PS 500 PS 500 2T3 PS 520
PS 500 2T3 PS 520
PS 500 2T3 PS 520
PS 500 2T3 PS 520
PS 520
PS 520
PS 560

#### Channel with Slots (S)

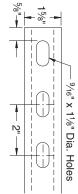




PS 100	
PS 150	
PS 150 2T3	<b></b> \vailable
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PS 200 2T3	With
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PS 300	
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PS 400	Channel
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PS 500 2T3	ypes
PS 520	
PS 560	

#### Channel with Elongated Holes (EH)

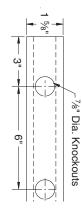




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PS 200 2T3	With
PS 210	Thes
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PS 300 2T3	lect (
PS 400	Chan
PS 500	nel T
PS 500 2T3	ypes
PS 520	]
PS 560	

#### Channel with Knockouts (KO6)

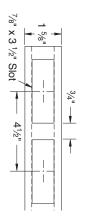




PS 100	
PS 150	
PS 150 2T3	vailable
PS 200	
PS 200 2T3	With
PS 210	These
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PS 300 2T3	lect
PS 400	Chan
PS 500	nel T
PS 500 2T3	ypes
PS 520	
PS 560	

#### Channel with Slotted Back (SB)





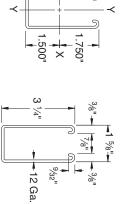
PS 100	
PS 150	
PS 150 2T3	\vaila
PS 200	able
PS 200 2T3	With
PS 210	Thes
PS 300	e Se
PS 300 2T3	lect
PS 400	Chan
PS 500	nel T
PS 500 2T3	ypes
PS 520	
PS 560	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



## **PS 100** - Steel Channel (15/8" x 31/4" x 12 ga.)



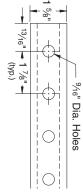


## ELEMENTS OF SECTION – PS 100

	305	Weight (lbs./100 ft.)	
	0.897	Section (Inch <sup>2</sup> )	200
•	1.098	Moment of Inertia	
•	0.627	Section Modulus (Inch³)	X-X Axis
•	1.107	Radius of Gyration (Inch)	
•	0.433	Moment of Inertia (Inch <sup>4</sup> )	
	0.533	Section Modulus (Inch³)	Y-Y Axis
	0.695	Radius of Gyration (Inch)	

### PS 100 H - Channel with Holes

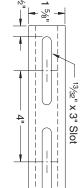




Weight: 300 lbs./100 ft.

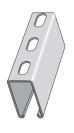
### **PS 100 S** - Channel with Slots

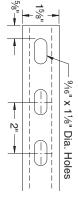




Weight: 300 lbs./100 ft.

## **PS 100 EH** - Channel with Elongated Holes

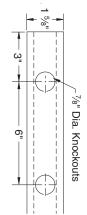




Weight: 300 lbs./100 ft.

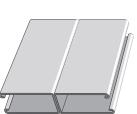
## PS 100 K06 - Channel with Knockouts

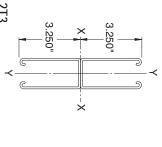


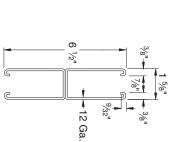


Weight: 305 lbs./100 ft.

# **PS 100 2T3** – Steel Channel (15%" x 61%" x 12 ga.)







**ELEMENTS OF SECTION - PS 100 2T3** 

610	Weight (lbs./100 ft.)	
1.793	Section (Inch <sup>2</sup> )	Area of
6.226	Moment of Inertia (Inch <sup>4</sup> )	
1.916	Section Modulus (Inch <sup>3</sup> )	X-X Axis
1.864	Radius of Gyration (Inch)	
0.866	Moment of Inertia (Inch <sup>4</sup> )	
1.066	Section Modulus (Inch³)	Y-Y Axis
0.695	Radius of Gyration (Inch)	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

## PS 100 & PS 100 2T3 - Load Data

#### BEAM LOADING - PS 100

	Max	Def: 2+	Uniform	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	5,260	0.03	5,260	5,260	5,260
36	3,500	0.07	3,500	3,500	3,500
48	2,630	0.12	2,630	2,630	2,630
00	2,100	0.18	2,100	2,100	1,920
72	1,750	0.26	1,750	1,750	1,330
84	1,500	0.36	1,500	1,470	980
96	1,310	0.47	1,310	1,120	750
108	1,170	0.59	1,170	890	590
120	1,050	0.73	960	720	480
144	880	1.06	670	500	330
168	750	1.43	490	370	240
192	660	1.88	370	280	190
216	580	2.35	300	220	150
240	530	2.95	240	180	120

<sup>\*</sup> Bearing load may govern capacity.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

2S-100-EH 15% PS-100-S 15° 2S-100-H 10% PS-100-K06 5%

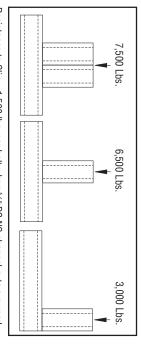
#### COLUMN LOADING - PS 100

:	Max.	M	Maximum Column Load	olumn Lo
Unbraced	Allowable		Applied at C.G	at C.
Height (in)	Load at	K = 0.65	K = 0.80	K =1.0
	Slot Face (lbs)	(lbs)	(lbs)	(lbs)
24	5,650	16,870	15,180	12,850
36	4,690	13,140	10,600	7,650
48	3,560	9,550	6,860	4,790
60	2,730	6,680	4,790	3,450
72	2,160	4,980	3,660	2,710
84	1,760	3,950	2,960	2,240
96	1,500	3,270	2,500	1,930
108	1,310	2,800	2,170	1,690
120	1,170	2,450	1,930	1,510
144	980	1,980	1,580	*
168	850	1.670	1.340	*

<sup>\* \*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### PS100 – Crush Loads



Resistance to Slip - 1,500 lbs. per bolt when 1/2" PS NS channel nuts are used. Pull Out Strength - 2,000 lbs. per bolt when 1/2" PS NS channel nuts are used.

#### BEAM LOADING - PS 100 2T3

	May		Uniform 1	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable	Defl. at Uniform	Span/180	Span/240	Span/360
	Load (lb)	Load (in)	(lbs)	(lbs)	(lbs)
24	6,890 *	0.01	6,890 *	6,890 *	6,890 *
36	6,890 *	0.02	6,890 *	6,890 *	6,890 *
48	6,890 *	0.05	6,890 *	6,890 *	6,890 *
60	6,420	0.10	6,420	6,420	6,420
72	5,350	0.14	5,350	5,350	5,350
84	4,590	0.19	4,590	4,590	4,590
96	4,020	0.25	4,020	4,020	4,020
108	3,570	0.32	3,570	3,570	3,360
120	3,210	0.39	3,210	3,210	2,720
144	2,680	0.57	2,680	2,680	1,890
168	2,290	0.77	2,290	2,080	1,390
192	2,010	1.01	2,010	1,590	1,060
216	1,780	1.27	1,680	1,260	840
240	1,610	1.58	1,360	1,020	680
* I god limited by spot wold shoor	hiv snot wald	chaar			

Load limited by spot weld shear.

Loads must be multiplied by the applicable unbraced factor from page 42

## COLUMN LOADING - PS 100 2T3

120 5,760 144 4,390			108 6,600	96 7,220	84 7,860	72 8,560	60 9,290	48 9,940	36 10,350	24 10,670	Slot Face (lbs)	Unbraced Allowable Load at	Max.
10.300	14,020	18,130	19,790	21,790	24,140	26,880	29,950	33,220	36,450	39,230		K = 0.65	-
6,800	9,250	13,330	16,450	18,370	20,520	23,190	26,430	30,200	34,240	38,030		K = 0.80	m Column
*	*	8,530	10,530	13,330	17,040	19,380	22,470	26,430	31,200	36,210	(lbs)	K =1.0	Maximum Column Load Applied at C.G.
*	*	*	7,310	9,250	12,090	16,450	19,380	23,190	28,260	34,240	(lbs)	K = 1.2	ed at C.G.

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.



<sup>†</sup> Bearing load may govern capacity.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

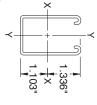
Loads include weight of channel, which must be deducted.

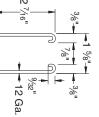
Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



## PS 150 - Steel Channel (15/6" x 27/16" x 12 ga.)



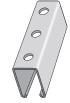


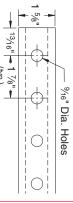


**ELEMENTS OF SECTION - PS 150** 

247	Weight (lbs./100 ft.)	
0.726	Section (Inch²)	200
0.522	Moment of Inertia (Inch <sup>4</sup> )	
0.390	Section Modulus (Inch³)	X-X Axis
0.848	Radius of Gyration (Inch)	
0.334	Moment of Inertia (Inch <sup>4</sup> )	
0.411	Section Modulus (Inch³)	Y-Y Axis
0.679	Radius of Gyration (Inch)	

## PS 150 H - Channel with Holes

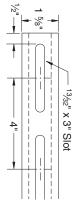




Weight: 242 lbs./100 ft.

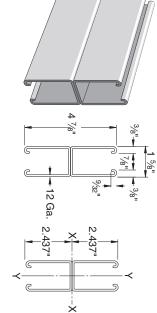
## PS 150 S - Channel with Slots



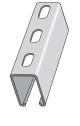


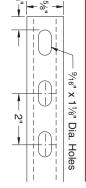
Weight: 242 lbs./100 ft.

# **PS 150 2T3** – Steel Channel (15/8" x 47/8" x 12 ga.)



## PS 150 EH - Channel with Elongated Holes

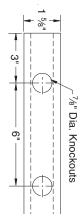




Weight: 242 lbs./100 ft.

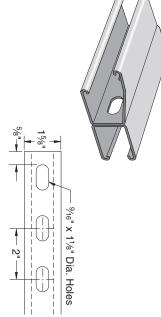
## PS 150 K06 - Channel with Knockouts





Weight: 247 lbs./100 ft.

# PS 150 2T3 EH - Channel with Elongated Holes



ELEMENTS OF SECTION – PS 150 2T3 Weight: 494 lbs./100 ft.

494	Weight (lbs./100 ft.)	
1.452	Section (Inch <sup>2</sup> )	Area of
2.805	Moment of Inertia (Inch <sup>4</sup> )	
1.151	Section Modulus (Inch³)	X-X Axis
1.390	Radius of Gyration (Inch)	
0.669	Moment of Inertia (Inch <sup>4</sup> )	
0.823	Section Modulus (Inch³)	Y-Y Axis
0.679	Radius of Gyration (Inch)	

# Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### PS 150 & PS 150 2T3 - Load Data

#### BEAM LOADING - PS 150

	Max		Uniform L	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	3,270	0.04	3,270	3,270	3,270
36	2,180	0.09	2,180	2,180	2,180
48	1,640	0.15	1,640	1,640	1,420
60	1,310	0.24	1,310	1,310	910
72	1,090	0.34	1,090	950	630
84	940	0.47	930	700	470
96	820	0.61	710	530	360
108	730	0.78	560	420	280
120	650	0.95	460	340	230
144	550	1.39	320	240	160
168	470	1.89	230	170	120
192	410	2.46	180	130	90
216	360	3.07	140	110	70
240	330	3.86	110	90	60
	•	:			

Bearing load may govern capacity.

This load table is based on a solid channel section. For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42. For Pierced Channels, reduce beam load values as follows:

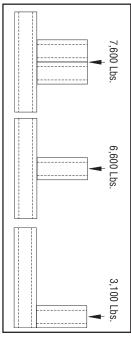
PS-150-EH 15% PS-150-S 15% PS-150-H 10% PS-150-K06 5%

#### **COLUMN LOADING - PS 150**

	Max.	Maximun	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
Unbraced Height (in)	Allowable Load at Slot Face (lbs)	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
24	4,640	13,840	12,570	10,840	9,190
36	3,970	11,050	9,190	7,030	5,370
48	3,180	8,420	6,390	4,620	3,630
60	2,550	6,250	4,620	3,450	2,780
72	2,120	4,790	3,630	2,780	2,260
84	1,810	3,890	3,010	2,330	1,910
96	1,580	3,290	2,580	2,020	1,650
108	1,400	2,860	2,260	1,770	1,440
120	1,270	2,530	2,020	1,580	*
144	1,060	2,070	1,650	*	*
168	920	1,750	1,380	*	*

Column loads are for allowable axial loads and must be reduced for eccentric loading. \*\* KL/>200

#### **PS150** Crush Loads



Resistance to Slip – 1,500 lbs. per bolt when  $\frac{1}{2}$ " PS NS channel nuts are used. Pull Out Strength – 2,000 lbs. per bolt when  $\frac{1}{2}$ " PS NS channel nuts are used.

#### BEAM LOADING - PS 150 2T3

	Max	ax		Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	5,220 *	0.01	5,220 *	5,220 *	5,220 *
36	5,220 *	0.04	5,220 *	5,220 *	5,220 *
48	4,820	0.08	4,820	4,820	4,820
60	3,860	0.13	3,860	3,860	3,860
72	3,220	0.19	3,220	3,220	3,220
84	2,760	0.26	2,760	2,760	2,500
96	2,410	0.34	2,410	2,410	1,920
108	2,140	0.42	2,140	2,140	1,510
120	1,930	0.52	1,930	1,840	1,230
144	1,610	0.76	1,610	1,280	850
168	1,380	1.03	1,250	940	630
192	1,210	1.35	960	720	480
216	1,070	1.70	760	570	380
240	960	2.09	610	460	310

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42.

## COLUMN LOADING - PS 150 2T3

-	r ed	(in) Slot Face (lbs)	24 8,580	36 8,350	48 8,080	60 7,720	72 7,270	84 6,780	96 6,130	108 5,450		120 4,000	
: "	able at	ace )	0	0	0	0	0	Õ	0	0	Ő	Ő	070
Maximum	K = 0.65	(lbs)	31,810	29,700	27,390	25,170	23,190	21,510	20,110	17,750	15,260	10,830	7.950
Maximum Column Load Applied at C.G.	K = 0.80	(lbs)	30,880	28,100	25,330	22,910	20,940	18,740	15,630	12,700	10,290	7,150	5 250
oad Applic	K =1.0	(lbs)	29,520	26,000	22,910	20,510	17,170	13,430	10,290	8,130	6,590	*	*
ed at C.G.	K = 1.2	(lbs)	28,100	24,070	20,940	17,170	12,700	9,330	7,150	5,650	*	*	*

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

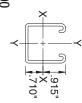
For Pierced Channels, reduce beam load values as follows: PS-150 2T3-EH 15%

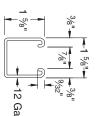
Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### POWER-STRUT

## PS 200 - Steel Channel (15/8" x 15/8" x 12 ga.)





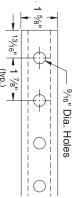


## **ELEMENTS OF SECTION - PS 200**

Weight (lbs./100 ft.)	
<b>Section</b> (Inch²) 0.555	Area of
Moment of Inertia (Inch <sup>4</sup> ) 0.185	
Section Modulus (Inch³)	X-X AXIS
Radius of Gyration (Inch)	
Moment of Inertia (Inch <sup>4</sup> ) 0.236	
Section Modulus (Inch³)	Y-Y AXIS
Radius of Gyration (Inch)	

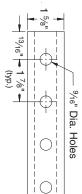
## PS 200 H - Channel with Holes





Weight: 186 lbs./100 ft.

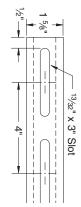
PS 200 H3 - Channel with Holes



Weight: 175 lbs./100 ft.

### PS 200 S - Channel with Slots

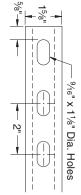




Weight: 185 lbs./100 ft.

## PS 200 EH - Channel with Elongated Holes

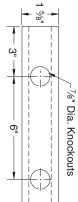




Weight: 185 lbs./100 ft.

## PS 200 KO6 - Channel with Knockouts

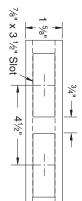




Weight: 189 lbs./100 ft.

## PS 200 SB - Channel with Slotted Back

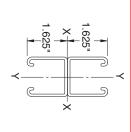


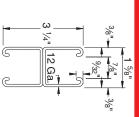


Weight: 173 lbs./100 ft.

# **PS 200 2T3** – Steel Channel (15/8" x 31/4" x 12 ga.)







**ELEMENTS OF SECTION - PS 200 2T3** 

378	Weight (lbs./100 ft.)	
1.111	Area of Section (Inch²)	
0.928	Moment of Inertia (Inch <sup>4</sup> )	
0.571	Section Modulus (Inch³)	X-X Axis
0.914	Radius of Gyration (Inch)	
0.471	Moment of Inertia (Inch <sup>4</sup> )	
0.580	Section Modulus (Inch³)	Y-Y Axis
0.651	Radius of Gyration (Inch)	

#### Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### PS 200 & **PS 200 2**T3 -Load Data

#### **BEAM LOADING - PS 200**

	Max	:	Uniform I	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable Uniform Load (lb)	Defl. at Uniform Load (in)	Span/180 (Ibs)	Span/240 (lbs)	Span/360 (lbs)
24	1,690	0.06	1,690	1,690	1,690
36	1,130	0.13	1,130	1,130	900
48	850	0.22	850	760	500
60	680	0.35	650	480	320
72	560	0.50	450	340	220
84	480	0.68	330	250	160
96	420	0.89	250	190	130
108	380	1.14	200	150	100
120	340	1.40	160	120	80
144	280	2.00	110	80	60
168	240	2.72	80	60	40
192	210	3.55	60	50	NR
216	190	4.58	50	40	NR
240	170	5.62	40	NR	NR

<sup>\*</sup> Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

15%

10%

For Extruded Aluminum Channels, reduce beam load values 38% 30%

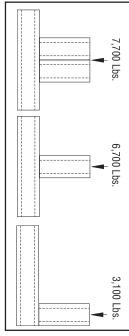
#### **COLUMN LOADING - PS 200**

	Max.	Maximun	Maximum Column Load Applied at C.G.	oad Applied	at C.G.
Unbraced	Allowable Load at	K = 0.65	K = 0.80	K=1.0	K = 1.2
neigiit (iii)	Slot Face (lbs)	(lbs)	(lbs)	(lbs)	(lbs)
24	3,550	10,740	9,890	8,770	7,740
36	3,190	8,910	7,740	6,390	5,310
48	2,770	7,260	6,010	4,690	3,800
60	2,380	5,910	4,690	3,630	2,960
72	2,080	4,840	3,800	2,960	2,400
84	1,860	4,040	3,200	2,480	1,980
96	1,670	3,480	2,750	2,110	1,660
108	1,510	3,050	2,400	1,810	*
120	1,380	2,700	2,110	*	*
144	1,150	2,180	1,660	*	*

<sup>,</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### PS200 – Crush Loads



Resistance to Slip - 1,500 lbs. per bolt when ½" PS NS channel nuts are used Pull Out Strength - 2,000 lbs. per bolt when ½" PS NS channel nuts are used.

#### BEAM LOADING -PS 200 2T3

	Max		Uniform L	Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	3,500 *	0.02	3,500 *	3,500 *	3,500 *
36	3,190	0.07	3,190	3,190	3,190
48	2,390	0.13	2,390	2,390	2,390
60	1,910	0.20	1,910	1,910	1,620
72	1,600	0.28	1,600	1,600	1,130
84	1,370	0.39	1,370	1,240	830
96	1,200	0.51	1,200	950	630
108	1,060	0.64	1,000	750	500
120	960	0.79	810	610	410
144	800	1.14	560	420	280
168	680	1.53	410	310	210
192	600	2.02	320	240	160
216	530	2.54	250	190	130
240	480	3.16	200	150	100

<sup>\*</sup>Load limited by spot weld shear.

Loads must be multiplied by the applicable unbraced factor from page 42

## COLUMN LOADING - PS 200 2T3

	Max.	Maximun	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
Unbraced Height (in)	Allowable Load at Slot Face (lbs)	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
24	6,430	24,280	23,610	22,700	21,820
36	6,290	22,810	21,820	20,650	19,670
48	6,160	21,410	20,300	18,670	16,160
60	6,000	20,210	18,670	15,520	12,390
72	5,620	18,970	16,160	12,390	8,950
84	5,170	16,950	13,630	9,470	6,580
96	4,690	14,890	11,190	7,250	5,040
108	4,170	12,850	8,950	5,730	3,980
120	3,690	10,900	7,250	4,640	*
144	2,930	7,630	5,040	*	*

<sup>\* \*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

For Pierced Channels, reduce beam load values as follows:

PS 200 2T3 EH

(See PS 200 2T3 EH on page 28.)

NR - Not Recommended

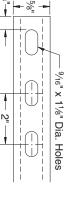
For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section. Loads include weight of channel, which must be deducted.

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



# PS 200 2T3 EH - Channel with Elongated Holes



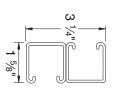


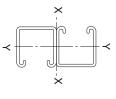
Weight: 370 lbs./100 ft.

# PS 200 2T2 - Welded Steel Channel (15/8" x 31/4" x 12 ga.)



Weight: 378 lbs./100 ft. Allowable Moment 18,640 ln-Lbs

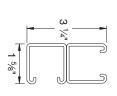


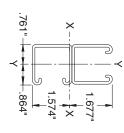


# **PS 200 2T4** – Welded Steel Channel (15%" x 31/4" x 12 ga.)



Weight: 378 lbs /100 ft. Allowable Moment 15,950 In-Lbs

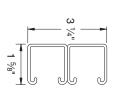


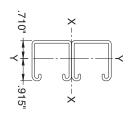


# **PS 200 2T5** – Welded Steel Channel (15/8" x 31/4" x 12 ga.)

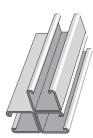


Weight: 378 lbs./100 ft. Allowable Moment 18,640 In-Lbs

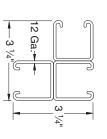


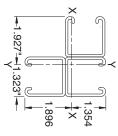


# PS 200 3T6 - Welded Steel Channel (31/4" x 31/4" x 12 ga.)



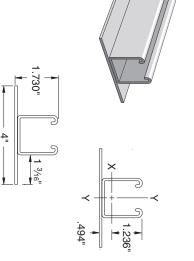
Weight: 566 lbs./100 ft. Allowable Moment 18,680 In-Lbs





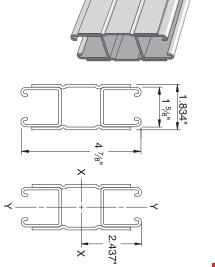
Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

## PS 200 PLA - Welded Steel Channel & Plate



## PS 200 PLC - Welded Steel Channel & Plate

Channel



#### **ELEMENTS OF SECTION**

PS 200 PLC	PS 200 PLA	Part No.	
668	333	Weight (lbs./100 ft.)	
1.965	0.739	Section (Inch <sup>2</sup> )	200
4.068	0.287	Moment of Inertia (Inch <sup>4</sup> )	
1.669	0.248	Section Modulus (Inch³)	X-X Axis
1.439	0.623	Radius of Gyration (Inch)	
1.092	0.617	Moment of Inertia (Inch <sup>4</sup> )	
1.190	0.290	Section Modulus (Inch³)	Y-Y Axis
0.745	0.914	Radius of Gyration (Inch)	

#### **PS 200 PLC** Load Data

#### BEAM LOADING - PS 200 PLC

,	Max	Defl. at	Uniform	Uniform Loading at Deflection	eflection
Span (in)	Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	9,100 *	0.01	9,100 *	9,100 *	9,100 *
36	9,100 *	0.05	9,100 *	9,100 *	9,100 *
48	7,000	0.08	7,000	7,000	7,000
60	5,600	0.13	5,600	5,600	5,600
72	4,660	0.19	4,660	4,660	4,660
84	4,000	0.26	4,000	4,000	3,630
96	3,500	0.34	3,500	3,500	2,780
108	3,110	0.43	3,110	3,110	2,200
120	2,800	0.52	2,800	2,670	1,780
144	2,330	0.75	2,330	1,850	1,230
168	2,000	1.03	1,810	1,360	910
192	1,750	1.34	1,390	1,040	690
216	1,550	1.69	1,100	820	550
240	1,400	2.10	890	670	440

### COLUMN LOADING - PS 200 PLC

	Max.	Maximum	Maximum Column Load Applied at C.G.	oad Appli	ed at C.G.
Unbraced	Allowable Load at	K = 0.65	K = 0.80	K =1.0	K = 1.2
neigiit (iii)	Slot Face (lbs)	(lbs)	(lbs)	(lbs)	(lbs)
24	11,420	36,800	33,890	30,440	27,600
36	10,600	30,840	27,600	24,400	22,160
48	9,860	26,400	23,560	21,060	19,470
60	9,160	23,370	21,060	19,160	18,020
72	8,610	21,310	19,470	18,020	17,140
84	8,170	19,890	18,410	17,260	15,240
96	7,790	18,890	17,670	16,760	11,670
108	7,460	18,160	17,140	13,280	9,220
120	7,150	17,590	16,760	10,750	7,470
144	5,660	16,840	11,670	7,470	*
168	4,520	12,990	8,570	*	*

<sup>\*\*</sup> KL//>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

<sup>\*</sup>Load limited by spot weld shear.
† Bearing load may govern capacity.
For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

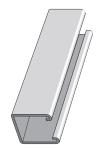
Loads include weight of channel, which must be deducted.

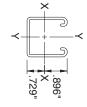
Loads must be multiplied by the applicable unbraced factor from page 42.

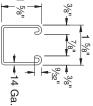
Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



## **PS 210** – Steel Channel (15%" x 15%" x 14 ga.)





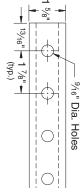


### **ELEMENTS OF SECTION - PS 210**

142	Weight (lbs./100 ft.)	
0.418	Area of Section (Inch²)	,
0.145	Moment of Inertia (Inch <sup>4</sup> )	
0.162	Section Modulus (Inch³)	X-X Axis
0.589	Radius of Gyration (Inch)	
0.176	Moment of Inertia (Inch <sup>4</sup> )	
0.217	Section Modulus (Inch³)	Y-Y Axis
0.650	Radius of Gyration (Inch)	

## PS 210 H - Channel with Holes

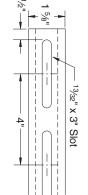




Weight: 137 lbs./100 ft.

## PS 210 S - Channel with Slots

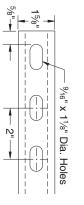




Weight: 137 lbs./100 ft.

## PS 210 EH - Channel with Elongated Holes

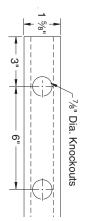




Weight: 137 lbs./100 ft.

## PS 210 K06 - Channel with Knockouts

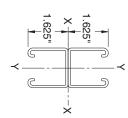


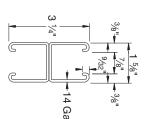


Weight: 141 lbs./100 ft.

# PS 210 2T3 - Steel Channel (15%" x 31/4" x 14 ga.)







**ELEMENTS OF SECTION - PS 210 2T3** 

284	Weight (lbs./100 ft.)	
0.835	Section (Inch <sup>2</sup> )	Area of
0.733	Moment of Inertia (Inch <sup>4</sup> )	
0.451	Section Modulus (Inch³)	X-X Axis
0.937	Radius of Gyration (Inch)	
0.353	Moment of Inertia (Inch <sup>4</sup> )	
0.434	Section Modulus (Inch³)	Y-Y Axis
0.650	Radius of Gyration (Inch)	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### PS 210 & PS 210 2T3 - Load Data

#### **BEAM LOADING - PS 210**

Unbraced Height (in)

Allowable Load at Slot Face

K = 0.65 (lbs)

K = 0.80

K=1.0

K = 1.2

(lbs) 7,330

(lbs)

(lbs)

Max.

Maximum Column Load Applied at C.G.

Channel

**COLUMN LOADING - PS 210** 

240	216	192	168	144	120	108	96	84	72	60	48	36	24	Span (in)
140	150	170	190	230	270	300	340	390	450	540	680	900	1,350	Max Allowable Uniform Load (lb)
5.90	4.61	3.67	2.75	2.09	1.42	1.15	0.92	0.70	0.51	0.36	0.23	0.13	0.06	Defl. at Uniform Load (in)
30	40	50	60	90	130	160	200	260	350	510	680	900	1,350	Uniform   Span/180 (lbs)
NR	30	40	50	70	90	120	150	190	260	380	590	900	1,350	Uniform Loading at Deflection pan/180 Span/240 Span/36 (lbs) (lbs)
NR	NR	NR	30	40	60	80	100	130	180	250	400	700	1,350	Span/360 (lbs)

Bearing load may govern capacity.

#### NR - Not Recommended

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

PS-210-EH 15% PS-210-S 15% PS-210-H 10% PS-210-K06 5%

#### PS210 -Crush Loads

Column loads are for allowable axial loads and must be reduced for eccentric loading.

\* \* KL//>200

108 120

840 760

1,690

1,030

,210 ,490

,180

96 84 72 60 96 84 8

1,940 1,550 1,290 1,100 1,100 950

4,990 3,740 2,860 2,310 1,950

3,830 2,760 2,160 1,780 1,520 1,320

2,050 1,640 1,370 1,180

1,640 1,320 1,110 950 \*\*

2,410

6,480 8,040

5,430

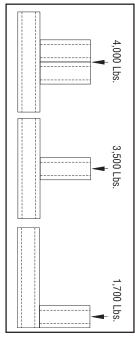
4,190 2,760 6,360

2,160

5,430 3,210

2,800

(lbs



Resistance to Slip - 1,000 lbs. per bolt when ½" PS NS channel nuts are used Pull Out Strength - 1,400 lbs. per bolt when ½" PS NS channel nuts are used.

#### BEAM LOADING -PS 210 2T3

	Max	7 A	Uniform L	<b>Uniform Loading at Deflection</b>	eflection (
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	2,180 *	0.02	2,180 *	2,180 *	2,180 *
36	2,180 *	0.06	2,180 *	2,180 *	2,180 *
48	1,890	0.13	1,890	1,890	1,890
60	1,510	0.20	1,510	1,510	1,280
72	1,260	0.28	1,260	1,260	890
84	1,080	0.39	1,080	980	650
96	056	0.51	950	750	500
108	840	0.64	790	590	400
120	760	0.79	640	480	320
144	630	1.13	440	330	220
168	540	1.54	330	250	160
192	470	2.00	250	190	130
216	420	2.55	200	150	100
240	380	3.16	160	120	80
777	000		3	-	

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42

## COLUMN LOADING - PS 210 2T3

	Max.	Maximum	Maximum Column Load Applied at C.G.	oad Applie	ed at C.G.
Unbraced Height (in)	Allowable Load at Slot Face (lbs)	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
24	5,010	18,250	17,700	16,880	16,030
36	4,860	16,990	16,030	14,770	13,620
48	4,700	15,610	14,380	12,930	11,750
60	4,480	14,280	12,930	11,490	9,290
72	4,210	13,100	11,750	9,290	6,700
84	3,880	12,090	10,220	7,090	4,930
96	3,480	11,170	8,390	5,430	3,770
108	3,060	9,640	6,700	4,290	2,980
120	2,680	8,170	5,430	3,480	*
144	2,090	5,710	3,770	*	*

<sup>\*\*</sup> K/>200

loading. Column loads are for allowable axial loads and must be reduced for eccentric



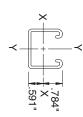
<sup>†</sup> Bearing load may govern capacity.

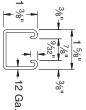
Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### POWER-STRUT

## **PS 300** – Steel Channel (15%" x 13%" x 12 ga.)





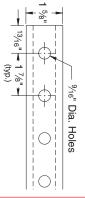


## **ELEMENTS OF SECTION – PS 300**

170	Weight (lbs./100 ft.)	
0.500	Section (Inch <sup>2</sup> )	7
0.120	Moment of Inertia (Inch <sup>4</sup> )	
0.153	Section Modulus (Inch³)	X-X Axis
0.489	Radius of Gyration (Inch)	
0.203	Moment of Inertia (Inch <sup>4</sup> )	
0.250	Section Modulus (Inch³)	Y-Y Axis
0.638	Radius of Gyration (Inch)	

## PS 300 H - Channel with Holes

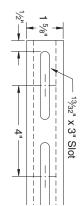




Weight: 165 lbs./100 ft.

PS 300 S - Channel with Slots

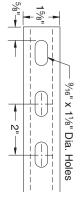




Weight: 165 lbs./100 ft.

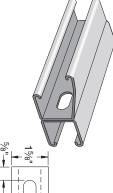
## PS 300 EH - Channel with Elongated Holes

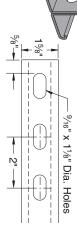




Weight: 165 lbs./100 ft.

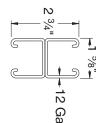
# PS 300 2T3 EH - Channel with Elongated Holes

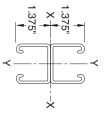




Weight: 340 lbs./100 ft.

# **PS 300 2T3** – Steel Channel (15%" x 23/4" x 12 ga.)





**ELEMENTS OF SECTION - PS 300 2T3** 

340	Weight (lbs./100 ft.)	
1.000	Section (Inch <sup>2</sup> )	Arga of
0.591	Moment of Inertia (Inch <sup>4</sup> )	
0.430	Section Modulus (Inch³)	X-X Axis
0.769	Radius of Gyration (Inch)	
0.407	Moment of Inertia (Inch <sup>4</sup> )	
0.501	Section Modulus (Inch³)	Y-Y Axis
0.638	Radius of Gyration (Inch)	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### PS 300 & PS 300 **2**T3 -Load Data

#### **BEAM LOADING - PS 300**

	Max	; :	Uniform	Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	1,280	0.07	1,280	1,280	1,280
36	850	0.15	058	058	580
48	640	95.0	640	490	330
09	510	0.41	420	018	210
72	430	0.59	062	022	150
84	370	0.81	210	160	110
96	320	1.05	160	120	80
108	280	1.30	130	100	60
120	260	1.66	100	08	50
144	210	2.32	70	50	40
168	180	3.15	50	40	30
192	160	4.18	40	30	NR
216	140	5.21	NR	NR	NR
240	130	6.64	NR	NR	NR

<sup>\*</sup> Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

PS-300-EH

15% 15% 10%

PS-300-S PS-300-H

#### **COLUMN LOADING - PS 300**

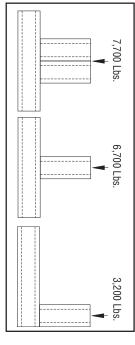
Channel

	Max.	Maximum	Maximum Column Load Applied at C.G.	ad Applie	d at C.G.
Unbraced Height (in)	Allowable Load at Slot Face	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
24	( <b>lbs</b> )	9 690	8 980	8 050	7 910
24	3,180	9,690	8,980	8,050	7,210
36	2,920	8,160	7,210	6,130	5,240
48	2,590	6,820	5,810	4,730	3,860
60	2,300	5,740	4,730	3,690	2,990
72	2,040	4,850	3,860	2,990	2,270
84	1,830	4,100	3,240	2,400	*
96	1,650	3,530	2,770	1,840	*
108	1,450	3,080	2,270	*	*
120	1,250	2,710	1,840	*	*

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### PS300 -Crush Loads



Resistance to Slip – 1,500 lbs. per bolt when  $\frac{1}{2}$ " PS NS channel nuts are used Pull Out Strength – 2,000 lbs. per bolt when  $\frac{1}{2}$ " PS NS channel nuts are used.

#### BEAM LOADING - PS 300 2T3

	Max	7	Uniform L	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	2,960 *	0.03	2,960 *	2,960 *	2,960 *
36	2,400	0.08	2,400	2,400	2,400
48	1,800	0.15	1,800	1,800	1,610
60	1,440	0.23	1,440	1,440	1,030
72	1,200	0.33	1,200	1,080	720
84	1,030	0.46	1,030	790	530
96	900	0.59	810	610	400
108	800	0.75	640	480	320
120	720	0.93	520	390	260
144	600	1.34	360	270	180
168	510	1.81	260	200	130
192	450	2.38	200	150	100
216	400	3.01	160	120	80
240	360	3.72	130	100	NR

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42

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### COLUMN LOADING - PS 300 2T3

	Max. Allowable	Maximum	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
Height (in)	Load at Slot Face	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
	(lbs)				
24	5,740	21,780	21,200	20,430	19,720
36	5,620	20,520	19,720	18,830	17,680
48	5,520	19,400	18,570	16,570	14,260
60	5,330	18,510	16,570	13,670	10,810
72	5,030	16,850	14,260	10,810	7,730
84	4,630	14,990	11,930	8,180	5,680
96	4,190	13,090	9,720	6,260	4,350
108	3,720	11,230	7,730	4,950	*
120	3,300	9,460	6,260	4,010	*
144	2,620	6,590	4,350	*	*

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

PS-300 2T3 EH For Pierced Channels, reduce beam load values as follows:

NR - Not Recommended

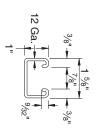
<sup>†</sup> Bearing load may govern capacity.

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



## **PS 400** – Steel Channel (15%" x 1" x 12 ga.)





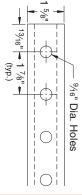


### **ELEMENTS OF SECTION - PS 400**

_		
144	Weight (lbs./100 ft.)	
0.424	Section (Inch²)	Area of
0.053	Moment of Inertia	
0.092	Section Modulus (Inch <sup>3</sup> )	X-X Axis
0.354	Radius of Gyration (Inch)	
0.161	Moment of Inertia (Inch <sup>4</sup> )	
0.198	Section Modulus (Inch³)	Y-Y Axis
0.616	Radius of Gyration (Inch)	

## PS 400 H - Channel with Holes

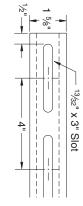




Weight: 136 lbs./100 ft.

### PS 400 S - Channel with Slots

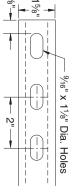




Weight: 136 lbs./100 ft.

## PS 400 EH - Channel with Elongated Holes

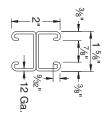




Weight: 136 lbs./100 ft.

## **PS 400 2T3** – Steel Channel (1%" x 2" x 12 ga.)







**ELEMENTS OF SECTION - PS 400 2T3** 

288	Weight (lbs./100 ft.)	
0.849	Section (Inch²)	Arga of
0.255	Moment of Inertia	
0.255	Section Modulus (Inch³)	X-X Axis
0.548	Radius of Gyration (Inch)	
0.322	Moment of Inertia (Inch <sup>4</sup> )	
0.396	Section Modulus (Inch³)	Y-Y Axis
0.616	Radius of Gyration (Inch)	



Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

#### **PS 400 & PS 400** 2T3 -Load Data



Channel

#### **BEAM LOADING - PS 400**

	Max	∏efl at	Uniform L	<b>Uniform Loading at Deflection</b>	eflection)
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	770	0.09	770	770	580
36	510	0.20	510	390	260
48	380	0.35	290	220	150
60	310	0.56	190	140	90
72	260	0.80	130	100	60
84	220	1.08	90	70	50
96	190	1.39	70	50	40
108	170	1.78	60	40	30
120	150	2.15	50	30	20
144	130	3.22	30	20	20
168	110	4.32	NR	NR	NR
192	100	5.87	NR	NR	NR
216	90	7.52	NR	NR	NR

<sup>\*</sup> Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

15% 15% 10%

PS-400-EH PS-400-S PS-400-H

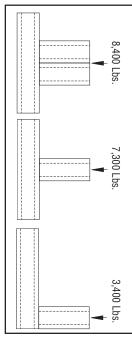
#### **COLUMN LOADING - PS 400**

	Max.	Maximum	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
Unbraced Height (in)	Allowable Load at Slot Face	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
	(lbs)	,		,	
24	2,620	8,280	7,760	7,140	6,580
36	2,470	7,210	6,580	5,310	4,030
48	2,180	6,200	4,870	3,280	2,280
60	1,770	4,760	3,280	2,100	*
72	1,420	3,450	2,280	*	*
84	1,150	2,530	1,670	*	*
96	*	1.940	*	*	*

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### PS400 – Crush Loads



Resistance to Slip - 1,500 lbs. per bolt when  $1\!/\!2$  PS NS channel nuts are used. Pull Out Strength - 2,000 lbs. per bolt when  $1\!/\!2$  PS NS channel nuts are used.

#### BEAM LOADING - PS 400 2T3

	Max	7.6	Uniform	<b>Uniform Loading at Deflection</b>	eflection)
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (Ibs)	Span/240 (lbs)	Span/360 (lbs)
24	2,140 *	0.05	2,140 *	2,140 *	2,140 *
36	1,420	0.11	1,420	1,420	1,240
48	1,070	0.20	1,070	1,040	700
60	850	0.32	850	670	450
72	710	0.46	620	460	310
84	610	0.63	450	340	230
96	530	0.81	350	260	170
108	470	1.03	280	210	140
120	430	1.29	220	170	110
144	360	1.86	150	120	80
168	310	2.54	110	90	60
192	270	3.31	90	70	NR
216	240	4.19	70	NR	NR
240	210	5.03	60	NR	NR

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42.

### COLUMN LOADING - PS 400 2T3

	Max.	Maximum	Maximum Column Load Applied at C.G.	oad Applic	ed at C.G.
Unbraced Height (in)	Allowable Load at Slot Face	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
	(lbs)	,			
24	4,720	18,310	17,840	17,300	16,760
36	4,640	17,360	16,760	15,260	13,610
48	4,470	16,280	14,720	12,460	10,170
60	4,230	14,590	12,460	9,610	6,980
72	3,930	12,750	10,170	6,980	4,840
84	3,520	10,880	7,990	5,130	3,560
96	3,070	9,050	6,130	3,920	*
108	2,690	7,340	4,840	3,100	*
120	2,360	5,940	3,920	**	*

<sup>\* \*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

NR - Not Recommended

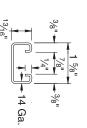
<sup>†</sup> Bearing load may govern capacity.

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



## PS 500 - Steel Channel (15/8" x 13/16" x 14 ga.)





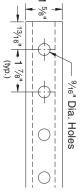


## **ELEMENTS OF SECTION – PS 500**

	Weight (lbs./100 ft.)	98	
752 0	Section (Inch <sup>2</sup> )	0.290	
	Moment of Inertia (Inch <sup>4</sup> )	0.026	
X-X Axis	Section Modulus (Inch³)	0.054	
	Radius of Gyration (Inch)	0.298	
	Moment of Inertia (Inch <sup>4</sup> )	0.107	
Y-Y Axis	Section Modulus (Inch³)	0.132	
	Radius of Gyration (Inch)	0.609	

## PS 500 H - Channel with Holes

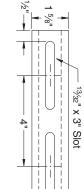




Weight: 87 lbs./100 ft.

PS 500 S - Channel with Slots

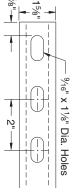




Weight: 87 lbs./100 ft.

## **PS 500 EH** – Channel with Elongated Holes

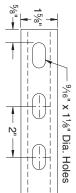




Weight: 87 lbs./100 ft.

# PS 500 2T3 EH - Channel with Elongated Holes

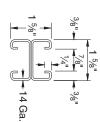




Weight: 174 lbs./100 ft.

# **PS 500 2T3** – Steel Channel (15%" x 15%" x 14 ga.)







## **ELEMENTS OF SECTION – PS 500 2T3**

197	Weight (lbs./100 ft.)	
0.579	Area of Section (Inch²)	
0.117	Moment of Inertia (Inch <sup>4</sup> )	
0.143	Section Modulus (Inch³)	X-X Axis
0.449	Radius of Gyration (Inch)	
0.214	Moment of Inertia (Inch <sup>4</sup> )	
0.264	Section Modulus (Inch³)	Y-Y Axis
0.608	Radius of Gyration (Inch)	



Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

### **PS** 500 & PS 500 2T3 - Load Data

### **BEAM LOADING - PS 500**

Span (in)	Max Allowable Uniform Load (lb)	Defl. at Uniform Load (in)	Uniform I Span/180 (lbs)	Uniform Loading at Deflection	Span/360 (lbs)
24	450	0.11	450	420	21
36	300	0.24	250	190	130
48	230	0.44	140	110	70
60	180	0.67	90	70	50
72	150	0.96	60	50	30
84	130	1.32	50	30	20
96	110	1.67	40	30	20
108	100	2.16	30	20	10
120	90	2.67	20	20	10

<sup>\*</sup> Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42

For Pierced Channels, reduce beam load values as follows:

PS-500-EH PS-500-S PS-500-H

### 15% 15% 10%

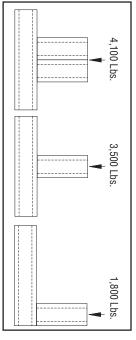
### **COLUMN LOADING** 1 PS 500

Unbraced Height (in)	24	36	48	60	72
Allowable Load at Slot Face (lbs)	1,840	1,640	1,310	1,000	770
K = 0.65 (lbs)	5,610	4,660	3,490	2,400	1,670
(= 0.65 K = 0.80 K = 1.0 K = 1.2 (lbs) (lbs) (lbs)	5,210	3,850	2,480	1,590	1,100
K =1.0 (lbs)	4,570	2,800	1,590	*	*
K = 1.2 (lbs)	3,850	1,960	1,100	*	*

<sup>\* \*</sup> KL//>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

### PS500 – Crush Loads



Pull Out Strength – 1,400 lbs. per bolt when  $\frac{1}{2}$ " PS NS channel nuts are used. Resistance to Slip – 1,000 lbs. per bolt when ½" PS NS channel nuts are used

## BEAM LOADING - PS 500 2T3

	Max	:	Uniform L	Uniform Loading at Deflection	Deflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	1,090 *	0.06	1,090 *	1,090 *	1,090 *
36	800	0.14	800	008	570
48	600	0.25	600	480	320
60	480	0.39	410	310	200
72	400	0.57	280	210	140
84	340	0.76	210	160	100
96	300	1.00	160	120	80
108	270	1.29	130	90	60
120	240	1.57	100	80	50

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section. Loads include weight of channel, which must be deducted

Loads must be multiplied by the applicable unbraced factor from page 42

# COLUMN LOADING - PS 500 2T3

	Max	Max. C	Max. Column Load Applied at C.G.	d Applied	at C.G.
Unbraced Height	Allowable Load at Slot Face	K = 0.65	K = 0.80	K =1.0	K = 1.2
24	3,240	12,370	11,950	11,370	10,540
36	3,120	11,470	10,540	9,160	7,720
48	2,940	10,090	8,680	6,770	4,980
60	2,680	8,560	6,770	4,590	3,190
72	2,310	7,010	4,980	3,190	2,220
84	1,950	5,530	3,660	2,340	*
96	1,650	4,250	2,800	*	*
108	1,410	3,360	2,220	*	*

<sup>\* \*</sup> KL/;>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

For Pierced Channels, reduce beam load values as follows:

PS-500 2T3 EH 15%

> Channel

<sup>†</sup> Bearing load may govern capacity.

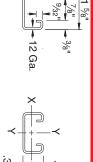
### CHANNEL

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish







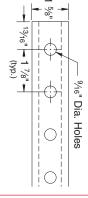


# **ELEMENTS OF SECTION - PS 520**

133	(1807) 180 11.)	Weight	
0.384	(Inch²)	Area of Section	•
0.031	(Inch <sup>4</sup> )	Moment	
0.064	(Inch <sup>3</sup> )	Section	X-X Axis
0.283	(Inch)	Radius of	
0.138	(Inch <sup>4</sup> )	Moment	
0.170	(Inch <sup>3</sup> )	Section	Y-Y Axis
0.599	(Inch)	Radius of	

# PS 520 H - Channel with Holes

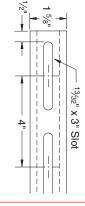




Weight: 120 lbs./100 ft.

# PS 520 S - Channel with Slots

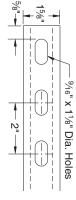




Weight: 118 lbs./100 ft.

# PS 520 EH - Channel with Elongated Holes

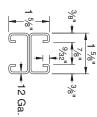




Weight: 120 lbs./100 ft.

# PS 520 2T3 - Steel Channel (15/8" x 15/8" x 12 ga.)







# **ELEMENTS OF SECTION - PS 520 2T3**

262	Weight (lbs./100 ft.)	
0.770	Area of Section (Inch <sup>2</sup> )	
0.146	Moment of Inertia (Inch <sup>4</sup> )	
0.180	Section Modulus (Inch³)	X-X Axis
0.436	Radius of Gyration (Inch)	
0.277	Moment of Inertia (Inch <sup>4</sup> )	
0.340	Section Modulus (Inch³)	Y-Y Axis
0.599	Radius of Gyration (Inch)	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

# **PS 520** – Steel Channel (15/8" x 13/16" x 12 ga.)

### BEAM LOADING - PS 520

Sn 2n	Max	Defl. at	Uniform	Uniform Loading at Deflection	eflection
(in)	Uniform	Unitorm	Span/18U	Span/24U	Span/36U
	Load (lb)	Luau (III)	(III)	(601)	(601)
24	540	0.11	540	510	340
36	360	0.24	300	220	150
48	270	0.43	170	130	80
60	220	0.68	110	80	50
72	180	0.96	70	60	40
84	150	1.27	60	40	30
96	130	1.65	40	30	20
108	120	2.16	30	20	20
120	110	2.72	30	20	NR
144	90	3.84	20	NR	NR
168	80	5.43	NR	NR	NR
192	70	7.09	NR	NR	NR

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42.

For Pierced Channels, reduce beam load values as follows:

PS-520-EH PS-520-H PS-520-S 15% 10% 15%

## **COLUMN LOADING - PS 520**

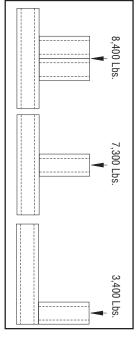
Channel

72	60	48	36	24	Unbraced Height (in)
*	1,210	1,580	1,980	2,250	Max. Allowable Load at Slot Face (lbs)
2,000	2,880	4,310	5,950	7,480	Maximum  K = 0.65 (lbs)
*	1,900	2,970	4,810	6,800	Maximum Column Load Applied at C.G.  K = 0.65
*	*	1,900	3,380	5,820	K =1.0 (lbs)
*	*	*	2,350	4,810	ed at C.G. K = 1.2 (lbs)

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

### PS520 -Crush Loads



Resistance to Slip -1,500 lbs. per bolt when 1/2" PS NS channel nuts are used Pull Out Strength - 1,500 lbs. per bolt when 1/2" PS NS channel nuts are used.

## BEAM LOADING - PS 520 2T3

	Max	2	Uniform I	Uniform Loading at Deflection	eflection
Span	Allowable	Uniform	Span/180	Span/240	Span/360
(111)	Load (lb)	Load (in)	(lbs)	(lbs)	(lbs)
24	1,510	0.06	1,510	1,510	1,510
36	1,010	0.14	1,010	1,010	710
48	760	0.25	760	600	400
60	610	0.40	510	380	260
72	500	0.56	360	270	180
84	430	0.77	260	200	130
96	380	1.01	200	150	100
108	340	1.29	160	120	80
120	300	1.56	130	100	60
144	250	2.25	90	70	40
168	220	3.14	70	50	NR
192	190	4.05	50	NR	NR
216	170	5.16	NR	NR	NR
240	150	6.24	NR	NR	NR

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42 For Pierced Channels, reduce beam load values as follows:

# COLUMN LOADING - PS 520 2T3

Inhraced	Max. Allowable	Maximun	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
Height (in)	Load at Slot Face	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
	(lbs)		,		
24	4,140	16,490	15,980	14,970	13,810
36	3,980	15,100	13,810	11,910	9,940
48	3,730	13,190	11,260	8,650	6,270
60	3,390	11,090	8,650	5,780	4,010
72	2,950	8,970	6,270	4,010	2,790
84	2,510	6,980	4,610	2,950	*
96	2,130	5,340	3,530	*	*
108	1,820	4,220	2,790	*	*
120	* *	3,420	*	*	*

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

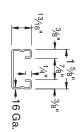
### CHANNEL

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish



# **PS 560** – Steel Channel (15%" x 13/16" x 16 ga.)





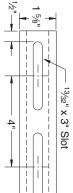


# **ELEMENTS OF SECTION – PS 560**

83	Weight (lbs./100 ft.)	
0.244	Area of Section (Inch <sup>2</sup> )	
0.023	Moment of Inertia (Inch <sup>4</sup> )	
0.049	Section Modulus (Inch³)	X-X Axis
0.306	Radius of Gyration (Inch)	
0.092	Moment of Inertia (Inch <sup>4</sup> )	
0.113	Section Modulus (Inch³)	Y-Y Axis
0.613	Radius of Gyration (Inch)	

# PS 560 S - Channel with Slots

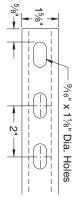




Weight: 79 lbs./100 ft.

# PS 560 EH - Channel with Elongated Holes

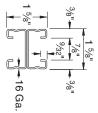




Weight: 79 lbs./100 ft.

# **PS 560 2T3** – Steel Channel (15/8" x 15/8" x 16 ga.)







# ELEMENTS OF SECTION – PS 560 2T3

166	Weight (lbs./100 ft.)	
0.478	Area of Section (Inch <sup>2</sup> )	
0.104	Moment of Inertia (Inch <sup>4</sup> )	
0.128	Section Modulus (Inch³)	X-X Axis
0.462	Radius of Gyration (Inch)	
0.183	Moment of Inertia (Inch <sup>4</sup> )	
0.225	Section Modulus (Inch³)	Y-Y Axis
0.613	Radius of Gyration (Inch)	

Finish: Plain, Painted Green, or Pregalvanized Order By: No., Length and Finish

# **PS 560** – Steel Channel (15/8" x 13/16" x 16 ga.)



## BEAM LOADING - PS 560

)	Max	Defl. at	Uniform L	Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	410	0.11	410	370	250
36	270	0.24	220	170	110
48	200	0.43	120	90	60
60	160	0.67	80	60	40
72	140	1.01	60	40	30
84	120	1.38	40	30	20
96	100	1.72	30	20	20
108	90	2.20	20	20	10
120	80	2.68	20	10	10

<sup>\*</sup> Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42.

For Pierced Channels, reduce beam load values as follows:

PS-520-EH 15% PS-520-S 15%

## COLUMN LOADING - PS 560

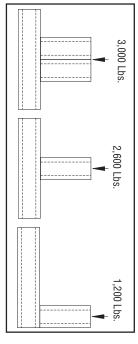
Channel

Unbraced Height (in)	24	36	48	60	
aced ıt (in)	4	6	8	0	72
Max. Allowable Load at Slot Face (lbs)	1,630	1,450	1,160	870	670
Maximum  K = 0.65  (lbs)	4,670	3,840	3,030	2,120	1,470
Maximum Column Load Applied at C.G.  K = 0.65 K = 0.80 K = 1.0 K = 1.2  (lbs) (lbs) (lbs) (lbs)	4,290	3,310	2,190	1,400	970
K =1.0 (lbs)	3,780	2,460	1,400	900	*
ed at C.G.  K = 1.2 (lbs)	3,310	1,730	970	*	*

<sup>\*\*</sup> KL//>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

### PS560 - Crush Loads



Resistance to Slip - 1,000 lbs. per bolt when ½" PS NS channel nuts are used Pull Out Strength - 1,000 lbs. per bolt when ½" PS NS channel nuts are used.

## BEAM LOADING - PS 560 2T3

	Max		Uniform	Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lb)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	810 *	0.05	810 *	810 *	810 *
36	710	0.14	710	710	500
48	540	0.25	540	430	280
60	430	0.40	360	270	180
72	360	0.57	250	190	130
84	310	0.78	190	140	90
96	270	1.02	140	110	70
108	240	1.29	110	80	60
120	210	1.54	90	70	50
144	180	2.29	60	50	30

<sup>\*</sup>Load limited by spot weld shear.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42.

# COLUMN LOADING - PS 560 2T3

:	Max.	Maximum	Maximum Column Load Applied at C.G.	oad Appl	_ હ. ા
Height (in)	Load at Slot Face (lbs)	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	<u></u>
24	2,830	10,390	10,000	9,470	O
36	2,740	9,530	8,960	7,870	0
48	2,590	8,620	7,480	5,910	0
60	2,340	7,380	5,910	4,090	90
72	2,020	6,110	4,440	2,840	ö
84	1,700	4,880	3,260	2,090	90
96	1,440	3,780	2,500	*	
108	1,230	2,990	1,970	*	

<sup>\*\*</sup> KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

<sup>†</sup> Bearing load may govern capacity.



# PS 6153 - Strut Safety End Cap

(For OSHA Req'd End of Hand Rail)



Material: Red Colored PVC

	Wit /100	W# /100
Part No.	OSE WILL	pcs.
PS-6153-1	PS-100, PS200 2T3	5.0
PS-6153-2	PS-200,PS-210	2.8
PS-6153-3	PS-300	2.5
PS-6153-5	PS-500, PS-520, PS560	2.0

# PS 6152 – Decorative End Cap



Finish: Electro-galvanized Use With: PS-200, PS-210

Weight: 10 lbs./100 pcs.

### **PS 9050** – Green Touch-up Spray Paint



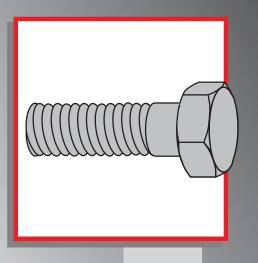
Aerosol can may be subject to shipping restrictions

Weight: 253 lbs./100 boxes

# Lateral Bracing Load Reduction Charts

Sp	Span			Latera	Lateral Bracing Factors Single Cl	g Factors Single Channel	nel			
Ft.	ln	PS 100	PS 150	PS 200	PS 210	PS 300	PS 400	PS 500	PS 520	PS 560
2	24	0.98	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3	36	0.85	0.89	0.94	0.89	0.96	1.00	0.98	1.00	0.94
4	48	0.70	0.77	0.88	0.78	16.0	0.98	0.94	1.00	0.88
5	60	0.55	0.67	0.82	0.68	0.88	0.96	0.91	1.00	0.83
6	72	0.44	0.58	0.78	0.59	0.84	0.94	0.89	0.98	0.79
7	84	0.38	0.51	0.75	0.52	0.82	0.92	0.86	0.97	0.75
8	96	0.33	0.46	0.71	0.47	0.79	0.91	0.84	0.96	0.72
9	108	0.30	0.42	0.69	0.43	0.77	0.89	0.82	0.95	0.69
10	120	0.28	0.40	0.66	0.40	0.75	0.87	0.80	0.93	0.66
12	144	0.24	0.36	0.61	0.36	0.70	0.84	0.76	0.91	0.60
14	168	0.22	0.32	0.55	0.32	0.66	0.81	0.73	0.89	0.55
16	192	0.21	0.30	0.51	0.30	0.62	0.78	0.69	0.86	0.50
18	216	0.19	0.28	0.47	0.28	0.58	0.75	0.65	0.84	0.47
20	240	0.18	0.26	0.44	0.26	0.54	0.72	0.61	0.81	0.43

3	18	16	14	12	10	9	8	7	6	5	4	ω	2	Ft.	Span		
240	216	192	168	144	120	108	96	84	72	60	48	36	24	=	B		
0.24	0.27	0.30	0.35	0.43	0.54	0.61	0.68	0.76	0.83	0.90	0.97	1.00	1.00	PS 100 2T3			
0.30	0.34	0.39	0.45	0.53	0.64	0.70	0.76	0.81	0.87	0.93	0.98	1.00	1.00	PS 150 2T3			
0.44	0.49	0.56	0.63	0.70	0.78	0.81	0.85	0.89	0.93	0.97	1.00	1.00	1.00	PS 100 2T3   PS 150 2T3   PS 200 2T3   PS 210 2T3   PS 300 2T3   PS 400 2T3   PS 500 2T3   PS 520 2T3		Latera	
0.31	0.34	0.39	0.45	0.54	0.65	0.70	0.76	0.82	0.87	0.93	0.98	1.00	1.00	PS 210 2T3	Do	Lateral Bracing Factors	
0.52	0.58	0.64	0.70	0.76	0.82	0.85	0.88	0.92	0.95	0.98	1.00	1.00	1.00	PS 300 2T3	<b>Double Channel</b>	actors	
0.62	0.67	0.72	0.77	0.82	0.87	0.90	0.92	0.95	0.97	1.00	1.00	1.00	1.00	PS 400 2T3	nel		
0.45	0.50	0.57	0.64	0.71	0.78	0.81	0.85	0.89	0.92	0.96	1.00	1.00	1.00	PS 500 2T3			
0.63	0.68	0.73	0.78	0.83	0.87	0.90	0.92	0.95	0.97	1.00	1.00	1.00	1.00				
0.35	0.39	0.44	0.51	0.60	0.69	0.74	0.79	0.83	0.88	0.93	0.98	1.00	1.00	PS 560 2T3			



# **FASTENERS**

Power-Strut Clamping Nuts are cold formed, with two grooves, each with six sharp teeth and then case hardened. These sharp hardened teeth bite into the inturned edges of the Power-Strut channel forming a strong vise-like connection giving greater strength and resistance to slippage.

### MATERIAL:

Channel clamping nuts meet ASTM A576 GR1015M, and are case hardened. Hex head bolts meet SAE J429 GR 2. Square and hex nuts meet ASTM A563 GR A.

# SCREW THREADS DATA:

All Power-Strut nuts and bolts are manufactured to meet the Unified Screw Threads standard, ANSI B1.1, Coarse Series UNC, class 2. Continuous Threaded Rod: Meets ASTM A-510.

## STANDARD FINISH:

All fasteners have an electro-galvanized finish.

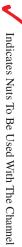
# RECOMMENDED BOLT TORQUE:

Rec. Torque         6         11         19         50         100         125           Ft/Lbs         7         15         25         70         125         135	<b>Bolt Size</b>	1/4"-20	5/16" <b>-18</b>	3%" <b>-</b> 16	1/2"-13	5/8"-11	3/4"-10
Torque         7         15         25         70         125	Rec. Torque Ft/Lbs	6	11	19	50	100	125
	Max. Torque Ft/Lbs	7	15	25	70	125	135



# **Channel Nut Selection Chart**

PS 560 15% x <sup>13</sup> / <sub>16</sub> x 16 ga.	PS 520 15% x 13/6 x 12 ga.	PS 500 15% x 13/6 x 14 ga.	PS 400 15% x 1 x 12 ga.	PS 300 15% x 13% x 12 ga.	PS 210 15% x 15% x 14 ga.	PS 200 15% x 15% x 12 ga.	PS 150 1% x 27/6 x 12 ga.	PS 100 PS 3½ x 12 ga.	Nuts Channel
							<	<	8 m
<	<	<	<						PS SS
				<	<	<			
*	<b>/</b> *	*	<	<	<	<	<	<	PS NS
<	<u> </u>	<	<						PS NS S
				<	<	<			PS 517
<	<b>\</b>	<	<	<	<	<	<	<	PS TG
<	<u> </u>	<	<	<	<	<	<	<	PS 3281
				<	~	<			PS 3500
<	<	<	<	<	<	<	<	<	PS ML
<	<	<	<	<	<	<	<	<	PS KW



<sup>\* 3/8&</sup>quot; or smaller

Finish: Electro-galvanized Order By: No., Size and Finish

PS 83 – Hexagon Nut

# PS 6024 – Hex Head Cap Screw



Size	1/4 × 3/4"	1/4 × 1"	1/4 × 11/4"	1/4 x 11/2"	% × ¾"	3% x 1"	%x 1¼"	%x 1½"	3% × 2"	½ × ¾"	½× 1"	½x 1¼"	½ x 1½"	½x 1¾"	½ x 2"
Wt./100 pcs	1.5	1.8	2.1	2.4	3.6	4.2	4.9	5.6	7.2	8.1	9.2	10.4	11.6	13.0	14.4

## Size Wt./100 pcs 1/4" 0.7 3/8" 1.6 1/2" 3.8 5/8" 7.3 3/4" 11.9

Fasteners

ama ()

### PS 6108 – Square Nut



Wt./100

Size	1/4"	5/16"	3%"	1/2"
Wt./100 pcs	.9	1.6	2.6	5.8

PS 6075 – Slotted Hex Head Machine Screw

# PS 209 - Flat Washer

5/16 × 11/4" 5/16 × 11/2" 3/8 × 11/4"

1.7 2.6 2.0 3.0 3.4 5.3

**Size**1/4 x 3/4"
5/16 x 1"



PS 6072 - Round Head Machine Screw



% x 1½"	3/8 x 11/4"	% x 1"	1/4 × 11/4"	1/4 × 1"	1/4 × 3/4"	Size
5.6	5.0	4.4	1.9	1.6	1.3	Wt./100 pcs

# PS 6112 - Oversize Square Nut



PS 6064 – Square Head Cone Point Set Screw

<b>Size</b> 3/8 x 11/2"	Wt./100 pcs 4.5
% x 1½"	4
36 x 2"	6.1
½ x 1½"	8.5
½ x 2"	11.4

7/8"-11	3/4"-16	5%"-11	1/2"-13	3%"-16	1/4"-20	Size
10	11	12	14	14	13	Wt./100 pcs

Hanger rod stiffener assembly for 3/8" thru 5/8" threaded rod.

## **FASTENERS**

Finish: Electro-galvanized Order By: No., Size and Finish

## **PS 230** – Fender Washer



POWER-STRUT



Size	Wt./100 pcs
1/4"	3.3
3%"	3.0
<u></u>	2.8

1/2"	3%"	1/4"	Size
1.5	0.7	0.3	Wt./100 pcs

### PS 231 – Slot Adapter



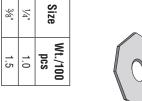


# PS 146 - Continuous Thread Rod



Low Carbon Steel Fy = 32,000 psi minimum Ft = 52,000 psi minimum Standard Length: 6' or 10'; Other lengths available Finish: Plain or Electro-galvanized

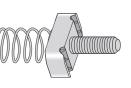
0		Wt./100 pcs.	•
Koa Size	6'	'01	12'
	Lengths	Lengths	Lengths
1/4"	73	121	146
 3/8"	175	292	350
1/2"	319	531	638
5/8"	504	840	1,008
3/4"	740	1,234	1,480





# PS 517 - Channel Nut with Stud

%<sub>=</sub> 1/4

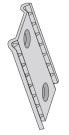


Size	1/4" × 1"	1/4" x 11/4"	1/4" x 11½"	1¼" × 2"	3%" × 1"	3%" x 11¼"	3%" x 1½"	3%" × 2"	½" x 1"	½" × 1¼"	½" x 1½"	½" × 2"
pcs	8.1	8.3	8.6	9.1	13.0	14.0	14.0	15.0	15.0	16.0	17.0	19.0

**Use With:** PS 200, PS 210 and PS 300 channel.

### Wt./100 Load Information: See the technical data section, page 158 PS 135 - Rod Coupling

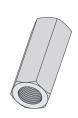
# PS 3281 - Double Conveyor Adjusting Nut



3/8"	Size
16	Threads
17.5	Wt./100 pcs



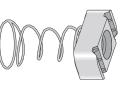




Rod Size	Max Load lbs.	Wt./ 100 pcs.
1/4"	240	
3%"	610	
1/2"	1,130	10
5%"	1,810	
3/4"	2,710	28

Finish: Electro-galvanized Order By: No., Size and Finish

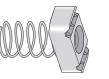
# PS LS - Clamping Nut with Long Spring



1/2" 13 5/8" 11 3/4" 10	<b>Size</b> 1/4" 3/6"	Threads 20 16	
	3%"	16	
	1/2"	13	
	5%"	11	$\perp$
	3/4"	10	

Use With: PS 100 and PS 150 Channel.

PS RS - Clamping Nut with Long Spring



_								
	1/2"	3%"	5/16"	1/4"	#10-32	#10-24	#8-32	Size
	13	16	18	20	32	24	32	Threads
	11.9	9.9	7.0	7.1	7.2	7.2	7.0	Wt./100 pcs



Size	5%"	3/4"	7/8"
Threads	#	10	9
Wt./100 pcs	15.5	13.8	14.3

Use With: PS 200, PS 210 and PS 300 Channel.

# PS SS - Clamping Nut with Short Spring



#8-32 #10-24	Threads 32 24	
#10-24 #10-32	24 32	
1/4"	20	
9/16"	18	
3/8"	16	
1/2"	13*	, i
5%"	11*	
3/4"	10*	

Use With: PS 400, PS 500, PS 520, and PS 560 channel. \*PS SS  $1\!\!/2$  and PS SS  $5\!\!/8$  nuts have  $3\!\!/8$  body thickness.

# PS NS - Clamping Nut without Spring



Size	Threads	pcs
#8-32	သ သ *	8.0
#10-32	20	6.6
#10-24	24*	6.7
1/4"	20*	6.6
5/16"	18*	6.4
3% <u>"</u>	16*	9.3
1/2"	13	11.4

Fasteners

Use With: PS 100, PS 150, PS 200, PS 210 and PS 300 channel

# \*Can be used with PS 400, PS 500, PS 520 and PS 560 channel.

PS NS S – Shallow Clamping Nut without Spring



3/4"	5%"	1/2"	Size
10	11	13	Threads
8.4	9.7	6.9	pcs 001./1W

Use With: PS 500, PS 520, and PS 560 channel.

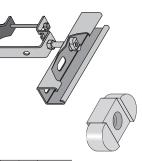
### PS TG - Top Grip™ Nut



Part No.	Size	Threads	Wt./100 pcs
PSTG 1/4	1/4"	20	7
PSTG %	3/8"	16	10
PSTG ½*	1/2"	13	8

\*PS TG ½" nut has a ¾" body thickness Use With: All 15%" Channel.

# PS ML – Missing Link Multi-Purpose Strut Fastener



Use
With:
Any
slotted
channel.

Size	1/2"	5%"	3/4"
Threads	13	11	10
Wt./100 pcs	6.9	9.7	8.4

## **FASTENERS**

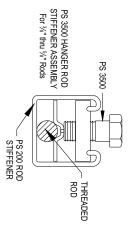
Finish: Electro-galvanized Order By: No., Size and Finish

## POWER-STRUT®

# PS 3500 3/8" - 5/8" - Seismic Rod Stiffener



PS 3500 %"-5%"	Part No. Wt.
16	Wt./100 pcs

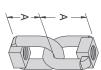


### **PS 202** – Eyelet



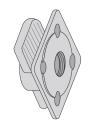
1/2"	3/8"	Rod Size
194	1.2./ <sub>=</sub>	А
%8	3/=	Stock Dia.
610		Max. Load lbs.
18	15	Wt. 100 pcs

## PS 204 – Linked Eyelets



1/2"	3/6"	Rod Size
1%"	17/16"	А
3%"		Stock Dia.
610		Max. Load lbs.
32	23	Wt./100 pcs

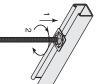
## **PS KW** – Kwik Washer™



1/2"	3/8"	1/4"	Size
1,130	610	250	Load Lbs
9.3	2.6	1.2	Wt./100 pcs

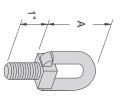


Use With: Any channel.



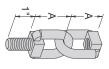


## PS 205 – Eyelet with Stud

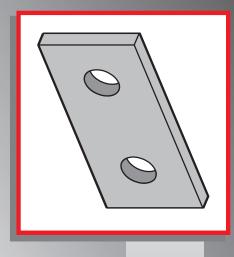


1/2"	3%"	Thread Size
13/4"	113/16"	Α
3%"		Stock Dia.
610		Max. Load lbs.
20	16	Wt./ 100 pcs

# PS 203 - Linked Eyelet with Stud



1/2"	3%"	Rod Size
13/8"	17/16"	А
%8	3/=	Stock Dia.
010	20	Max. Load lbs.
45	27	Wt./100 pcs



Power-Strut has a wide variety of fittings to meet all of your application requirements

### MATERIAL:

All Power-Strut fittings are formed in punch press dies from mild, pickled and oiled, bar or strip steel. Plain or electro-galvanized fittings meet the requirements for ASTM A575 and A-576, or ASTM A-36.

# STANDARD DIMENSIONS:

Standard dimensions on all fittings are as follows except where otherwise indicated:

Fitting Thickness: Fitting Width: Hole Diameter: Hole Spacing:

1¼" 1%"

9/16" on centers and 13/16" from ends.

## STANDARD FINISH:

All Power-Strut fittings are available in painted green or electro-galvanized finish.

# ORDERING INFORMATION:

When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

## SET SCREW TORQUE:

Set Screw Torque In/Lbs	BOLT SIZE
40	1/4"-20
60	<sup>5</sup> // <sub>6</sub> "-18
125	³⁄8"-16
250	1/2"-13
400	5%"-11
665	3⁄4"-10

Note: Caution should be taken not to overtighten the set screw

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

## POWER-STRUT

## PS 619 – Square Washer



Rod Size Size 11/4" 1/5" 3%" 3%" 3%" 5%8" 34"

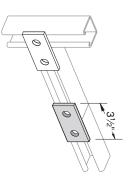
Hole Size 11/32" 7/16" 9/16"

Wt./100

13/16

**Note:** Indicate rod size when ordering. For example, PS 619 ½.

# PS 601 – Two-Hole Splice Plate



Weight/100 pcs: 38 lbs.

PS 2504 – Guided Square Washer



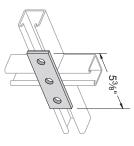
Rod Size	Hole Size	Wt./100 pcs
1/4"	11/32"	18
3%"	7/16"	18
1/2"	%6"	17

**Note:** Indicate rod size when ordering. For example, PS 2504 1/2.

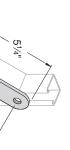
PS 618 -

Two-Hole Swivel Plate

PS 602 - Three-Hole Splice Plate



PS 888 – Four-Hole Splice Plate Weight/100 pcs: 50 lbs.

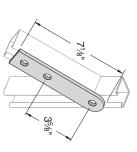


Weight/100 pcs: 55 lbs.

PS 889 - Five-Hole Splice Plate

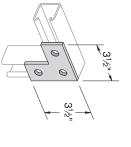
91%

### PS 617 Three-Hole Swivel Plate



Weight/100 pcs: 75 lbs

## PS 718 – Flat Angle Plate



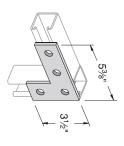
Weight/100 pcs: 58 lbs.

0

0

Weight/100 pcs: 78 lbs.

## PS 719 – Flat Angle Plate



Weight/100 pcs: 80 lbs.

Weight/100 pcs: 94 lbs.

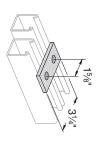
0 0

> 0 0



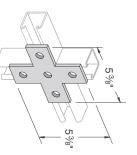
Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

# PS 620 – Two-Hole Connecting Plate



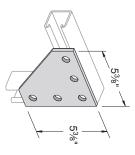
Weight/100 pcs: 35 lbs.

PS 712 - Cross Plate



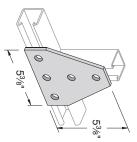
Weight/100 pcs: 105 lbs.

# PS 2190 - Flat Corner Connector



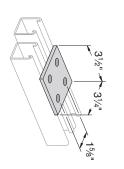
Weight/100 pcs: 150 lbs.

PS 854 - Flat Connector



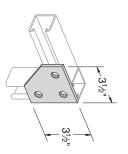
Weight/100 pcs: 148 lbs.

# **PS 621** – Four-Hole Connecting Plate



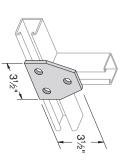
Weight/100 pcs: 73 lbs.

PS 744 - Flat Corner Connector



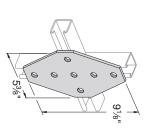
Weight/100 pcs: 70 lbs.

**PS 925** – Three-Hole Joint Connector



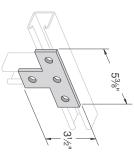
Weight/100 pcs: 70 lbs.

PS 2112 - Cross Connector



Weight/100 pcs: 240 lbs.

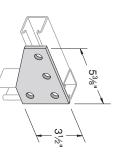
# ting PS 714 – Tee Plate



Weight/100 pcs: 80 lbs.

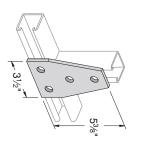
**PS 750** – Four-Hole Corner Connector

Fittings



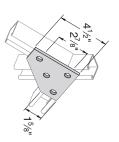
Weight/100 pcs: 105 lbs.

**PS 747** – Symmetrical Four-Hole Connector



Weight/100 pcs: 105 lbs.

PS 822 - Double 45° Connector



Weight/100 pcs: 112 lbs.

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

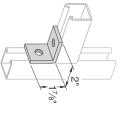


## PS 921 - One-Hole Angle

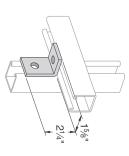


## PS 603 - Two-Hole End Angle

PS 604 - Two-Hole Corner Angle

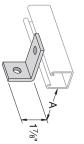


Weight/100 pcs: 38 lbs.



Weight/100 pcs: 38 lbs.

PS 2144 – Corner Angle



PS 921 D

97% 77% 57% 37%

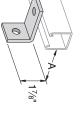
130 107 84 61

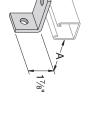
PS 921 B PS 921 C

PS 921 A Part No.

Wt./100 pcs

# PS 763 – Slotted Adjustment Angle



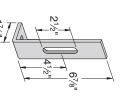


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<u>-/</u>	
	-

PS 764 - Slotted Adjustment Angle

PS 806 - Self-Aligning Two-Hole





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A

Wt./100

4

61 54 49

Weight/100 pcs: 85 lbs.

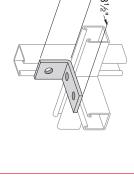




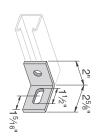
PS 605 - Three-Hole Corner Angle

**PS 2520** – Slotted 90° Angle

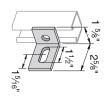
Weight/100 pcs: 40 lbs.



Weight/100 pcs: 58 lbs.



Weight/100 pcs: 42 lbs.

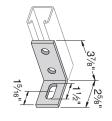


Weight/100 pcs: 38 lbs.



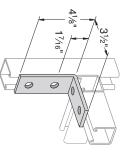
Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

**PS 3049** – Two-Hole Slotted 90° Angle



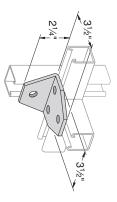
Weight/100 pcs: 66 lbs.

PS 607 – Four-Hole Corner Angle



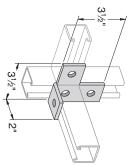
Weight/100 pcs: 78 lbs.

Connector PS 614 - Four-Hole Joint Angle



Weight/100 pcs: 103 lbs.

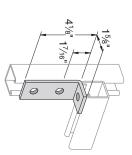
PS 716 R or L - Angle Tee Plate



Note: Specify R (Right) or L (Left) Right Hand Illustrated

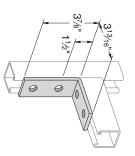
Weight/100 pcs: 80 lbs.

# PS 606 - Three-Hole Corner Angle



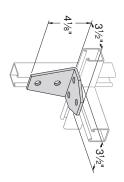
Weight/100 pcs: 58 lbs.

PS 660 - Four-Hole Corner Angle



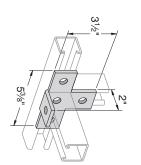
Weight/100 pcs: 78 lbs.

**PS 615** – Five-Hole Joint Angle Connector



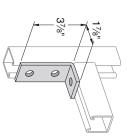
Weight/100 pcs: 135 lbs.

PS 713 - Cross Plate Angle



Weight/100 pcs: 105 lbs.

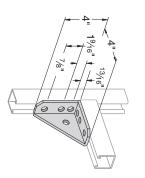
# PS 745 - Three-Hole Corner Angle



Weight/100 pcs: 58 lbs.

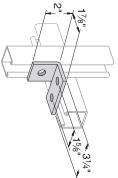
**PS 3373** – Universal Corner Connector

Fittings



Weight/100 pcs: 134 lbs.

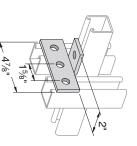
PS 720 R or L – Angle Plate Connector



Note: Specify R (Right) or L (Left) Right Hand Illustrated

Weight/100 pcs: 55 lbs.

PS 715 - Tee Plate 90° Angle

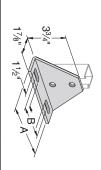


Weight/100 pcs: 71 lbs.

www.alliedeg.com

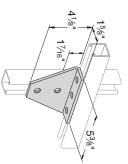
Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

### **Double-Slotted Corner Connector** PS 689A, PS 689B -



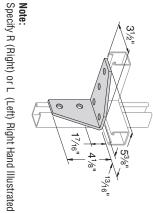
Part No.	PS 689 A	PS 689 B
Α	65%"	85%"
В	4"	6"
Wt./100 pcs	190	242

### Connector PS 927 - Five-Hole Corner



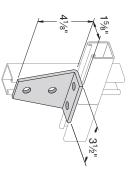
Weight/100 pcs: 154 lbs.

### Connector PS 2007 R or L - Six-Hole Corner



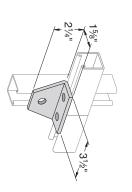
Weight/100 pcs: 160 lbs.

### Connector PS 748 - Four-Hole Corner Joint



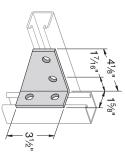
Weight/100 pcs: 105 lbs.

### PS 746 - Three-Hole Corner Joint Connector



Weight/100 pcs: 70 lbs.

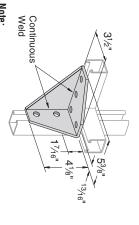
# **PS 752 R or L** – Four-Hole Corner Connector



Note: Specify R (Right) or L (Left) Right Hand Illustrated

Weight/100 pcs: 105 lbs.

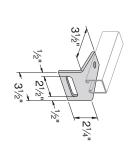
### **Gussetted Corner Connector** PS 3326 R on L - Six-Hole



Note:
Specify R (Right) or L (Left) Right Hand Illustrated

Weight/100 pcs: 230 lbs.

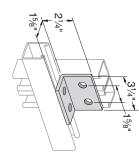
### Connector PS 2113 - Slotted Corner



Weight/100 pcs: 97 lbs.

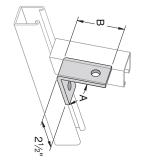
## **PS 622** – Four-Hole Corner Connector

POWER-STRUT



Weight/100 pcs: 75 lbs

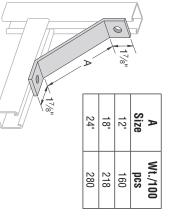
# **PS 624** – Two-Hole Closed Angle Connector



33/16"	33/16"	31/8"	31%"	31/16"	31/8"	ယ္	ln.	튵
82½°	75°	67½°	60°	52½°	45°	37½°	Angle	"A"

Weight/100 pcs: 58 lbs.

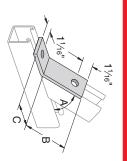
### PS 926 – Strut Brace



Power-Strut® Engineering Catalog

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

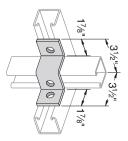
### PS 633 - Two-Hole Open Angle Connector



"A"	Degree	821½°	75°	67½°	60°	52½°	45°	371/2°	30°	221½°	15°	71%°
Ē	ln.	3%6"	3%6"	31/2"	3%"	31/4"	ယ္	211/16"	31/4"	35/16"	35/16"	<b>2</b> 5¼6"
ב ה	ln.	11140=	1''716	13/4"	17/8"	21/16"	25/16"	25%"		3146	2770	

Weight/100 pcs: 58 lbs.

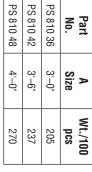
## 2054 - Corner Connector



Weight/100 pcs: 66 lbs.

Use With: PS 200, PS 210

PS **810** – Diagonal Tube Brace

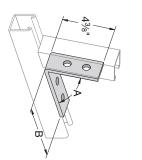


**Note:**30° to 60° angle between the brace and channel is recommended for maximum effect.

Material: 1" dia. electric welded tubing

Stock Thickness: (.075) 14 ga.

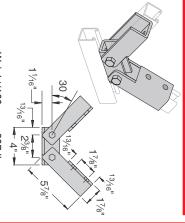
# **PS 793** – Four-Hole Closed Angle Connector



82½°	75°	67½°	60°	52½°	45°-	37½°	"A" Angle
	51/16"		ល្ប	4'916	A154 c"	47/8"	In.

Weight/100 pcs: 100 lbs.

# PS 9401 – Double Adjustable Brace



Weight/100 pcs: 307 lbs

### 117/32" 13/16" <sup>17</sup>/<sub>32</sub>" Dia. Hole

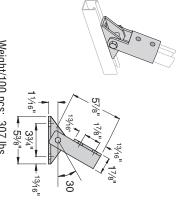
**PS 781** – Four-Hole Open Angle Connector



82½°	75°	67½°	60°	52½°	45°	37½°	30°	22½°	15°	71/2°	Angle	"A"
	35%"				311/16"				33/4"		ln.	튭

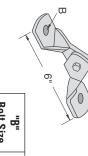
Weight/100 pcs: 78 lbs.

## PS 9400 – Adjustable Brace



Weight/100 pcs: 307 lbs.

### Connector PS 9402 - Two-Hole Hinge

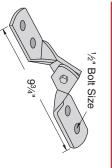


IUO	94
100	3/=
107	5%"
108	1/2"
pcs	Bolt Size
M+ /100	Ę

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

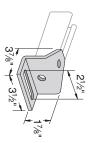
## **POWER-STRUT**

## PS 9404 – Four-Hole Hinge



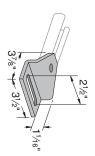
PS 9404-1/2"	Part No.
126	Wt./100 pcs

# PS 692 – 15%" Offset Zee Connector



Weight/100 pcs: 102 lbs.

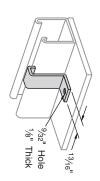
## **PS 2523** – Offset Adjustable Zee Connector



Use With: PS 500, PS 520, & PS 560

Weight/100 pcs: 70 lbs.

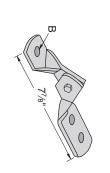
# PS 2532 – Shelf Attachment Zee



Use With: PS 200, PS 210 Stock Thickness: 1/8"

Weight/10 0 pcs: 9 lbs.

# PS 9403 – Three-Hole Hinge Connector



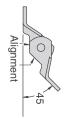
"B" Bolt Size	
1/2"	108
5/8"	107
3/4"	

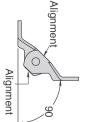
Hinge Connect or Auto-Alignment Guides -

The unique edges of the two hinges have been designed to provide an alignment guide for 0°, 45° and 90° as shown in the drawings below.

This eliminates the need for measuring gages.

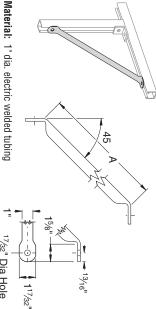






- Each half of the hinge is formed and welded for maximum strength.
- Hinged with Grade 5 bolt for superior strength.
- The nylon insert locknut prevents loosening of the hinge

### PS 812 -45° Diagonal Tube Brace



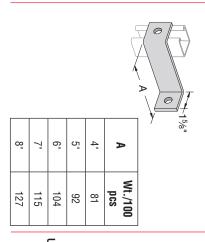
	<u> </u>	7
"/32 DIA Hole	174	1 1 7/32
	Co	Te

30" 181		A Wt.
149	116	Wt./100 pcs

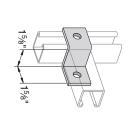
Design Load: Tension = 300 lbs. Conp. = 1,500 lbs.

# PS 3060 - Offset Connector

Stock Thickness: (.075) 14 ga.



### PS 647 -11/8" Offset Zee Connector



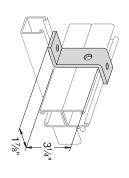
Use With: PS 200, PS 210

Weight/100 pcs: 55 lbs.



Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

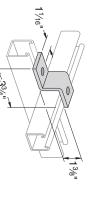
### PS 756 – Zee Support



Use With: PS 100, PS 200 2T3, PS 210 2T3

Weight/100 pcs: 70 lbs.

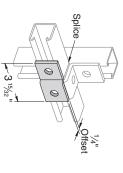
### PS 711 – Zee Support



Use With: PS 300

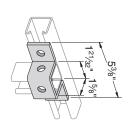
Weight/100 pcs: 53 lbs.

# **PS 609** – Two-Hole Offset Plate Connector



Weight/100 pcs: 38 lbs.

### PS 613 - "U" Support

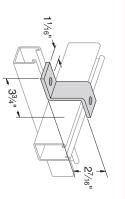


Use With: PS 200, PS 210

Weight/100 pcs: 88 lbs.

www.alliedeg.com

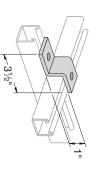
## PS 2601 – Zee Support



Use With: PS 150

Weight/100 pcs: 70 lbs.

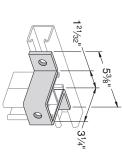
### PS 612 – Zee Support



Use With: PS 400

Weight/100 pcs: 47 lbs.

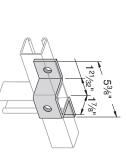
### **PS 679** – "U" Support



**Use With:** PS 100, PS 200 2T3, PS 210 2T3

## Weight/100 pcs: 128 lbs

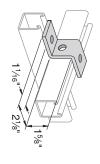
PS 2119 - "U" Support



Use With: PS 200, PS 210

Weight/100 pcs: 95 lbs.

### PS 611 - Zee Support

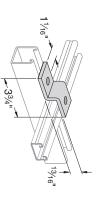


Use With: PS 200, PS 210

Weight/100 pcs: 55 lbs.

### PS 928 – Zee Support

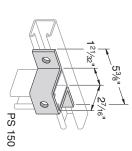
Fittings



**Use With:** PS 500, PS 520 and PS 560

Weight/100 pcs: 47 lbs.

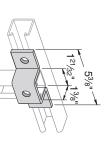
## PS 2648 - "U" Support



Use With: PS 150

Weight/100 pcs: 108 lbs.

### PS 710 - "U" Support



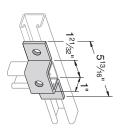
Use With: PS 300

Weight/100 pcs: 84 lbs.

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish



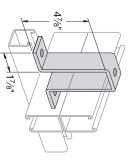
### PS 978 - "U" Support



Use With: PS 400

Weight/100 pcs: 71 lbs.

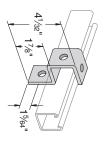
# PS 678 - Three-Hole "U" Support



Use With: PS 150 2T3

Weight/100 pcs: 197 lbs.

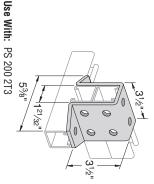
# **PS 677** – Cup Support for Standard Single Strut



Use With: PS 200, PS 210

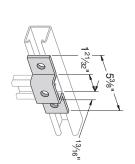
Weight/100 pcs: 76 lbs.

# PS 735 - Eight-Hole "U" Support



Weight/100 pcs: 257 lbs.

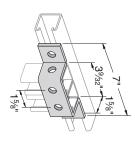
## PS 929 - "U" Support



Use With: PS 500, PS 520 and PS 560

Weight/100 pcs: 71 lbs.

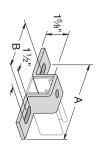
### PS 721 - "U" Support



Use With: PS 100, PS 200 2T3, PS 210 2T3

Weight/100 pcs: 105 lbs.

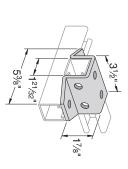
# PS 687A, PS 687B & PS 687C - Slotted "U" Support



0rder	Ά,	,в,	Wt./100
No.	Length	Length	pcs
PS 687A	71/4"	41/8"	105
PS 687B	81/2"	53/8"	120
PS 687C	10%"	71/4"	130

Use With: PS 200, PS 210

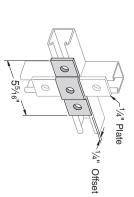
### 733 -Six-Hole "U" Support



Use With: PS 200, PS 210

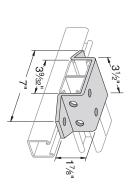
Weight/100 pcs: 171 lbs.

### Connection PS 709 - Three-Hole Offset Plate



Weight/100 pcs: 58 lbs.

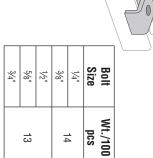
### 734 -Eight-Hole "U" Support



Use With: PS 200 2T3

Weight/100 pcs: 209 lbs

## PS 623 – Saddle Washer



Weight/100 pcs: 265 lbs.



Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

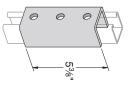
# PS 644 – Two-Hole Splice Clevis



Use With: PS 500, PS 520 and PS 560

Weight/100 pcs: 85 lbs

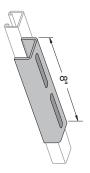
# 629 – Three-Hole Splice Clevis



Use With: PS 200 and PS 210

Weight/100 pcs: 197 lbs

## 804 - Slotted Joiner



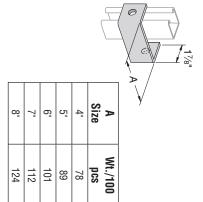
Stock Thickness: (.105)

**Use With:** PS 400S, PS 520S and PS 560S

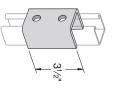
separately. Note: Order PS 6072 screws & PS 6108 nuts

Weight/100 pcs: 80 lbs.

## PS 993 – Inside Clevis Hanger



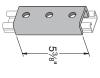
# PS 631 - Two-Hole Splice Clevis



Use With: PS 200, PS 210

Weight/100 pcs: 128 lbs.

# PS 645 – Three-Hole Splice Clevis

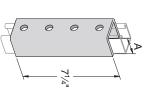


Use With: PS 500, PS 520 and PS 560

Weight/100 pcs: 130 lbs

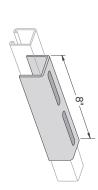
Fittings

# PS 616, PS 646 - Four-Hole Splice Clevis



PS 616-150	PS 616-100	PS 646	PS 616	Part No.
2%"	33/16"	13/16"	19/16"	Α
PS 150	PS 100	PS 500, PS 560	PS 200, PS 210	For Use With
390	390	176	265	Wt./100 pcs

### **PS 704** -Slotted Joiner



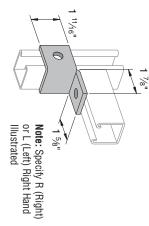
Stock Thickness: (.105)

Use With: PS 200S, PS 210S

separately. Note: Order PS 6072 screws & PS 6108 nuts

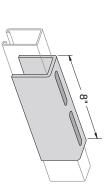
Weight/100 pcs: 197 lbs.

### Connector PS 922 R or L-Two-Hole Corner



Weight/100 pcs: 60 lbs

### PS 1004 -Slotted Joiner



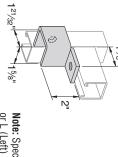
Stock Thickness: (.105)

Use With: PS 150S

separately. Note: Order PS 6072 screws & PS 6108 nuts

Weight/100 pcs: 140 lbs.

### Corner Connector PS 2117 R OR Wrap-Around



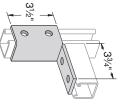
Note: Specify R (Right) or L (Left) Right Hand Illustrated

Weight/100 pcs: 75 lbs

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

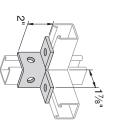


### PS 2128 R or L - Four-Hole Connector



Note: Specify R (Right) or L (Left) Right Hand Illustrated

Connector PS 665 – Four-Hole Double Corner



Weight/100 pcs: 76 lbs.

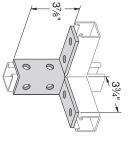
Weight/100 pcs: 93 lbs

# PS 667 – Eight-Hole Double Corner Connector

PS 666 - Six-Hole Double Corner

Weight/100 pcs: 119 lbs

Connector



Weight/100 pcs: 155 lbs

# PS 2129 R or L – Single Corner Gussetted Connector

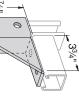
Connector

PS 913 - Ten-Hole Double Wing

Weight/100 pcs: 115 lbs.

0

0 0



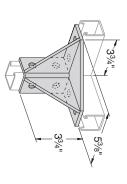
0



### Double Corner Connector PS 2514 - Eight-Hole Gussetted

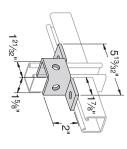
**Double Corner Connector PS 943** – Eight-Hole Gussetted

Weight/100 pcs: 193 lbs.

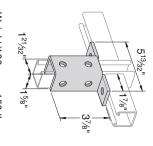


Weight/100 pcs: 315 lbs.

# **PS 923** – Five-Hole Double Wing Connector

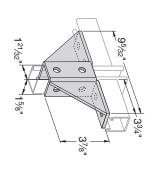


### Connector PS 821 – Eight-Hole Double Wing



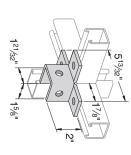
Weight/100 pcs: 150 lbs.

### **Double Wing Connector** PS 945 – Ten-Hole Gussetted



Weight/100 pcs: 274 lbs.

### Connector PS 668 – Six-Hole Triple Wing



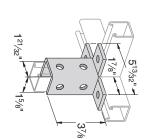
Weight/100 pcs: 113 lbs.

Weight/100 pcs: 217 lbs.



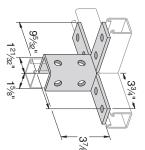
Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

# S 670 – Nine-Hole Triple Wing



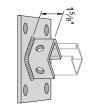
Weight/100 pcs: 177 lbs.

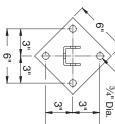
# **PS 669** – Twelve-Hole Triple Wing Connector



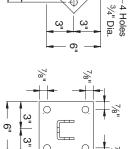
Weight/100 pcs: 230 lbs.

# **PS 3013, PS 3013 SQ** - Post Base





(PS 3013)

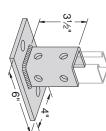


4 Holes 3/4" Dia.

(PS 3013 SQ)

Weight/100 pcs: 307 lbs.

# **PS 3025, PS 3025 FL** - Post Base



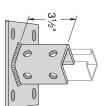


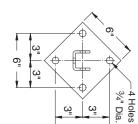
(PS 3025)



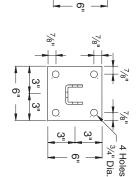
(PS 30 25 FL)

### **PS 3033, PS 3033 SQ** - Post Base Weight/100 pcs: 358 lbs.



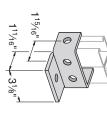


(PS 3033)



(PS 3033 SQ)

## **PS 3041** – Double-Column Post Base

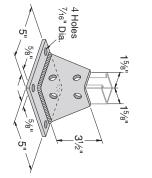


Use With: PS 100, PS 200 2T3, and PS 210 2T3.

Weight/100 pcs: 116 lbs

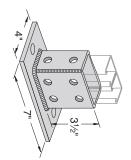
### **PS 3040** – Post Base

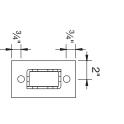
Fittings



Weight/100 pcs: 297 lbs.

## **PS 2064** – Double-Column Post Base





**Use With:** PS 100, PS 200 2T2, PS 200 2T3 PS 200 2T4 and PS 200 2T5

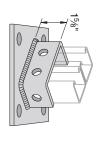
Weight/100 pcs: 311 lbs.

Weight/100 pcs: 373 lbs.

Finish: Painted Green or Electro-galvanized Order By: No., Size and Finish

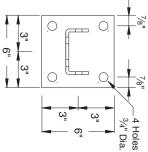
## **POWER-STRUT**

# PS 3029 - Double-Column Post Base



**Use With:** PS 100, PS 200 2T3. PS 210 2T3

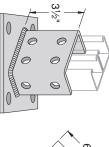
(PS 3029) ଦୁ ယူ 4 Holes 3/4" Dia. ယ္



(PS 3029 SQ)

## Weight/100 pcs: 325 lbs.

PS 3064 - Double-Column Post Base



Use With: PS 100, PS 200 2T2, PS 200 2T3, PS 200 2T4 and PS 200 2T5

<u>ଦ</u>ୁ ယူ

(PS 3064)

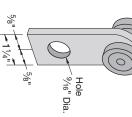
4 Holes ¾" Dia. 0  $\bigcirc$ 

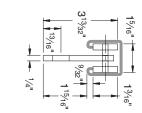
(PS 3064 SQ)

### <u>%</u> ଦ୍ର ယ္ခ ယ္ခ ယ္ 4 Holes 3/4" Dia. ರ್

# Weight/100 pcs: 408 lbs.

PS 2521 - Two-Wheel Trolley





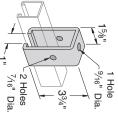
Finish: Electro-Galvanized Material: Carbon Steel Wheels have stainless steel ball bearings

Load Rating: 300 lbs. Use With: PS 200

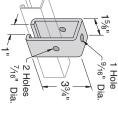
FPM	180	90	30
RPM	600	300	100
Design Load In PS 200 Lbs	150	225	437

### Weight/100 pcs: 46 lbs.

# PS 2528 - Trolley Beam Standard

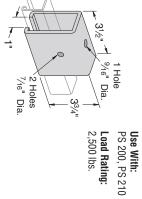


**Use With:** PS 200, PS 210 Load Rating: 600 lbs.



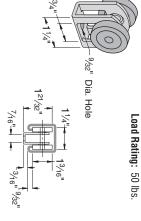
Weight/100 pcs: 102 lbs.

### PS 2528 1 - Trolley Beam Heavy Support and Track Joiner



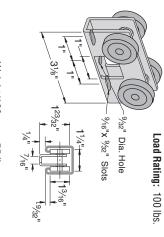
Weight/100 pcs: 220 lbs.

# **PS 2524** – Two-Bearing Light Duty Trolley



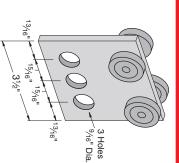
Weight/100 pcs: 21 lbs

### Trolley PS 2525 - Four-Bearing Light Duty



Weight/100 pcs: 55 lbs.

### PS 2522 - Four-Wheel Trolley



Material: Carbon Steel Wheels have stainless steel ball bearings

Finish: Electro-Galvanized

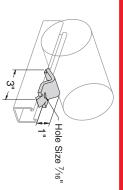
Load Rating: 600 lbs. Use With: PS 200

30	90	180	FPM
100	300	600	RPM
600	450	300	Design Load In PS 200 Lbs

Weight/100 pcs: 110 lbs.

Finish: Painted Green, or Electro-galvanized Order By: No., Size and Finish

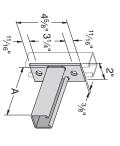
### **PS 626** – Pipe Stop



Note: For use with 2" to 8" Pipe Clamp Requires bolt and channel nut sold seperately.

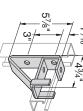
Weight/100 pcs: 40 lbs

### **Bracket PS 651** – Reversible Channel



*Mou	24"	18"	12"	6"	A Size
*Mounted on 12 Ga. Channel	300	400	600	1,200	Uniform Load*
nannel	509	401	293	185	Wt./100 pcs

# PS 708 - Single Channel Bracket



Use With: PS 200, PS 210, PS 500 2T3

16 ga. channel 3,200 in.-lbs., 14 ga. channel 4,400 in.-lbs. 12 ga. channel 5,100 in.-lbs.

**Design Moment on Upright Channel:** 

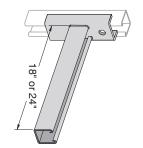
Note:

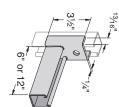
Moment is for fitting only.

Channel may determine overall capacity.

Weight/100 pcs: 235 lbs.

## PS 661 T1, PS 661 T2 - Wrap-Around Channel Bracket



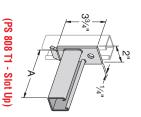


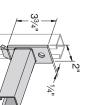
02:30	Uniform	Wt./100
9710	Load*	pcs
6"	1,600	191
12"	800	292
18"	600	436
24"	450	536
*Mour	*Mounted on 12 Ga. Channel	. Channel

Note:
PS 661 T1 (Slot up) illustrated
PS 661 T2 (Slot down) not shown

Fittings

## PS 808 T1, PS 808 T2 – Interlocking Channel Bracket



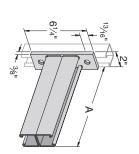


A		4	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
		 _,	S

Size	6"	12"	18"	24"	*Mount	
Uniform	1,200	600	400	300	*Mounted on 12 Ga. Channel	
Wt./100	161	261	361	461	Channel	

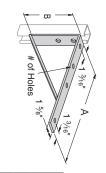
# PS 809 - Double Channel Bracket

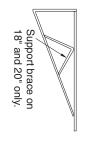
(PS 808 T2 - Slot Down)



*Moun	36"	30"	24"	18"	12"	A Size
*Mounted on 12 Ga. Channel	650	800	1,000	1,300	2,000	Uniform Load*
annel	1,262	1,072	882	692	502	Wt./100 pcs

### PS 732 - Shelf Bracket





Size	Α	В	# of Holes	Uniform Load*
& <u></u>	81/2"	<b>A</b> =	2	
10"	101½"	4	3	
12"	121/2"		4	
14"	141/2"		4	
16"	16½"	<u>ତ୍</u> ବ	4	
18"	181/2"		4	
20"	201/2"		4	
		*Mounted on 12 ga channel	ดก 19 กล	2

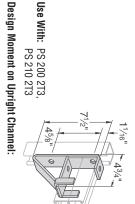
63

### **BRACKETS**

Finish: Painted Green, or Electro-galvanized Order By: No., Size and Finish

## **POWER-STRUT**

# PS 3164 - Double Channel Bracket



Use With: PS 200 2T3 PS 210 2T3

16 ga. channel 6,500 in.-lbs. 14 ga. channel 9,100 in.-lbs. 12 ga. channel 13,000 in.-lbs.

Note:

Moment is for fitting only.

Channel may determine overall capacity.

Weight/100 pcs: 273 lbs

# PS 825 R or L – Single Pipe Axle

BS

826 - Double Pipe Axle Support





Right Hand Illustrated

Load Rating: 2,000 lbs

Specify R (Right) or L (Left) when ordering.

Load Rating: 4,000 lbs.

Weight/100 pcs.: 220 lbs.

Weight/100 pcs.: 310 lbs.

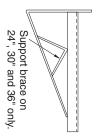
PS 3282 - Cable Tray Strut Bracket

### S 838 R or L Shelf Bracket



A Size	Stamped Ident. No.	В	Wt./100 pcs
6"	121892	115/16"	58
8"	121893	27/16"	83
10"	121894	215/16"	114
12"	121895	37/16"	49
14"	121896	315/16"	174
16"	121897	47/16"	225
18"	121898	415/16"	255
20"	121899	57/16"	295
22"	121900	515/16"	361
24"	121901	67/16"	396
26"	121902	615/16"	456
28"	121903	77/16"	479
30 <sub>1</sub>	121904	715/16"	544

### 0 PS 400 $\triangleright$



*	36 <sub>1</sub>	30"	24"	18"	12"	Α
Mounted on	1174	441/.=		83/4"		В
*Mounted on 12 ga. channel	800	900	1,000	1 000	1,900	Uniform Load*
9.	1,083	1,012	763	506	388	Wt./100 pcs

Stock Thickness: .105

Note: Specify
R (Right) or L (Left)
when ordering.
Right Hand Illustrated

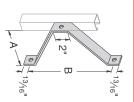
Uniform Load Rating: 275 Lbs. when mounted on 12 ga. channel.

# 30

Note: PS 400 channel welded

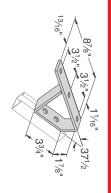
to 1/4" stock

### PS 2404 thru PS 2408 – Wall Ladder Bracket



PS 2408	PS 2407	PS 2406	PS 2405	PS 2404	Part No.
10%"	18%8	63%"	43%"	23%"	Α
14"	12"	10"	<b>ಹ್</b>	o ଜୁ	В
318	267	216	164	113	Wt./100 pcs

## **PS 2422** – 37½° Degree Stair Tread Support



Weight/100 pcs: 213 lbs



### BRACKETS 20 **BEAM CLAMPS**

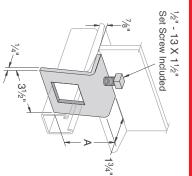
Finish: Painted Green, or Electro-galvanized Order By: No., Size and Finish

### **PS 2421** – 45° Degree Stair Tread Support

### 13/16" 17%"

Weight/100 pcs: 220 lbs

# PS 855 – Angular "I" Beam Clamp

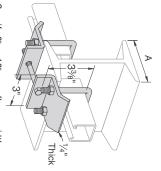


Part No.	Use With	Α	Load Rating	Wt./100 pcs.
DS 855-1	PS 200,			107
70000-1	PS 210	<b>ગ</b> જે	500	10,
PS 855-2	PS 500	0%	500	98

Use in pairs only

Fittings

# PS 2657 – Double U Beam Clamp



PS 2657 T1-6 PS 2657 T1-9

6<sub>"</sub> - 9<sub>"</sub>

4" - 6"

Part No.

"A" Beam

Flange Width

PS 2657 T1-15 PS 2657 T1-12

15" - 18" 12" - 15" 9" - 12"

PS 2657 T2-9 PS 2657 T2-6 PS 2657 T1-18

9" - 12"

6" - 9"

4" - 6"

Specify 6" or 12" max. flange width (Example: PS 2657 T1-6")

T1 Use with:

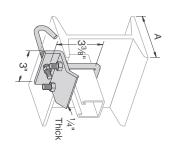
PS 200, PS 210, PS 300 PS 400, PS 500, PS 520

**T2 Use with:**PS 100, PS 150, PS 200 2T3

T3 Use with: PS 150 2T3, PS 100 2T3

PS 2657 T3-9 PS 2657 T3-12 PS 2657 T3-15 PS 2657 T3-18 PS 2657 T2-12
PS 2657 T2-15
PS 2657 T2-18
PS 2657 T3-6 12" - 15" 15" - 18" 4" - 6" 9" - 12" 12" - 15" 15" - 18"

# PS 2656 - U Bolt Beam Clamp With Hook



Specify 6" or 12" max. flange width (Example: PS 2656 T1-6")

T1 Use with:

PS 200, PS 210, PS 300, PS 400, PS 500, PS 520

**T2 Use with:**PS 100, PS 150, PS 200 2T3

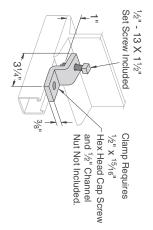
**T3 Use with:**PS 150 2T3, PS 100 2T3

Р	P	Р	PS	PS	PS	PS	PS		PS	PS PS	PS PS	PS PS PS	PS PS PS	PS P	PS P
No S 2656		S 2656	S 2656	S 2656	S 2656	9596 S	100	S 2656	S 2656 S 2656	S 2656 S 2656 S 2656 S 2656	S 2656 S 2656 S 2656 S 2656 S 2656	S 2656 S 2656 S 2656 S 2656 S 2656	S 2656 S 2656 S 2656 S 2656 S 2656 S 2656	S 2656 S 2656 S 2656 S 2656 S 2656 S 2656 S 2656	S 2656 S 2656 S 2656 S 2656 S 2656 S 2656 S 2656 S 2656
- 7	니그니	ゴ	⊣	⊣	וֹבו		0-210		6 T2	6 T2	6 T2 6 T2 6 T2	66 T2-9 66 T2-9 66 T2-1 66 T2-1 66 T2-1	6 T2-9 6 T2-1 6 T2-1 6 T2-1 6 T2-1 6 T3-6	6 T2-9 6 T2-12 6 T2-15 6 T2-15 6 T2-18 6 T3-6 6 T3-9	6 T2-9 6 T2-12 6 T2-12 6 T2-18 6 T3-6 6 T3-9 6 T3-12
6	6	-9	1-12	1-15	1-18	გ	١	-9	T2-9 T2-12	T2-9 T2-12 T2-15	T2-9 T2-12 T2-15 T2-18	-12 -15 -18	-9 -6 -18	-12 -12	-15 -15 -15 -15 -15 -15 -15 -15 -15 -15
					_										
Flange Width	1 - 1	<u>୍</u> ଜ	9" - 1	12" -	2	ı			',   +   +	•   5   •   •				[출] 이 네 이 이 출] 이 네.	[다] 하다 다 다 다하다다.
<sup>6</sup>	اق	9	12"	7	5	즇	[아 [큐 [	9 6 78 6	12 9 6 18	15 2 9 6 18			9 6 18 15 12 9 6 18	12 9 6 18 12	

### Weight/100 pcs: 143 lbs

### PS 685 - Beam Clamp

Weight/100 pcs: 280 lbs



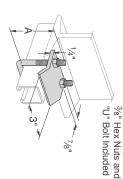
Load Rating: 450 lbs Stock Thickness: 3%"

Use in pairs only

Weight/100 pcs:

63 lbs.

### **PS 2651** – Beam Clamp



No.	Use With	Α	Load Rating
PS 2651 T1 PS 300.	200, PS 210 300, PS 400	33 %	
	PS 500, PS 520		
PS 2651 T2 PS 1	PS 100, PS 150 PS 200 2T3	ଫୁ	1,000
PS 2651 T3	PS 150 2T3	8 1/4"	

Use in pairs only

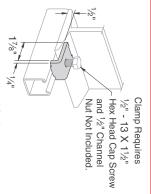
www.alliedeg.com 65

# **BEAM CLAMPS**

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



### PS 686 - Beam Clamp

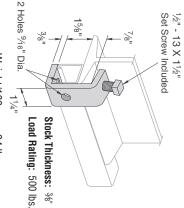


Use in pairs only

**Load Rating:** 600 lbs. with 12 ga. channel 500 lbs. with 14 ga. channel

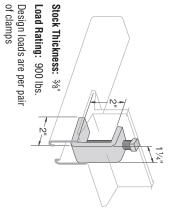
Weight/100 pcs: 26 lbs.

## **PS 684** – "I" Beam Clamp



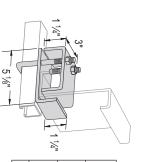
Weight/100 pcs: 94 lbs.

## **PS 916** – "I" Beam Clamp



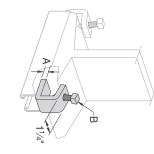
Weight/100 pcs: 72 lbs.

## PS 2653 - Purlin Clamp



Part No.	Use With	Load Rating	Wt./100 pcs.
PS 2653 T1	PS 200, PS 210, PS 300		
PS 2653 T2	PS 100, PS 150, PS 200 2T3	1,200	
PS 2653 T3	PS 100 2T3		

# PS 907, PS 998 - "I" Beam Clamp



 Part No.	Stock Thickness	Set Screw	Load Rating Ibs.	Wt./100 pcs.
 PS 907	1/4"	3%	450	26
 PS 998	3%"	7/1	1,000	64

Load rating is based on 2 clamps

Use in pairs only

## PS 736 – Hook Rod Assembly

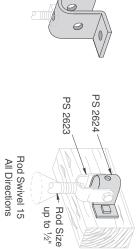
Maximum flange thickness is 1"



Part	Flang	Flange Width	Α	Wt./100
No.	Max	Min	Size	pcs
PS 736 J6	7"	3	85%"	24
PS 736 J10	1	7"	12%"	သ

# 

# PS 2624 – Wood Beam Hanger

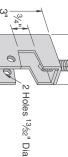


Weight/100 pcs: 22 lbs.

2 Holes 17/32" Dia.

Weight/100 pcs: 41 lbs

### PS **2622** – Beam Clamp



2 Holes <sup>13</sup>/<sub>32</sub>" Dia.

Assembly including PS 736 also available.

Load Rating: 300 lbs. Order PS 2622/J6 or PS 2622/J10

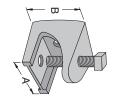
Adaptable for 1/4", 3/8" & 1/2" rod with PS 3201.



# BEAM CLAMPS

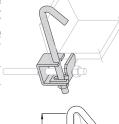
Finish: Painted Green, or Electro-galvanized Order By: No. and Finish Note: Use in pairs or with other support

# PS 85 – Rod or Insulator Support



Rod	Α	В	Load	Wt./100
Size	2		Ratings	pcs
1/4"	11%"	11/4"	150	23
3%"	2"	2"	350	95
1/2"	25%"	21/4"	400	195

PS 2626 - Beam Clamp



Clamp Requires
1/2" Diameter Rod and
2 Hex Nuts Sold Seperate

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**Finish:** Plain, painted green or electro-galvanized Load Rating: 500 lbs.

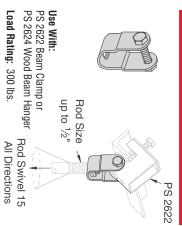
Part	"A"	Wt./100
No.	Range	pcs
PS 2626 6	2½ - 6"	125
PS 2626 9	5½ - 9"	140
PS 2626 12	8½ - 12"	171

<u></u>

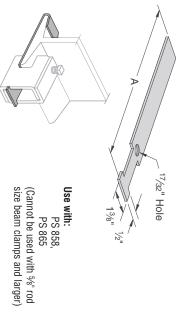
### Fittings

## PS 2623 – Swivel Adaptor

Material: Malleable Iron Flange Thickness: 7/8" Maximum

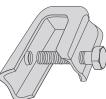


# PS 871 – Safety Anchor Strap



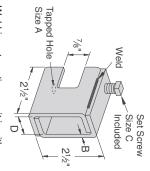
"A" Length 15 12 ڡۣ Wt./100 pcs 57 45 33

# 135X - Light Duty Beam Clamp



Load Rating: 75 lbs. Use With: 1/4" rod Material: Steel

PS 858 – Heavy Duty Beam Clamp



Weld is not continuous it is either 11/4" - 13/4" long or 2 spot welds.
All welds are on the top and bottom.

Part No.	"A" Rod Size	В	C	0	Load Ratings Ibs.	Wt./100 pcs
PS 858 1/4	1/4" - 20	16"		7.6"	650	67
PS 858 5/16 5/16" - 18	5/16" - 18	78	98 X 172	7/8	030	67
PS 858 3%   3%" - 16   346"	3%" - 16	3/16"	16" > 116	15.60=	1,100	100
PS 858 ½   ½" - 13   ¼"	1/2" - 13	1/4"	72 X 172 1916	19716	1,600	130
PS 858 5% 5%" - 11	%" - 11	56.	56" v 116	45.C=		160
PS 858 ¾ 3/4" - 10	3/4" - 10	716	916 98 X 192 1916	1916	2,400	160
For beams under %" thick flange.	under %"	thick	flange.			

### **PS 3201** – Swivel Nut Weight/100 pcs: 14 lbs.

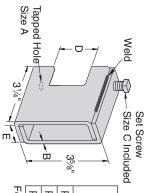


Use With: PS 2622 Beam Clamp

Rod Size	Wt./100 pcs
1/4"	4
3%"	4
1/2"	З

Weight/100 pcs: 31 lbs.

### PS 865 - Wide Throat Heavy **Duty Beam Clamp**



7		Part	R S					Load	W+ /100
<u> </u>	È	No.	Size	В	0	D	E	Ratings lbs.	pcs
رد ا	ω <u>`</u>	PS 865 %	3/8"	3/16"	1%1		29/32"	1,100	151
ѿ		PS 865 ½	1/2"	1/4"	72	111/16" 15/16"	15/16"	1,600	195
<b>├-</b>		PS 865 5%	5%"	5/16" 5/8"			15/16"	15/16" 2,400	225

For beams between 3/4" (19) to 15/6" (41) thick flanges.

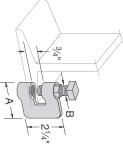
Weld is not continuous it is either  $1\frac{1}{4}$ " -  $1\frac{3}{4}$ " long or 2 spot welds. All welds are on the top and bottom.

# **BEAM CLAMPS**

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



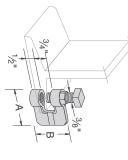
### **PS 95** – "C" Clamp



Rod Size	<b>A</b> 25/16"	% <b>B</b>	ω <u>`</u> ω
3%"	25/16"	3%"	
1/2"	21/4"	1/2"	
5/8"	2%"	5%"	
3/4"	21/4"	1/2"	

Material: Steel

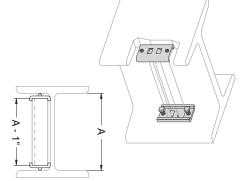
### **PS 86** – "C" Clamp



_							
	3/4"	5%"	1/2"	3 <sub>8</sub> "	Rod Size		
	21/32"	115/16"	123/32"	111/16"	Α		
	^	2	194	13/=	В		
	600	450	400	9	Load Rating		
	128	68	52	38	Wt./100 pcs		

Material: Malleable Iron, Steel Set Screw

## PS 2654 & PS 2654A – Column Attachment



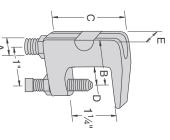
PS 2654 Use with PS 200 PS 2654A Use with PS 500

Slip Rating: 800 lbs.

Note: Column attachment can only be used in pairs.

Weight/100 pcs: 41 lbs.

## PS 93 – Universal "C" Clamp



Waterial: Malleable Iron, Steel Set Screw

PS 93 % PS 93 ½

Part No.

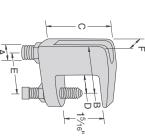


At least one full thread must be exposed



Rod	Size A	3%	1/2	
	В	15%	15%	
DIMENSIONS	C	2	2	<ul> <li>Maxim</li> </ul>
Inches (Inches	D	3/4	3/4	• Maximum temperature of 450° F
٣	ш	7/8	7/8	ure of 450° F
Max	Pipe Size	2	31/2	
	(Lbs.)	400	500	
	Wt/100 pcs	28	34	

# PS 94 – Wide Throat Top Beam "C" Clamp



Waterial: Malleable Iron, Steel Set Screw

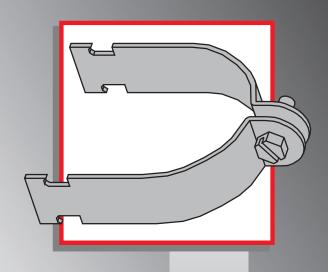


At least one full thread must be exposed



	PS 94 ¾	PS 94 5%	No.		
	3/4	5%	Size A	Rod	
	1%	13/4	В		
•	23/8	21/4	0	DIMEN	
aximum te	3/4	3/4	D	DIMENSIONS (Inches)	
<ul> <li>Maximum temperature of 450°</li> </ul>	1%	11/4	ш		
of 450° F	11/4	_	п		
	8	5	Pipe Size	Max	
	800	600	(Lbs.)		
	83	66	pcs		

Maximum temperature of 450° F



# PIPE & CONDUIT CLAMPS

Power-Strut pipe, conduit and O.D. tubing clamps are formed in punch press dies in a wide selection of sizes to meet every requirement.

### MATERIAL:

Power-Strut pipe, conduit and O.D. tubing clamps are made on punch press dies from hot rolled, pickled and oiled steel which conforms to the ASTM A-1008, A-1011 SS, A-575 and A-576 standards. Select sizes of O.D. tubing clamps are available in stainless steel or aluminum.

### STANDARD FINISH:

All steel clamps are electro-galvanized. Select sizes of O.D. tubing clamps are available in copper plated finish. PVC coatings are available upon special request.

# ORDERING INFORMATION:

When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

# RECOMMENDED BOLT TORQUE:

<b>Bolt Size</b>	1/4"-20	5/16"-18	3⁄8"-16	1/2"-13	5%" <u>-11</u>	3/4"-10
Rec. Torque Ft/Lbs	6	11	19	50	100	125
Max. Torque Ft/Lbs	7	15	25	70	125	135

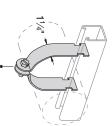
# PIPE & CONDUIT CLAMPS

Finish: Electro-galvanized Order By: No., and Finish

## POWER-STRUT

# PS 1000 - EMT Conduit Clamp





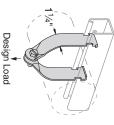
Note: For EI 2" use PS 1:

Design Load	4	

000	11/2" 105 800 29	111/4" .075 000 18		3/4"   .000   400   12	060		Stock Hanging Load	For EMT larger than PS 1100 Design Load	
33	29	18	15	12	⇉	pcs	Wt./100	ad	

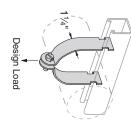
# PS 1300 - Universal Clamp for EMT, IMC & GRC





	_			_	_		_
2"	11/2"	11/4"	4	3/4"	1/2"	Size	Nominal
2.197-2.375	1.740-1.900	1.510-1.660	1.163-1.315	0.922-1.050	0.706-0.840	0.D.	Fite
.073	075	.075	.000	080	.060	Thickness	Stock
500	л 00	400	004	400	250	Rating/lbs.	heo I nainaeH
22	20	18	12	⇉	10	pcs pcs	100 t/W

# PS 1100, PS 1116, PS 1117 - Standard Pipe Clamp (GRC, IMC and SCH 40/SCH 80 steel pipe)





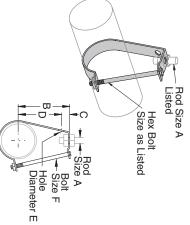
Pipe Size	3%"	1/2"	3/4"	<u>-</u>	11/4"	11/2"	2	21/2"	ယ္ခ	31/2"	4"	ଫୁ	<u>ତ୍</u>	ထူ	10"	
Stock Thickness	080	.080		.075			105	. 100			.125			125		
Hanging Load Rating/lbs.	400 600						800	000					1,000			
Wt./100 pcs	10	11	15	17	19	29	34	40	47	62	67	80	102	130	143	174

## Material and finish are specified as:

1100 AL Alum. clamp, EG fasteners 1100 HG Clamp, Stainless Steel fasteners 1116 Alum. clamp and fasteners

1100SS Stainless Steel clamp and fasteners 1117 Alum. clamp, Stainless Steel fasteners

# "J" Pipe or Conduit Hanger



Maximum operating temperature is 300°F	Notes: Hanger Rod Suspe Plastic Coated hanger is available ("N" Suffix). Please contact factory for additional informatic	
mperature is 300°F	Notes: Hanger Rod Suspende Plastic Coated hanger is available ("N" Suffix). Please contact factory for additional information.	

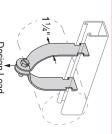
	•							
Conduit Size	A Rod Size	В	C	D	т	T	Load Rating/lbs.	Wt./100 pcs
1/2		25%		2		1/ ;; 01/		20
3/4		27/8		21/4		/4 X Z/4		21
1	3,	3	_	2%	134	1/4 x 21/2	200	24
11/4	8	31/4		21/2	/32	1/4 × 23/4	004	27
11/2		%		25%		$1/4 \times 3$		29
2		3¾	11/8	25/8		1/4 x 31/2		33
21/2		4%		3%		% x 4½		71
ω	1/2	47/8		4		$\frac{3}{8} \times 5$		78
31/2		51%	11%	41/4		3% v 6	800	85
4	54	61%		51/8	9/16	/8 X O		178
5	/8	63/4		53/4		% x 7½		199
6	3/4	73/4	11/4	61/2		% x 8½	1,000	231
8	7/8	91/4	11/4	∞		3% x 10	1,200	449
	Conduit Size  1/2  3/4  11  11/4  11/5  2  21/2  31/2  4  4  6  6		# Rod Size	Rod Size B  25% 27% 3% 31/4 31/4 31/4 31/4 31/6 5% 65/8 65/8 65/8 65/8 65/8 65/8 65/8 65/8	t A B C 25% 25% 314 314 314 314 41% 5% 60% 60% 60% 914 114	t Rod Size B C D  25% 214 27% 214 3% 334 11% 25% 334 11% 25% 334 11% 25% 43% 43% 45% 44% 44% 5% 63% 11% 414 5% 63% 11% 55% 5% 63% 11% 55% 5% 63% 11% 55% 5% 63% 11% 55% 8% 63% 11% 55% 8% 63% 11% 55% 8% 63% 11% 55% 8% 63% 11% 55%	t         A         B         C         D         E           Rod Size         25%         2         2         2           25%         27%         214         2	t         A Rod Size         B         C         D         E         F           Rod Size         2%         2         1/4 x 21/4         21/4         1/4 x 21/4         21/2         1/4 x 21/4         21/2         1/4 x 21/4         21/2         1/4 x 21/4         21/2         1/4 x 21/4         1/4 x 21/4         1/4 x 31/2         3/6 x 41/2         3/6 x 41/2         3/6 x 41/2         3/6 x 51/2         3/6 x 71/2         3/6



### PIPE 20 CONDUIT **CLAMPS**

Finish: Electro-galvanized Order By: No., and Finish

## **PS 1200** - O.D. Tubing Clamp







Note: Additional Available Finishes SS - Stainless Steel CC - Copper Coated Please contact factory for sizes & finishes not shown.

ယ္	27/8"	23/4"	25%"	21/2"	23%"	21/4"	21/8"	2	17%"	13/4"	15%"	11/2"	1%"	11/4"	11%"	<u>-</u>	7%"	3/4"	5%"	1/2"	3 <sub>8</sub> "	1/4"	Size	0.0
					.105	,						•		0.75					.000	0.60	•		Thickness	Stock
					800								000	600					400	200			Load Rating/lbs.	Hanging
41	40	38	37	35	34	33	32	31	28	29	19	18	17	16	15	14	12	11	10	9	8	8	pcs	Wt./100

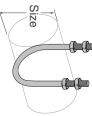
0.D. Size	Stock Thickness	Hanging Load Rating/lbs.	Wt./100 pcs
31%"			43
31/4"			45
3%"	102	000	46
31/2"	. 100	000	47
35%"			56
3¾"			58
37%"			60
4			62
41/8"			62
41/4"	,		64
43%"			66
41/2"			67
45/8"	105	1 000	70
43/4"	. 170	1,000	72
47/8"			73
ဟူ			74
51/8"			76
51/4"			77
5%			78
51/2"			79
55%"			88
53/4"	.135	1,000	90
57%"			92

0.D. Size	6	61/8"	61/4"	6%"	61/2"	65%"	63/4"	67/8"	7"	71/8"	71/4"	7%"	71/2"	75%"	73/4"	77/8"	ထူ	81/8"	81/4"	8%"	81/2"	85%"
Stock Thickness											٠ ١			•	•							
Hanging Load Rating/lbs.											1 000	1,000										
•																						

Pipe & Conduit Clamps

## PS 69 - E-Z Grip Hanger

PS 137 - Long Tangent "U" Bolt



											\
4	31/2"	ယ္	21/2"	2"	11/2"	11/4"	1"	3/4"	1/2"	Size	
102	94	88	78	36	33	31	29	28	21	wt./Juu pcs	

	B		Listed	Rod Size A

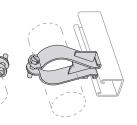
												>
7"	o ଜୁ	ហ៊្ម	4"	ယ္	21/2"	2"	11/2"	11/4"	<u>-</u>	3/4"	1/2"	Size
	1/2"						3 <sub>6</sub> "					A Rod Size
ထ္	67/16"	55/16"	411/16"	43/8"	4	31/4"	23/4"	25/8"	27/16"	25/16"	21/4"	В
	1000		600	525	ת ט ח			300	300			Load Rating Lbs/650
100	100	53	48	27	25	11	10	10	10	9	9	Wt./100 pcs

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# PIPE & CONDUIT CLAMPS

Finish: Electro-galvanized Order By: No., and Finish

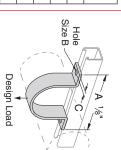
# PS 3138 – Parallel Run Pipe Clamp

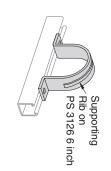


4"	31/2"	ယ္ခ	21/2"	2	11/2"	11/4"	<u>-</u>	3/4"	1/2"	3%"	Pipe Size	!
		500	л 000			400	400		300		Load Rating/lbs.	
90	87	78	66	47	40	38	31	30	29	27	Wt./TUU pcs	

# PS 3126 – One-Piece Pipe Strap

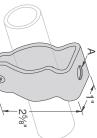
POWER-STRUT





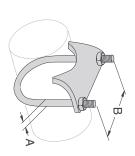
Pipe Size	Α	₩	C	Design Load/lbs.	Wt./100 pcs
1/2"	27/8"				
3/4"	31/8"				
1"	33/8"	9/32"	7/16"	500	
11/4"	33/4"				
1½"	37/8"				39
2"	53/4"				
21/2"	61/4"				
ယ္ခ	67/8"				
31/2"	73/8"	7/16"	11/16"	1,000	
4"	77/8"				
ល្ប៉	9"				
<u>ල</u>	10"				

## PS 270 – Conduit Clamp

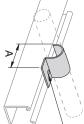


2	11/2"	11/4"	4	3/4"	1/2"	3%"	Size
			1/4"				A Diameter
27	19	⇉	9	8	6	6	Wt./100 pcs

# PS 51 - Right Angle Pipe or Conduit Clamp



# PS 1450 - One-Hole Clamp for O.D. Tubing



Hole Size – 3/32"
1/4" X 3/4" Round Head
Machine Screw
and Channel Nut
Not Included

0.D. Size	1/4"	3/8"	1/2"	5%"		3/4"	3/4" 7/8"
Α	13/16"	15/16"	17/16"	15%"	13/4"	476"	1//8
Thickness Gages		16			1	-	
Wt./100 pcs					9	10	

Material: Malleable Iron

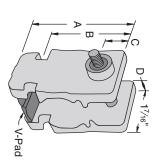
Size	3%"	1/2"	3/4"	<b>-</b>	11/4"	11/2"	2	21/2"	ယ္ခ	31/2"	4
A Diameter	5/16"						3%"				
В	15/16"	13/16"	17/16"	111/16"	2"	25/16"	23/16"	3%	41/8"	45%"	51%"
Wt./100 pcs	25	41	42	47	54	57	85	106	110	128	140



#### PIPE 20 **CONDUIT CLAMPS**

Finish: Electro-galvanized Order By: No., and Finish

## PS TP-025 thru PS TP-100 - Cush-A-Grip



No.         Pipe Size         "A"         "B"         "C"         "D"         Screw & Lock Nut         pcs Lbs           PSTP-025         1/4         115/6         13/6         3/6         1/4-20 x 11/2"         4           PSTP-625         3/6         23/6         15/6         1/4         1/4-20 x 11/2"         6           PSTP-875         1/2         29/16         113/16         7/16         5/16         1/4-20 x 2"         8           PSTP-100         3/4         211/16         115/16         5/16         1/4-20 x 2"         8	Part	Nominal		Dimensions (In.	ns (In.)		Hex Head Cap	Wt/100
1/4     115/6     136     3/8     3/6       3/6     23/6     15/6     1/4       1/2     29/16     113/16     7/16     5/16       3/4     211/16     115/16     5/16     5/16	No.	Pipe Size	"A"	"B"		"D"	Screw & Lock Nut	pcs Lbs
36     236     156     1/4       1/2     2946     11346     746     546       34     21146     11546     546     546	PS TP-025	1/4	115/16	13%	3%	3/16	1/4-20 x 11/2"	4
1/2         29/6         113/6         7/6         5/6           3/4         211/6         115/6         5/6         5/6	PS TP-625	3/8	2%	15%		1/4		6
3/4 211/16 115/16	PS TP-875	1/2	29/16	113/16	7/16	5/16	1/4-20 x 2"	8
	PS TP-100	3/4	211/16	115/16		5/16		00

#### **Tube Sizes**

Part No.	-	0.D. Tube Sizes	Sa	Diameters	PullOut Load/Lbs	Slip Load/Lbs
PS TP-025	1/4	3%	1/2	0.25 - 0.54		
PS TP-625	5%	3/4	7/8	0.62 - 0.87	л 00	2
PS TP-875	7/8	_	11%	0.87 - 1.12	500	5
PS TP-100	_	11%	11/4	1.00 - 1.31		

Captured / Nylon Lock-Nut

Hex Bolt

"V" Pad

Size

1-5%" Series Channel

"V" Pad

## **Pipe Sizes**

Part No.	Nominal Pipe Sizes	ıl Pipe es	Diameters	PullOut Load/Lbs	Slip Load/Lbs
PS TP-025	1/4		0.25 - 0.54		
PS TP-625	3%	1/2	0.62 - 0.87	л 00	ð
PS TP-875	3/4		0.87 - 1.12	000	04
PS TP-100	3%	_	1.00 - 1.31		

Pipe & Conduit Clamps

Includes: Cushion, V-pad, and Hardware.

Materials: Cushion: Thermoplastic elastomer.

Hardware: Stainless Steel with Captured Nylon Locknut

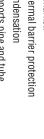
Temperature Rating: -40°F to +275°F

## PS CT-3/8 thru PS CT1-4-1/8 - Cush-A-Therm™

The only airtight, crush-resistant insulation clamp on the market.

- Maintains thermal barrier protection
- Prevents condensation
- Properly supports pipe and tube
- Absorbs vibration

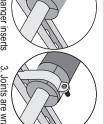
Nominal 3/4" Wall



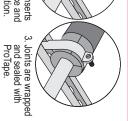




Insulation slides over pipes



Pipe hanger inserts are put in place and glued to insuation.



Nominal 1" Wall

Copper Nom. I.D.

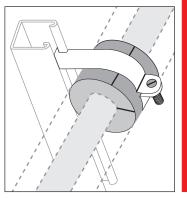
0.D.

**IPS** 

0.D.

Length

%



0.54	ა 0	3.35		2.96		2.56	0				2.17	7 7		
	PS CT1-3-5%	PS CT1-3-1/8	PS CT1-2-5%	PS CT1-2-%	PS CT1-2-1/8	PS CT1-1-5%	PS CT1-1-%	PS CT1-1-1/8	PS CT1-7/8	PS CT1-3/4	PS 011-%	201	N :	Part
	3% ID	31/8 ID	2% ID	2% ID	21/8 ID	1% ID	1% ID	11% ID	7% ID	3/4 ID	% ID	;	Size	Hole

% %

**3**/<sub>4</sub>

2.76 2.44 2.22 2.05 1.89

PS CT-2-1/8

21/2 21/4

2

4.29 3.86

ω

31% 25% 2% 21/8 15% 1% 11% % 3% %

5.00 4.87

21/2 21/2 31/2 31/2

23% 25% 31% 35%

4.87 5.14 6.48

2.96 3.35

PS CT-1-5% PS CT-1-% PS CT-1-1/8

11/2 11/4

11/4

3.35

11/2 11/4

11/4

3.65

2.56

1% 15%

11% 3 3 %

3/4 3

2.82 2.82 3.06 3.33

2.17

2

21/8

4.16

2

3.92

3.19

2

PS CT-4-1/8 PS CT-3-5% PS CT-3-1% PS CT-2-5% PS CT-2-1/8

41% ID 3% ID 31% ID 2% ID 21/8 ID 21/8 ID 1% ID 1% ID 1½ ID 7% ID 3¼ ID % D

4

41%

31/2

6.14

3.94

PS CT1-4-1/8

31/2

6.48

3.94

PS CT-7/8 PS CT-3/4 PS CT-1/2 PS CT-%

½ID

% ID

% 1/2

Hole Size

Copper Nom. I.D.

0.D.

PS

0.D.

Length

PS CT-5%

5%

1/2 % %

%

1/4

**3**/<sub>4</sub>

1/2

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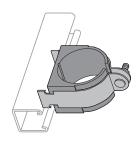


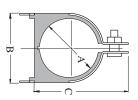
#### PIPE 20 **CONDUIT CLAMPS**

Finish: Electro-galvanized Order By: No., and Finish



# PS 004T - PS 106N - Cush-a-Clamp® Assembly Pipe & Tube Series





Clamp: Electro-galvanized or stainless steel

Cushion: Thermoplastic elastomer resistant to the effects of most oils, chemicals and industrial cleaning compounds in temperatures from -50°F to 275°F.

UV Resistent

includes: Cushion, Clamp and Hardware

Controlled Squeeze: Parts with the letter "T" have a Controlled Squeeze shoulder Bolt. Available on tube sizes 1/4" thru 1%

		No. (N	PS 009N	PS 011N	PS 014N	PS 017N	PS 021N	PS 027N	PS 030N	PS 038N	PS 046N	PS 056N	PS 064N	PS 072N	PS 089N	DC 106N
	Pipe	Size (Nominal)	1/4"	3%"	1/2"	3/4"	1"	11/4"	11/2"	2"	21/2"	ယ္	31/2"	4"	ល្ប	<u>ത</u>
Pipe Series	_	Α	0.54	0.67	0.84	1.05	1.31	1.66	1.90	2.37	2.87	3.50	4.00	4.50	5.56	6.62
es	Dimensions	В	0.98	1.13	1.29	1.50	1.76	2.17	2.35	2.82	3.32	3.95	4.45	4.95	6.01	7.07
	S	C	1.34	1.54	1.82	2.08	2.34	2.73	2.86	3.67	4.17	4.79	5.42	5.92	6.92	8.23
	Wt./100	pcs	13	14	15	17	19	35	41	49	57	55	88	110	130	140

		Tube \$	Series			
	Conner &	Copper	D	Dimensions	S	
Part No.	Steel Tube O. D. Size	Water Pipe (Nominal)	A	æ	C	Wt./100 pcs
PS 004T	1/4"		0.25	0.62	0.98	10
PS 006T	3%"	1/4"	0.37	0.82	1.13	11
PS 008T	1/2"	3%"	0.50	0.94	1.34	13
PS 010T	5%"	1/2"	0.62	1.06	1.54	14
PS 012T	3/4"	5%"	0.75	1.2	1.68	14
PS 014T	7/6"	3/4"	0.87	1.31	1.82	15
PS 016T	1"		1.00	1.44	1.95	17
PS 018T	11%"	1"	1.12	1.57	2.08	18
PS 020T	11/4"		1.25	1.70	2.21	18
PS 022T	1%"	11/4"	1.37	1.82	2.34	20
PS 024N	11/2"		1.50	1.95	2.47	33
PS 026N	15%"	11/2"	1.62	2.07	2.60	35
PS 028N	134"		1.75	2.20	2.73	37
PS 030N	17%"		1.87	2.32	2.86	39
PS 032N	۲ª		2.00	2.45	3.04	41
PS 034N	21%"		2.12	2.57	3.23	46
PS 038N	2%"		2.37	2.82	3.67	47
PS 040N	21/2"		2.50	2.94	3.79	49
PS 042N	25%"		2.62	3.07	3.92	51
PS 046N	27%"		2.87	3.32	4.17	55
PS 048N	ယ္ခ		3.00	3.57	4.42	57
PS 050N	31%		3.12	3.57	4.42	60
PS 056N	31/2"		3.50	3.95	4.79	55
PS 058N	35%"		3.62	4.2	5.11	70
PS 064N	4		4.00	4.45	5.42	88
PS 066N	41%"		4.12	4.57	5.54	94
PS 072N	41/2"		4.50	4.95	5.92	110
PS 082N	51%"		5.12	5.57	6.54	125
PS 098N	61%"		6.12	6.57	7.54	130



### PIPE & CONDUIT CLAMPS

Finish: Electro-galvanized Order By: No., and Finish

**PS 3792** – Power-Wrap™

## PS 52E - Parallel Pipe and Conduit Clamp

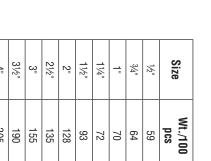


Stock Thickness: 1/8" Stock Length: 25 ft/box

Material: EPDM

Service Temp: -70° to 350° F

Weight/100 boxes: 253 lbs.



Material: Malleable Iron

# **004M - PS 038M** - Cush-a-Clamp® Assembly Omega Series

	5	<u> </u>		- - - -						J -							
DS 028M	PS 027M	PS 026M	PS 024M	PS 022M	PS 021M	PS 020M	PS 018M21	PS 018M20	PS 016M	PS 014M	PS 012M	PS 010M	PS 008M	PS 006M	PS 004M	Part No.	

Includes: clamp and cushion.

Materials

Clamp: ZD or Stainless Steel

Cushion: Thermoplastic elastomer ZD or Stainless Steel 2 2 2 2 2

	Conner	Water	Pine			Dimensions	sions			
Part No.	Tubing 0.D. Size	Pipe (Nominal)	Size (Nominal)	Α	В	C	D	т	᠇	Wt./100 pcs
S 004M	1/4"	ı	I	0.25	1.81		3	0.20	0.78	3.4
S 006M	3%"	1/4	1	0.37	1.90		0.62	0.20	0.81	4.0
M800 S	1/2"	3%	1/4"	0.50	2.20					5.5
S 010M	5/8"	1/2	3%"	0.62	2.32					6.0
S 012M	3/4"	5%	1	0.75	2.41	0.06				6.5
S 014M	7/8"	3/4	1/2"	0.87	2.56		0.75	0.26	0.98	7.1
S 016M	1"	_	_	1.00	2.68					7.8
S 018M20	_	_	3/4"	1.05	2.68					8.1
S 018M21	11/8"	1	I	1.12	2.82					8.4
S 020M	11/4"	_	_	1.25	3.00					17
S 021M	-	_	1"	1.31	3.12					20
S 022M	1%"	11/4	I	1.37	3.12	0.08	1.25	0.26	1.56	19
S 024M	11/2"	I	I	1.50	3.65					20
S 026M	15%"	1½	I	1.62	3.77					23
S 027M	_	_	11/4"	1.66	3.90					32
S 028M	13/4"	_	I	1.75	3.90					32
S 030M	17%"	ı	11/2"	1.87	4.02	0 10	30.	) ၁	7 20	34
S 032M	2"	ı	1	2.00	4.15			0.00		36
S 034M	21/8"	I	I	2.12	4.40					41
S 038M	1	ı	2"	2.37	4.71					44
to: Cannot k	to. Cannot he used on slot side of metal framing channel	side of metal fr	amina channal							

Note: Cannot be used on slot side of metal framing channel.

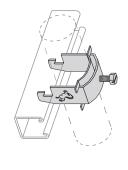


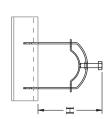
### PIPE & CONDUIT CLAMPS

Finish: Electro-galvanized Order By: No., and Finish



PS MU-1/4 thru PS MU-4 - Mustang Universal One-Piece Pipe, Conduit (GRC, EMT & IMC) and Tubing Clamps





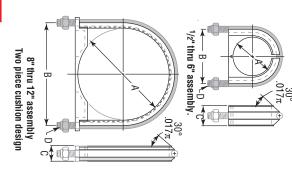
	Part No.	Nominal Trade Size	00	D	
$\overline{}$		azie angii	Min	Max	
	PS MU-1/4	1/4"	0.250"	0.540"	
	PS MU-3/6	3%"	0.500"	0.675"	
	PS MU-½	1/2"	0.625"	0.840"	
	PS MU-3/4	3/4"	0.875"	1.050"	
	PS MU-1	1"	1.125"	1.315"	_
	PS MU-1-1/4	11/4"	1.375"	1.660"	
	PS MU-1-1/2	11/2"	1.625"	1.900"	_
	PS MU-2	2"	2.000"	2.375"	-
	PS MU-2-1/2	21/2"	2.500"	2.875"	_
	PS MU-3	ယူ	3.000"	3.500"	_
	PS MU-3-1/2	31/2"	3.625"	4.000"	
	PS MU-4	4	4.125"	4.500"	

**Note:** Available in 14 ga. Electro-galvanized steel

# PS UB 1/2 - PS UB 10 - Cush-a-Clamp® Assembly U-Bolt Series







Includes: U-bolt, cushion, and hardware.

Materials: U-Bolt: Electrogalvanized finish or Type 316 SS

**Cushion:** Thermoplastic elastomer

Note: Not intended for use with metal framing components due to the length of the thread.

Part	Pipe		Din	Dimensions		Wt./100
No.	Size	Α	В	C	D	Pcs
PS UB 1/2	1/2"	0.84	1.60			9
PS UB ¾	3/4"	1.05	1.80	0.68	1/4-20 UNC-2B	10
PS UB 1	1"	1.31	2.05			12
PS UB 1-1/4	11/4"	1.66	2.55			32
PS UB 1-1/2	11/2"	1.90	2.80	1.24	%-16 UNC-2B	36
PS UB 2	2"	2.37	3.35			42
PS UB 2-1/2	21/2"	2.87	3.90			72
PS UB 3	ယ္ခ	3.50	4.55			84
PS UB 3-1/2	31/2"	4.00	5.05	1.24	½-13 UNC-2B	93
PS UB 4	4"	4.50	5.50			102
PS UB 5	5"	5.56	6.56			123
PS UB 6	6"	6.62	7.75	4 44	20 ONII 11 %	243
PS UB 8	ထ္	8.62	9.82	-14	%-11 UNC-2D	293
PS UB 10	10"	10.75	12.16	1.65	%-10 UNC-2B	492

#### ROLLERS

Order By: No. and Finish

**Chart for Dimension A** 

## PS 1901 – Two-Piece Pipe Roller



Material:

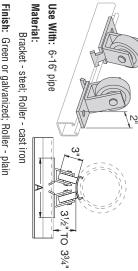
Bracket - steel; Roller - cast iron (or aluminum)



Finish: Green or galvanized; Roller - plain Weight/100 pair: 268 lbs.

Pipe	No	È		Insulation	Insulation Thickness	2
0170	Houlding	-	11/2	7	21/2	c
1/2"			Ι	I		
3/4"			<b>C</b> 5.6=	192 <b>9</b>	ı	
<u>-</u>		6½"	0%8	0//8		ı
11/4"			67/"	17 1.7	1764	
11/2"	61/2"		078	1 1/8	178	
2		O	716"	724	716"	<u></u>
21/2"		0%8	1 78	1 %8	1 1/2	0
ယ္ခ		7"	716"	727=	77.4	016=
31/2"		1	1 1/2	1 9/4	1'/8	0 1/8
Δ"	65 <u>%</u> "	71//"	75%"	77%"	ထူ	<b>8</b> 3%

#### PS 815 – Two-Piece, Heavy Duty Pipe Roller



Finish: Green or galvanized; Roller - plain

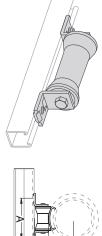
Load Rating: 1500 lbs.

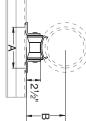
Weight/100 pair: 680 lbs

		Cr	nart for Dir	Chart for Dimension A			
Pipe	No			Insulation	Insulation Thickness	<b>3</b> ,	
Size	Insulation	1	11/2"	2"	21/2"	<del>မ</del> ူ	4"
6"	91/2"	101/4"	101/2"	10¾"	11"	11%"	117%"
<b>ಹ್</b>	101/8"		11"	11%"	11¾"	12"	121/2"
10"	103/4"		115%"	12"	121⁄4"	12½"	13"
12"	1111/4"	I	121%"	121/2"	12¾"	13"	131/2"
14"	115%"		121/2"	127%"	13"	13%"	14"
16"	121/8"		13	13%"	137%"	14"	141/2"

Pipe & Conduit Clamps

#### PS 1911 – Pipe Roller

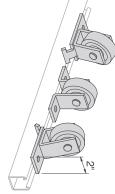


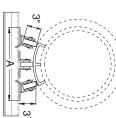


Material: Brackets and shaft - steel; Rollers - cast iron Finish: Brackets - painted green or galvanized; Shaft - electro-galvanized; Rollers - plain Load Rating: 950 lbs.

Size		2 – 3-1/2"			4 – 6"			8 – 10"		3	14 - 71
Fits Pipe Size	2"	2½"	ယူ	3½"	4"	បា្	<u>ଚ</u> ୁ	ထူ	10"	12"	14"
А		លាំ		ហ្ន	F 76"	J'/8	57%"	0.5%	0916	107%"	10.%
В	ယ္ခ	31/4"	35%"	37%"	45/16"	47/8"	57/16"	71/8"	81/4"	97%"	10½"
Wt./100 pcs		160		,	215			525		1 035	1,020

## PS 816 - Three Piece, Heavy Duty Pipe Roller





Use With: 16-24" pipe Material: Brackets - steel; Roller - cast iron

Finish: Brackets - painted green or galvanized; Roller - plain

Load Rating: 2,000 lbs.

20"	24"	18	16"	Size	Pipe	
	+				Œ	
141/8"	151/4"	135%	1	11/2"		
141½"	151/2"	14"		2"	Ins	Chart for
14%	157/8"	141/8"	137%"	21/2"	Insulation Thickness	Chart for Dimension A
15"	161%	141%"	14"	3"	kness	
151/2"	165%	15"	141/2"	4"		

Weight/100 units: 1,046 lbs.

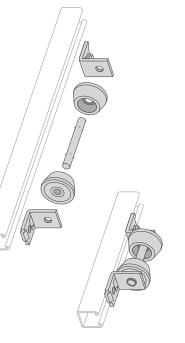
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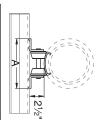
#### **ROLLERS**

Order By: No. and Finish



## PS 1902 - Pipe-Roller Assembly





Material:
Brackets and shaft - steel;
Rollers - cast iron

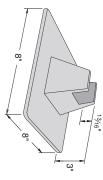
Finish:
Brackets - painted green or galvanized;
Shaft - electro-galvanized; Rollers - plain

Load Rating: 750 lbs.

PS 1902 - 8"	PS 1902 - 4"-6"	PS 1902 - 2½"-3½"	PS 1902 - 1"-2"	Part No.
9%6	81/2	71/2	63/4	А
319	311	304	299	Wt./TUU pcs.

<u></u>	<sub>ଦ୍ର</sub>	တျ	4"	31/2"	ယူ	21/2"	2"	11/2"	11/4"	-	3/4"	1/2"	Size	Pipe
	PS 1902 - 2½"-3½"						101302 - 1 -2	DC 1000 1" 0"					Insulation	No
	PS 1902 - 4"-6"			PS 1902 - 2½"-3½"					PS 1902 - 1"-2"				1"	
PS 1902 - 8"	1 0 1 302 - 4 -0	DS 1009 - 1"-6"			F3 1902 - 272 -372	DC 1000 91%" 91%"				LO 1902 - 1 - 2	DC 1000 1" 0"		11/2"	
PS 1902 - 8"			PS 1902 - 4"-6"						PS 1902 - 2½"-3½"				2"	Insulation Thickness
PS 1902 - 8"			PS 1902 - 4"-6"				PS 1902 - 2½"-3½"			ı			21/2"	Thickness
	PS 1902 - 8"			PS 1902 - 4"-6"					I				ဒူ	
	PS 1902 - 8"						I						4"	

#### **PS PP** – Power-Pier



The Power-Pier Rooftop support system provides a simple and versatile way to support and manage pipe, tubing, conduit, HVAC systems, and the like. The Power-Pier system supports without roof surface penetration and allows the parts to remain off the surface

PS RS

PS 3373

PS 3373 PS 200-

-PS 606

-PS RS

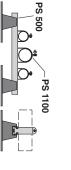
PS 606

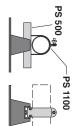
-PS 1100

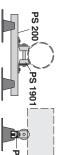
PA-158

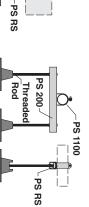
PS 200 EH

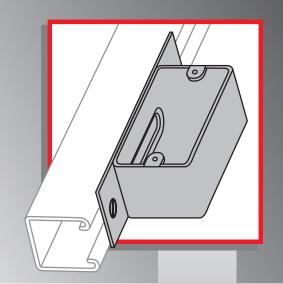
Part Number	Power-Pier Bases Qty.	Description
PS PP	4	Power-Pier Base Only (4 Bases & Hardware)
PS-SPSS-6 HG	4	PS PP + 4 Pcs PS 500 EH HG @ 6" Long for up to 3½" Pipe
PS-SPSS-10HG	4	PS PP + 4 Pcs PS 500 EH HG @ 10" Long for 4" to 8" Pipe
PS-MPDS-26HG	4	PS PP + 2 Pcs PS 200 EH HG @ 26" Long for Trapeze
PS-MPDS-38HG	4	PS PP + 2 Pcs PS 200 EH HG @ 38" Long for Trapeze
PS-MPDS-50HG	4	PS PP + 2 Pcs PS 200 EH HG @ 50" Long for Trapeze
PS-MPDS-62HG	4	PS PP + 2 Pcs PS 200 EH HG @ 62" Long for Trapeze











accordance with the Canadian Electrical Code (Article 384), and CSA approved in supporting lighting, conduits, cable and Power-Strut offers a versatile means of raceway by Underwriters laboratories other portions of an electrical system. as specified by the National Electric Power-Strut is listed as an electrical Code (Part 1).

#### MATERIAL:

Power-Strut electrical raceways are cold formed from low carbon steel and meet the requirements of ASTM A-1011 Grade 33 in painted green or ASTM A-653 Grade 33 in pre-galvanized material. Plain or electrogalvanized fittings conform to the ASTM A-635 or ASTM A-36 standards while pre-galvanized fittings meet the requirements of ASTM A-653 Grade 33.

STANDARD LENGTHS:

Standard lengths of electrical raceway are 10 and 20 feet. The Power-Strut closure strips are available only in 10 feet lengths.

#### STANDARD FINISH:

Electrical raceway channel is available in a painted green or pre-galvanized finish. All Power-Strut fittings are available in painted green or electro-galvanized finish. Many fittings are available in pre-

## **ORDERING INFORMATION:**

When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

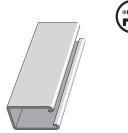
#### LISTINGS:

UL File No. E27817 - Channel & Closure Strips UL File No. E27818 - Fittings CSA File No. 091312

Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish

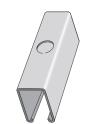


#### Solid Raceway\*



Part No.
PS 100 PS 150
PS 200
PS 210
PS 300
PS 400
PS 500

#### Knock-Out Raceway\*



PS 400 KO6	PS 300 K06	PS 210 K06	PS 200 K06	PS 150 K06	PS 100 K06	Part No.
1"	1%"	15%"	15%"	27/16"	31/4"	Section Height

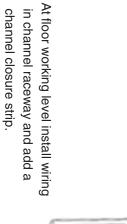
# Maximum Number of Wires Types AVB, FEP, FEBP, RH, RHH, RHW, RUH, RUW, T, TW, THHN, THWN, THW, XHHW

<sup>\*</sup>In all cases, the snap-in-cover, PS 707, is required to complete raceway enclosures.

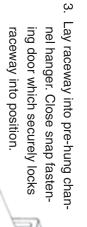
Also UL Listed: PS 100 2T3, PS 150 2T3, PS 200 2T3, PS 210 2T3, PS 300 2T3, PS 400 2T3, and PS 500 2T3

#### To Install Channel

Suspend and align PS-2632 rod at pre-determined level. Channel hanger from threaded



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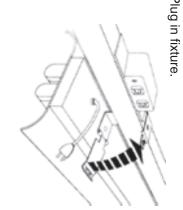


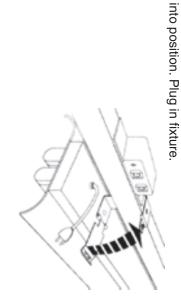
## To Install Fluorescent Fixture

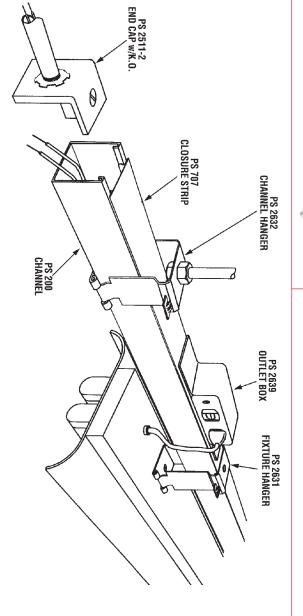
1. Attach PS2631 Fixture Hanger wing-nut leaving door open. to fixture with quick assembly



Ņ Hook fixture over raceway. Close snap fastening door which securely locks fixture





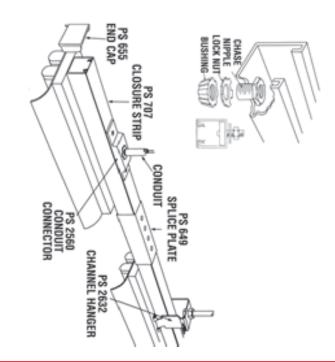


Complete installation in minutes. No screw, bolts or cotter pins to lose.



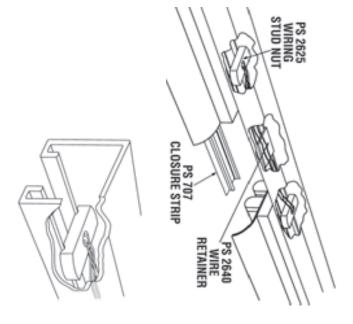
## Knock-out Fluorescent Raceway System

Listed by Underwriter's Laboratories, Inc. Fixture is attached to slot-up channel with chase nipple, locknut and bushing through knock-outs in bottom of channel. Conduit connector fitting PS-2560 holds channel and fixture to pipe or rod.



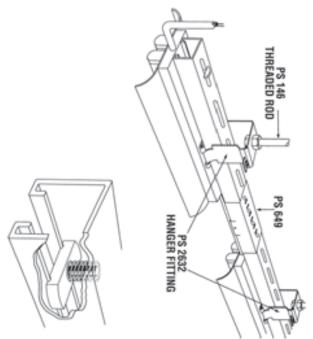
## **Economy Raceway System Fluorescent**

In this slot-down system the circuits run through the fixtures and only enter the channel where there is a break in the fixture run. At that point the fiber wire retainer holds wires in place and snap-in closure strip covers the area.



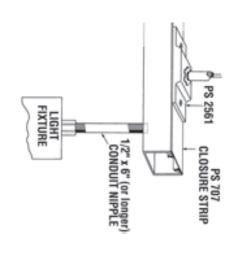
## Basic Fluorescent Support System

Slot-down channel holds fixture firmly in place with spring nut and bolt. Fixtures may be added or relocated without changing the basic assembly.



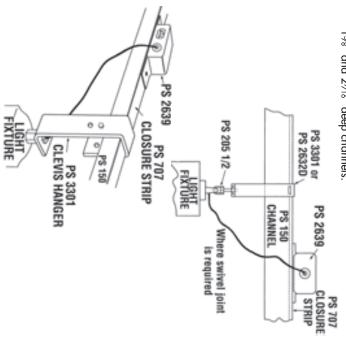
## Knock-out Mercury Vapor Raceway System

Listed by Underwriter's Laboratories, Inc. Fixture is attached to slot-up channel with chase nipple, locknut and bushing through knock-outs in bottom of channel. Conduit connector fitting PS-2561 holds channel and fixture to pipe or rod.



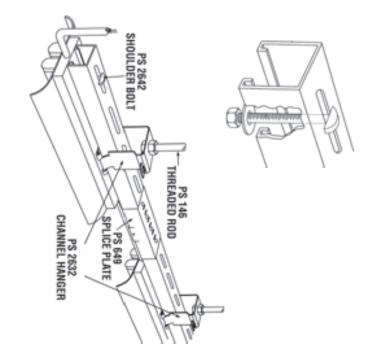
## Basic Mercury Vapor Support System PS 3301 Clevis Hanger for use with PS 150, PS 200

In this slot up or down system, the fixture is supported by PS-3301 clevis hanger which is designed for use with both 15%" and 27/6" deep channels.



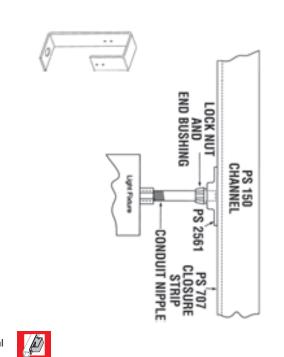
### Slotted Support System

This system is designed for maximum ease of attaching fixture through slotted channel with shoulder bolt and provides positive alignment.



## Slot Down Mercury Vapor System

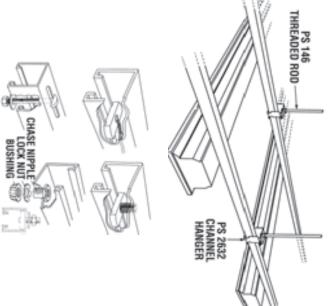
In this slot down system the mercury vapor ballast is wired directly to the system.



#### **Grid System**

Electrical

This system is used where fixtures are hung at right angles to Power-Strut raceways and support channels. Any of the features of the above systems can be adapted to this system. Ideal for egg-crate type drop ceiling installations.



Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish

**POWER-STRUT** 

#### B B 655, PS 656, PS 901, PS 902, PS 930, 2580, PS 2585 - Raceway End Caps





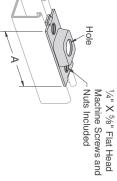


Part	Use With	Finish	Α	Wt./100
PS 902	PS 100		31/4"	22
PS 2580	PS 150		27/16"	18
PS 655	PS 200		15%"	11
PS 2585	PS 210	EG	15%"	12
PS 656	PS 300		13%"	15
PS 901	PS 400		1"	11
PS 930	PS 500		13/16"	5

#### PS 2560, PS 2561 – Conduit Connector Fitting







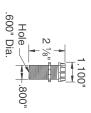
itting,

Stock Size: (.060)

2 Nuts	Assem
, 2 Bc	<u>₩</u>
olts	Connector
	₽

Part No.	Use With	Α	Hole	Design Load (lbs.)	Wt./100 pcs
PS 2560	½ Conduit"	4"	7/8"	400	36
PS 2561	3/4 Conduit"	51/8"	13/32"	200	36

### PS 803 - Fixture Wiring Nipple



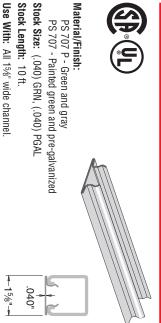
Assembly: 1/2" x 2" rigid conduit nipple

**Bushing Locknut** 

Weight/100 pcs: 14 lbs.



PS 707,



Weight 47 Lbs./ft.

## **PS 2511, PS 2581** – End Cap With Knock-Out









**Assembly:** End Cap Part, 1 Machine Screw, 1 Nut Specify 1/2" or 3/4" knock-out

Part	Hee With	Finich	Λ	æ	Wt./100
 No.	Cog WILL	111011	>		pcs
 PS 2511-1	PS 100		31/4"	13/4"	3.1
 PS 2511-2	PS 200, PS 210	5	15%"	13/4"	2.7
 PS 2511-3	PS 300	G	13%"	13/4"	2.6
 PS 2581	PS 150		27/16"	2	3.0

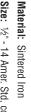
### PS 2625 – Wiring Stud Nut















PS 2625-1/2	Part No.	
15/64"	Α	
	1	

Identification

Weight/100
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pcs:
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lbs.

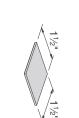
PS 2625-2-5%

%<u></u>

121960 121961

#### PS 2640 -Wire Retainer







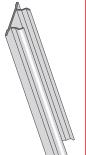
Material: Polypropylene

Weight/100 pcs: .30 lbs.

## PS 707 - Aluminum Raceway Closure Strip







Material:

6063-T6 Aluminum, Copper Free, Extruded

Stock Size: (.051)

Stock Length: 10 ft.

Use With: All 15%" wide channel

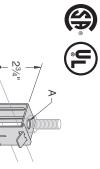


Weight 21 Lbs./ft.



Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish

## PS 2632 – Swing Gate Channel Hanger



1,:	9//6"	A Dia. ر
½" Conduit	1/2" Rod	Use With

Finish: Electro-galvanized

Sq. Hole

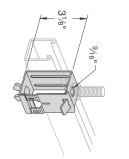
Use With: PS 200, PS 210, PS 300, PS 400 and PS 500

Load Rating: 90 lbs.

Weight/100 pcs: 25 lbs.

2631 – Swing Gate Fixture Hanger





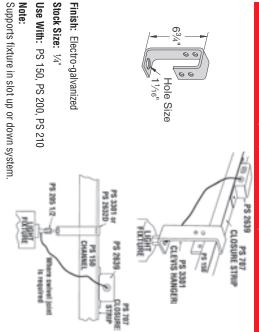
Use With: PS 200, PS 210, PS 300, PS 400 and PS 500

Load Rating: 90 lbs.

Includes Bolt and Wing Nut for connection to fluorescent fixtures

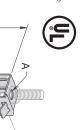
Weight/100 pcs: 27 lbs.

## 3301 – Mercury Vapor Fixture Hanger



## PS 2632D - Swing Gate Channel Hanger





½" Conduit	7/8"
½" Rod	9/16"
Use With	A Dia.

Finish: Electro-galvanized

Sq. Hole

Use With: PS 100, PS 150, PS 200 2T3, and PS 210 2T3

Load Rating: 90 lbs.

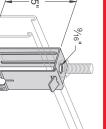
**2631D** – Swing Gate Fixture Hanger Weight/100 pcs: 34 lbs.

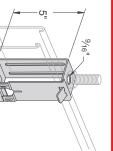
PS

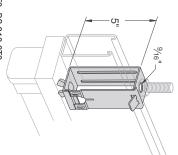












Electrical

Use With: PS 100, PS 150, PS 200 2T3, PS 210 2T3

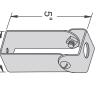
Load Rating: 90 lbs.

Includes Bolt and Wing Nut for connection to fluorescent fixtures.

Weight/100 pcs: 36 lbs

#### PS 807 – Channel Hanger





Use With: PS 100, PS 150

Load Rating: 150 lbs.

Washers supplied to adapt to 3/8" or 1/2" rod

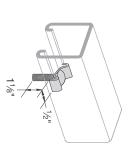
Weight/100 pcs: 35 lbs

Weight/100 pcs: 154 lbs.

Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish



### PS 2636 - Fixture Stud Nut



Size: 1/4" x 20 thread, 11/4" long

#### PS 2637 - Fixture Nut



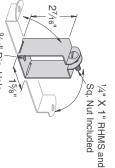
Size: Tapped for 1/4" - 20 thread

#### Weight/100 pcs: 5 lbs.

PS 702 - Fluorescent Fixture Hanger







Use hanger for PS 200, PS 210 & PS 300

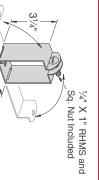




## PS 702 D - Fluorescent Fixture Hanger







Hanger provides more than ½" space between channel and fixtures. 32" Dia. Hole

Use hanger for PS 150.

Load Rating: 120 lbs.

Weight/100 pcs: 20 lbs.

#### PS 659 – Channel Hanger









Use With: PS 400, PS 500

Load Rating: 150 lbs.

Note: Washers supplied to adapt to 3%" or 1/2" rod

Weight/100 pcs: 28 lbs

## PS 703 – Fluorescent Fixture Hanger

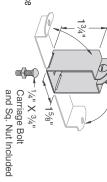
Weight/100 pcs: 2 lbs.





1/4" X 1" RHMS and Sq. Nut Included





Hanger provides more than 1/8" space between channel and fixtures.

Use hanger for PS 200 & PS 210.

Load Rating: 120 lbs

Weight/100 pcs: 17 lbs.

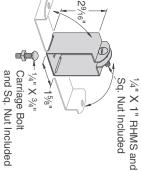
#### PS 703 D – Fluorescent Fixture Hanger











Use hanger for PS 150. Hanger provides more than ½" space between channel and fixtures

Load Rating: 120 lbs.

Weight/100 pcs: 18 lbs.

#### PS 658 – Channel Hanger







Use With: PS 200, PS 210, PS 300

Load Rating: 150 lbs.

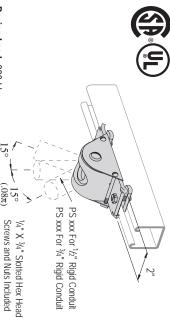
**Note:** Washers supplied to adapt to %" or ½" rod

Weight/100 pcs: 30 lbs.



Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish

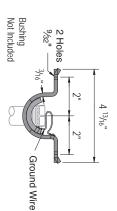
## PS 2621 - Conduit Swing Fitting



Design Load: 300 Lbs

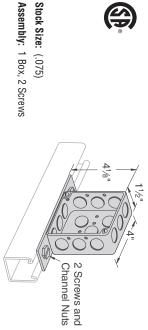
Conduit hanger fittings allow a free swivel of 15° in one direction.

Fitting may be mounted to the slot side of the channel or to the back



Weight/100 pcs: 396 lbs.

#### BS 2094 -4" Receptacle Box With Knock-outs



Assembly: 1 Box, 2 Screws

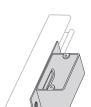


#### **PS 2639** – Outlet Box







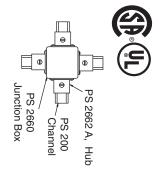


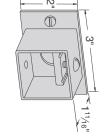
Stock Size: (.075)

Assembly: 1 Box, 2 Screws, 2 Channel Nuts

Weight/100 pcs: 88 lbs

### PS 2662 A - Hub Assembly



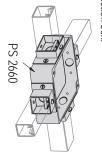


Use With: PS 200, PS 210

Assembly: 1 Hub, 2 Screws, 1 Bolt, 1 Nut

**Note:** Add hub assemblies to the basic PS 2660 unit assembly to make 1, 2, 3 ot 4-way junction box.

Identification No. 122022

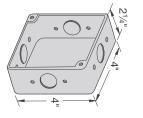


Weight/100 pcs: 27 lbs.

Electrical

#### PS 2660 -**Junction Box**





Note:
Add hub assemblies PS 2662-A
to make 1, 2, 3 or 4-way junction box.

Weight/100 pcs: 113 lbs

## PS 2661 – Junction Box Cover



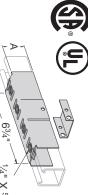


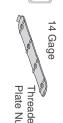
Weight/100 pcs: 30 lbs

Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish



## PS 649, PS 693, PS 694, PS 805, PS 942, PS 2582 - Electrical Joiner





 $^{1}\!4$  " X  $^{5}\!\%$  " Flat Head Machine Screv and 4 Hole Splice Plate Nut Include Plate Nut

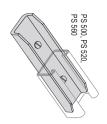
EG, GRN	PS 300	13%" 11/16"	PS 694
EG	PS 150 PS 200, PS 210	1%	PS 2582 PS 649
EG, GRN	PS 100		PS 805
Finish	Use With	Α	Part No.

#### Stock Size: (.060)

Assembly: 1 Splice Plate Clevis (GRN), 1 Tapped Plate (EG), 1 Backplate (GRN), 4 Flat Head Machine Screws (EG).

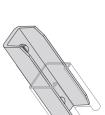
### PS 2700 - Inside Strut Joiner

Jam screws included **Material:** Extruded aluminum



#### Weight/100 pcs: 12 lbs.

### PS 2800 - Inside Strut Joiner



Material: Cast aluminum or electro-galvanized

Jam screws included

Note: electro-galvanized is not UL Listed



### Weight/100 pcs: 20 lbs.

## PS 2803 - "Cross" Inside Strut Joiner







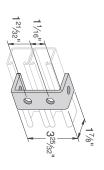


Jam screws included



#### Weight/100 pcs: 45 lbs

## PS 671 - Strut Suspension Member



Weight/100 pcs: 70 lbs.

#### PS 2802 -"Elbow" Inside Strut Joiner











Jam screws included Material: Cast aluminum

#### Weight/100 pcs: 27 lbs.

## PS 2801 - "T" Inside Strut Joiner











Weight/100 pcs: 35 lbs.

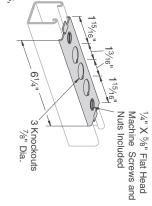
Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish

## PS 791 – Electrical Box Adapter Plate









Stock Size: (.060)
Assembly: 1 Plate, 2 Screws,
2 Channel Nuts

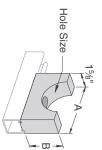
Weight/100 pcs: 35 lbs.

### PS 1510 – Maple Cable Saddle

Use With: All 15%" Channel

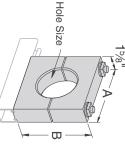
Assembly:
Maple Part, 1 Spring Nut,
1 Flat Head Screw

Note: Specify Cable Diameter



25			1100
Size	Α	В	pcs
0"-1"	ဒ္	13/4"	31
1"-11/2"	3½"	2"	38
1½"-2"	4"	21/4"	47
2"- 21/2"	41/2"	21/2"	57
21/2" - 3"	5-	23/4"	68
3"- 31/2"	51/2"	ယူ	80
)	)	) :	)

#### PS: **1801** – Square Maple Cable Clamps



Inside Diameter Size 0"-1" 1"-11/2" 11/2"-2"	<b>A &amp; B</b> 3½"  4½"	Wt./100 pcs 84 102 121
1" 11½"	4	102
1½"-2"	41/2"	121
2"- 21/2"	51/2"	165
21/2" - 3"	ರ್	189
3"-31/2"	61/2"	215
3½"-4"	7"	243

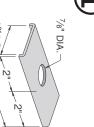
Use With: All 15/8" Wide Channels.

**Assembly:** Maple Part, 2 Stud Bolts, 2 Washers, 2 Spring Nuts, 2 Square Nuts

**Note:** Special maple clamps can be made to order. Specify Cable Diameter.

### PS 2627 - Spacer Clevis



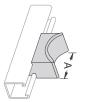




Material: 12 gage

Weight/100 pcs: 24 lbs.

## PS 1500 - Porcelain Cable Rack Insulators

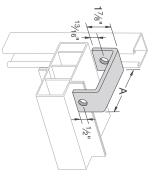


41/2"	ယ္ခ	Cable Diameter
4"	ယ္	Α
95	75	Wt./100 pcs

Electrical

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Use With: All 15%" channel



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0/	11/4"	A3/ <sub>4</sub> "	DC 760_2
73	39/32"	325/32"	PS 760-2
57	129/32"	213/32"	PS 760-1
pcs	Width	Width	No.
Wt./100	Inside	Outside	Part

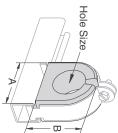
Weight/100 pcs: 93 lbs

Finish: Painted Green or Pregalvanized Stock Length: 10' & 20' Order By: No., Size and Finish



### PS 722 - Porce -A- Clamp™





#### Porce –A– Clamp™

Non-Breakable TPE Material

- A Clampto
- U.V. ResistantU.L. Listed
- Electro-galvanized or Stainless Steel Clamps
- Tapered Flange to Protect Cable
- Dielectric Strength 640 Volts Per Mil.
- One Piece
- Replaces Porcelain & Maple Cable Clamp
- For use in accordance with National Electrical Code ANSI/NFPA 70.

Replaces the two piece PS 723 Porcelain Cable Clamp

Includes: Everdur Hardware

Patents Pending

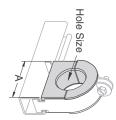
Strap Material: Electro-galvanized steel or stainless steel

Use With: All 15%" channel

Temperature Range: -50°F to +275°F

Part	Hole	Α	В	Wt./100
PS722 %"	3/8"			
PS722 1/2"	1/2"	17/8"	115/32"	25
PS722 5%"	5%"			
PS722 ¾"	3/4"			
PS722 7/8"	7%"	23	2	2
PS722 1"	1"	2%8	2732	3/
PS722 11/8"	11/8"			
PS722 11/4"	11/4"			
PS722 1%"	13%"	<b>3</b> 7%=	<b>3</b> 17%:	n o
PS722 11/2"	11/2"	27/8	2.732	50
PS722 15%"	15%"			
PS722 13/4"	13/4"			
PS722 17%"	17%"	<u>_</u>	25%=	76
PS722 2"	2"	1	J%8	/0
PS722 21/8"	21/8"			
PS722 21/4"	21/4"			
PS722 2%"	23%"	416=	416"	9
PS722 2½"	21/2"	472	478	90
PS722 25%"	25%"			
PS722 2¾"	23/4"			
PS722 27/8"	27/8"	л 6-	45%=	100
PS722 3"	ယူ	٥	4%	108
PS722 31/8"	31/8"			
PS722 31/4"	31/4"			
PS722 3%"	33/8"	£1%	л 11%°	130
PS722 3½"	31/2"	o °	0.732	-
PS722 35%"	35%"			
PS722 3¾"	33/4"			
PS722 37/8"	37/8"			
PS722 4"	4"			
PS722 41/8"	41/8"	71/4"	63/4"	160
PS722 41/4"	41/4"			
PS722 4%"	43%"			
PS722 41/2"	4½"			

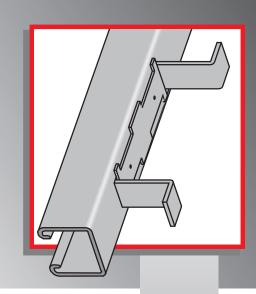
### PS 1610 - Maple Cable Clamp



Use With: All 15%" Wide Channel
Assembly: Maple Part, Pipe Clamp Assembly
Note: Specify Code Diameter

Note: Specify Cable Diameter

Inside Diameter	А	PS 1100 Size	Wt./100 pcs
0 to 5%"	15/16"	1"	24
½ to 1"	115/16"	1½"	42
3/4 to 11/2"	23/8"	2"	54
11/4 to 13/4"	31/2"	3	65
1½ to 2¼"	4"	3½"	84
2 to 2½"	4½"	4"	107
21/4 to 3"	5%6"	ល្ប	123
3 to 4"	65%"	<b>ာ</b>	163



## CONGRETE INSERTS

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

#### MATERIAL:

Power-Strut continuous slotted concrete inserts are cold formed from structural quality strip steel.

### STANDARD LENGTHS:

Standard lengths are 10 or 20 feet. Non-standard lengths from 3 inches to 20 feet are also available.

#### STANDARD FINISH:

Power-Strut continuous-slotted concrete inserts are available in plain or pre-galvanized finishes. Closure strips (CS) are made of plastic and end caps (EC) are pre-galvanized.

### ORDERING INFORMATION:

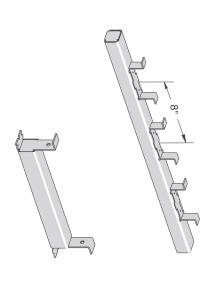
When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

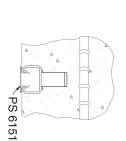
## **CONCRETE INSERTS**

Finish: Plain, Hot-Dipped Galvanized, or Pregalvanized Stock Length: 20', Other lengths made to order Stock Thickness: .105 (12 ga.) Order By: No., Size, Length and Finish



## PS 349 – Continuous Concrete Insert (15/8" x 13/8")



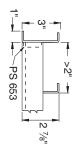


→12 Ga.

13/16"

PS 6151

2





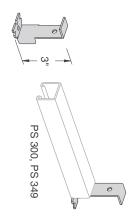
Choice of end cap is based on the distance from the end of the insert to the first anchor as shown below.

Furnished with steel end caps and plastic closure strips installed

- Use channel nuts designed for PS 300 Channel.
- Nail or anchor the inserts to forms every 16" to 24"

PS 349 20' W/0	PS 349 10' W/0	PS 349 20' CS/EC	PS 349 18' CS/EC	PS 349 16' CS/EC	PS 349 14' CS/EC	PS 349 12' CS/EC	PS 349 10' CS/EC	PS 349 9' CS/EC	PS 349 8' CS/EC	PS 349 7' CS/EC	PS 349 6' CS/EC	PS 349 5' CS/EC	PS 349 4' CS/EC	PS 349 3' CS/EC	PS 349 2'8" CS/EC	PS 349 2' CS/EC	PS 349 1'8" CS/EC	PS 349 1'4" CS/EC	PS 349 1' CS/EC	PS 349 8" CS/EC	PS 349 6" CS/EC	PS 349 4" CS/EC	PS 349 3" CS/EC	Part No.
Insert Unly	0			70 000	D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			PS 653	PS 656	PS 653	PS 656	PS 653	PS 656	PS 653	F3 030	DC GEG	PS 653	PS 656			PS 653			End Cap
3,554	1,777	3,570	3,215	2,859	2,504	2,148	1,793	1,615	1,438	1,260	1,082	905	727	549	490	371	312	253	194	147	117	87	72	Wt./100 pcs - PLN
psi concrete.	*uniform recommended									lbs./ft.	2,000									1,200 lbs.	800 lbs.	600 lbs.	500 lbs	Load Data*

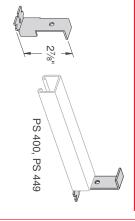
#### PS 653 -Type 'B' End Cap



Finish: Pre-galvanized

Weight/100 pcs: 14 lbs.

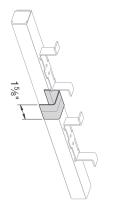
### PS 654 - Type 'B' End Cap



Finish: Pre-galvanized

Weight/100 pcs: 12 lbs.

### PS 1154 – Splice Connection



Use With: PS 349

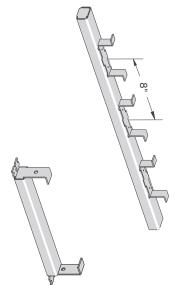
Weight/100 pcs: 10 lbs.

## CONCRETE INSERTS

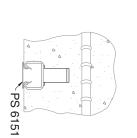
Finish: Plain, Hot-Dipped Galvanized, or Pregalvanized

Stock Length: 20', Other lengths made to order Order By: No., Size, Length and Finish

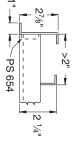
PS 449 - Continuous Concrete Insert (15/8" x 1")







PS 6151 -12 Ga.





Choice of end cap is based on the distance from the end of the insert to the first anchor as shown below.

Furnished with steel end caps and plastic closure strips installed

- Use channel nuts designed for PS 400 Channel.
- Nail or anchor the inserts to forms every 16" to 24"

## **PS 656, PS 901** – Type 'A' End Cap



Part No.	Use With Insert	Finish	Wt./100 pcs
PS 656	PS 349	200	8
PS 901	PS 449	FUAL	6

www.alliedeg.com

### PS 6151 – Plastic Closure Strip





11/16"

.040"

Stock Length: 10 ft.

Use With: All 15%" channel and inserts to prevent concrete seepage

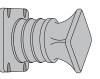


#### CONCRETE **INSERTS**

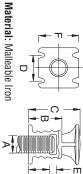


### PS 152 - Screw Concrete Insert

PS 285 - Light Weight Concrete Insert







Finish: Black

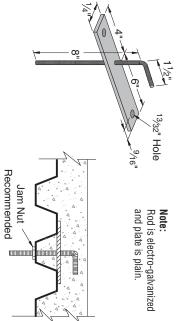
	PS 152 ¾ 3/4"	PS 152 5% 5%"	PS 152 ½ ½"	PS 152 %   %"	Part Size No. "A"
	15%"	17/32"	1 732	1 1 5 =	ѿ
	15%" 21/2" 11/4"		21/4"		C
	11/4"		<u>-</u>		0
	15/16"	5%"	7/2	1	ш
-	7/16"		% <sub>=</sub>		μ
	2"		15%"		П
2,500	5 600	1,260	1,130	600	Load Rating
71	64	37	32	31	Wt./100 pcs

### Finish: Plain or Electro-galvanized

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PS 285 ½	PS 285 %	PS 285 1/4	Part No.
1/2"	3 <sub>6</sub> "	1/4"	Rod Size
400	200	230	Load Rating
49	49	46	Wt./100

## PS 680 - Concrete Deck Insert



5	ro-galvanized	

PS 285 N -

Concrete Insert Nut (for use with PS 285)



Finish:
Plain (
or Electro-galvanized

Part	Rod	Δ	Wt./100
No.	Size	7	pcs
PS 285 N	1/4"	л	6
PS 285 N	3%"	916	5
PS 285 N	1/2"	74.2"	6
PS 285 N	5%"	7/16	7

#### PS 3700 -Concrete Deck Insert

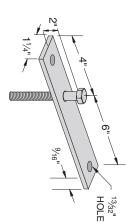
PS 680-36" PS 680-1/2" PS 680-56"

Load Rating 610 1,130 1,810

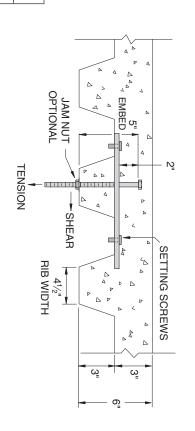
96 105 130

Part No.

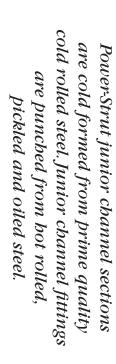
Wt./100



Part	Tension I nad	Shear I nad	W+ /100
No.	Rating/Lbs	Rating/Lbs	pcs
PS 3700-3/8"	850	600	89
PS 3700-1/2"	1,380	1,000	111
PS 3700-3/8"	1,920	1,760	141







### STANDARD LENGTHS:

Standard length is 10 feet at a tolerance of  $\pm l/16$  inches. Shorter lengths are available for a small cutting charge.

## STANDARD DIMENSIONS FOR FITTINGS:

Fitting Thickness:
Fitting Width:
Hole Diameter:
Hole Spacing: 1/8" 13/<sub>16</sub>" 9/<sub>32</sub>"

11/16" on centers and 13/32" from end.

#### STANDARD FINISH:

PS 600J and PS 700J junior channels are available in a galvanized or painted green finish. All junior channel fittings are available in electro-galvanized finish.

## ORDERING INFORMATION:

When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

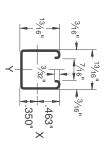
## **JUNIOR CHANNEL**

Finish: Electro-galvanized Stock Width: 13/16" Stock Thickness: 1/8" Stock Length: 10' Order By: No., Size and Finish Hole Spacing: 13/32" from end, 11/16" on center Hole Diameter: 9/32"

**POWER-STRUT** 







#### **BEAM LOADING - PS 600J**

	Max	Defl at	Uniform	Uniform Loading at Deflection	eflection
Span (in)	Allowable Uniform Load (lbs)	Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
18	230	0.06	230	230	180
24	170	0.11	170	150	100
30	140	0.18	130	100	70
36	110	0.24	90	70	50
42	100	0.35	70	50	30
48	80	0.42	50	40	30
54	80	0.60	40	30	20
60	70	0.72	30	20	20

<sup>\*</sup> Bearing load may govern capacity.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel

### COLUMN LOADING - PS 600J

60	54	48	42	36	30	24	18	Unbraced Height (in)
210	240	260	300	340	420	490	600	Max. Allowable Load at Slot Face (lbs)
410	470	540	630	770	990	1,300	1,660	Maximum  K = 0.65  (lbs)
330	370	420	490	590	740	1,010	1,400	Maximum Column Load Applied at C.G.           K = 0.65         K = 0.80         K = 1.0         K = 1.2           (lbs)         (lbs)         (lbs)         (lbs)
*	290	330	380	450	560	740	1,100	K =1.0 (lbs)
*	*	270	310	370	450	590	860	d at C.G. K = 1.2 (lbs)

<sup>\* \*</sup> KL//>200

Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### **ELEMENTS OF SECTION**

36	Weight (lbs./100 ft.)	
0.107	Alea of Section (Inch <sup>2</sup> )	Association
0.009	Moment of Inertia	
0.020	Section Modulus (Inch³)	X-X Axis
0.295	Radius of Gyration (Inch)	
0.012	Moment of Inertia (Inch <sup>4</sup> )	
0.029	Section Modulus (Inch³)	Y-Y Axis
0.333	Radius of Gyration (Inch)	

### PS 3017 – Junior Channel Nuts



1/4"	10-24	10-32	8-32	Size
1	1	1	1	Wt./100 pcs

### PS 4017 – Junior Channel Nuts



Size	8-32	10-32	10-24	
Wt./100 pcs	1	_	1	1

Use With: PS 700J channel

#### PS 2029 -**End Cap**



Use With: PS 600J

Weight/100 pcs: 2 lbs.

Use With: PS 600J channel

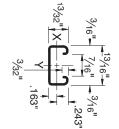


## **JUNIOR CHANNEL**

Finish: Electro-galvanized Stock Width: 13/16" Stock Thickness: 1/8" Stock Length: 10' Order By: No., Size and Finish Hole Spacing: 13/32" from end, 113/32" on center Hole Diameter: 9/32"

**PS 700J** – Channel (13/16" x 13/32" x 19 ga.





- \* Bearing load may govern capacity.
- \* \* KL/>200

Column loads are for allowable axial loads and must be reduced for eccentric loading. For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

#### BEAM LOADING - PS 700J

	Max		Uniform	<b>Uniform Loading at Deflection</b>	eflection
Span (in)	Allowable Uniform Load (lbs)	Defl. at Uniform Load (in)	Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
18	80	0.12	60	50	30
24	60	0.22	40	30	20
30	50	0.36	20	20	10
36	40	0.50	20	10	10

#### COLUMN LOADING -- PS 700J

	Max.	Maximun	Maximum Column Load Applied at C.G.	oad Applie	d at C.G.
 Unbraced Height (in)	Allowable Load at Slot Face (lbs)	K = 0.65 (lbs)	K = 0.80 (lbs)	K =1.0 (lbs)	K = 1.2 (lbs)
 18	420	1,200	990	720	510
 24	330	900	640	410	280
 30	260	620	410	*	*
 36	200	430	280	*	*

#### **ELEMENTS OF SECTION**

25	Weight (lbs./100 ft.)	
0.074	Section (Inch²)	Area of
0.002	Moment of Inertia (Inch <sup>4</sup> )	
0.007	Section Modulus (Inch <sup>3</sup> )	X-X Axis
0.150	Radius of Gyration (Inch)	
0.007	Moment of Inertia (Inch <sup>4</sup> )	
0.017	Section Modulus (Inch³)	Y-Y Axis
0.307	Radius of Gyration (Inch)	

#### 2013 -Square Washer

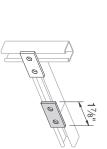


PS 2014 - Two-Hole Splice Plate







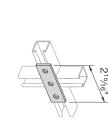




PS 2033 – Flat Angle Plate

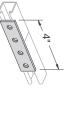
PS 2016 - Four-Hole Splice Plate

Weight/100 pcs: 2 lbs.

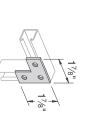


Weight/100 pcs: 8 lbs.

**PS 2034** – Tee Plate

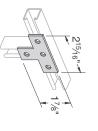






Weight/100 pcs: 8 lbs



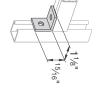


Weight/100 pcs: 11 lbs.

## **JUNIOR CHANNEL**



PS 2008 - Two-Hole Corner Angle



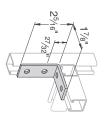
Weight/100 pcs: 5 lbs.

PS 2025 - Three-Hole Corner Angle



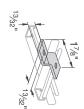
Weight/100 pcs: 8 lbs.

PS 2024 – Four-Hole Corner Angle



Weight/100 pcs: 11 lbs

PS 2026 -Zee Support

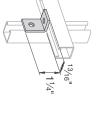


Use With: PS 700J

Weight/100 pcs: 6 lbs.

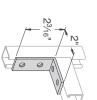
PS 2017 – Two-Hole Corner Angle

PS 2018 - Three-Hole Corner Angle



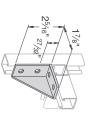
Weight/100 pcs: 5 lbs.

PS 2037 - Three-Hole Corner Angle



Weight/100 pcs: 8 lbs

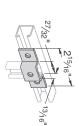
PS 2023 R or L – Four-Hole Shelf Bracket



Right Hand Illustrated Note: Specify R (right) or L (left) when ordering

Weight/100 pcs: 19 lbs

PS 2011 - "U" Support



Use With: PS 600J

Weight/100 pcs: 12 lbs.

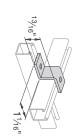
PS 2019 – Four-Hole Corner Angle

Weight/100 pcs: 8 lbs.



Weight/100 pcs: 11 lbs.

PS 2010 - Zee Support

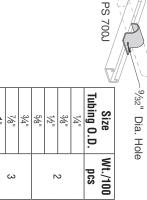


Use With: PS 600J

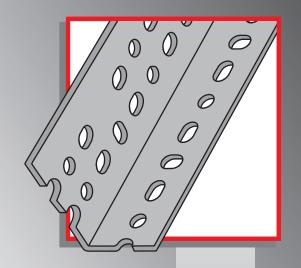
Weight/100 pcs: 7 lbs

PS 2041 -

Tubing Size



Power-Strut® Engineering Catalog



## POWER-ANGLE®

A complete support system that's versatile, economical and easy to use.

- No drilling, welding or special tools necessary.
- Fast, efficient bolt-together construction
- Easy to change and adjust

#### STANDARD LENGTHS:

STANDARD FINISH: Standard lengths are 10' and 12'. Slotted angle is shipped in ten-piece bundles complete with 75 pieces of 3%" - 16 x 3%" hex head bolts and 3%"

Available in two durable, long-lasting finishes; pre-galvanized or Power-Green<sup>TM</sup>.

## ORDERING INFORMATION:

When ordering, add the length or size and finish to the part number. See pages 8-9 for finish abbreviations and an example.

## POWER-ANGLE®

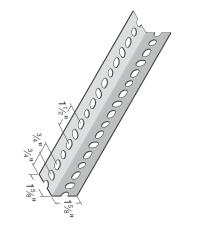
Finish: Pregalvanized or Acrylic Green Stock Thickness: Order By: No., Length and Finish .075(14 ga.) **Stock Length:** 10 & 12 Feet

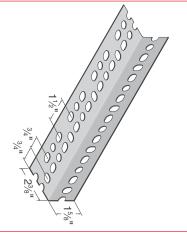
**PA 158** – Light Duty  $(15\%" \times 15\%" \times 14 \text{ ga.})$ 

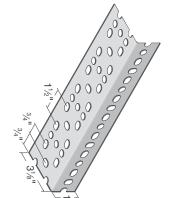
**PA 238** – Medium Duty (15%" x 23%" x 14 ga.)

**PA 318** – Heavy Duty (15%" x 31%" x 12 ga.)

POWER-STRUT







Weight/100 ft.: 66 lbs

**PA 1SC** – Swivel Caster

Weight/100 ft.: 80 lbs

PA 1RC - Rigid Caster

Weight/100 ft.: 130 lbs

Note: Includes Serrated Nuts & Bolts

PA 1RP - Slotted Strap







Weight/100 pcs: 170 lbs

PA 1GP - Gusset Plate

Weight/100 pcs: 110 lbs.

PA 1SNB - Serrated Nuts & Bolts

(Package of 75 nuts and 75 bolts)



Weight/100 pcs: 7 lbs.

Weight/100 pcs: 35 lbs.

Weight/100 pcs: 9 lbs.

100

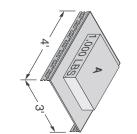


### **Beam Load Calculations**

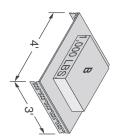
The beam loading depends on which slotted angle is used and the manner in which the beam is constructed. The diagrams on the next page show how individual slotted angle components can be combined to form a beam. The loading for each beam configuration is shown in the beam loading tables on the following pages

#### Example - Load "A"

Load "A" is supported by two 48" sections of PA-238 (15/8" × 23/8"). The 48" row of Table 2 (page 103) indicates what each beam configuration will support. Since the columns are sorted from lowest to highest load, the first configuration that satisfies the requirement is "J" which will support 1,110 lbs.



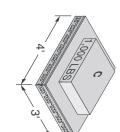
#### Example - Load "B"



Load "B" is supported by two 36" sections of PA-238 (15%" x 23%"). The 36" row of Table 2 (Page 103) indicates what each beam configuration will support. Since the columns are sorted from lowest to highest load, the first configuration that satisfies the requirement is "I" which will support 1,100 lbs.

#### Example - Load "C"

Load "C" is supported by all four beam sections. The load is distributed uniformly on two 3' and two 4' beams which total 14' of supporting beam length. Dividing the 1,000 lb. load by 14-feet equals 72 lbs. per foot. Using the two longest (weakest) lengths, calculate the total weight as follows:



#### 2 (beams) x 4' (length) x 72 lbs./ ft. = 576 lbs. total weight

The 36" row of Table 2 (Page 103) indicates what each beam configuration will support. Since the columns are sorted from lowest to highest load, the first configuration that satisfies the requirement is "H" which will support 680 lbs. and is adequate for this requirement. The 3-foot beams configured in the same manner will support the load because they are shorter and stronger.

#### Transverse Stiffeners

When supporting concentrated loads, the capacity of a pair of slotted-angle beams can be increased by the addition of transverse stiffeners. These should be placed immediately under the load bearing point.

The slotted-angle segment used as the stiffener is bolted into place using a metal connector at each junction.

Beams that are 6' long or less require only one stiffener in the center of the span. Seven-foot beams need two stiffeners placed 2' from each end. Eight-ffot beams require two stiffeners 2'6" from the ends. For beams with a nine-foot span, it is necessary to have three stiffeners at 2'3" intervals. Ten-foot beams need three stiffeners with 2'6" spacings.

For maximum effectiveness, transverse stiffeners should never be spaced more than 3'6" apart.

Note: All loads based on actual physical testing. Documentation available on request.

### **Column Load Calculations**

Column sections are calculated as described in the following example: (Assumes use of PA-238  $1^5$ %" x 2 5%", material.)

Since all load areas are supported equally by the 4-columns, the calculations are based on a

single-column section.

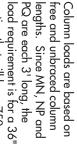
3

1,000;

Section MN is one-fourth of "X", or 250 pounds. Column section NP supports one-fourth of "Y" (250 pounds) plus the load supported by MN, or a total of 500 pounds. Section PQ supports one-fourth of "Z" (250 pounds) plus the 500 pound load on section NP, or a total of 750 pounds.

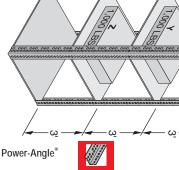
Z

 $\boldsymbol{\sigma}$ 



section that will bear 750 pounds safely. A reference to Table 5 (Page 104) indicates that all sections designated "A" will support 2,280 lbs. and meet the necessary requirements.

**Note:** To simplify assembly, we recommend using the same size material as for the horizontal members. This would be found in Table 2 to match the 14 gauge  $15\%" \times 25\%"$  material selected for the beams of this structure.



Ø

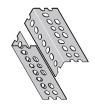
## POWER-ANGLE®

Finish: Pregalvanized or Acrylic Green Stock Thickness: .075(14 ga.) Stock Length: 10 & 12 Feet Order By: No., Length and Finish



# Beam Configurations (See corresponding letters in table on following page for load data)

Two Single Pieces (Up)



H – Two Single Pieces (Level)

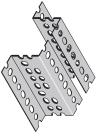


I - Two Single Pieces (Down)





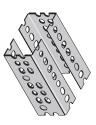
J - Two Z-Sections



K - Two Narrow Channels



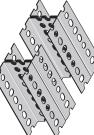




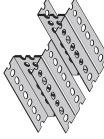
M - Two T-Sections



N - Two I-Section



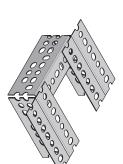
0 - Two J-Sections





# **Beam Configurations With Stiffeners** (See corresponding letters in table on following page for load data)

P - Single Pieces w/Stiffner



R - Z-Sections w/Stiffener

Q - T-Sections w/Stiffener



R - I-Sections w/Stiffener







Finish: Pregalvanized or Acrylic Green Stock Thickness: .075(14 ga.) Stock Length: 10 & 12 Feet Order By: No., Length and Finish

# Beam Loads PA 158 - Light Duty (15%" x 15%" x 14 ga.)

Table 1

			Bea	m S	Spar	ı (Ir	nche	es)			
120	108	96	84	72	60	48	36	24			
•	•	•	•	180	220	280	370	550	G		
•	•	210	240	280	330	420	560	830	Ŧ		Beam
•	•	210	240	280	330	420	560	830	_	Beam	Configura
•	•	230	260	310	370	460	610	920	P	Beam Load in Pounds*	ation (See
320	360	400	460	530	640	800	1,070	1,600	_	ounds*	Beam Configuration (See Previous Page)
340	380	430	490	570	680	850	1,130	1,700	æ		Page)
370	410	460	530	610	740	920	1,230	1,840	<b>Z</b>		



**Beam Loads PA 238** – Medium Duty  $(15\%" \times 23\%" \times 14 \text{ ga.})$ 

Table 2



		В	ean	s Sp	an	(Inc	hes	)		
120	108	96	84	72	60	48	36	24		
•	•	•	•	230	280	350	460	700	G	
•	•	260	290	340	410	510	680	1,020	Ŧ	
•	•	410	470	550	660	830	1,100	1,660	_	Ве
•	•	440	500	580	700	870	1,160	1,740	P	Beam Configu
440	490	550	630	740	890	1,110	1,480	2,220	ے	ration
630	700	790	910	1,060	1,270	1,580	2,110	3,170	_	ee Previo
650	720	810	920	1,080	1,290	1,620	2,150	3,230	æ	ıs Page) -
700	770	870	1,000	1,160	1,390	1,740	2,320	3,490	M	(See Previous Page) - Beam Load in Pounds*
720	800	900	1,030	1,200	1,440	1,800	2,390	3,590	~	d in Pound
730	810	910	1,040	1,210	1,450	1,810	2,420	3,630	Q	*
1,210	1,350	1,520	1,730	2,020	2,420	3,030	4,040	6,060	0	
1,510	1,680	1,890	2,160	2,520	3,020	3,780	5,040	7,560	z	

# Beam Loads PA 318 - Heavy Duty (15%" x 31%" x 12 ga.)

Table 3



		I	Bea	m S	pan	(In	che	s)		
120	108	96	84	72	60	48	36	24		
•	•	•	•	600	720	900	1,200	1,790	G	
•	•	400	460	540	640	810	1,070	1,610	Ŧ	
•	•	1,080	1,230	1,430	1,720	2,150	2,870	4,300	_	В
990	1,100	1,240	1,420	1,650	1,980	2,480	3,310	4,960	P	Beam Configuration
1,300	1,450	1,630	1,860	2,170	2,610	3,260	4,350	6,520	ے	guration (S
1,580	1,760	1,980	2,260	2,640	3,160	3,950	5,270	7,910	٦	ee Previou
1,610	1,790	2,020	2,300	2,690	3,230	4,030	5,380	8,070	æ	ıs Page) - I
1,980	2,200	2,480	2,830	3,310	3,970	4,960	6,610	9,920	8	Beam Load
2,000	2,220	2,500	2,850	3,330	4,000	4,990	6,660	9,990	_	(See Previous Page) - Beam Load in Pounds
2,030	2,260	2,540	2,910	3,390	4,070	5,080	6,780	10,170	Q	*
2,920	3,240	3,650	4,170	4,870	5,840	7,300	9,730	14,600	0	
3,220	3,580	4,030	4,610	5,370	6,450	8,060	10,750	16,120	z	

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<sup>\*</sup> Based on simple beam condition with uniform loads on parallel beams. To determine concentrated load capacity at mid-span, multiply uniform load by 0.5.

## POWER-ANGLE®

Finish: Pregalvanized or Acrylic Green Order By: No., Length and Finish Stock Thickness: .075(14 ga.) **Stock Length:** 10 & 12 Feet

#### Column Sections

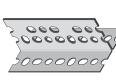
for load data) (See corresponding letters in table on

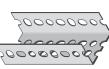


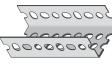
В T-Section

B – Broad Channel Section







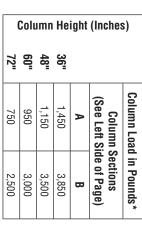




**POWER-STRUT** 

**PA 158** – Light Duty (15/8" x 15/8" x 14 ga.)

Table 4





PA 238 -Medium Duty (15%" x 23%" x 14 ga.)

Table 5

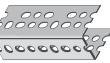


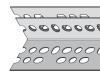


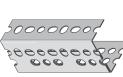


C – Uneven T-Section

C – Uneven Channel Section







A

В

C

ш

Column Sections (See Left Side of Page)

Column Load in Pounds\*



Column Height (Inches)

60"

1,520 1,970 2,280

3,995

4,490 4,760

8,970

9,520

9,865 П

4,940

48 36

72"

1,070 660

6,280

7,990

8,620 9,330



D – T-Channel Section



108"

84

96"

1,750 2,340 3,140

3,500

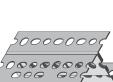
4,660

2,060 2,700 3,665 3,870 4,310 4,680

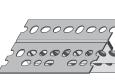
1,610

2,690 2,870 3,850 4,930 5,840 6,370 6,920 ,270 

3,210 4,115 5,365 6,740 7,715







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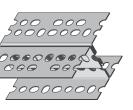
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I-Section



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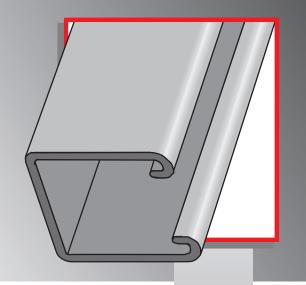
12 ga.)

Table 6



		Colı	ımn	He	ight	(Inc	ches	;)		
120"	108"	96"	84"	72"	60"	48"	36"			
•	•	•	•	1,280	1,970	2,870	3,470	Α	C	Co
•	•	2,580	3,670	5,270	6,570	7,360	7,970	В	olumn Se	lumn Loa
4,460	5,460	6,260	6,970	7,690	8,180	8,580	8,770	0	ctions (So	Column Load in Pounds*
5,370	6,880	8,370	9,470	10,480	11,360	11,970	12,560	D	ee Left Si	lds*
•	•	5,170	7,370	10,560	13,160	14,750	15,940	ш	Column Sections (See Left Side of Page)	
8,960	10,970	12,570	13,970	15,360	16,360	17,150	17,550	T	е)	

Column Loads are concentric without intermediate lateral support



### FIBERGLASS

The installation of fiberglass channel and accessories is similar to the installation of metallic channel and accessories. All standard installation practices and procedures apply. In general, special bandling is not required. Fabrication of Aickinstrut components requires just three simple operations; cutting, drilling and sealing.

Technical Information

### **AICKINSTRUT**

### Aickinstrut Specifications

### AICKINSTRUT FABRICATION

The installation of fiberglass channel and accessories is similar to the installation of metallic channel and accessories. All standard installation practices and procedures apply. In general, special handling is not required. Fabrication of Aickinstrut components described below. just three simple operations; cutting, drilling and sealing

cuts are required. For frequent cutting, a circular power saw with a carbide-tipped masonry blade yields the best results and the greatest number of cuts. When using a **Cutting** – Cutting can be accomplished with a wide variety of saws. Hand held saws, such as hack saws (24 to 32 teeth per inch) are suitable when a few number of power saw, dust filter masks, gloves and long sleeve clothing should be worn

bits are recommended. battery-powered drills will work well. Carbide-tipped drill **Drilling** – Any standard twist bit, even when used with

rosive elements into the cut sections, all cuts and holes should be properly sealed using Aickincoat or Aickinzap. Sealing - To protect against future migration of cor-

#### LABOR SAVINGS

a much faster rate than steel. Typically, fiberglass can be fabricated in less than half the time. As a result, substantial labor savings will be realized. Also, Aickinstrut products average 1/3 the weight of their steel counterparts, making them much easier to handle on Aickinstrut fiberglass structural members can be cut and drilled at a much faster rate than steel. Typically, fiberglass can be fabricated

### RELATIVE MATERIAL COSTS

can be used with the knowledge that it will not have to be maintained regularly or replaced after a brief time. Should pre-galvanized channel have to be replaced once, its cost far outweighs the expense of doing the initial installation with Aickinstrut. even though slightly more expensive than pre-galvanized channel, ty metals traditionally used in corrosive environments. Aickinstrut, Aickinstrut materials are advantageously priced relative to special

#### MATERIAL

materials from the following resin families: The finished Aickinstrut application will utilize a combination of

Material Code	Material
ш	PVC (extruded)
₽	Polyester (pultruded)
<	Vinyl ester (pultruded)
PU	Polyurethane (injection molded)
PP	Polypropylene (injection molded)
z	Nylon (injection molded)

chemical exposures and static loads is covered in each of the following sections. By using these criteria, you will be able to select the optimal Aickinstrut Channel, Fittings and Accessories for your particular applications The ability of each material to handle high and low temperatures,

### **OPERATING ENVIRONMENT**

consideration should be given to the maximum operating conditions. These "worst case" conditions will determine which type of Aickinstrut materials are best suited for your application. The three "worst case" operating conditions to consider are: In order to design an Aickinstrut system for your application,

- Chemical Environment

temperatures for your applications. materials covering distinct temperature ranges. Materials should be chosen which meet or exceed the minimum and maximum Temperature Ranges – Aickinstrut is supplied in six different

Material	Low	High
Code	Temperature	Temperature
Ш	-25°F	130°F
P	-35°F	200°F
<	-35°F	200°F
PU	-40°F	140°F
PP	-30°F	150°F
Z	-20°F	150°F

strength occurs at the extreme high temperature levels. The temperature ranges indicated are meant to be used only as a general guideline. Continual exposure to elevated temperatures reduces the strength properties of plastics and glass reinforced fiberglass. Actual resin test data confirms that a 50% reduction in

to corrosion. Less severe contact such as spills, splashes and vapor condensate will exceed the performance results listed in the table. own specifications regarding its performance against corrosion resistance. Use the following chart to deterhour period. best performance for your particular application. mine which Aickinstrut material system will provide the results in the chart are based upon immersion tor a 24 Chemical Resistance – Each resin family has its This is typically the "worst case" exposure

**Loading** – Channel loading is defined on pages 112. Additional loading and design limitations for fittings and accessories are described in the appropriate section for that part.



Technical Information

#### Aickinstrut Specifications

#### **1.0 SCOPE**

This specification covers the requirements for the Aickinstrut Nonmetallic Channel Framing System

#### 2.0 MATERIAL

- 2.1 FRP channel shall be of pultruded glass reinforced property values listed in this catalog. polyester or vinyl ester resin having the physical
- 2.2 PVC channel shall be of extruded polyvinyl chlothis catalog. ride having the physical property values listed in
- 2.3 polypropylene or nylon. Some accessories shall be of injection molded 40% long glass fiber reinforced polyurethane

#### 3.0 COMPOSITION

- Glass reinforced channel shall have a synthetic ultraviolet degradation. porated in the resin formulation to further inhibit prove weatherability and inhibit ultraviolet degsurfacing veil applied on exterior surfaces to imradation. An ultraviolet stabilizer shall be incor-
- 3.2 degradation. to improve weatherability and inhibit ultraviolet stabilized resin and incorporate dark gray pigment PVC channel shall be manufactured from a U.V.

### **4.0 STRUCTURAL DESIGN**

- prohibits premature flange failure from torqued acinterlocking contact of channel accessories and flange profile design which allows full and positive Channel shall incorporate Aickinstrut's patented cessories.
- 4.2 Channel profile dimensions shall be

4.3 All  $15/8" \times 15/8"$  channel profiles shall have a the inside flanges. minimum pull out resistance of 1,000 pounds when load is applied over a 3/8" long section of

- 4.4 Channel section lengths shall be supplied in 10' or 20' lengths (±½").
- 4.5 Universal Pipe Clamps shall have full interlocking O.D. sizes. pull-out resistance and be adjustable to accommodate a minimum 34" variance in piping or conduit contact with interior channel flanges to maximize

#### **5.0 STANDARDS**

- 5.1 them as Class 1 material in the Uniform Building 25 or less when tested per ASTM E84 and meet the requirements of UL 94VO thereby qualifying Glass reinforced and PVC channels covered in this specification shall have a flame spread rating of
- 5.2 Glass reinforced channels covered in this specification shall comply with the requirements of ASTM D 3917 and ASTM D 4385 which govern the dimensional tolerance and visual defects of pultruded

#### **6.0 GENERAL**

- 6.1 sealants, hangers, pipe clamps, etc. sary tasteners, channel splice plates, brackets, Aickinstrut Nonmetallic Channel Framing shall be furnished as a system which includes all the neces-
- 6.2 maximum strength and corrosion resistance. Nonmetallic fasteners shall be manufactured from long glass fiber reinforced polyurethane to ensure
- 6.3 assembly. 316 stainless steel hardware is used as part of the ing System shall be nonmetallic except where type All components of the Aickinstrut Channel Fram-
- 6.4 Aickinstrut is manufactured by Aickinstrut, a subsidiary of T. J. Cope, Philadelphia, Pennsylvania, 1-800-426-4293
- 6.5 The manufacturer shall not have had less than 10 years experience in manufacturing strut systems.

6.6 of America. All products are manufactured in the United States





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#### **FIBERGLASS**

Technical Information



## **Chemical Compatibility Table**

Chemical	Seri (Rigic	Series E (Rigid PVC)	Seri (Poly/	Series P (Poly/Glass)	Seri (Vinyl)	Series V (Vinyl/Glass)	Series K (PVDF)	es K	Series PU (Polyurethane)	s PU ethane)	Series N (Nylon)	n) n)
Acetic Acid, Up to 10%	R	R	R	R	R	R	R	D.	R	1	NR !	R
Acetic Acid, Up to 50%	R	R	R	R	R	R	R	R	R	1	NR	NR
Acetone, Up to 10%	NR	NR	NR	NR	NR	NR	NR	NR	R	ı	R	R
Aluminum Hydroxide	R	R	R	R	R	R	R	R	R	ı	NR	NR
Ammonium Hydroxide (Aqueous Ammonia), Up to 5%	R	Я	NR	NR R	æ	æ	æ	æ	æ	ı	I	I
Ammonium Hydroxide, Up to 10%	R	R	NR	NR	R	150°	R	R	R	ı	ı	ı
Ammonium Hydroxide, Up to 20%	R	R	NR	NR	R	150°	R	R	R	ı	ı	ı
Ammonium Nitrate	R	NR	R	R	R	R	R	R	R	1	ı	ı
Ammonium Phosphate	R	R	R	NR	R	R	R	R	R	ı	ı	ı
Ammenium Sulfide, saturated	R	R	NR	NR	R	120°	R	R	R	ı	ı	I
Aqua Regia, fumes	NR	NR	NR	NR	R	150°	R	R	NR	ı	ı	I
Benzene	NR	NR	NR	NR	NR	NR	NR	æ	R	æ	æ	æ
Benzoic Acid	R	R	æ	æ	R	æ	R	æ	æ	ı	ı	ı
Bromine, wet gas	R	NR	NR	NR	R	100°	R	æ	I	ı	ı	ı
Butylene Glycol, Up to 100%	R	R	R	R	R	D	R	R	R	ı	ת	D
Butyric Acid, Up to 50%	NR	NR	R	æ	æ	ъ	æ	æ	R	ı	ı	ı
Calcium Hydroxide	, D	ב	סקו	NR	D D	סס	ם	ב	ס	ı	j	j 1
Calcium Hypochiorite	<u> </u>	<u> </u>	<u></u>	3 3	ב כ	, כ	ב כ	, ב	7	ı	3	Ę
Chlorine, Wet Gas	NR R	NR I	NR R	NR E	B =	D =	D =	æ	ı	ı	ı	ı
Chlorine, Liquid	NR	NR	NR	NR	NR	NR	ъ	æ	ı	ı	ı	ı
Chlorine, Water	NR	NR	R	В	R	æ	R	В	Я	ı	NR	NR
Chromic Acid, Up to 5%	R	R	NR	NR	R	R	R	R	ı	ı	æ	æ
Copper Chloride	R	R	R	R	R	R	R	R	R	ı	ı	ı
Copper Cyanide	R	R	R	NR	R	R	R	R	R	ı	ı	ı
Copper Fluoride	R	R	R	NR	R	æ	R	æ	R	ı	ı	ı
Copper Nitrate	R	æ	æ	æ	R	ъ	æ	æ	R	ı	ı	ı
Copper Sulfate	R	В	R	R	R	R	В	R	R	1	ı	ı
Dechlorinated Brine Storage	R	R	ı	ı	R	В	R	R	R	ı	1	ı
Esters, Fatty Acid	NR	NR	R	В	R	В	R	R	R	ı	1	ı
Ferric Chloride	R	В	R	В	R	В	R	R	R	ı	ı	ı
Ferrous Chloride	R	R	R	R	R	В	R	R	R	ı	ı	ı
Fluoboric Acid	R	R	R	120°	R	В	R	R	ı	ı	ı	ı
Fluosilicic Acid, Up to 10%	NR	NR	NR	NR	R	В	R	R	ı	ı	NR	NR
Fluosilicic Acid, Up to 32%	NR	NR	NR	NR	R	100°	R	æ	I	ı	ı	ı
Formic Acid, Up to 10%	R	B	NR	NR	R	B	R	R	R	ı	NR	NR
Formic Acid, Up to 50%	R	В	NR	NR	R	100°	R	R	R	ı	ı	ı
Gasoline, Aviation	R	NR	R	NR	R	R	R	R	R	ı	ı	ı
Green Liquor, Pulp Mill	R	R	I	I	R	R	R	R	I	ı	ı	I
Hydrochloric Acid Up to 15%	R	R	R	NR	R	æ	R	æ	R	ı	ı	I
Hydrochloric Acid Up to 37%	æ	R	R	NR	R	æ	R	æ	R	ı	ı	ı
Hydrofluoric Acid, Up to 10%	æ	R	NR	NR	R	150°	R	æ	I	ı	ı	ı
Hydrofluoric Acid, Up to 20%	R	NR	NR	NR	R	100°	R	æ	ı	ı	1	ı
Hydrogen Chloride, Wet Gas	NR	NR	R	NR	R	æ	R	R	NR	ı	ı	ı
Hydrogen Sulfide, Wet Gas	R	R	R	NR	R	D	Ð	Ð	R	ı	ı	I
legend: "No" indicates "Not Recommended"	Recomm		, i.e.									

Legend: "NR" indicates "Not Recommended" for use;
"R" indicates "Recommended";
"-" indicates no information available



Technical Information

**Chemical Compatibility Table** 

					ļ					-		
Chemical	Series E (Rigid PVC) 70°-160°F	es E PVC) 60°F	Series P (Poly/Glass) 70°-160°F	is P ilass) 60°F	Series V (Vinyl/Glass) 70°-160°F	es V Glass) 60°F	Series K (PVDF) 70°-160°F	BS K DF) BO°F	Series PU (Polyurethane) 70°-160°F	s PU ethane) 60°F	Series N (Nylon) 70°-160°F	98 N 90 °F
Lactic Acid	R	D	R	NR	æ	R	R	R	R	ı	ı	ı
Lead Nitrate	R	R	ı	ı	R	R	R	R	R	ı	ı	ı
Magnesium Hydroxide	R	R	NR	NR	R	R	R	R	R	ı	R	R
Nickel Sulfate, Low pH	R	R	NR	NR	R	R	R	R	R	ı	ı	ı
Nickel Sulfate, High pH	R	R	NR	NR	R	R	R	R	R	ı	ı	ı
Nitric Acid, Up to 5%	R	R	NR	NR	R	150°	R	R	R	1	1	ı
Nitric Acid, Up to 35%	R	æ	NR	NR	æ	150°	æ	æ	æ	ı	ı	ı
Nitric Acid, Vapor	R	ъ	NR	NR.	æ	æ	æ	æ	ı	ı	ı	ı
Perchloric Acid, Up to 10%	NR	NR	NR	NR	R	150°	R	R	ı	Ι	NR	NR
Pickling Liquids, 3-5% H2S04	R	R	R	R	R	R	R	R	R	-	-	ı
Phosphoric Acid	R	R	NR	NR	R	R	R	R	R	ı	NR	NR
Phosphoric Acid, Super or Poly (115%, P20%)	R	æ	NR	NR.	æ	æ	æ	R	ı	ı	ı	ı
Phosphoric Acid Vapor or Condensate	R	D	NR	R	D	æ	æ	æ	1	1	1	1
Potassium Chloride	R	æ	R	æ	R	æ	æ	æ	æ	1	1	
Potassium Nitrate	R	æ	₽	æ	æ	æ	æ	æ	æ	1	ı	ı
Potassium Persulfate	R	æ	NR	F	æ	æ	æ	æ	æ	ı	1	ı
Silver Cyanide, Up to 5%	R	æ	NR	R	æ	æ	æ	R	æ	ı	1	
Sodium Hydroxide, Up to 25%	R	æ	NR	R	æ	150°	æ	æ	æ	ı	ı	I
Sodium Hydroxide, up to 50%	R	æ	NR	F	æ	180°	æ	æ	ı	ı	æ	æ
Sodium Hypochlorite, Up to 15%	R	æ	NR	R	æ	150°	æ	æ	æ	1	NR	NR
Sodium Nitrate	R	æ	R	æ	æ	R	æ	æ	æ	ı	ı	ı
Sodium Sulfate	R	æ	R	¥	æ	æ	æ	D	æ	'	'	1
Sodium Sulfide	R	æ	NR	NR	æ	æ	æ	æ	æ	1	ı	ı
Sulfuric Acid, Up to 25%	R	æ	æ	æ	æ	æ	æ	æ	æ	1	NR	NR
Sulfuric Acid, Up to 50%	R	D	NR	NR	D	æ	æ	D	æ	1	1	ı
Sulfuric Acid, Up to 70%	R	D	NR	NR	æ	æ	æ	D	R	1	NR	NR
Sulfuric Acid, Up to 75%	NR	NR.	NR	NR	æ	120°	æ	æ	ı	ı	NR	NR
Sulfuric Acid, Up to 80%	NR	F	NR	NR	NR	NR	NR	NR	ı	1	NR	NR
Sulfuric Acid, Vapor	R	D	R	NR	R	æ	R	R	ı	ı	ı	ı
Trichlorethylene, Fumes	NR	NR	R	NR	æ	120°	R	æ	NR	1	1	1
Trisodium Phosphate	R	R	R	NR	D	æ	æ	R	R	ı	1	ı
Urea	R	æ	æ	NR	æ	150°	æ	R	æ	ı	æ	æ
Vegetable Oils	R	æ	æ	æ	æ	æ	æ	æ	æ	'	æ	æ
Vinegar	R	R	R	R	R	R	R	R	R	R	R	R
White Liquor, Pulp Mill	R	R	1	'	R	R	R	R	ı	'	1	ı

Note: The recommendations contained in this table are made without guarantee of representation as to results. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by T.J. Cope, Inc. as to effects of such use or results to be obtained nor does T.J. Cope, Inc. assume any liability arising out of the use by others of the products referenced in this table. Nor is the information herein to be construed as absolutely complete since additional information may be needed or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material.

ZR" indicates "Not Recommended" for use; "R" indicates "Recommended"; ıį indicates no information available

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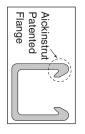
Fiberglass

Legend:

Channel

### CHANNEL FRAMING

All Aickinstrut channels, except the SST series, incorporate a patented flange design which provides reliable fastening and interlocking of Aickinstrut components and accessories.



Channels are provided in standard lengths of 10' with longer lengths available upon request. Aickinstrut single channels come packaged in boxes of 100' while the double channels are packaged in boxes containing 40'.

Aickinstrut channel is available in three materials:

- Polyester (P material),
- Vinyl Ester (V material) and
- PVC (E material)

# POLYESTER AND VINYL ESTER MATERIALS

The polyester and vinyl ester channels are manufactured from the pultrusion process. In this process, the component is made by reinforcing a polymer resin (polyester or vinyl ester) with multiple strands of glass filament, alternating layers of glass mat and U.V. resistant surfacing veils. The glass is drawn through the liquid resin, which coats and saturates the fibers. The combination of resin, glass and veil is then continuously guided and pulled (pultruded) through a heated die that determines the shape of the component.

In the die, the resin is cured to form a permanent, reinforced part which can be cut to a specific length. Since the hardened fiberglass pultrusion is reinforced with and internal arrangement of permanently bonded continuous glass fibers, it possesses great strength.

In addition, pultruded fiberglass components exhibit exceptional corrosion and fire resistance. These attributes make fiberglass the material of choice for many harsh industrial applications.

The polyester and vinyl ester channels are color coded. Polyester channels are colored gray and the vinyl ester channels are colored beige.

### **PVC MATERIALS**

The PVC channels are manufactured from the extrusion process. In this process, the component is made by a PVC resin mixture being continuously fed through a heated die that determines the shape of the component.

In the die, the resin is cured to form a permanent, extruded part that can be cut to a specific length. Unlike pultruded components, extruded components do not incorporate glass-reinforcement; consequently, they do not exhibit the same beam strength as their pultruded counterparts. PVC components, however; exhibit exceptional corrosion and fire resistance. These features make PVC channels an excellent alternative when excessive beam strength is not required. PVC channels are color coded dark gray.

## CHANNEL AVAILABILITY CHART

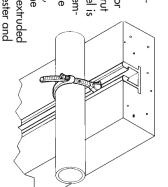
**AICKINSTRUT** 

The following chart illustrates the availability of materials in the different channel profiles.

Channel Profile	Polyester (P)	Vinyl Ester (V)	PVC (E)
Series 2000, 2200, 2300	×	×	×
Series 1500, 1700, 1800	×	×	N/A
Series 1000, 1200, 1300	×	×	×
Series 2100	×	×	N/A
Series 1600	×	×	N/A
Series 1100	×	×	N/A

## CONCRETE EMBEDMENT CHANNEL PART NO. – 20E-2300

In certain applications, it is necessary to embed a corrosion resistant channel into a new pouring of concrete. For these applications, Aickinstrut concrete embedment channel is recommended. Aickinstrut embedment channel is available in three material types; PVC, polyester and vinyl ester. The PVC embedment channel is extruded as one piece while the polyester and



vinyl ester embedment channel is a two piece bonded type design. The PVC embedment channel is available in the  $1^{5}$ %" and  $1^{1}$ %" profiles while polyester and vinyl ester embedment channels are available in all three profiles ( $1^{5}$ 8",  $1^{1}$ 2" &  $1^{1}$ 8").

The embedment channel utilizes two continuous protruding flanges in the profile base to retain the channel in the concrete. Mounting the embedment channel flush with the concrete surface is a convenient way to secure piping, conduits or electrical enclosures to a wall or ceiling. The PVC embedment channel is extremely high in strength. When embedded in 3,000 PSI concrete, the concrete will fail before the channel is pulled out.

## **AICKINSTRUT SST CHANNEL**

Aickinstrut SST Fiberglass Channel incorporates a standard channel profile that will accommodate metallic pipe straps and clamps. SST channel is available in polyester or vinyl ester resin. All standard styles (solid, slotted, concrete insert and back-to-back) are also available. Please contact the factory for loading information for the SST Channel.

Note: Aickinstrut SST Channel is not compatible with the Aickinstrut pipe clamps, channel nuts, and grooved fittings shown in this catalog. Please contact Aickinstrut for information on a complete line of compatible clamps and channel nuts.

Channel

# **HEAVY DUTY CHANNEL – AICKINSTRUT PROFILE**

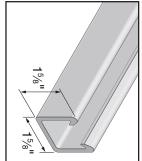
Standard 20P-2000, 20V-2000, 20E-2000

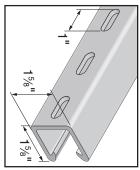


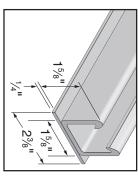


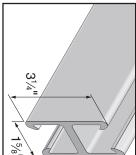
With Concrete Inserts 20P-2300, 20V-2300, 20E-2300

**Back-to-Back** 20P-2100, 20V-2100









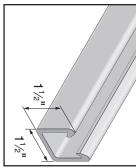
# MEDIUM DUTY CHANNEL – AICKINSTRUT PROFILE

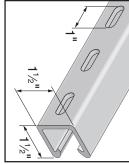
Standard 20P-1500, 20V-1500

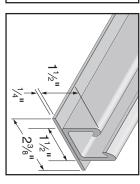
20P-1700, 20V-1700 Slotted (1" x 3%" Holes)

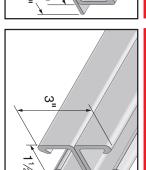
With Concrete Inserts 20P-1800, 20V-1800

**Back-to-Back** 20P-1600, 20V-1600









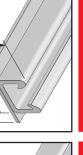
## LIGHT DUTY CHANNEL - AICKINSTRUT PROFILE

Standard

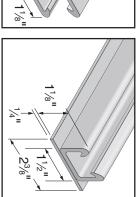
20P-1000, 20V-1000, 20E-1000

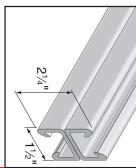
**Slotted** (1" x 3/8" Holes) 20P-1200, 20V-1200, 20E-1200











# **HEAVY DUTY CHANNEL – STANDARD PROFILE**

11%"

11/2

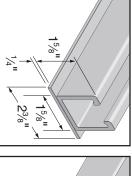
11/2"

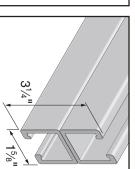
20P-2000-SST, 20V-2000-SST

**Siotted** (1" x 3%" Holes) 20P-2200-SST, 20V-2200-SST









Fiberglass

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15%"

1%"

1%"

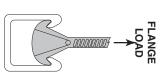
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Channel Loading



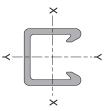
### Flange Loading

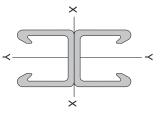
Pull-out strength is the channel's resistance to a clamp or fastener inserted under the flange and put under tension. For additional information concerning specific channels, materials and their pull-out strengths, refer to the channel flange pull-out chart on the right.



ety factor	Values snown represent a 3:1 safety factor
213	20V-1000
213	20P-1000
239	20E-1000
Pull-Out Strength*	Light Duty Channel
219	20P-1500
229	20V-1500
Pull-Out Strength*	Medium Duty Channel
260	20E-2000
360	20P-2000
449	20V-2000
Pull-Out Strength*	Heavy Duty Channel

### Section Properties





:		141:341	Woinh	A		X - X Axis	Axis			Y - Y Axis	
Number	neigiii	WIGHT	Meiñir	Alea	-	R	C¹	$\mathbb{C}^2$	_	R	0
	(in.)	(in.)	(lbs./ft.)	(in. <sup>2</sup> )	(in. <sup>4</sup> )	(in.)	(in.)	(in.)	(in. <sup>4</sup> )	(in.)	(in.)
2000	15%	15%	0.82	1.06	0.31	0.54	0.70	0.93	0.42	0.63	0.82
2100	31/2	15%	1.64	2.12	1.77	0.91	1.63	1.63	0.85	0.63	0.82
1500	11/2	11/2	0.55	0.71	0.19	0.52	0.62	0.88	0.25	0.59	0.75
1600	ယ	11/2	1.10	1.42	1.02	0.85	1.50	1.50	0.49	0.59	0.75
1000	11/8	11/2	0.47	0.61	0.10	0.40	0.51	0.62	0.22	0.60	0.75
1100	21/2	11/2	0.94	1.22	0.42	0.59	1.13	1.13	0.44	0.60	0.75

### Beam Loading - PVC

The data listed in the Beam Loading Chart reflects testing conducted on Polyester (Type P) and vinyl ester (Type V) channels. PVC (Type E) material will differ from the Polyester/Vinyl ester Beam Loading Chart. To obtain the beam loading for PVC channel, reduce the load as follows:

 $PVC Beam Load = \frac{(Polyester/Vinyl Ester Beam Load)}{}$ 

Note: PVC is not recommended for lengths over 24"



Channel Loading

# Polyester/Vinyl Ester Beam Loading Chart

	(79:	Span	72	1			(Pai:	Span	0	0			(Pai:	Span	48					200	36	)				Span	30:	) 			000	Span	24"	)				200	18	) =			(Pai:	Span	12"	L )		Span	
20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	20P/V-1000	20P/V-1500	20P/V-2000	20P/V-1100	20P/V-1600	20P/V-2100	No.	Part
272	325	594	634	806	927	326	390	712	761	967	1,112	407	488	890	951	1,209	1,390	543	650	1,187	1,268	1,612	1,853	652	780	1,424	1,522	1,934	2,224	815	975	1,781	1,902	2,418	2,780	1,086	1,300	2,374	2,536	3,224	3,706	1,629	1,950	3,561	3,804	4,836	5,559	(Safety Factor - 3:1) Load (lbs.)	Max. Uniform Beam Load
5.441	3.343	3.686	2.935	1.536	1.018	3.779	2.321	2.560	2.038	1.067	0.707	2.418	1.486	1.638	1.304	0.683	0.452	1.360	0.836	0.922	0.734	0.384	0.254	0.945	0.580	0.640	0.509	0.267	0.177	0.605	0.371	0.410	0.326	0.171	0.113	0.340	0.209	0.230	0.183	0.096	0.064	0.151	0.093	0.102	0.082	0.043	0.028	Defl. of 1/360 Span Deflection (in.)	Uniform Load at
10	19	32	43	105	182	14	28	46	62	151	262	22	44	72	97	236	410	40	78	129	173	420	730	57	112	185	249	604	1,049	90	175	290	389	944	1,639	160	311	515	691	1,697	2,914	359	700	1,159	1,556	3,778	5,559	Column Load (lbs.)	Maximum
		0	0 200						0 167					0.133	2					0.100						0.083	0 083					0.00	0 06 7					0.050	0					0.00	0 000			(in.)	Deflection
225	485	727	1,001	1,248	2,015	324	698	1,047	1,442	1,798	2,902	507	1,091	1,636	2,254	2,809	4,534	901	1,906	2,859	3,698	4,482	6,451	1,298	2,369	3,553	4,375	5,236	7,405	1,862	2,778	4,168	4,979	5,909	8,181	2,351	3,136	4,704	5,509	6,501	8,866	2,759	3,439	5,160	5,961	7,007	9,454	(lbs.)	l nad

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### **Channel Fittings**

Aickinstrut Channel Fittings are required to fabricate an Aickinstrut structure and are easily attached to Aickinstrut Channels with channel nuts and polyurethane fasteners. The fittings are offered in two types; fabricated (cut from flat stock) or molded. Fabricated fittings are made from either polyester or vinyl ester material. All molded fittings with the exception of the post bases are molded in polyurethane. Post bases are also offered in polypropylene.

The 2500 Series Fittings are manufactured from ½" flat material. The 2800 Series Fittings are manufactured from ¾" flat material and feature grooves which stabilize the fittings when mounted to the open side of the channel. All channel fittings are provided with 13½2" holes which accommodate ¾" hardware, however several of the new molded fittings come with ½% holes 50PU-2613, and 50PU-2613. Larger diameter holes can be provided upon special request.

### Legend

**AICKINSTRUT** 

R = Right Hand L = Left Hand

= Len Hand

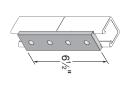
P Series Fittings are Grey
V Series Fittings are Beige

2500 Series - Flat

2800 Series - Grooved

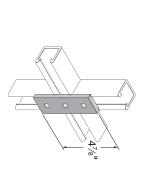
**Note:** Illustrations depict grooved channel fittings.

20P-2504, 20V-2504 (Flat) 20P-2804, 20V-2804 (Grooved)



## **20P-2502, 20V-2502** (Flat) **20P-2802, 20V-2802** (Grooved)

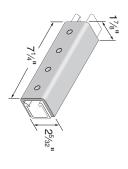
20P-2500, 20V-2500 (Flat) 20P-2800, 20V-2800 (Grooved)



### 50PU-2616

20P-2506, 20P-2806,

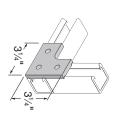
**20V-2506** (Flat) **20V-2806** (Grooved)



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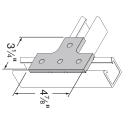
Note: %6" diameter holes

### 20P-2508, 20V-2508 (Flat) 20P-2808, 20V-2808 (Grooved)

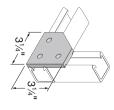


## 20P-2510, 20V-2510 (Flat) 20P-2810R, 20V-2810R (Grvd) 20P-2810L, 20V-2810L (Grvd)





## **20P-2514, 20V-2514** (Flat) **20P-2814, 20V-2814** (Grooved)

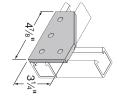


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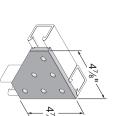
**Channel Fittings** 

20P-2516, 20V-2516 (Flat) 20P-2816R, 20V-2816R (Grvd) 20P-2816L, 20V-2816L (Grvd)

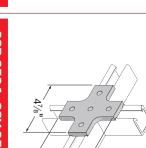


**20P-2518, 20V-2518** (Flat) **20P-2818, 20V-2818** (Grooved)

20P-2520, 20V-2520 (Flat) 20P-2820, 20V-2820 (Grooved)



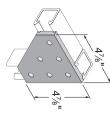
20P-2522, 20V-2522 (Flat) 20P-2822, 20V-2822 (Grooved)

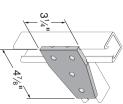


**20P-2524, 20V-2524** (Flat) **20P-2824, 20V-2824** (Grooved)

20P-2526, 20P-2826,

20V-2526 (Flat) 20V-2826 (Grooved)



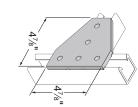


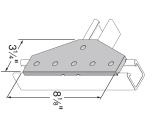
20P-2530, 20P-2830, **20V-2530** (Flat) **20V-2830** (Grooved)

20P-2534, 20P-2834,

20P-2528, 20P-2828,

**20V-2528** (Flat) **20V-2828** (Grooved)





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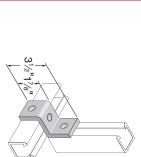
20P-2540, 20V-2540 (Flat) 20P-2840, 20V-2840 (Grooved)

20P-2541, 20V-2541 (Flat)



**50PU-2611** (Flat)

47%"



45°

51/4

0

**Fiberglass** 

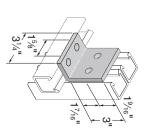


**Channel Fittings** 



## 20P-2542, 20V-2542 (Flat)

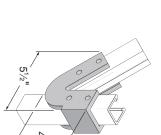
50PU-2611-SP

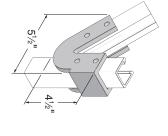


Note: 9/16" diameter holes

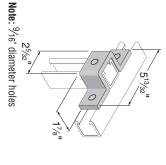
### 50PU-2045 (15%")

50PU-1508 (1½") 50PU-2008 (½")

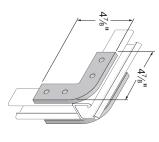




### 50PU-2613 (Flat)

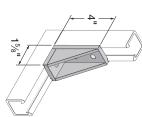


### 50PU-2090 (15/8")

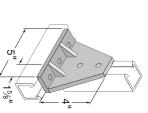


# 50PU-26361, 50PU-2636A2, 50PU-2636B3, 50PU-29364

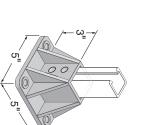
**50PU-2538** (Flat)



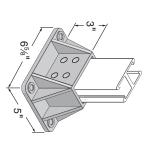
- 1) 50PU-2636 Flat, without splines
- 2) 50PU-2636A Splines on long side only
- 3) 50PU-2636B Splines on short side only
- 4) 50PU-2936 Splines on both long and short sides



20PU-5853 20PU-5855 20PP-5854 "), 20PU-5854 (1½") "), 20PP-5853 (1½") '), 20PP-5855 (1½")



20PU-5903 20PU-5905 20PP-5904 "), 20PU-5904 (3"), "), 20PP-5903 (3¼"), , 20PP-5905 (2¼")



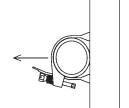
Pipe Clamps

## **Aickinclamps Design Load Information**

of loading. There are two types of piping system loadings, overhead (Type 1) and vertical (Type 2) as described below. All Aickinstrut pipe straps and clamps show the recommended loading for both types

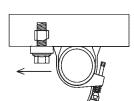
### TYPE 1 DESIGN LOAD

supported below the strut. The design loads shown are based on a minimum ultimate failure safety factor of 3:1. The design load shown represents pipes



### TYPE 2 DESIGN LOAD

The design loading shown can be achieved with the addition of a vertical stop lock assembly (Part #200-4219) installed directly beneath the pipe clamp. The adjacent illustration shows how the vertical stop lock assembly provides additional support for pipe and how it can be used to achieve full Type 2 design loads.



Design loads are based on a minimum clamp slip safety factor or 3:1. It is recommended that stop lock assemblies be used for all vertical pipe support applications.

## Adjustable Pipe Clamps

Aickinstrut Adjustable Pipe Clamps are manufactured from glass-reinforced polyurethane and are adjustable to accommodate a wide range of outside diameters. They can be utilized with a variety of piping systems including: PVC, fiberglass, copper, rigid steel conduit and PVC coated rigid steel conduit. Aickinclamps sized 61/2" – 20" are to be used only in non-load bearing applications. tions. These are applications where the weight of the pipe is being supported by Aickinstrut structural members (see figure on right).

Aickinclamps can safely be used in temperatures up to 160°F. For operating temperatures of 160-230°F, it is recommended to use PVDF clamps. PVDF clamps are available as a special order. Contact the factory for pricing and availability. Care should be taken not to exceed 3 ft./lbs. of torque on the adjustable pipe

200-3100 to 200-3140
----------------------

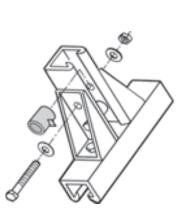
10 in O.D.	200-3100 to 200-3140
	00-3100 to 200-31

200-3150 to 200-3210

200-3210 200-3160 200-3190 Number 200-3180 200-3170 200-3150 200-3140 200-3130 200-3120 200-3110 200-3100 Part Design loads shown represent a 3:1 safety factor O.D. Pipe Size (in.) 21/4-31/4 11/2-21/4 14 - 16 $6\frac{1}{2} - 8$ 4 - 61/21/2-11/2 18 - 2012 - 1410 - 1216-8-10 3 - 418 Type 1 135 Non-Load Bearing 145 Design Load (Ihe )\* (lbs. Type 2 70 65 (ft./lbs.) 10 in./lbs. Torque ω

## **50PU-500SP** – Channel Spacers





channel fittings. The spacers are molded from poly-urethane and will accommodate  $36^{\circ}$  and  $1/2^{\circ}$  bolts. The spacers are designed to be used only with  $15/8^{\circ}$  and  $11/2^{\circ}$  channels. loading occurs during the torquing of hardware for channel fittings. The spacers are molded from poly compression under heavy loading conditions. Such Channel spacers are designed to prevent wall

### **AICKINSTRUT**

### Rigid Pipe Clamps

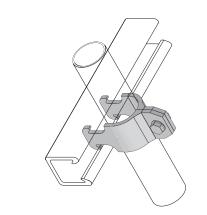
**Pipe Clamps** 

of pipe clamps. These clamps are made from glass-reinforced polyurethane and are sized based on the pipe inside diameter or nominal size. Aickinstrut Rigid Pipe Clamps resemble the more traditional style

Polyurethane clamps are recommended for applications up to 160°F. For high temperature applications (up to 230°F), PVDF clamps are available as a special order. Contact the factory for pricing and availability.

values of the rigid pipe clamps. Care should be taken not to exceed the recommended torque

 D	Naminal	PVC	Design Lo	Design Loads (lbs.)*		FRP Bolt
No.	Size (in.)	Sch. 80 & Rigid Metal	Type 1	Type 2	Size (in.)	Torque (ft./lbs.)
PCR-050	1/2	0.840				
PCR-075	3/4	1.050				
PCR-100	1	1.315				
PCR-125	11/4	1.660	2	8		
PCR-150	1½	1.900	627	90		
PCR-200	2	2.375			3% x 11/4	ω
PCR-250	21/2	2.875				
PCR-300	ω	3.500				
PCR-400	4	4.500				
PCR-600	6	6.625	300	125		
PCR-800	œ	8.625				



### Two Hole Pipe Straps

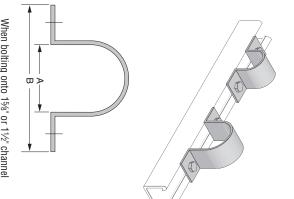
bearing applications. fiberglass straps can also be used independently from the channel Aickinstrut Two Hole Pipe Straps are designed for use in securing pipe, conduit and ducts to Aickinstrut Channel. Two hole for surface mounting. All sizes of the straps are suitable for load

The two hole pipe straps are manufactured from a fire-retardant,

glass reinforced polyester resin. For extreme chemical environments, the straps can be manufactured from vinyl ester resin.

Larger diameter straps for special applications are also available. above recommended values. large diameter straps. Contact the factory for pricing and availability of vinyl ester and Two hole pipe straps should not be torqued

Part	Dimension	nsion	<b>Bolt Size</b>	Material	Design Load (lbs)*	ad (lbs)*	Torque
No.	A (in.)	B (in.)	(in.)	Size (in.)	Type 1	Type2	(ft./lbs.)
PS050	0.840	4.840					
PS075	1.050	5.050					
PS100	1.315	5.315					
PS150	1.900	5.900			135	n O	
PS200	23/8	6.375				S	
PS250	27/8	6.875	16	1/. 🗸 15/.			
PS300	31/2	7.500	7/2	74 A 198			1
PS350	4	8.000					
PS400	41/2	8.500					
PS500	5%6	9.563			175	60	
PS600	65/8	10.625					
PS800	85%	12.625			225	125	
PS1000	103/4	15.750		17. 🗸 157	3 3 7	) )	
PS1200	123/4	16.250		/4 🔨 🛘 /8	223	123	
PS1400	14	18.000	5%				10
PS1600	16	20.000		3% X 15%	250	150	
PS1800	18	23.000					



When bolting onto 15%" or 11½" channel a 11¼" long bolt is required.

Notes: Bolts and channel nuts are sold separately.

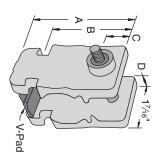
<sup>\*</sup>Design loads shown represent a 3:1 safety factor.

<sup>\*</sup>Design loads shown represent a 3:1 safety factor.



Pipe Clamps

## Aickin-A-Grip (SST Style Channel Only)



Multi-Size Adjustment Capability Seventeen Sizes of Tube & Pipe. Allows Four Clamp Sizes to Fit

Part	Nominal		Dimensions (In.	าร (In.)		Hex Head Cap	Wt/100
No.	Pipe Size	"A"	"B"	"C"	"D"	Screw & Lock Nut	pcs Lbs
PS TP-025	1/4	115/16	1%	3%	3/16	½-20 x 1½"	4
PS TP-625	3%	2%	1%		1/4		6
PS TP-875	1/2	21/16	113/16	7/16	5/.	½-20 x 2"	8
PS TP-100	3/4	211/16	115/16		716		8

Includes: Cushion, V-pad, and Hardware.

**Materials:** Cushion: Thermoplastic elastomer.

Hardware: Stainless Steel with Captured Nylon Locknut

Temperature Rating: -40°F to +275°F

Note: For use with SST Style Strut only

### Size Range Hex Bolt

### **FEATURE**

- Ten sizes of tube; Five sizes of pipe..
- Metric Sizes from 6mm to 32mm Using just four sizes of clamp. Diameters from .25" to 1.31"
- Non-Conducting

Corrosion Resistant

- UV Resistant
- lemperature

### ADVANTAGE

- Reduces Inventory SKU's
  Fewer parts needed on the job.
  Simplifies take-offs & component requirements on projects using both Tube & Pipe Sizes
  High pull out and slip loads

### BENEFIT

- Lowers Inventory Costs.
- Always have the right clamp on hand when you need it. Job Costing made easier & more accurate.

### 1-5%" Series Captured / Nylon Lock-Nut Channel "V" Pad "V" Pad

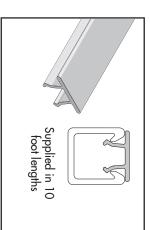
### Tube Sizes

Part No.	ī	0.D. Tube Sizes	es	Diameters	PullOut Load/Lbs	Slip Load/Lbs
PS TP-025	1/4	3%	1/2	0.25 - 0.54		
PS TP-625	5%	3/4	7/8	0.62 - 0.87	n 00	ò
PS TP-875	7/8	1	11/8	0.87 - 1.12	300	4
PS TP-100	_	11/8	11/4	1.00 - 1.31		

### **Pipe Sizes**

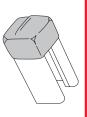
Part No.	Nominal Pipe Sizes	ıl Pipe es	Diameters	PullOut Load/Lbs
PS TP-025	1/4	-	0.25 - 0.54	
PS TP-625	3%	1/2	0.62 - 0.87	n 000
PS TP-875	3/.	1	0.87 - 1.12	500
PS TP-100	74	1	1.00 - 1.31	

### 20E-5000 -Channel Capping Strip



opening (such as concrete embedment channel). Channel Capping Strip is made from PVC and installs simply by pressing it onto the channel opening. It is designed to be used when a cover is desired for the channel

### AIC-EC -Channel End Cap



The Aickin-End Cap is made from red PVC and designed for 15%" channel. End caps are desired when the ends of the channel need to be enclosed. The Aickin-End Cap easily installs by pressing it onto the end of the channel opening.





<sup>(1)</sup> Based on preliminary testing
(2) SF = 5 to Ultimate Load
(3) Per MSS-SP69 & ASME B3 1.1 for water filled pipe

Pipe Clamps



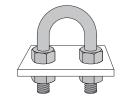
### Nonmetallic U-bolts

them to hold steel conduit and plastic pipe. in most corrosive applications. Nonmetallic U-Bolts have oversized diameters which allow Aickinstrut Nonmetallic U-Bolts provide a corrosion resistant alternative to traditional metallic U-Bolts. Made from glass-reinforced polyurethane, these bolts will outlast stainless steel

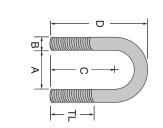
purchased separately. Each U-Bolt comes with two polyurethane hex nuts. Additional nuts and washers can be

pipe as shown here. The U-Bolts can also be installed to allow for thermal expansion and contraction of plastic

Part No.	Size	"A"	"B"	"C"	"D"	"TL"	Load (lbs.)*	Torque (in./lbs.)*
UB-050	1/2	0.937		1.568	2.412			
UB-075	3/4	1.125		1.662	2.600			
UB-100	1	1.375	0.375	1.787	2.850	1.25		40
UB-125	11/4	1.687		1.943	3.162			
UB-150	1½	2.000		2.100	3.475			
UB-200	2	2.437		2.468	4.187		135	
UB-250	21/2	2.937		2.718	4.687			
UB-300	3	3.562	0.500	3.031	5.312	1.50		80
UB-350	3½	4.062		3.281	5.812			
UB-400	4	4.562		3.531	6.312			
UB-600	6	6.750	0.625	5.750	9.875	3.25		120
*Torque a	ınd load val	ues shown	represent a	*Torque and load values shown represent a 3:1 safety factor.	factor.			



Note: Plate not included. Illustration purpose only

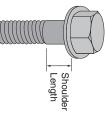


### Fiberfast Bolts

the need for a washer. The flanged style is provided for 1/4" and 1/2" diameter bolts. Flanged bolts are available in 3/6" diameter as a special order item. The hex head style is provided for all 3/6", 5/6" and 3/4" diameter bolts. All Fiberfast bolts are not fully Fiberfast bolts are provided in two styles and five diameters ( $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ " and  $\frac{3}{4}$ ") and range in length from  $\frac{1}{4}$ " to  $\frac{3}{2}$ ". The flanged style incorporates a molded washer collar which eliminates

threaded, therefore, shoulder length (nonthreaded portion) dimensions have been provided. Fiberfast bolts are ideal for mechanical connections that require a high degree of corrosion resistance. The 3/8" diameter fasteners are recommended for all channel fitting mechanical connections. All Fiberfast bolts are manufactured from ing 25 pieces. glass-reinforced polyurethane and are packaged in bags contain-

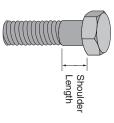
### Hex Flange Bolts



Shear Length (lbs.)* Length 210 Full Thread 1/2 Full Thread 870 3/4	23/1			½ x 3½	500PU-350
Shear Length (lbs.)* Length 210 Full Thread 1/2 Full Thread 870 3/4				½×3	500PU-300
Shear Length (lbs.)* Length 210 Full Thread 1/2 Full Thread 9770 3/		_		½ x 2½	500PU-250
Shear Length (lbs.)* Length 210 Full Thread Full Thread			450	½ × 2	500PU-200
Shear Length (lbs.)* Length 210 Full Thread			•	½ x 1½	500PU-150
Shear Length (lbs.)* Length 210 Full Thread 1/2			,	½ x 1½	500PU-125
Shear Length (lbs.)* Length	1/2	_		1/4 × 11/2	250PU-150
Shear Length			110	<sup>1</sup> /4 × 1	250PU-100
Shear Length				1/4 × 3/4	250PU-075
Shear			(lbs.)*	i	No.
Thread Shank Shoulder Torque			Thread Shear	Size	Part

# \*Thread shear values shown represent a 3:1 safety factor

### **Hex Bolts**



Part No.	Size	Thread Shear	Shank Shear	Shoulder Length	Torque (ft./lbs.)
375PU-125	% x 11⁄4	(IDS.)	(IDS.)	(In.) Full Thread	
375PU-150	3/8 x 1½			1/4	
375PU-200	3/8 x 2	250	470	1/2	ω
375PU-250	3/8 x 2 <sup>1</sup> /2			3/4	
375PU-300	$^{3}$ /8 $\times$ 3			1	
625PU-125	5/8 x 1 <sup>1</sup> /4				
625PU-150	5% x 1½				
625PU-200	5⁄8 x 2	700	3000	1/4	5
625PU-250	5/8 x 21/2	0	1,300		7
625PU-300	5⁄8 x 3				
625011-350	5% × 31%			11/2	

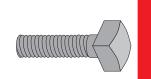
\*Thread shear values shown represent a 3:1 safety factor.



**Fasteners** 

## Vinyl Ester Square Head Bolts

but can be supplied in other diameters as a special order. Contact the factory for pricing and availability of special diameter square head bolts. mounting and general purpose fastening applications. The square head bolts are constructed from vinyl ester all-thread rod and vinyl ester square nuts. The units are bonded together with a durable two part urethane adhe-Vinyl ester square head bolts are used for concrete The square head bolts are offered in %" diameter



375V-400	375V-350	375V-300	375V-250	375V-200	375V-175	375V-150	375V-125	375V-100	No.	Part
3/8 × 4	3% x 3½	%×3	$\frac{3}{8} \times 2\frac{1}{2}$	%×2	$\frac{3}{8} \times 1^{3}/4$	3/8 × 11/2	% x 1 <sup>1</sup> /4	% x 1	0170	Cito
				250					(lbs.)*	Thread Shear
				10					(ft./lbs.)*	Torque

\*Thread shear values shown represent a 3:1 safety factor.

### Fiberfast Hex Nuts

nuts. The Aickinstrut hex nut is similar in design to the conventional hex nut and is preferred for channel fitting connections. The Aickinstrut hex flange nut is preferred for applications that require additional thread engagement (such as with all-thread rod) or Aickinstrut hex nuts are available in two styles; hex and hex flange

maximum thread shear strength. All nuts are manufactured from glass-reinforced polyurethane and are packaged in bags containing 25 pieces. All hex and hex flange nuts are available in PVDF and Polypropylene and metric sizes as a special order. factory for pricing and availability Contact the

Hex Nuts



Part No.	Size	Thread Shear (lbs.)*	Height	Torque (ft./lbs.)
250PU-000	1/4-20	150	0.218	.sdl/.ni 01
375PU-000	<b>%-16</b>	460	0.328	ω
500PU-000	1/2-13	800	0.437	8
625PU-000	%-11	1 000	0.546	12
750PU-000	3-10	1,000	0.640	15
1000PU-000	1-8	1,100	0.859	17
*Thread shear values shown represent a 3:1 safety factor.	values s	hown repre	sent a 3:1	safety factor.

### Flat Washers

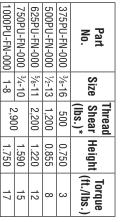
tions that utilize hex nuts and bolts. Flat Washers are made from PVC and are available for  $\frac{1}{4}$ " diameter through 1". PV 25 pieces. washers are recommended for connec washers are packaged in bags containing PVC PVC



1000E-999	750E-999	625E-999	500E-999	375E-999	250E-999	Part No.
_	3/4	5%	1/2	3/8	1/4	Size
2.25	1.50	1.50	1.25	1.00	0.49	Outside Diameter

### Hex Flange Nuts





## Vinyl Ester Square Nuts

They are recommended for ed vinyl ester square stock Square nuts are manufactured from pultrud

in bags containing 25 pieces Square nuts are packaged high thread shear values applications that require

Part No.	Size	Thread Shear (lbs.)*	Height	Torque
75V-000	<b>%-16</b>	1,300	0.437	
00V-000	1/2-13		0.562	
25V-000	<b>%-11</b>	1 700	0.687	10
50V-000	<sup>3</sup> / <sub>4</sub> -10	1,700	0.812	
000-000	1-8		0.937	
T	_		0 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	

3; 50 60 71 10

## \*Thread shear values shown represent a 3:1 safety factor.

### **All-Thread Washers**

\*Thread shear values shown represent a 3:1safety factor.

Aickinstrut All-Thread Washers are flat fiberglass wshers for use with FRP all-thread rods. All-Thread rod washers are 1/4" thick with a 1/8" diameter and are available in polyester or vinyl ester resin. To order vinyl ester, add the suffix "V" to the part number. To order square washers add the suffix "-SQ" to the part number.

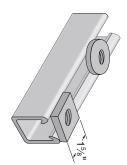
<b>Part No.</b> * WR375	All-Thread Rod Size (in.)
WR375	3%
WR500	1/2
WR625	5%
WD760	3,4

\* Add the suffix "V" to the part number to specify vinyl ester Example "WR500V"

\* Add the suffix " ~ ~ ~ ~ ~ \*

\* Add the suffix "-SQ" to the part number to specify square washer Example "WR500-SQ"

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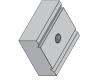
**Fasteners** 



### **Channel Nuts**

Channel nuts are provided in two types; Standard Duty and Heavy Duty. Standard Duty channel nuts are designed for light duty applications that do not require high thread shear values. Standard duty channel nuts can also be used with all sizes of Aickinstrut Channel. Heavy duty channel nuts are designed to be used where high thread shear values or spring nuts are required. Heavy duty

## **Duty Channel Nuts**



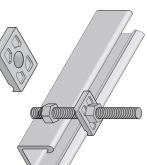
Part No.	Size	Thread Shear (lbs.)*	Torque (ft./lbs.)
375PU-CNHD	3/s-16		0
500PU-CNHD	1/2-13		0
625PU-CNHD	<sup>5</sup> %-11		10
750PU-CNHD	3/4-10	1	10
10PU-CNMHD	10 mm	1,400	0
12PU-CNMHD	12 mm		0
16PU-CNMHD	16 mm		10
20PU-CNMHD 20 mm	20 mm		5

\*Thread shear values shown represent a 3:1 safety factor.

### Saddle Clips

Aickinstrut Saddle Clips make fastening through Aickinstrut channel much easier. The clips mate with the exterior of the channel flanges and are secured with threaded rods and nuts. The saddle supplied in bags of 50 pieces clips are manufactured from glass reinforced polyurethane and are





channel nuts can not be used with Series 1000 Channel (light duty). All channel nuts are manufactured from glass-reinforced polyurethane and are packaged in bags containing 50 pieces. Channel nuts are also available in PVDF as a special order. Co tact the factory for pricing and availability. Con-

## Standard Duty Channel Nuts



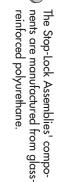
Part No.	Size	Thread Shear (lbs.)*	Torque (ft./lbs.)
250PU-CN	1/4-20		٥
312PU-CN	5/16-18		7
375PU-CN	<sup>3</sup> / <sub>8</sub> -16		
500PU-CN	1/2-13	460	ა
10PU-CN	10 mm		c
12PU-CN	12 mm		
10PU-CNS	#10 Screw		N/A

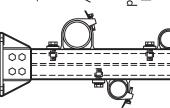
\*Thread shear values shown represent a 3:1 safety factor.

### Stop-Lock Assemblies

Stop-Lock Assembly is supplied with a heavy duty channel nut (the 5%" Stop-Lock Assembly will not work with the 1000 Series Channel). with a %" three sizes of channel. Stop-Lock with a 3/8", 1/2" and 5/8" bolt size. Aickinstrut Stop-Lock Assemblies reduce the chance of pipe slippage when running supports vertically. Stop-Locks are recommended cally mounted (Type 2). have regular contact with fluids or are vertifor applications that are subject to vibration, Stop-Locks are offered The Stop-Locks fit all The





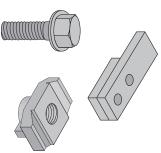






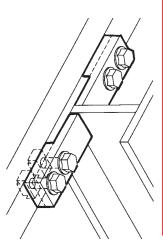
Part No.	Size	Force Resis- tance (lbs.)*	Torque (ft./lbs.)
200-4227	3%	200	7
200-4219	1/2	220	12
200-4343	%	250	15
*Force resistance v	alues shov	*Force resistance values shown represents a 3:1 safety factor.	safety factor.

### **Fabricated** Beam Clamps



Part No.	Flange Thickness	Thread Shear (lbs.)*	Torque (ft./lbs.)
20V-2BC-25	1/4		
20V-2BC-37	3/8	600	10
20V-2BC-50	1/2		
			1

\*Design load values shown represent a 3:1 safety factor. Bolts and channel nuts are ½" diameter.





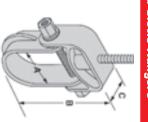
Pipe Hangers & Accessories

### Clevis Hangers

Clevis hangers are available in two styles; molded and hand lay-up. The molded clevis hangers are manufactured from glass-reinforced polyurethane and are available for sizes 1/2" through 6"

The hand lay-up clevis hangers are manufactured from glass-rein-forced vinyl ester resin and are available for sizes 1" through 24"

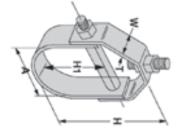
### **Molded Clevis Hangers**



Part No.	Nominal Diameter	Max. Pipe 0.D.	" <b>V</b> "	"В"	"C"	Hanger Rod	Load (lbs.)*
CVHPU-100	1/2 - 1	1	1.500	4.25			670
CVHPU-150	11/4 - 11/2	1½	2.000	5.14	1.25		0/0
CVHPU-200	1½-2	2	2.500	6.52		1/2	730
CVHPU-400	2½ - 4	4	5.125	10.00	7 20		1,150
CVHPU-600	4½ - 6	6	6.750	12.33	1.50		1,170

Design load values shown represent a 3:1 safety factor.

## Hand Lay-Up Clevis Hangers



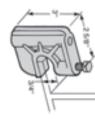
### Beam Clamps

Aickinstrut beam clamps are available in two styles; molded and fabricated. The molded beam clamps are manufactured from glass-reinforced polyurethane and can accommodate 3%", 1/2" and 5%" hanger rod sizes. The molded beam clamps utilize the traditional "C" clamp style design. The fabrication beam clamps thane bolts and channel nuts for clamping. Free clamps are available for attaching to ½", ¾", clamps are available for attaching to are manufactured from vinyl ester flat stock and utilize polyure-Fabricated beam and ½" thick beam

> flanges. Each fabricated beam clamp assembly includes four (4) ½" standard duty channel nuts, four (4) ½" Polyurethane bolts and two (2) attachment clips.

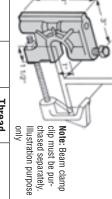
All Aickinstrut beam clamps allow easy attachment of threaded rod to "1" beams or other structural assemblies.

### Molded Beam Clamps



Part No.         Size Shear (ft./lbs)*         Thread (ft./lbs)           No.         (lbs.)*         (ft./lbs)           75PU-BC         38 400         10           00PU-BC         ½         400         10	3
--	---

### Cope-Glas Beam Clamps



Part No.	Size	Thread Shear (lbs.)*	Torque (ft./lbs.)
RGBC-1	3/8		
RGBC-2	1/2	500	10
RGBC-3	5%		

## Beam Clip – 375PU-BCCLP (3/8")





Fiberglass

123

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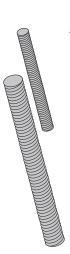
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**Pipe Supports** 



fastening Aickinstrut Channel. These rods can also be used with either the Aickinstrut vinyl ester square nuts, polyurethane hex nuts, hex flange nuts and Aickinstrut channel nuts. All FRP threaded rod is manufactured from pultruded vinyl ester resin and is gray in Pultruded threaded rods are an excellent choice for hanging and fastening Aickinstrut Channel. These rods can also be used with

threading are also available. availability. The standard rod lengths are 4' and 8'. Contact the factory for pricing and Special lengths and

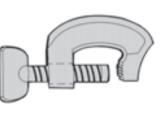


Part No.	Size	Weight	Thread Shear (lbs.)*	Torque (ft./lbs.)
200-3827	<sup>3</sup> /8-16	0.07	415	5
200-3828	1/2-13	0.12	570	10
200-3829	<sup>5</sup> /8-11	0.18	1,260	40
200-3830	3/4-10	0.28	1,700	50
200-3831	1-8	0.50	3,000	60

- \* Thread shear values shown represent a 3:1 safety factor.
  \* To order eight foot lengths, add suffix "-96" to part number (EX: 200-3827-96)

### **Duraclamp C-Clamps**

Duraclamps are glass-reinforced polyurethane C-Clamps that are designed to replace steel C-Clamps in areas where corrosion is a problem. The individual Duraclamp components can also be purchased separately.





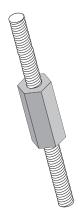
*Design load val	390N-CLP	390N-BLT	390N-150	Part No.
*Design load values shown represent a 3:1 safety factor.	"C"	Bolt	"C"-Clamp	Description
t a 3:1 safety factor.	25	N/A	25	Thread Shear (lbs.)*
	N/A	17	47	Torque (ft./lbs.)

**Note:** Bolt Dimension is 5/8" x 21/2"

## A-Konnector Rod Couplers

**AICKINSTRUT** 

pieces. A-Konnectors provide an excellent means for extending Aickinstrut FRP all-thread rods beyond their standard lengths. A-Konnectors are manufactured from glass-reinforced polyurethane and are colored gray. A-Konnectors are packaged in bags containing 25

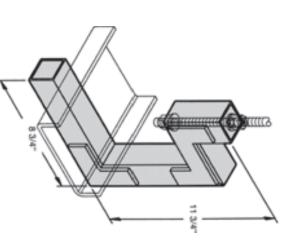


			_		
* Thread shear values shown represent a 3:1 safety factor.	200-3843	200-3842	200-3841	200-3840	Part No.
r values show	3/4-10	5%-11	1/2-13	3/8-16	Size
n represent a		2/4	<b>3</b> 1		Length
3:1 safety	1,500	1 500	870	800	Thread Shear (lbs.)*

### **Channel Hangers**

AIC-CH-P (Polyester)
AIC-CH-V (Vinyl Ester)

Hanger is available in either polyester or vinyl ester resin and is simply supported from a ½" FRP all-thread rod and beam clamp (not provided). The Channel Hanger will accommodate "C" channel width sizes 2" through 8". The Aickin-Channel Hanger is designed to support fiberglass structural "C" channel that is being used as a raceway system for cables, tubing or small diameter piping. The Aickin-Channel



Power-Strut® Engineering Catalog



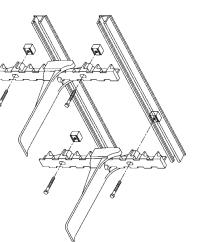
**Pipe Supports** 

## **Power-Rack Stanchions**

out-perform metallic supports against corrosion. The extended life-span of the Power-Rack Stanchions makes them the logical chains over metallic cable supports. The Power-Rack Stanchion is The unique interlocking design allows the arm to "lock" into nine different levels on the 141/4" stanchions and fourteen on the 171/2" choice over metallic cable supports. The Power-Rack Stanchion available in two different lengths and four different arm lengths. as a special order. stanchion. ports. Made entirely trom glass-reinforced nylon, these stanchions iron cable stanchions used for utility and industrial cable sup-The Power-Rack Stanchion is the new alternative to traditional Glass-reinforced polyurethane stanchions are available Contact the factory for pricing and availability



chion. diameter fasteners mounting holes are spaced on mounting holes is 17/8" holes in the 335/16" long stanstanchion and three mounting ing holes in the 21%" long back is designed with %/16" wide x 15/16" long holes to accept fasteners for mount-**Dimensions** – The stanchion 12" centers and require ½" There are two mount-Thickness at the slotted



Stanchions can be mounted to Aickinstrut concrete embedment channel and attached with ½" channel nuts and ½"x 3" Fiberfast anchoring system. For new concrete structures, the Power-Rack existing concrete structures using any good quality industrial Installation - The Power-Rack Stanchions can be anchored into

ments of UL94 HB. Fire Retardance - Power-Rack materials meet or exceed the require-

chions vary depending upon the position of the arm. Following the guidelines listed below will ensure a safe, reliable installation Loading - The recommended allowable loads on Power-Rack Stan

- Total load on any one arm should not exceed 800 lbs.
- The sum of the loads on any arm multiplied by their 1200 in./lbs. distances to the wall stanchion should not exceed

**Example** – A cable weighing 200 lbs. is positioned on an arm at a distance of 5" from the wall stanchion.

If the total load is less than 800 lbs and the sum of the equate. In this case, does not exceed 1200 in./lbs., then the system is adload multiplied by their distances to the wall stanchion

Total load (200<800 lbs) = OK

Tot. moment (200x5 in. = 1000<1200 in./lbs.) = OK

Part No.	Description	Weight	Load (lbs.)*
20N-ARM08	8" Arm	1.00	
20N-ARM14	14½" Arm	1.16	000
20N-ARM17	17½" Arm	1.45	000
20N-ARM23	23 <sup>7</sup> /8" Arm	1.86	
20N-STA21	21%" Stanchion	1.49	N1/A
20N-STA33	33 <sup>5</sup> /16" Stanchion	2.31	WA
*Design load valu	*Design load values shown represent a 3:1 safety factor	1 safety factor.	

### Wall Brackets

able in either polyester or vinyl ester resin types and will work with all the Aickinstrut accessory items. Consult the factory for design, pricing and availability information cables, tubing, conduits or cable trays. These brackets are availrequirements. strut material and are specifically designed to meet the customers figurations. Aickin-Brackets are available in a wide variety of sizes and con-These wall brackets are made entirely from Aickin-They are ideal for customizing the support of piping







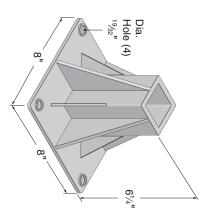
Instrument & Pipe Stands

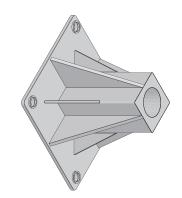
**Heavy Duty Post Base** 



20PU-5852 (2" Square), 20PU-5852 RD (2" Round) 20PU-5853 HD (1%" Sq.), 20PU-5854 HD (1½" Sq.)

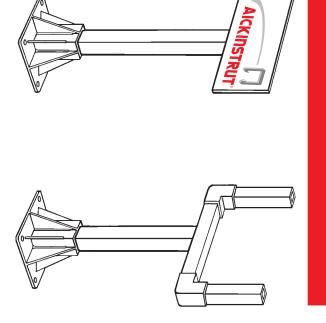
The Aickinstrut heavy duty post base is designed for applications that require a stronger base attachment than the standard Aickinstrut post base. Made from polyurethane, the heavy duty post base is available with four different openings:  $1^1/2^n$ ,  $1^5/6^n$ ,  $2^n$  square and  $2^n$  Schedule 80 round. The heavy duty post base is ideal for mounting fiberglass channel, handrails and instrument stands in corrosive environments. The standard color is gray, but special colors are available upon request.





## Instrument & Pipe Stands

Aickin-Instrument and Pipe Stands are available in polyester or vinyl ester resin types and are designed to meet specific customer requirements. These stands are ideal for supporting instruments and enclosures in corrosive environments. The stands utilize the Aickinstrut Heavy Duty Post Base and either  $2" \times 2" \times 1/4"$  square tube or 2" Schedule 80 pipe to support the instruments or enclosures. These stands can be designed or configured to meet any application. Consult the factory for design, pricing and availability information.





Structural Shapes

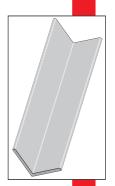
## **AICKINSHAPE® STRUCTURAL SHAPES**

General purpose pultruded structural shapes can be used as a complement to Aickinstrut Channel Framing projects. The shapes are ideal for structural bracing, handrails, handrail kickplates, shims and supporting grating. Structural shapes are available in either polyester or vinyl ester resin and are provided in 20' lengths. Additional structural shapes not listed in this catalog are available. Contact the factory for pricing, availability and minimums. Special sizes and colors can be run based upon quantity.

### NOTES

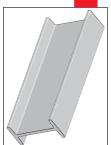
- ST Standard Isophthalic Polyester Resin; 0 = (Olive Green)
  FR Isophthalic Polyester Fire Retardant Resin; P = (Dark Gray)
  VE Vinyl Ester Fire Retardant Resin; V = (Beige)
- Stock Item; ◆ Stocked in Yellow
- In part numbers shown below, replace "X" with resin and color code (0, P, V).
- I.E.: 18P-1200-20 Polyester Gray  $2" \times 1/4"$  Equal Leg Angle

### **Equal Leg Angle**



Size		Resin		#/I in Ft	Part
9710	ST	FR	٧E	#/LIII. Ft.	No.
1 x ½				0.21	18X-1100-20
11/4 x 1/8	Ι	ı	1	0.23	18X-1110-20
1½ x 3/16				0.37	02-0211-X81
1½ x ¼				0.51	02-0511-X81
2 x 1/4				0.68	18X-1200-20
3 x ½				1.04	18X-1300-20
3 x 3%				1.65	18X-1310-20
3 x ½	ı	ı	ı	2.15	18X-1320-20
4 x ½				1.41	18X-1400-20
4 x 3%				2.23	18X-1410-20
4 x ½				2.92	18X-1420-20
6 x 3%				3.44	18X-1500-20
6 x ½				4.50	18X-1510-20

### I-Beam



	_							Г	Г				
City	9210	$3 \times 2 \times 1\frac{1}{2} \times \frac{1}{4}$	$3 \times 1\frac{1}{2} \times \frac{1}{4}$	$4 \times 2 \times \frac{1}{4}$	6 x 3 x ½	6 x 3 x 3/8	8 x 4 x 3/8	8 x 4 x ½	10 x 5 x 3/8	10 x 5 x ½	12 x 6 x ½	18 x 3% x 4½ x ½	24 x 3% x 7½ x 3/4
	TS	ı	Ι			ı		ı	ı	ı	ı	ı	ı
Resin	FR	_	-			Ι		ı	ı			Ι	Ι
	٧E	-	_			_		ı	ı			_	_
# = :: :: ::	#/LIII. Ft.	1.18	1.11	1.46	2.24	3.29	4.46	5.85	5.78	7.41	8.97	8.48	15.20
Part	No.	18X-2100-20	18X-2300-20	18X-2400-20	18X-2600-20	18X-2800-20	18X-2110-20	18X-2130-20	18X-2160-20	18X-2180-20	18X-2210-25	18X-2230-20	18X-2240-20

### Channel



و ۱۳۰۰ (۱۳۰۱)		Resin		#/i :5 F+	D 1 No
oize (III.)	ST	FR VE	ΥE	#/LIII. Ft.	Fait No.
8/1 x 3/6 x 2			I	0.25	18X-2916-20
3 x 7/8 x 1/4			Ι	0.77	18X-3078-20
3 x 1 x ½				0.87	18X-3114-20
3 x 1½ x ¼	I			1.07	18X-3112-20
3 x ½ x 13/16 x 1/8	_	ı	ı	0.65	18X-31316-20
4 x 11/8 x 1/4				1.11	18X-4118-20
4 x 13% x 3/16				0.86	18X-4138-20
6 x 15% x 1/4				1.64	18X-6158-20
6 x 1 <sup>11</sup> / <sub>16</sub> x <sup>3</sup> / <sub>8</sub>				2.52	18X-61116-20
8 x 2 <sup>3</sup> / <sub>16</sub> x <sup>3</sup> / <sub>8</sub>				3.40	18X-82316-20
$10 \times 2^{3/4} \times \frac{1}{2}$				5.65	18X-10234-20

### Wide Flange I-Beam



0:50		Resin		# / :	Part
9710	ST	FR	٧E	#/LIII. rt.	No.
3 x 3 x ½				1.69	18X-2200-20
4 x 4 x ½				2.10	18X-2500-20
6 x 6 x ½				3.41	18X-2700-20
6 x 6 x 3%				5.05	18X-2900-20
8 x 8 x 3%				6.49	18X-2120-20
8 x 8 x ½	1			8.70	18X-2140-20
10 x 10 x %	-	_	ı	8.74	18X-2170-20
10 x 10 x ½	ı			10.90	18X-2190-25
12 x 12 x ½	ı			13.20	18X-2220-25

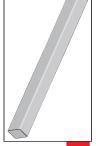
Structural Shapes

Flat Sheet



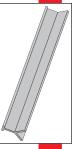
 2		Resin		7	Part
 Size	ST	丑	ΥE	#/LIN. Ft.	No.
 ½ x 48 x 96				1.14	18X-4100
$^{3}/_{16} \times 48 \times 96$				1.71	18X-4200
 ½ × 48 × 96				2.34	18X-4300
 3% x 48 x 96				3.54	18X-4400
½ x 48 x 96				4.68	18X-4500
 5% x 48 x 96	ı	Ι	_	5.79	18X-4600
 <sup>3</sup> / <sub>4</sub> × 48 × 96	ı	ı	Ι	6.94	18X-4700
 1 x 48 x 96	ı	ı	ı	9.27	18X-4800

### Square Bar



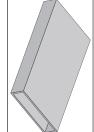
0::0		Kesin		#/=:3 F	Part
9710	ST	FR VE	٧E	#/EIII. Ft.	No.
1 x 1		I	Ι	0.87	18X-5100-20
1½ x 1½	I	<b>♦</b>	I	1.31	18X-5125-20
11/2 × 1/1/2	I	<b>♦</b>	Ι	1.98	18X-5150-20
2 x 2	Ι	I	Ι	3 12	18X-5200-20
1 x 1 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub> 1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>2</sub> 2 x 2				0.87 1.31 1.98	18X-5100-20 18X-5125-20 18X-5150-20 18X-5200-20

### Embedment Angle



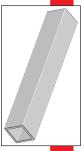
Resin #/Lin. Ft.  ST FR VE 1.00  ■ 1.00
#/Lin. Ft. 1.00 1.10 1.20

### Rectangular Tube



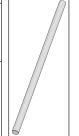
05:30		Resin		#/I in [T	Part
AZIG	ST	Ŧ	٧E	#/LIII. Ft.	No.
4 x 1 x ½	I	I	I	0.85	18X-4118-20
4 x 1/8 x 2 x 1/4				1.52	18X-418214-20
$4\% \times 1\% \times \% \times \%$	Ι	I	Ι	1.18	18X-438138-20
$4\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8} \times \frac{3}{16}$	-	I	-	1.29	18X-412138-20
5 x 2 x 1/8	Ι	I	ı	1.32	18X-5218-20
51% x 21% x 3/16	Ι	I	-	1.32	18X-518218-20
6½ x ¼ x 2 x ½	ı	I	ı	3.77	18X-612212-20
6 × 4 × ½	ı		I		18X-6414-20

### Square Tube



Size	Resin ST FR	
1 x ½		
11/8 x 1/8	_	1
11/4 x 1/8	_	1
11/4 x 1/4	ı	1
1½ x ½	•	•
1½ x ¼	-	1
13/4 x 1/8	ı	<b>*</b>
13/4 × 1/4	ı	<b>*</b>
2 x 1/8		<b>*</b>
2 x 1/4		<b>*</b>
21/4 x 1/8	-	•
21/4 × 1/4	ı	1
2½ x ¼	I	•
3 × ½	ı	1
3 x 1/4		
4 x ½		
4 x 3/8		1
6 x 3%		
Toe Plate		
4×5%×1%		

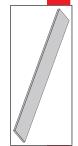
### Round Rod



ယ	21/2	2	11/2	11/4		<sup>13</sup> / <sub>16</sub>	3/4	5%	1/2	3/8	0.35	5/16	1/4	3/16	1/8	OIZG	Ciza
ı	ı	ı				ı					ı					ST	
ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	FR	Resin
ı	I	ı	ı	ı		ı					ı	ı	ı	ı	ı	٧E	
5.70	4.10	2.56	1.56	1.08	0.66	0.46	0.39	0.27	0.17	0.09	0.08	0.07	0.04	0.02	0.01	#/LIII. I t.	#  - 
18X-70300-20	18X-70212-20	18X-70200-20	18X-70112-20	18X-70114-20	18X-70100-20	18X-7001316-20	18X-70034-20	18X-70058-20	18X-70012-20	18X-70038-20	18X-70035-20	18X-700516-20	18X-70014-20	18X-700316-20	18X-70018-20	No.	Part

Structural Shapes

### Flat Strip



6 x ½	6 x ½	4 x ½	3 × ½	3 × 3%	3×1/4	2½ x 3/16	2 x 1	2 x ½	1 <sup>3</sup> / <sub>4</sub> × <sup>1</sup> / <sub>4</sub>	1½ x 1	1½ x 3%	11/4 × 3/16	1 x ½	3/4 × 1/4	5% x ½	OIZG	Cizo
ı	ı	ı	ı	ı	ı	ı	ı	ı		ı	ı	ı	ı			ST	
ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	FR	Resin
Ι	Ι	ı	ı	ı	ı	ı	ı	ı	ı	ı	I	ı	ı	ı	ı	۷E	
2.16	1.32	0.44	1.32	0.99	0.66	0.34	1.76	0.88	0.38	1.32	0.50	0.19	0.11	0.14	0.11	#/EIII. I t.	#/  in Et
18X-6612-96	18X-6614-96	18X-6418-96	18X-6312-96	18X-6338-96	18X-6314-96	18X-6212316-96	18X-6210-96	18X-6212-96	18X-613414-96	18X-61121-96	18X-611238-96	18X-6114316-96	18X-6118-96	18X-603414-96	18X-605814-96	No.	Part

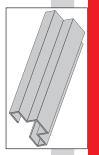
### Round Tube



Size (In.)		Resin		#/I in Ft	Part No.
(····)	ST	FR	٧E	.,	
1 x .100	Ι	_	_	0.22	18X-7100-20
1 x ½			Ι	0.25	18X-7118-20
11/4 x 3/32	-	Ι	-	0.27	18X-7114332-20
11/4 x 1/8	Ι	Ι	Ι	0.32	18X-711418-20
11/4 × 1/4	Ι	Ι	Ι	0.60	18X-711414-20
1½ x ½			Ι	0.45	18X-711218-20
1½ x ¼	Ι		Ι	0.79	18X-711214-20
13/4 x 1/8	Ι	Ι	Ι	0.47	18X-713418-20
13/4 × 1/4	Ι	Ι	Ι	0.94	18X-713414-20
2 x 1/4				1.12	18X-7214-20
3 x.100	Ι	Ι	Ι	0.89	18X-7300-20
3 x 1/4	Ι	Ι	Ι	1.68	18X-7314-20
3 x ½		Ι	Ι	2.98	18X-7312-20
4.89 x ½	Ι	Ι	Ι	2.32	18X-7418-20
4.89 x 3/16	I	Ι	I	2.97	18X-74316-20

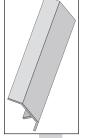
### Special Shapes

Door Frame



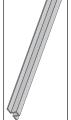
5¾ x 25% x 3/16	i Tollie/Olze	Profile/Size
ı	ST	_
_	FR	Resir
Ι	٧E	_
1.60	#/FIII. I C.	#/I in Et
18X-DF-20	alt No.	Dari No

### Threshold



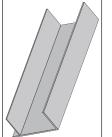
$5\frac{1}{2} \times \frac{1}{4}$	ו וטוווט/טובט	Profile/Size
ı	ST	
-	ST FR VE	Resin
-	VE	1
1.05	#/EIII. I C.	#/I in Et
18X-TH-20	I alt No.	Part No

### **Hat Section**



2 x 1/8 x .140	r I Ullie/ Size	Drofilo/Cito	
ı	ST	_	
ı	ST FR VE	Resin	
ı	۷E		
0.34	#/LIII. Ft.	‡ ≥ 5 □	
18X-HS-20	Fait No.		

### Flight Channel



3 x 8 x 1/8 x 3/16	3 × 6 × 1/8 × 3/16	L IOIIIG/OIZG	Drofilo/Cizo
		ST	_
I	Ι	ST FR VE	Resin
I	-	۷E	
1.43	1.31	#/EIII. I L.	# / in
18X-93818316-20	18X-93618316-20	Fait No.	Dorf No

Structural Shapes

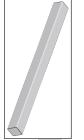
## Handrail Components





$4 \times \frac{5}{8} \times \frac{1}{8}$	Size (in.)
0.49	#/Lin. Ft.
18X-3130-20	Part No.

### Square Bar<sup>†</sup>



1½ x 1½	11/4 × 11/4	Size (in.)
1.98	1.31	#/Lin. Ft.
18X-5150-20	18X*-5125-20	Part No.

### Square Tube<sup>†</sup>



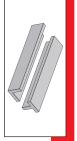
Size (in.)	#/Lin. Ft.	Part No.
11/4 x 1/4	0.68	18X-3310-20
1½ x 1/8	0.54	18X-3400-20
$1\frac{3}{4} \times \frac{1}{8}$	0.63	18X-3500-20
$1\frac{3}{4} \times \frac{1}{4}$	1.10	18X-3510-20
2 x 1/8	0.69	18X-3600-20
2 x 1/4	1.40	18X-3610-20
$2\frac{1}{4} \times \frac{1}{8}$	0.83	18X-3800-20
2½ x ¼	1.69	18X-3900-20

### Fixed Connector<sup>†</sup>



$4\frac{1}{2} \times 1\frac{1}{2}$	$4\frac{1}{4} \times 1\frac{1}{4}$	Size (in.)
1.32	0.87	#/Ea.
AIC-FC-412	AIC-FC-414	Part No.

### Handrail Connectors



AICKINSHAPE

### Fixed 90°

11/2	11/4	oize (iii.)	6:20 (lm.)
ı	ı	ST	
<u>*</u>	<u>*</u>	ST FR VE	Resin
ı	ı	٧E	1
1.32	0.87	#/Ea.	#   
AIC-FIXED-90-1-1/2	AIC-FIXED-90-1-1/4	Falt NO.	

### Adjustable 90°

11/2	11/4	•
ı	Ι	
I	I	
I	I	
AIC-ADJ-90-1-1/2	AIC-ADJ-90-1-1/4	

11/2	11/4	Fixed "T"
I	I	
ı	-	
Ι	I	
AIC-FIXED-T-1-1/2	AIC-FIXED-T-1-1/4	

## **AICKINSTRUT**

## **FIBERGLASS**

Sealers, Coatings, Promotional Material

### 600-2200 -**Aickinzap**



method for sealing after fabrication. Aickinzap is an acrylic spray that provides a corrosion resistant coating when applied to cut sections of Aickinstrut. Aickinzap is supplied in a 12 oz. can and is recommended for use as a sealant for Aickinstrut polyester and vinyl ester materials after cutting or drilling. Aickinzap is the quickest, most convenient

# 600-1500 (Quart), 600-1600 (Gallon) - Aickincoat



Aickincoat is a "brush-on" corrosion resistant sealant that should be applied to all cut or drilled surfaces of fiberglass to seal exposed areas from corrosion. Aickincoat dries into a clear, hard, glossy coating that restores weathered fiberglass surfaces and provides an excellent barrier from ultraviolet degradation. It is available in quart and gallon cans.

# **Custom Fabrication and Promotional Material**

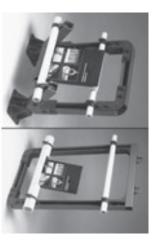
Promotional materials are available for select individuals, including stocking distributors, end users, OEM's, contractors, specifying engineers, consultan and sales representatives. Please contact the factory for availability. consultants

AICK-DIST-DISP



The Aickin Distributor Display is a counter top display for stocking distributors. This display features multiple channel sizes and materials, adjustable and rigid pipe straps, U-bolts, molded and fabricated channel fittings, post bases, clevis hangers and fasteners. All of these materials are then assembled to form a com-

### Aickin Distributor Literature Displays (Counter Stand) (Hanging) **AICK-LIT-DISP-CS** AICK-LIT-DISP



display. Both displays incorporate Aickinstrut channel in their design and utilize the PVC display pipe as the literature container. The Aickin Distributor Literature Display is offered in two designs; wall hanging and counter standing. The wall hanging design is meant to be hung from the two top U-bolts while the counter standing design is a free standing counter

prehensive, compact display which becomes an excellent sales tool.

**AJPSS2** - Aickin Adjustable Pipe Clamp Sample

### Aickin Sample **Box** - AICK-SAMP-CART



The Aickin Sample Box is a convenient plastic carrying case with a complete sampling of the Aickinstrut product line.

## **ARPS2** - Aickin Rigid Pipe Clamp Sample

Aickinstrut Channel.

The Aickin Adjustable Pipe Clamp Sample is a desk top sample that displays the Aickin Adjustable Pipe Strap clamping a piece of PVC pipe onto a section of



The Aickin Rigid Pipe Clamp Sample is a desk top sample that displays the rigid pipe strap clamping a piece of PVC pipe onto a section of Aickinstrut Channel.

### Each Sample Box includes:

PVC strut sample (20E-2000), Polyester strut sample (20P-2000), Polyester slotted strut sample (20P-1100), Vinyl ester strut sample (20V-1500), Polyester slotted strut sample (20V-1500), Vinyl ester strut sample (20V-1500), Polyester solid channel fitting (20V-2802), Vinyl ester grooved channel fitting (20V-2802), Saddle Clip (200-4226), Fiberfast bolts (250PU-000, 375PU-125 & 500PU-000), Fiberfast nuts (250PU-000, 375PU-125 & 500PU-CN), Square nut (500V-000), PVC washers (375E-999 & 500E-999), Standard duty channel nuts (375PU-CN & 500PU-CN), Heavy duty channel nut (500PU-CNHD), Adjustable pipe clamp (200-310), Rigid pipe clamp (PCR-125), FRP threaded rod samples (200-3827)



GRATING

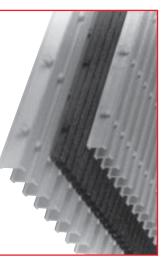




resistant alternative to traditional metallic grating. Aickingrate will not rust, resists corrosion, lasts longer than metal and is maintenance free. Aickingrate never requires painting and can be installed with standard hand tools. Aickingrate Fiberglass Grating was developed as a corrosion

## Other valuable Aickingrate features include:

- protection. Availability of polyester or vinyl ester fire retardant resin systems, which offer superior corrosion resistance, strength and fire
- superior traction. Applied grit anti-slip surface on molded grating, which provides
- surface that enhances safety while reducing worker fatigue. Panels are strong and flexible providing a comfortable working
- maintenance. Panels are lightweight, easy to install and easy to remove for
- optimum protection from the effects of weathering. Pultruded grating is further enhanced with the addition of a synthetic UV inhibitors are added to the base resin systems providing



## following applications: Aickingrate pultruded and molded gratings are ideal for the

- Aquariums
- Chemical & Petrochemical
- Food & Beverage
- Marine
- Mining
- Offshore
- Plating
- Power Generation & Utilities
- Pulp & Paper
- Recreation & Pools
- Transportation
- Water & Wastewater

flooring needs. nomical solutions for applications where metallic gratings are not well suited. Aickingrate offers the best solution for your industrial Aickingrate pultruded and molded gratings are practical, eco-

Because Aickingrate is marketed with Aickinstrut Non-Metallic Strut Support Systems and Aickinshapes Non-Metallic Structural Shapes, the customer has the benefit of purchasing all of these items from a single source, thereby minimizing start-up and delivery delays.

Aickingrate stands ready to provide customer assistance through its network of distributors and mechanical sales representatives.





MOLDED GRATING

## AICKINGRATE® Fiberglass Grating

niscus surface of each panel providing an anti-skid surface is applied onto the mewith an applied grit anti-skid surface. This strength and corrosion resistance. continuous fiberglass rovings for optimum polyester resin or vinyl ester resin and retardant polyester resin, flame retardant Each panel is composed of non-flame dard sized  $3' \times 10'$  and  $4' \times 12'$  panels. glass-reinforced design available in stan-Aickingrate molded grating is provided Aickingrate molded grating is a one piece,

> extremely long lasting, effective, anti-skid surface. Standard meniscus surface grating is also available upon request.

They also are lightweight and can easily be installed without heavy equipment. Fabricating Aickingrate can easily be accomplished with standard tools. to-weight ratio and are maintenance free rust, never requires painting and resists cor-Aickingrate molded grating does not The panels have a high strength-

> platforms, catwalks, flooring, work stations and mezzanines. increased productivity. These worker anti-fatigue benefits make Aickingrate ideal for The resiliency designed into each panel Aickingrate is ideal for work platforms lowers overall worker tatigue resultingin reduces worker leg and back pain and These worker anti-

### Resin Systems

### Polyester

system is required. when a cost-effective, corrosion resistant, elements. These resin systems are ideal The non-fire retardant system is not rated. Both systems are designed for applications that will see moderate exposure to corrosive based on the requirements of retardant system has a rating of 25 or less has two flame spread ratings. The fire The Aickingrate polyester resin system ASTM E 84.

Standard Colors: Green & Yellow

Special colors are available upon request.

### Vinyl Ester

elevated temperatures. Alckingrate vinyl ester molded grating is the system to choose in extremely corrosive conditions and will maintain its structural integrity at extremely harsh, wet, caustic conditions premium grade resin system is ideal in harshest chemical environments. corrosive acids and caustics found in the based on the requirements of ASTM E 84 has a flame spread rating of 25 or less less). It is designed to resist the highly require a flame spread rating of 10 or (contact the factory for applications that The Aickingrate vinyl ester resin system This

Standard Colors: Orange & Dark Gray Special colors are available upon request

## Special Optional Surfaces

applied, sealed grit top. The other optional Aickingrate surface is a meniscus surface that also provides optimum skid resistance. The standard Aickingrate surface is an

This "concave surface" grating provides ex-cellent slip resistance and is recommended for light traffic applications.

### **Anti-Skid**

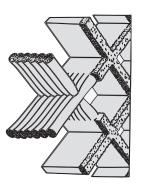
skid resistance. traffic applications that require superior This "applied-grit" surface is ideal for high

## **Loading and Deflection**

for use only as a guide. The Aickingrate standard panel sizes are 3' x 10' and 4' x span from the tables you can calculate the max-imum allowable design load and deflection are determined, els making the span 3 or 4 feet. The load & deflection data is intended for use only as a guide. The Aickingrate 12'. The bearing bars run across the pan-Once the

## **LOADING CONSIDERATIONS**

chipping of the embedded grit surface. rubber wheels can cause sharp impact or to use Aickingrate where solid steel or hard these applications, it is not recommended to heavy loads from wheeled traffic. For Occasionally, Aickingrate will be subjected heavy loads on Aickingrate. the same reason, avoid dropping or sliding For



Motorized Traffic (Light)	Carts/Nonmotorized Vehicles	Heavy Foot Traffic	Workman with Tools (Maintenance)	Occasional Foot Traffic (Inspections, etc.)		Load & Deflection Application Data
1,500	800	400	300	250	(lbs.)	Concentrated Load
.250375	.250375	.250375	.250375	.250375	(in.)	Suggested Deflection

Fiberglass

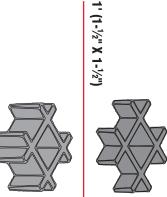
## **MOLDED GRATING SPECIFICATIONS**



### **Grating Size**

### HEIGHT (MESH SIZE)





Weight Per Ft.: Panel Weight: Panel Size:

120 lbs. & 100 lbs

Bar Thickness: Space Between Bars

Bearing Bar

\*

1-1/4" x 1-1/4"

2.5 lbs. sq/ft

4' x 12', 4' x 10'

Open Area:	70%	Cross Bar	1/4"
Panel Size:	4' x 12', 4' x 10'	Space Between Bars	1-½" x 1-½"
Panel Weight:	180 lbs. & 150 lbs.	Bar Thickness:	
Weight Per Ft.:	3.75 lbs. sq/ft	Bearing Bar	1/4"
Open Area:	70%	Cross Bar	1/4"

### 2" (2" X 2")



Open Area: Weight Per Ft.: Panel Weight: Panel Size:

192 lbs. & 160 lbs

Bar Thickness: Space Between Bars

Bearing Bar

Cross Bar

7

7

1-3/4" x 1-3/4"

4.0 lbs. sq/ft

70%

4' x 12', 4' x 10'

1-1/2" (1-1/2" X 1-1/2")

Material customer request. 2.5 Special colors are available upon

- 1.1 All molded grating will be fiberglass roving reinforced and constructed from non-fire retardant polyester, fire retardant polyester or vinyl ester resin.
- Composition
- sion resistance. weight so as to achieve maximum corro-Glass content will be 35% by
- 2.3 Grating shall comply with all applicable provisions of the following flammability standards: 2.2 Fire-retardant grating will have a flame spread rating of 25 or less per the requirements of ASTM E 84.
- ASTM E 84 **ASTM D-635** (Rate of Burning) (Surface Burning)

UL 94 VO (Flammability Standard)

following: Standard colors shall include the

Polyester: Vinyl ester: Orange & Dark Gray Green & Yellow

- - ယ Structural Design
- patterns: Grating shall have the following grid
- 1½" x 1½" (1" thick) 1½" x 1½" (1½" thick) 2" x 2" (2"" thick) 1" x 4" (1" thick)
- 3.2 Grating shall be provided in standard  $3' \times 10' \& 4' \times 12'$  panels.
- sections will be available upon customer request. 3.3 Specially cut & fabricated grating
- 70% depending on the selected grid pat-3.4 Open areas will range from 69% to
- surface available upon request. applied grit top surface with meniscus 3.5 Standard surface shall be a sealed
- as stated in this catalog. 3.6 Load and deflection values shall be

- 3.7 Weights per sq/ft shall be as stated in this catalog.
- General
- 4.1 Grating will be inspected prior to shipment and will be free from visual surface crazing and voids. defects such as delaminations, blisters,
- shipment. 4.2 Cut grating will be sealed prior to
- 4.3 Use of grating accessories shall be approved by the manufacturer and installed in accordance with the manufacturers' instructions.
- this catalog. pertormance standards set forth in Aickingrate must meet or exceed the 4.4 Product substitutions other than
- Aickingrate as manutactured by: Grating supplied shall be Aickinstrut/T.J. Cope

**Pultruded Grating** 

## **AICKINGRATE®** Pultruded Grating

footing. Each pultruded bar incorporates a synthetic surfacing veil on its exterior. The surfacing veil provides a resin rich surface inhibit ultraviolet degradation. The standard panel size is 4' x 12' Each pultruded bar is connected together with recessed tie bars and covered with an anti-skid, grit top surface to provide sure which allows the grating to withstand hostile environments and Aickingrate pultruded grating is constructed of pultruded "I" or bars which are available in varying heights (1", 1-1/2" & 2").

The pultruded grating is available in the following resin systems:

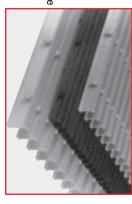
### Polyester

This resin system offers a low flame spread rating of 15 or less and is designed for applications where there is moderate exposure to corrosive elements.

### Vinyl Ester

type environments. and is designed for prolonged exposure in acidic and alkaline This resin system offers a low flame spread rating of 15 or less

life of pultruded grating make its overall life cycle costs lower than that of metal grating. lightweight, maintenance free panels make it less expensive to install than metal grating. The low installation cost combined with the maintenance free resistant than conventional metal grating. Aickingrate pultruded grating is more corrosion The





## would include:

- Flooring
- Ramps
- Platforms
- Stairs Walkways
- Trench Covers
- Catwalks
- Assembly Lines

## Aickingrate Pultruded Specifications

### Material

All pultruded grating shall be constructed of glass reinforced, fire retardant polyester special order resin. Vinyl ester resin is available as a

### 2. Composition

stabilizer shall be incorporated in the resin formulation to further inhibit ultraviolet All pultruded glass reinforced grating shall have a synthetic veil applied on all exterior degradation hibit ultraviolet degradation. surfaces to improve weatherability and in-An ultraviolet

Grating shall comply with all applicable provisions of the following flammability standards: Grating will have a flame spread rating of 15 per the requirements ASTM E 84

UL 94 VO ASTM D-635 (Rate of Burning) ASTM E 84 (Surface Burning) (Flammability Standard)

- 2.4 following: Standard colors shall include the
- Polyester (Wide T-bar): Dark Gray Polyester (I-bar & T-bar): Yellow
- 2.5 customer request. Special colors are available upon

### Structural Design

- 3.1 T-bar - (2" height) I-bar - (1", 11/2" & 2" heights) types and heights: Grating shall have the following bar
- 3.2 Grating shall be provided in standard  $4' \times 12'$  panels. Wide T-bar - (1" & 1½" heights)
- $^{\omega}_{\omega}$ request. Specially cut & fabricated grating sections are available upon customer

4.3

- 3.4 be the following: Standard available "open areas" will
- Wide T-bar (25% & 38%) T-bar - (33% & 50%)
- 3.5 Special "open areas" are available upon customer request
- 3.6 thermally cured pultruded structural load and tie bar components. Grating shall be manufactured from
- 3.7 surface for maximum skid resistance Grating shall be provided with a recessed tie bar design and grit top
- .ა 8 Grating shall be an assembled and bonded panel connection provide both a mechanical and notched tie bar system to

135

3.9 Load, deflection and panel weight values shall be as stated in this catalog.

### General

- 4.1 Grating will be inspected prior to shipment and will be free from visual defects.
- 4.2 shipment. All cut ends will be sealed prior to
- 4.4 Use of grating accessories shall be approved by the manufacturer and ported manutacturer guidelines Grating shall be fully supaccording to the
- 4.5 installed in accordance with the manufacturers' instructions. in this catalog Product substitutions other than the performance standards set forth Aickingrate must meet or exceed
- 4.6 Aickingrate as manutactured by: Aickinstrut/T.J. Cope Grating supplied shall be

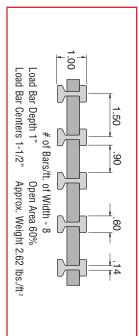
**Fiberglass** 



### 'I' Bar Pultruded Grating



### "I Bar 1" THICK, 60% OPEN AREA



### LOAD TYPES

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

**A**=2.64 in<sup>2</sup> I=0.33 in<sup>4</sup> S=0.63 in<sup>3</sup>

Average EI=1,700,000 lb/in² (Span ≥24")

A=Cross Sectional Area I=Moment of Inertia S=Section Modulus

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans)

Clear Span	Load	Load Req Specified (No	Load Required For a Specified Deflection (Note 2)	Max. Recom. Load (Note 1)
(in.)	. 900	0.250"	0.375"	[Load (Deflection)]
5	_	I	I	4576 (0.09")
7	C	I	1	4576 (0.14")
ò	□	ı	1	3051 (0.25")
ā	C	I	ı	4576 (0.40")
2	U	1059	1589	2288 (0.54")
24	0	1331	1997	3833 (0.72")
20	n	458	989	1830 (1.00")
٥C	0	716	1075	3067 (1.07")
36	n	241	262	1525 (1.58")
აი	0	453	089	2556 (1.41")
3	U	135	202	1252 (2.32")
42	С	300	450	2190 (1.86")
40	U	87	131	958 (2.75")
40	С	218	327	1917 (2.20")
n A	U	50	75	757 (3.85")
74	С	138	208	1704 (3.08")
60	u	30	45	613 (5.15")
o	С	93	140	1533 (4.12")
n n	L	18	27	507 (7.02")
o	С	64	96	1394 (5.46")
75	L	13	19	426 (8.22")
17	C	49	73	1278 (6.58")

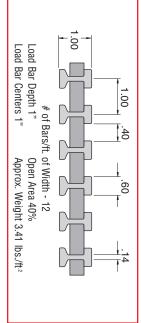
- $C \subseteq$
- Uniform Load lbs/ft<sup>2</sup> Concentrated Line Load lbs/ft of Width

- NOTES:

  1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.

  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

### "T" Bar 1" THICK, **40% OPEN** AREA



### LOAD TYPES

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

**A**=3.96 in<sup>2</sup> I=0.50 in<sup>4</sup> St=0.96 in<sup>3</sup>

Average EI=2,500,000 lb/in<sup>2</sup> (Span ≥24")

A=Cross Sectional Area I=Moment of Inertia S=Section Modulus

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans)

C

lear Span	Load	Load Req Specified (No	Load Required For a Specified Deflection (Note 2)	Max. Recom. Load (Note 1)
1	.76	0.250"	0.375"	[Load (Deflection)]
ò	_	I	I	6864 (0.09)
7	C	ı	ı	6864 (0.14)
0	U	ı	ı	4576 (0.25)
Ιŏ	С	ı	ı	6864 (0.40)
2	U	1589	2383	2432 (0.54)
24	С	2000	3000	5750 (0.72)
၁	U	686	1030	2746 (1.00)
JU	С	1075	1612	4600 (1.07)
သ	U	362	543	2288 (1.58)
ű	С	958	1438	3833 (1.41)
3	_	200	300	1878 (2.32)
42	С	442	662	3286 (1.86)
A O	_	131	196	1438 (2.75)
04	С	327	491	2875 (2.20)
л ^	_	74	111	1136 (3.85)
<u>.</u>	C	208	312	2556 (3.08)
60 0	_	45	67	920 (5.15)
5	С	140	209	2300 (4.12)
n n	_	27	41	760 (7.02)
5	С	96	144	2091 (5.46)
79	_	19	29	639 (8.22)
1.0	С	73	109	1917 (6.58)

- $\circ$
- Uniform Load lbs/ft<sup>2</sup> Concentrated Line Load lbs/ft of Width

- NOTES:

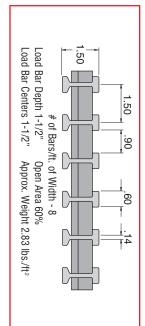
  1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.

  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperal. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.



'I' Bar Pultruded Grating

### "T Bar 1½" THICK, 60% OPEN AREA



### **LOAD TYPES**

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

**A**=3.20 in<sup>2</sup> **l**=0.94 in⁴ St=1.20 in<sup>3</sup>

Average EI=4,600,000 lb/in² (Span ≥24")

A=Cross Sectional Area I=Moment of Inertia S=Section Modulus

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans)

Clear Span	Load	Load Required For a Specified Deflection (Note 2)	Load Required For a Specified Deflection (Note 2)	Max. Recom. Load (Note 1)
		0.250"	0.375"	[Load (Deflection)]
5	U	I	-	8190 (0.07)
71	С	I	-	8190 (0.11)
ó	U	I	ı	5460 (0.17)
Ī	С	ı	ı	8190 (0.28)
2	_	2925	1	4095 (0.35)
47	С	3676	5515	6250 (0.43)
3	_	1232	1847	3276 (0.66)
Ü	С	1923	2885	5000 (0.65)
	_	666	1000	2730 (1.02)
ç	כ	1947	1871	4167 (0.83)

Clear Span	Load	Load Requ	Load Required For a Specified Deflection	Max. Recom. Load (Note 1)
,····,	. 70.	0.250"	0.375"	[Load (Deflection)]
5	U	I	-	8190 (0.07)
71	С	I	I	8190 (0.11)
0	□	I	I	5460 (0.17)
10	С	I	1	8190 (0.28)
<b>3</b>	⊂	2925	1	4095 (0.35)
42	С	3676	5515	6250 (0.43)
၁ ဂ	U	1232	1847	3276 (0.66)
30	С	1923	2885	5000 (0.65)
o n	U	666	1000	2730 (1.02)
30	С	1247	1871	4167 (0.83)
3	□	357	535	2041 (1.43)
74	С	780	1170	3571 (1.15)
40	_	219	329	1563 (1.78)
04	С	548	822	3125 (1.43)
בת	_	193	290	1852 (2.40)
ن <del>ب</del>	С	363	544	2778 (1.92)
<u> </u>	_	81	122	1000 (3.09)
6	C	253	380	2500 (2.47)
88	C	50	75	826 (4.08)
UU	С	179	268	2273 (3.18)
79	_	37	55	694 (4.71)
1.6	C	138	208	2083 (3.77)

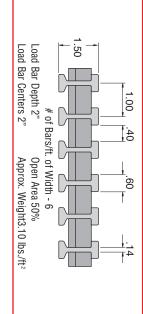
- $_{\circ}$
- Uniform Load lbs/ft²
  Concentrated Line Load lbs/ft of Width

- NOTES:

  1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.

  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

### "I" Bar 11/2" THICK, 40% OPEN AREA



### LOAD TYPES

### ENGINEERING **PROPERTIES PER FT OF** WIDTH

**A**=4.80 in<sup>2</sup> I=1.44 in<sup>4</sup> St=1.80 in<sup>3</sup>

Average EI=7,000,000 lb/in2 (Span ≥24")

A=Cross Sectional Area I=Moment of Inertia S=Section Modulus

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans)

C

0.250"         0.375"           U         -         -           C         -         -           U         4388         -           U         4388         -           U         1847         2771           C         5515         8272           U         1847         2771           C         2885         4327           U         1000         1500           C         1170         1754           U         327         491           C         822         1234           U         193         290           C         544         816           U         122         182           C         380         569           U         76         114           C         268         403           U         55         83           C         207         311	Slear Span (in.)	Load Type	Load Required For a Specified Deflection (Note 2)	iired For a Deflection e 2)	Max. Recom. Load (Note 1) All Resin Systems
U		:	0.250"	0.375"	[Load (Deflection)]
C       -       -         U       -       -         C       -       -         U       4388       -         U       1847       2771         C       2885       4327         U       1000       1500         C       1871       2807         U       535       803         C       1170       1754         U       327       491         C       822       1234         U       193       290         C       544       816         U       122       182         C       380       569         U       76       114         C       268       403         U       55       83         C       207       311	5	U	I	_	14,400 (0.07)
U	12	С	I	_	12,285 (0.11)
C     -     -       U     4388     -       C     5515     8272       U     1847     2771       C     2885     4327       U     1000     1500       C     1871     2807       U     535     803       C     1170     1754       U     327     491       C     822     1234       U     193     290       C     544     816       U     122     182       C     380     569       U     76     114       C     268     403       U     55     83       U     55     83	0	U	I	I	8190 (0.17)
U 4388 — C 5515 8272 U 1847 2771 C 2885 4327 U 1000 1500 C 1871 2807 U 535 803 C 1170 1754 U 327 491 C 822 1234 U 193 290 C 544 816 U 112 182 C 380 569 U 76 114 C 268 403 U 55 83 U 55 83	ō	С	I	-	12,285 (0.28)
C     5515     8272       U     1847     2771       C     2885     4327       U     1000     1500       C     1871     2807       U     535     803       C     1170     1754       U     327     491       C     822     1234       U     193     290       C     544     816       U     122     182       C     380     569       U     76     114       C     268     403       U     55     83       U     55     83	2	┖	4388	ı	6143 (0.35)
U 1847 2771  C 2885 4327  U 1000 1500  C 1871 2807  U 535 803  C 1170 1754  U 327 491  C 822 1234  U 193 290  C 544 816  U 122 182  C 380 569  U 76 114  C 268 403  U 55 83  U 55 83	74	С	5515	8272	9375 (0.43)
C       2885       4327         U       1000       1500         C       1871       2807         U       535       803         C       1170       1754         U       327       491         C       822       1234         U       193       290         C       544       816         U       122       182         C       380       569         U       76       114         C       268       403         U       55       83         C       207       311	၁ ဂ	U	1847	2771	4914 (0.66)
U 1000 1500 C 1871 2807 U 535 803 C 1170 1754 U 327 491 C 822 1234 U 193 290 C 544 816 U 122 182 C 380 569 U 76 114 C 268 403 U 55 83 C 207 311	JU	С	2885	4327	7500 (0.65)
C     1871     2807       U     535     803       C     1170     1754       U     327     491       C     822     1234       U     193     290       C     544     816       U     122     182       C     380     569       U     76     114       C     268     403       U     55     83       C     207     311	o n	U	1000	1500	4095 (1.02)
U 535 803 C 1170 1754 U 327 491 C 822 1234 U 193 290 C 544 816 U 122 182 C 380 569 U 76 114 C 268 403 U 55 83 U 55 83	00	С	1871	2807	6250 (0.83)
C 1170 1754  U 327 491  C 822 1234  U 193 290  C 544 816  U 122 182  C 380 569  U 76 114  C 268 403  U 55 83  U 55 83	3	U	535	803	3061 (1.43)
U 327 491 C 822 1234 U 193 290 C 544 816 U 122 182 C 380 569 U 76 114 C 268 403 C 207 311	42	С	1170	1754	5357 (1.15)
C 822 1234  U 193 290  C 544 816  U 122 182  C 380 569  U 76 114  C 268 403  U 55 83  C 207 311	<u>4</u>	⊂	327	491	2344 (1.78)
U 193 290 C 544 816 U 122 182 C 380 569 U 76 114 C 268 403 U 55 83 C 207 311	0+	С	822	1234	4688 (1.43)
C 544 816  U 122 182  C 380 569  U 76 114  C 268 403  U 55 83  C 207 311	ת א	_	193	290	1852 (2.40)
U 122 182 C 380 569 U 76 114 C 268 403 U 55 83 C 207 311	ن <del>1</del>	С	544	816	4167 (1.92)
C 380 569 U 76 114 C 268 403 U 55 83 C 207 311	60 0	_	122	182	1500 (3.09)
U 76 114 C 268 403 U 55 83 C 207 311	00	C	380	569	3750 (2.47)
C 268 403 U 55 83 C 207 311	n n	┖	76	114	1240 (4.08)
U 55 83 C 207 311	00	С	268	403	3409 (3.18)
C 207 311	70	U	55	83	1042 (4.71)
	7.7	С	207	311	3125 (3.77)

- $C \square$
- Uniform Load lbs/ft<sup>2</sup> Concentrated Line Load lbs/ft of Width

- NOTES:

  1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.

  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

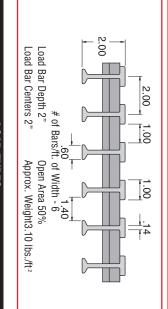
137

Fiberglass

'T' Bar Pultruded Grating



### Ŋ THICK, **50**% OPEN AREA



### LOAD TYPES

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

**A**=3.20 in<sup>2</sup> I=1.68 in<sup>4</sup> St=1.96 in<sup>3</sup> Sb=1.47 in

**Average EI**=7,600,000 lb/in<sup>2</sup> (Span ≥24")

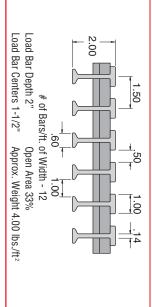
Average El=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans) I=Moment of Inertia S=Section Modulus (Top, Bottom)

Clear	Load	Load Requ	Load Required For a Specified Deflection	Max. Recom. Load (Note 1)
Span (in.)	Type	(Not	(Note 2)	All Resin Systems
		0.250"	0.375"	[Load (Deflection)]
5	_	ı	ı	10,800 (0.06)
7	С	ı	1	10,800 (0.10)
0	U	ı	ı	7200 (0.17)
10	0	ı	ı	10,800 (0.27)
2	U	4737	-	5400 (0.29)
24	С	5934	8900	10,800 (0.46)
30	U	2000	3000	4320 (0.54)
30	С	3117	4676	8667 (0.69)
300	U	1071	1607	3600 (0.84)
30	С	2000	3000	7222 (0.90)
o o	U	553	829	3086 (1.40)
42	С	1209	1814	6190 (1.28)
40	U	343	514	2700 (1.97)
0#	С	857	1286	5417 (1.58)
n 2	U	211	316	2140 (2.54)
04	С	592	887	4815 (2.03)
60	U	137	206	1733 (3.16)
00	С	428	642	4333 (2.53)
n n	U	94	140	1433 (3.83)
00	С	328	492	3939 (3.00)
75	C	71	106	1204 (4.24)
1,7	C	266	399	3611 (3.39)
11 11	Haifarm I and	16.2 /£42		

- $C \subseteq$
- Uniform Load lbs/ft²
  Concentrated Line Load lbs/ft of Width

- 1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

### f., Bar Ŋ THICK, 33% OPEN AREA



### LOAD TYPES

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

**A**=4.28 in<sup>2</sup> I=2.24 in4 St=2.61 in<sup>3</sup> **Sb**=1.96 in

Average EI=9,200,000 lb/in2 (Span ≥24")

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans) A=Cross Sectional Area I=Moment of Inertia S=Section Modulus (Top, Bottom)

		Load Required For a	ired For a	Max. Recom.
Clear Span (in.)	Load Type	Specified Deflection (Note 2)	ied Deflection (Note 2)	Load (Note 1) All Resin Systems
	:	0.250"	0.375"	[Load (Deflection)]
5	U	1	ı	14,400 (0.06)
12	0	1	ı	14,400 (0.10)
10	U	_	1	9600 (0.17)
10	0	_	-	14,400 (0.28)
0	N	6316	Ι	7200 (0.29)
42	0	7784	11676	14,167 (0.45)
ა ე	U	2667	4000	5760 (0.54)
J.	С	4167	6250	11,333 (0.68)
36	N	1429	2143	4800 (0.84)
30	С	2668	4000	9444 (0.88)
3	U	737	1106	4114 (1.39)
74	С	1613	2419	8095 (1.25)
40	U	458	686	3542 (1.94)
40	С	1143	1714	7083 (1.55)
n A	U	281	421	2798 (2.49)
ن 1	С	789	1184	6296 (1.99)
60	U	183	274	2267 (3.10)
2	С	571	857	5667 (2.48)
n n	U	125	187	1873 (3.75)
C	С	438	657	5152 (2.94)
70	U	95	142	1574 (4.16)
1 2	С	355	533	4722 (3.33)
II IInif	Hniform Load	- lhe/ft²		

- $C \subset$
- Uniform Load lbs/ft<sup>2</sup> Concentrated Line Load lbs/ft of Width

- MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
   The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

Wide 'T' Bar Pultruded Grating



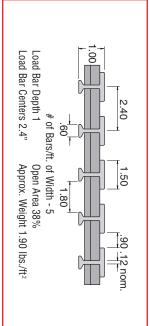
Aickingrate Wide T-Bar pultruded grating provides a lightweight, non-skid, durable alternative to metallic grating used for pedestrian walkway traffic.

The Aickingrate Wide T-Bar grit-top grating offers excellent protection for pedestrian traffic particularly in wet environments.

This low-cost grating is an excellent alternative to metal grating for wet areas with high volumes of foot traffic.



# WIDE "T" Bar 1" THICK, 38% OPEN AREA



### **LOAD TYPES**

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

Average El=1,200,000 lb/in² (Span ≥24") A=1.76 in<sup>2</sup> I=.23 in4 **S-top**=.35 in<sup>3</sup> S-bot=.22 in3

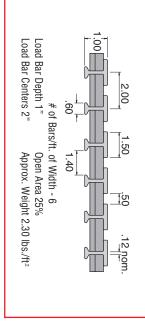
A=Cross Sectional Area **Average EI=**Modulus of Elasticity x Moment of Inertia (avg. value other varying spans) I=Moment of Inertia S=Section Modulus (Top, Bottom)

Clear Span (in.)	Load Type	Load Kequired For a Specified Deflection (Note 2)	Load Kequired For a Specified Deflection (Note 2)	Max. Recom. Load (Note 1) All Resin Systems
,		0.250"	0.375"	[Load (Deflection)]
ò	U	1	1	2730 (0.08)
7	С	-	ı	2730 (0.12)
40	U	I	I	1820 (0.22)
10	0	I	ı	2587 (0.34)
2	_	742	1113	1365 (0.46)
24	С	933	1399	1940 (0.52)
30	_	312	468	1092 (0.87)
ü	С	491	737	1552 (0.79)
36	_	154	231	862 (1.40)
30	С	290	435	1293 (1.12)
3	_	84	126	663 (1.89)
24	С	184	276	1109 (1.50)
40	_	50	75	485 (2.43)
-		100	188	970 (1 94)

- $C \subseteq$
- Uniform Load lbs/ft²
  Concentrated Line Load lbs/ft of Width

- 1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

# WIDE "T" Bar 1" THICK, 25% OPEN AREA



### **LOAD TYPES**

## **ENGINEERING PROPERTIES PER FT OF WIDTH**

Average EI=1,340,000 lb/in² (Span ≥24") **A**=2.11 in<sup>2</sup> I=.27 in4 S-top=.42 in<sup>3</sup> **S-bot**=.27 亘.

Average EI=Modulus of Elasticity x Moment of Inertia (avg. value other varying spans) A=Cross Sectional Area I=Moment of Inertia S=Section Modulus (Top, Bottom)

Clear Span (in.)	Load Type	Load Required For a Specified Deflection (Note 2)	Load Required For a Specified Deflection (Note 2)	Max. Recom. Load (Note 1) All Resin Systems
		0.250"	0.375"	[Load (Deflection)]
5	U	_	ı	3276 (0.08)
12	С	_	ı	3276 (0.12)
40	U	_	I	2184 (0.22)
10	С	-	I	3104 (0.34)
2	□	890	1335	1638 (0.46)
24	С	1119	1679	2328 (0.52)
3	□	374	562	1310 (0.87)
00	С	589	884	1862 (0.79)
ລ	□	185	277	1035 (1.40)
JU	С	348	522	1552 (1.12)
3	_	100	150	760 (1.89)
7	C	221	332	1330 (1.50)
<u>4</u>	u	60	90	582 (2.43)
5	C	150	226	1164 (1.94)

- $\Box$
- Uniform Load lbs/ft<sup>2</sup> Concentrated Line Load lbs/ft of Width

- 1. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
  2. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.

Fiberglass

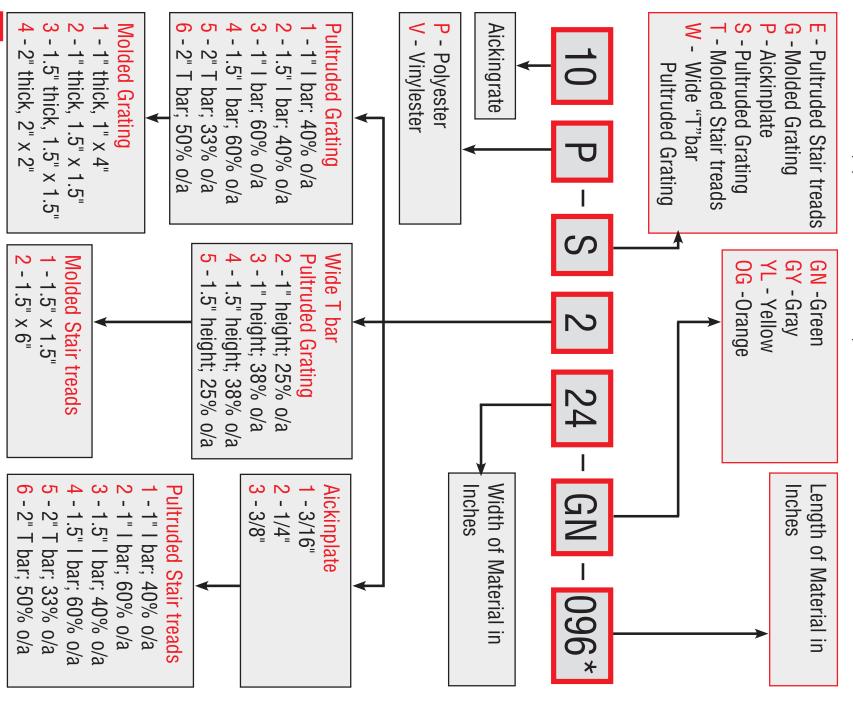


## AICKINGRATE PART NUMBERS



To order Aickingrate, use the following part number scheme to create the correct part number

\* To order non-fire retardant polyester, add suffix "NFR" to end of part number.





**AICKINGRATE STAIR TREADS** 

Aikengrate Stair Trends are available in either molded or pultruded designs. Both designs incorporate an anti-skid, grit top surface.

### **Molded Stair Treads**

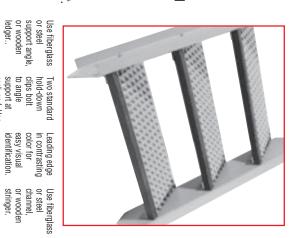
molded grating panels. Each panel incorporates an applied, grit surface with an extra-thick, dark colored nosing. This leadon stairways. ing edge color contrast increases the stair tread visibility and prevents slips and falls same resin formulations as the standard Molded stair treads are available in the

All stair treads are 1½" thick and provided in a 1½" square mesh configuration. The standard stair tread panel size is 22½" x 105 pounds. ". Each panel weighs approximately

Standard Colors: Orange Green, Yellow, Gray and

Special colors are available upon request.

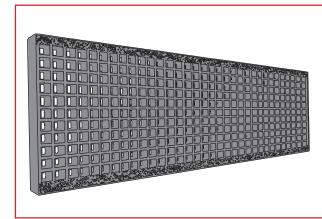
with the same tools that are used on the Aickingrate stair tread panels can be cut Aickingrate molded grating panels.



Two standard hold-down clips bolt to angle support at each end. Use Aickingrate easy visual identification. Leading edge in contrasting color for

grating clips.

Use fiberglass or steel channel, or wooden stringer.



Panel size: Approx. Weight:  $22^{-1}/2$ " x 120" 105 lbs.

## **Pultruded Stair Treads**

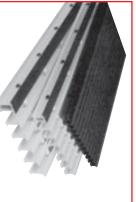
treads are slip-resistant, non-conductive and offer a high level of safety, strength and corrosion resistance. Pultruded stair treads incorporate the same ingrate pultruded grating panels. performance characteristics as the Aick-All stair

polyester or vinyl ester resin types. The standard stair tread panel size is 1' x 10'. Stair treads are available in 1", 1 ½" & 2" depths. The available bar shapes are "1" bar and "T" bar. All pultruded stair treads Pultruded stair treads are available in either

> allow for quick and easy visual distinction, which prevents slips and falls. incorporate a color contrast nosing to

Standard Colors:
Yellow (Polyester), Gray (Vinyl ester)

T J T	Concentrated	Span (in.)	18	24	30	36	42	48
ireau Type	Load (lbs.)	Span/150	.12	.16	.20	.24	.28	.32
1" Deep, I-Bar	250		.03	.08	.14	.22	.34	.46
60% Open Area	500		.07	.15	.28	.44	.68	.92
1.5" Deep, I-Bar	250		.01	.02	.04	.06	.09	.13
60% Open Area	500		.02	.04	.08	.11	.18	.26
2" Deep, T-Bar	250		.01	.02	.03	.04	.06	.09
50% Open Area	500		.02	.04	.06	.09	.12	.18
1" Deep, I-Bar	250		.02	.05	.10	.16	.24	.33
40% Open Area	500		.05	.11	.20	.32	.49	.65
1.5" Deep, I-Bar	250		.01	.01	.03	.04	.06	.09
40% Open Area	500		.02	.03	.05	.07	.12	.17
2" Deep, T-Bar	250		.01	.01	.02	.03	.05	.07
33% Open Area	500		.02	.03	.04	.06	.09	.14



141



### **Grating Accessories**



### **AICKINPLATE**



non-skid surface provides excellent traction even when oil or other slippery liquids are present. Because Aickinplate is molded from fiberglass, it provides superior corrosolution for slippery walking surfaces. The Aickinplate is a molded, non-skid fiber-glass plate that offers an economical, safe

sion resistance and never requires painting. Aikinplate is a structural floor plate that is non-porous and cleans easily with water.

standard panel size is 4' x 8' and they are available in three thickness'; 3/6", 1/2" and 3/8". All panels will be constructed from both non-fire retardant or fire retardant polyester resin and fire retardant vinyl ester resins. A USDA approved, polyester resin Aickinplate is available. Aickinplate is easy to fabricate. It can be cut with masonry blades and drilled with standard carbide-tipped drill bits. The

## Some typical Aickinplate applications would be:

- Fishing boat decks
- Packing plant floors
- Swimming pools
- Work platforms

Standard Colors: Green, Gray, Yellow, & Orange Special colors are available upon request.

panel. Note: Install clips a maximum of every 48" and use at least 8 clips per 4' x 12'

Capacity				
Aickinplate	Panel Weight	45 lbs.	12 (in.)	Use on flat
3/16"	Weight/Sq. Ft.	1.4 lbs.	18	solid surface only
			24	
Aickinplate	Panel Weight	60 lbs.	12 (in.)	199 lbs.
1/4"	Weight/Sq. Ft.	1.8 lbs.	18	98
			24	62
Aickinplate	Panel Weight	85 lbs.	12 (in.)	583 lbs.
3/8"	Weight/Sq. Ft.	2.6 lbs.	18	304
			24	203



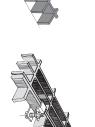
**Grating Accessories** 

Grating clips are specially designed to fasten and secure grating panels to support structures. All grating clips are made from 316 Stainless Steel.

### Molded **Grating Clips**

### M-Clips

Type M-clips secure panels to a support and restrain panel movement in all direc-



tions. M-Clips can also be installed with self-tapping screws when attaching to metal
---

## Part Aickingrate

M-4	M-3	M-2	M-1	numbers
2" hick, 2" x 2"	1½" hick, 1½" × 1½"	1" hick, 1½" x 1½"	1" thick, 1" × 4"	mesh configuration

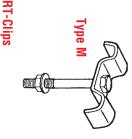
### C-Clips

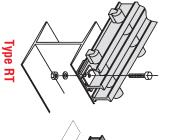
Used for joining two unsupported grating panel ends.

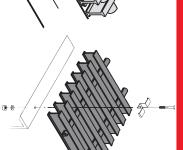
C-3	C-2	C-1	numbers	rdii
2"	11/2"	1"	panel thickness	Gaille

## **Pultruded Grating Clips**

MTW-381	MT-5	MT-3	MI-6	MI-4	Part numbers
Wide "T" bar, C 38% open area, 1" thick V	"T" bar, 50% open area, P	"T" bar, 33% open area, 2" thick	"I" bar, 60% open area, 1" & 1½" thick	"I" bar, 40% open area, 1" & 1½" thick	Grating panel thickness







<sup>2</sup>art numbers RT-25

Grating panel thickness

Wide "T" bar, 25% open area, 1 & 1½" thick

### Type MI, MT, MTW

## **Grating Floor Pedestals**

MTW-3815

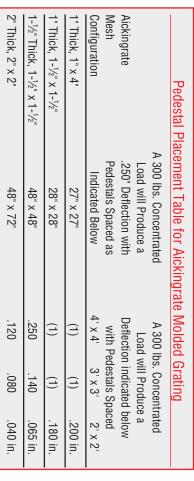
Wide "T" bar,

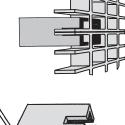
38% open area,  $1\frac{1}{2}$ " thick

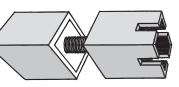
Aickingrate floor pedestals are an economic method for providing an elevated Aickingrate molded flooring system. Pedestal supported flooring systems are extremely versatile and can be modified or moved to meet wash-down requirements. Pedestals are designed for a maximum height of 12 inches without braces.

## Part numbers

P-STA	P-ADJ
Stationary (3"-12")	Adjustable (5"-12")













## **CORROSION-RESISTANCE GUIDE**

The information contained in this table is intended to only be used as a guide for molded & pultruded grating. Because actual conditions may differ, the end-user must determine if the grating will withstand the intended environment.

d at the te	ament liete	mical Enviror	of the grating to the Chemical Environment listed at the te	C=Continuous exposure of the
z	z	Up to 180	All	Hydrochloric Acid (Concentrated)
_	_	Max.	30	Hydrochloric Acid
S	S	Max.	10	Hydrochloric Acid
z	_	Max.	48	Hydrobromic Acid
z	-	Max.	All	Green Liquor (Pulp Mill)
С	С	Max.	100	е
C	С	100	AII	Fuel (Diesel, Jet, Gasoline)
_	S	100	25	Formic Acid
_	S	150	37	Formaldehyde
_	S	75	10	Fluosilicic Acid
Z	_	75	All	Fluoride Salts + HCl
C	С	Max.	All	Ferric Salts
С	С	Max.	100	Ferric Chloride
z	Z	75		Ethers
Z	z	75	100	Dichlorobenzene
C	С	Max.	All	Crude Oil (Sweet or Sour)
C	С	Max.	All	Copper Salts
_	S	125	All	Copper Cyanide Plating
C	C	Max.	All	Citric Acid
Z	_	140	50	Chromic Acid
Z	Z	75	100	Chloroform
z	Z	Up to 100	All	Chlorobenzene
Z	Z	75	100	Chlorobenzene
z	Z	Max.	Sat.	Chlorine, Wet
Z	_	120	Sat.	Chlorine Water
z	S	140	Sat.	Chlorine Dioxide
Т	Τ	75	100	Chlorinated Hydrocarbons
Z	S	75	100	Carbon Tetrachloride
С	C	Max.	All	Calcium Salts
Z	_	Max.	AII	Calcium Hypochlorite
_	S	Max.	25	Calcium Hydroxide
z	_	Max.	AII	Bleach Liquor (Pulp Mill)
Z	_	Max.	All	Black Liquor (Pulp Mill)
Z	-	140	100	Benzene
C	С	Max.	All	Barium Salts
2	2	75	All	Aromatic Solvents
Z	⊣	75	All	- Aggressive
c	c	0.71	1	- Neutral
n	C	190	ΔΙΙ	Ammonium Salts
z	_	75	30	Ammonium Hydroxide
_	_	75	20	
C	С	Max.	АШ	Aluminum Chloride
C	C	Max.	All	Aluminum
_	_	120	100	Alcohols
Z	-	75	100	Acetone
C	С	Max.	50	Acetic Acid
Æ	POLY	π°.	Concentration	Environment
i		Temp.	%	Chemical

С	C	Max.	100	Zinc Salts
z	S	75	All	Zinc Chloride Plating
z	S	Max.	All	White Liquor (Pulp Mill)
z	Z	Up to 350	10-20	Wet Chlorine/Hydrochloric Acid)
C	С	Max.	100	Water (Fresh, Salt, Moderate, D.I.)
z	_	Max.	50	Trisodium Phosphate
Z	_	75	All	Trichloroethane 1,1,1
Z	_	120	100	Toluene
z	_	100	75	Sulfuric Acid
Z	S	Max.	50	Sulfuric Acid
_	S	Max.	25	Sulfuric Acid
S	S	Max.	Sat.	Sulfur Dioxide
N	Т	75	All	Sodium Salts-Aggressive
С	С	Max.	All	Sodium Salts-Neutral
_	S	100	10	Sodium Hypochlorite (Stable)
z	Z	Max.	10	Sodium Hydroxide
z	_	Max.	50	Sodium Hydroxide
_	S	75	All	Sodium Cyanide
C	C	Max.	100	Silver Nitrate
C	С	Max.	All	Potassium Salts
Z	S	120	10	Potassium Hydroxide
z	S	Max.	115	Phosphoric Acid, Super
S	С	Max.	85	Phosphoric Acid
Z	Z	Ambient	88	Phenol
z	-	75	10	Phenol
Z	_	75	100	Perchloroethylene
0	С	100		Ozone for Sewage Treatment
C	C	75	10	Nitrous Acid
z	Z	75	20:2	Nitric Hydrofluoric
Z	Z	Ambient	40	Nitric Acid
Z	_	100	35	Nitric Acid
_	_	120	20	Nitric Acid
C	C	Max.	All	Nickel Salts
C	C	Max.	100	Mercury Chloride
-	S	Max.	100	Maleic Acid
_	С	Max.	All	Magnesium Salts
C	C	Max.	All	Lithium Salts
0	С	Max.	Sat.	Lime Slurry
0	С	Max.	100	Lactic Acid
z	S	75	30	Hydrogen Peroxide
z	Z	75	20	Hydrofluoric Acid
_	S	Max.	All	Hydrocyanic Acid
۷۲	POLT	тů	Concentration	Environment
á	2	Temp.	%	Chemical

**C**=Continuous exposure of the grating to the Chemical Environment listed at the temperature listed.

Consult Aickingrate for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide

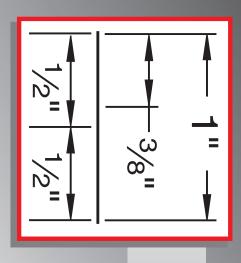
Max. Temp. is 180°F for Vinylester 150°F for Polyester.

S=Frequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed

I=Infrequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed and the spill immediately cleaned up or washed from the grating.

N=Not recommended for the concentrations and temperatures listed.

T=Test



## TECHNICAL DATA

Beam Diagrams and Formulas:

Nomenclature

Cantilever Beams

Simple Beams

Beams fixed at one end, supported at other Beams fixed at both ends

Beam Load (Static) Conversion Factors

Design Load Data For Power-Strut Channel Connections

Pipe Spacing Tables

NFPA 13 Compliance Tables

Section Modulus Required for Trapeze Members

Electrical Metallic Tubing Data

Conduit Spacing

Conduit & Pipe Data Steel Rigid

Intermediate Metal

Copper Tube Cast Iron PVC Steel Pipe

Spacing of Hangers: Copper Tubing

Steel Pipe PMC Plastic Pipe

Load Tables

Wide Flange Beams Channels – American Standard Threaded Hot Rolled Steel Rod

I-Beams – American Standard

**Unit Conversions** 

Part Number Index





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# Beam Diagrams and Formulas (Nomenclature)

- Modulus of Elasticity of steel at 29,000 ksi.
- Moment of Inertia of Beam (inch4).
- Mmax Maximum Moment (kip inch)
- Maximum moment in left section of beam (kip inch)
- **M**2 Maximum moment in right section of beam (kip inch)
- ≤ × Moment at distance x from end of beam (kip inch)
- ℧ Concentrated Load (kips)

IJ

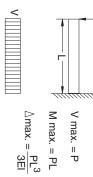
R Left end beam reaction (kips)

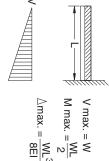
End beam reaction for any condition of symmetrical loading (kips)

- R2 Right end or intermediate beam reaction (kips)
- < Maximum vertical shear for any condition of symmetrical loading (kips)
- **Y**2 ≤ Vertical shear at right reaction point, or to left of intermediate reaction point of beam (kips) Maximum vertical shear in left section of beam (kips)
- × Vertical shear at distance x from end of beam (kips)
- a Measured distance along beam (inch)
- Р Measured distance along beam which may be greater or less that "a" (inch)
- Total length of beam between reaction points (inch)
- ≶ Uniformly distributed load per unit of length (lbs)
- × Any distance measured along beam from left reaction (inch)
- Any distance measured along overhang section of beam from nearest reaction point(in).
- ∆max Maximum deflection (inch)
- ∆a Deflection at point of load (inch)
- × Deflection at point x distance from left reaction (inch)

# Beam Diagrams and Formulas (Cantilever Beams)

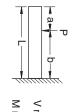
### CANTILEVER BEAMS





WL3

<

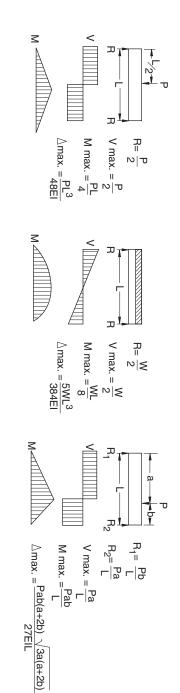




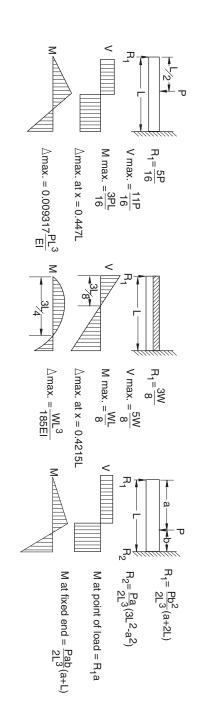


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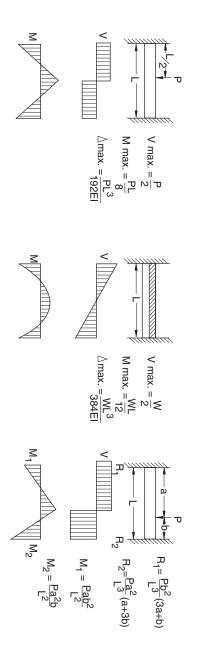
# Beam Diagrams and Formulas (Simple Beams)



# Beam Diagrams and Formulas (Beams fixed at one end, supported at other)



# Beam Diagrams and Formulas (Beams fixed at both ends)





## Beam Load (Static) Conversion Factors

Power-Strut beam loads shown for varoius channels throughout this catalog are for single span, simple beams, with uniform loads. Loading or other support conditions can be calculated by multiplying the channel beam load by the appropriate factor listed below.

			DEEL ECTION
LOAD AND SUPPORT CONDITION	RT CONDITION	FACTOR	FACTOR
1. Simple Beam, Uniform Load	SPAN —	1.00	1.00
2. Simple Beam, Concentrated Load at Center	+ + +	0.50	0.80
3. Simple Beam, Two Equal Concentrated Loadcs at 1/4 pts	ţ ţ	1.00	1.10
4. Beam Fixed at Both Ends, Uniform Load		1.50	0.30
5. Beam Fixed at Both Ends, Concentrated Load at Center	-	1.00	0.40
6. Cantilever Beam, Uniform Load		0.25	2.40
7. Cantilever Beam, Concentrated Load at End		0.12	3.20
8. Continuous Beam, Two Equal Spans, Uniform Load on One Span		1.30	0.92
9. Continuous Beam, Two Equal Spans, Uniform Load on Both Ends		1.00	0.42
10. Continuous Beam, Two Equal Spans, Concentrated Load at Center of One Span	, ,	0.62	0.71
11. Continuous Beam, Two Equal Spans, Concentrated Load at Center of Each Span	+ + +	0.67	0.48

### **Example solutions**

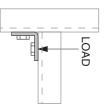
- 1.) To determine the load and deflection of a PS-200 simple beam 72" long, with a concentrated load at the center of span:
  From the PS-200 Beam Load Chart (page 27), the maximum uniform load for a 72" span is 560# with a deflection of .50".
  Multiply the above factors:
  Defl. = .50 x .80 = .40"
  - 2.) To determine the load and deflection of a PS-200-2T3 cantilever beam 24" long with a concetrated load at end: From the PS-200-2T3 Beam Load Chart (page 27), the maximum uniform load for a 24" span is 3130# with a deflection of .03". Multiply the above factors: Load =  $3130# \times .12 = 376#$  Defl. =  $.03 \times 3.20 = .096$ "



**Design Load Data For Power-Strut Channel Connections** 

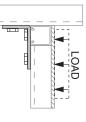
## **PS 603** – PS-200 1500#, PS-210 1000#

<b>Load</b> (lbs) 1,500
-------------------------



## **PS 605** – PS-2001500, #PS-210 1000#

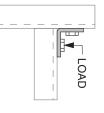
Channel	Load (lbs)
PS 200	1,500
PS 210	1,000



Both Ends Supported

## **PS 603** – PS-200 1000#, PS-210 650#

PS 210	PS 200	Channel
650	1,000	Load (Ibs)

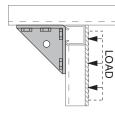


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**Both Ends Supported** 

Channel	Load (lbs)
PS 200	3,000
PS 210	2,000

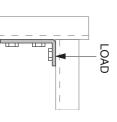


**Both Ends Supported** 

**745** – PS-200 2000#, PS-210 1500#

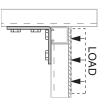
Both Ends Supported

Channel	Load (lbs)
PS 200	2,000
PS 210	1,500



**PS 607** – PS-200 2000#, PS-210 2000#

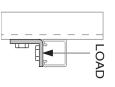
Channel PS 210 PS 200 2,000 Load (lbs)



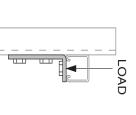
**Both Ends Supported** 

### **PS 604** – 500#

Both Ends Supported

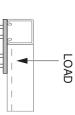






## **PS-601** - PS-210 1000#, PS-210 800#

	PS	Ch
PS 210	S 200	Channel
800	1,000	Load (lbs)



Both Ends Supported



Safety Factor = 2-½ based on ultimate strength of connection.
 Load Diagrams indicate design loads for 12 ga. (listed as PS-200) and for 14 ga. (listed as PS-210) channels.

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## Tables of Pipe Spacing

This chart, developed by Julius Getlan of Seelye Stevenson Value & Knect, consulting engineers, New York City, enables one to quickly determine the centerline-to-centerline dimension between any two size pipes on a rack. Select the smaller pipe size at top and select the other at the side of the table. Where the appropriate columns intersect, the dimension is given.

These factors are included in the dimensions given:

- O.D. of flanges and fittings.
- 1" insulation over flanges and fittings.
- All fractional dimensions less than <sup>1</sup>/<sub>4</sub>" were increased to the next larger <sup>1</sup>/<sub>4</sub>".
- Clear space between fittings as follows:
- 1. 1" between piping 3" and smaller.
- 1½" between a pipe 3" and smaller and a pipe 4" or larger.
- 3. 2" between piping 4" and larger.

12	10		10	8		6			Сī			4			ယ			21/2			N			11%			11/4			-			3/4			Normai Pine Dia (In		
F	T	F	-1	F	-	S	П	-1	S	П	-	S	П	-	S	F		S	F	-	S	П	-1	S	П	-1	S	F	Τ	S	П	1	S	Т				
14	121/4	12½	1111/4	1111/4	83/4	73/4	10	83/4	71/4	91/2	<b>∞</b>	63/4	9	71/2	53/4	73/4	61/4	5½	71/2	6	51/4	7	53/4	5	61/2	51/4	43/4	61/4	51/4	43/4	6	5	41/2	43/4	Т	, ω		
13¾	12	121/4	⇉	1	91/2	71/2	93/4	81/2	7	91/4	73/4	61/2	83/4	71/4	51/2	71/2	6	51/4	71/4	53/4	5	63/4	51/2	43/4	61/4	5	41/2	6	5	41/2	53/4	43/4	41/4	ı	S	3/4"		
141/4	121/2	12¾	1111/2	111/2	10	8	101/4	9	71/2	93/4	81/4	7	91/4	73/4	6	8	61/2	53/4	73/4	61/4	5½	71/4	6	51/4	63/4	51/2	5	61/2	51/2	5	61/4	51/4	1		Т			
151/4	13½	13¾	121/2	12½	⇉	9	1111/4	10	81/4	103/4	91/4	8	101/4	83/4	7	9	71/2	63/4	83/4	71/4	6½	81/4	7	61/4	73/4	6½	6	71/2	61/2	6	71/4		ı		п	<b>-</b>		
13¾	12	121/4	11	11	9¾	71/2	9¾	81/2	7	91/4	73/4	61/2	8¾	71/4	51/2	71/2	61/4	51/4	71/4	6	5	63/4	51/2	43/4	61/4	51/4	41/2	61/4	5	4½					S		Normal Pi	9
141/4	12½	123/4	1111/2	111/2	101/2	8	101/4	9	71/2	93/4	81/4	7	91/4	73/4	6	8	63/4	53/4	73/4	61/2	5½	71/4	6	51/4	63/4	53/4	51/4	63/4	5½			ı			Т		Normal Pipe Diameter, Inches	
15½	13¾	14	123/4	123/4	1111/4	91/4	11½	101/4	83/4	11	91/2	81/4	10½	9	71/4	91/4	73/4	7	9	71/2	63/4	81/2	71/4	6	8	63/4	61/4	73/4			1				F	11/4"	er, Inches	ן ליו
14	121/4	12½	1111/4	1111/4	93/4	73/4	10	83/4	71/4	9½	8	63/4	9	71/2	5%	73/4	61/4	5½	71/2	6	51/4	7	53/4	5	6½	51/4	43/4				1				S			5
14½	12¾	13	113/4	113/4	101/4	81/4	10½	91/4	73/4	10	8½	71/4	9½	00	61/4	81/4	63/4	6	8	6½	53/4	71/2	61/4	5½	7	53/4				ı					Т			90.
15½	13¾	14	123/4	123/4	1111/2	91/4	1111/2	101/4	83/4	11	91/2	81/4	10½	9	71/4	91/4	8	7	9	73/4	63/4	81/2	71/4	6½	8					ı					F	11/2"		
14	121/4	12½	1111/4	1111/4	10	73/4	10	83/4	71/4	91/2	œ	63/4	9	71/2	5¾	73/4	61/2	51/2	71/2	61/4	51/4	7	53/4	5					ı						s			