

Strut Products & Accessories

Catalog No. 794



"The Complete Line of Strut Products & Accessories"



PHD Manufacturing, Inc.

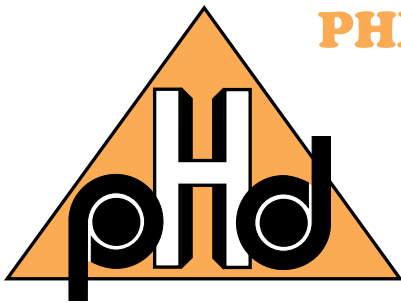
44018 Columbiana-Waterford Road
Columbiana, Ohio 44408

Phone: (800) 321-2736 • (330) 482-9256
Fax: (330) 482-2763 • www.phd-mfg.com

Pride

Honesty

Dedication



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YOUR LOCAL PHD REPRESENTATIVE IS:

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TERMS & CONDITIONS OF SALE

AGREEMENTS:

All agreements are subject to availability of material, strikes, accidents, or other causes beyond our control.

WARRANTY:

We warrant for one year from date of shipment our manufactured products to the extent that we will replace those having manufacturing defects when used for the purpose which we recommended. If goods are defective, the amount of damage is the price of the defective goods only and no allowance will be made for labor or expense of repairing defective goods or damage resulting from the same. We warrant the products we sell of other manufacturers to the extent of the warranties of their respective maker. This is the seller's sole warranty. Seller makes no other warranty of any kind, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose which exceed seller's aforestated obligation are hereby disclaimed by seller and excluded from this warranty.

For special order products made to the customer's specification, warranty is not valid and we are not responsible for load requirements or liable for damages incurred from product failure.

CLAIMS:

No claims for shortages allowed unless made in writing within ten days of receipt of goods. All goods sent out will be carefully examined, counted and packed. Claims for goods damaged or lost in transit should be made on the carrier, as our responsibility ceases on delivery to the carrier.

SPECIAL ORDERS:

Orders covering special or nonstandard goods are not subject to cancellation except on such terms as may be agreed upon.

TERMS AND DESIGN:

Subject to change without notice. Refer to current price list for terms of sale. PHD reserves the right to revise product design without notification.

RETURNS:

We cannot accept return of any goods unless PHD's written permission has been first obtained, in which case same will be credited as follows:

- 1) All goods must be received in our plant in first class condition; if not, the cost of putting in salable condition will be deducted from credit.
- 2) Twenty-five percent (25%) will be deducted from credit memoranda issued for handling and restocking, less any charges allowed or paid by PHD Mfg., Inc.
- 3) Goods must be returned prepaid.
- 4) P.O.A. items cannot be returned.
- 5) There will be no returns of goods after one year from purchase date. Customer must provide invoice number.
- 6) There will be no return of goods under \$50.00, unless it is the result of PHD's error.

TAXES:

To the price and terms quoted, there will be added any manufacturer's or sales taxes payable on the transaction under any effective statute.

MINIMUM INVOICE:

\$50.00 plus transportation.

FREIGHT ALLOWANCE:

All prices are F.O.B. point of shipment. On shipments of 2500 lbs. or more, rail freight or motor freight at the lowest published price is allowed to all U.S. highway points listed in published tariffs (Hawaii and Alaska excluded).

TERMS:

Net 30 days. Monthly settlements on all accounts. One and-a-half percent ($1\frac{1}{2}\%$) per month or eighteen percent (18%) per annum will be charged on all past due accounts, starting on the 31st day after the date of invoice.

DIMENSIONS & WEIGHTS:

Although PHD Manufacturing tries to be as accurate as possible, all listed dimensions and weights are an approximation and are not guaranteed.

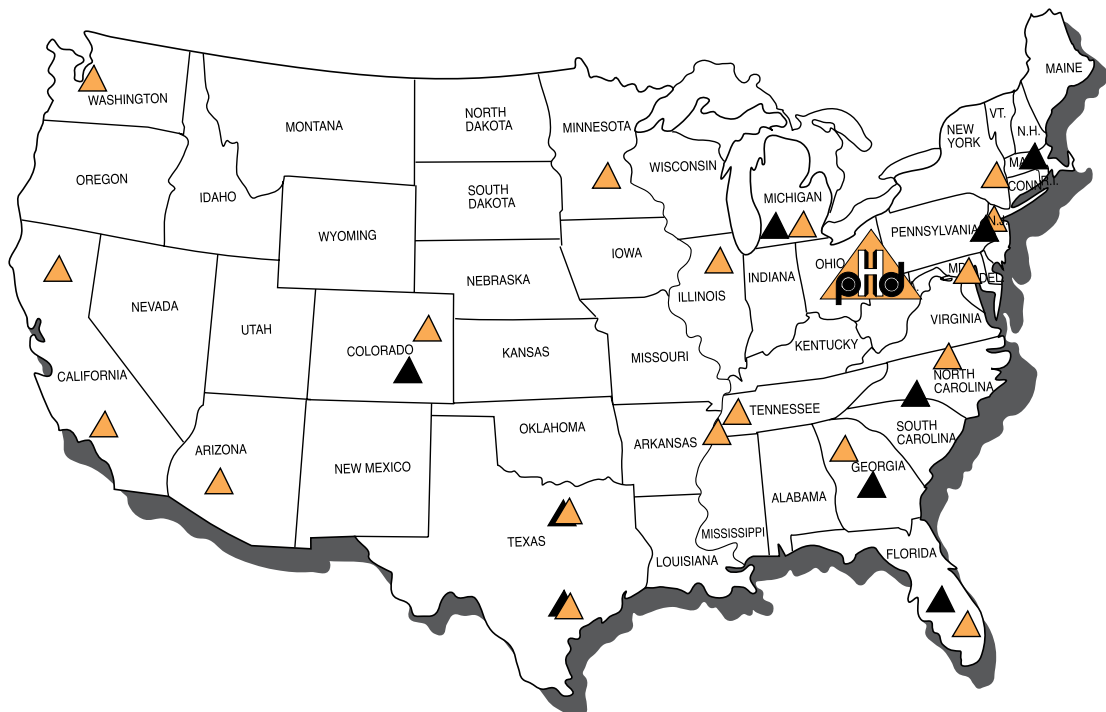
PHD Manufacturing, Inc. was founded in 1972 by a group of industry veterans with strong management, financial, sales and manufacturing backgrounds. The entrepreneurial vision of this close group used the talents they acquired over the years to forge something special in a business that needed a different purpose. This core group continues to manage PHD today, ensuring the original commitment to quality and excellence.

Our 33 professional sales representatives supporting the plumbing, mechanical and electrical industries are ready to serve your needs. Our manufacturing plant in Columbiana, Ohio, together with our 24 stocking warehouses throughout the United States, gives us one of the largest inventories in the industry.

Many of our products are Underwriter's Laboratories listed and Factory Mutual Approved. All PHD products are manufactured to meet or exceed industry standards set for their design and manufacture.

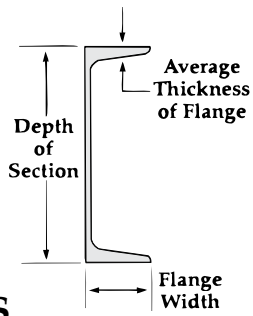
If you need a product not listed in this catalog, please call the factory or your local PHD representative to check availability and pricing.

PHD Plumbing & Mechanical Stock Locations PHD Electrical Stock Locations



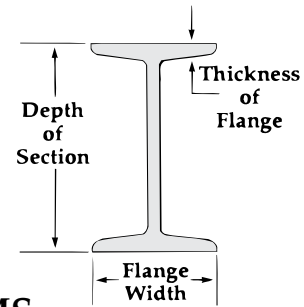


TECHNICAL DATA



CHANNELS AMERICAN STANDARD

Depth of section	Width of Flange	Average Thickness of Flange	Wt. Per Foot (in lbs.)
3	$1\frac{3}{8}$	.273	4.1
	$1\frac{1}{2}$		5.0
	$1\frac{5}{8}$		6.0
4	$1\frac{5}{8}$	.296	5.4
	$1\frac{3}{4}$		7.25
5	$1\frac{3}{4}$	.320	6.7
	$1\frac{7}{8}$		9.0
6	$1\frac{7}{8}$	.343	8.2
	2		10.5
	$2\frac{1}{8}$		13.0
7	$2\frac{1}{8}$	.366	9.8
	$2\frac{1}{4}$		12.25
	$2\frac{1}{4}$		14.75
8	$2\frac{1}{4}$	.390	11.5
	$2\frac{3}{8}$		13.75
	$2\frac{1}{2}$		18.75
9	$2\frac{3}{8}$	.413	13.4
	$2\frac{1}{2}$		15
	$2\frac{5}{8}$		20
10	$2\frac{5}{8}$	.436	15.3
	$2\frac{3}{4}$		20
	$2\frac{7}{8}$		25
	3		30
12	3	.501	20.7
	3		25
	$3\frac{1}{8}$		30
15	$3\frac{3}{8}$	.650	33.9
	$3\frac{1}{2}$		40
	$3\frac{3}{4}$		50
18	4	.625	42.7
	4		45.8
	$4\frac{1}{8}$		51.9
	$4\frac{1}{4}$		58



I BEAMS AMERICAN STANDARD

Depth of section	Width of Flange	Average Thickness of Flange	Wt. Per Foot (in lbs.)
3	$2\frac{3}{8}$	.260	5.7
	$2\frac{1}{2}$		7.5
4	$2\frac{5}{8}$	.293	7.7
	$2\frac{3}{4}$		9.5
5	3	.326	10
	$3\frac{1}{4}$		14.75
6	$3\frac{3}{8}$	.359	12.5
	$3\frac{5}{8}$		17.25
7	$3\frac{5}{8}$	.392	15.3
	$3\frac{7}{8}$		20
8	4	.425	18.4
	$4\frac{1}{8}$		23
10	$4\frac{5}{8}$	.491	25.4
	5		35
12	5	.544	31.8
	$5\frac{1}{8}$	.544	35
	$5\frac{1}{4}$	.659	40.8
15	$5\frac{1}{2}$	.659	50
	$5\frac{1}{2}$	.622	42.9
	$5\frac{5}{8}$	.622	50
18	6	.691	54.7
	$6\frac{1}{4}$		70
20	$6\frac{1}{4}$	.789	65.4
	$6\frac{3}{8}$	.789	75
	7	.916	85
	$7\frac{1}{4}$	.916	95
24	7	.871	79.9
	$7\frac{1}{8}$	.871	90
	$7\frac{1}{4}$	.871	100
	$7\frac{7}{8}$	1.102	105.9
	8	1.102	120
	8	1.102	120

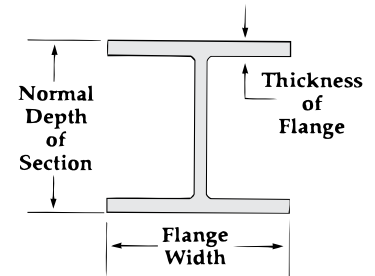
TECHNICAL DATA



WIDE FLANGE BEAMS

Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
5	5	.360	16
	5	.430	19
6	4	.280	12
	4	.405	16
	6	.365	20
	6 ¹ / ₈	.455	25
8	4	.255	13
	4	.315	15
	5 ¹ / ₄	.330	18
	5 ¹ / ₄	.400	21
	6 ¹ / ₂	.400	24
	6 ¹ / ₂	.465	28
	8	.435	31
	8	.495	35
	8 ¹ / ₈	.560	40
	8 ¹ / ₈	.685	48
10	8 ¹ / ₄	.810	58
	8 ¹ / ₄	.935	67
	4	.270	15
	4	.330	17
	4	.395	19
	5 ³ / ₄	.360	22
	5 ³ / ₄	.440	26
	5 ³ / ₄	.510	30
	8	.435	33
	8	.530	39
	8	.620	45
	10	.560	49
	10	.615	54
	10 ¹ / ₈	.680	60
12	10 ¹ / ₈	.770	68
	10 ¹ / ₄	.870	77
	10 ¹ / ₄	.990	88
	10 ³ / ₈	1.120	100
	10 ³ / ₈	1.250	112
	4	.265	16
	4	.350	19
	4	.425	22
	6 ¹ / ₂	.380	26
	6 ¹ / ₂	.440	30
14	6 ⁵ / ₈	.520	35
	8	.515	40
	8	.575	45
	8 ¹ / ₈	.640	50
	10	.575	53
	10	.640	58
	12	.605	65
	12	.670	72
	12 ¹ / ₈	.735	79
	12 ¹ / ₈	.810	87
	12 ¹ / ₈	.900	96
	12 ¹ / ₄	.990	106
	12 ³ / ₈	1.100	120
	12 ³ / ₈	1.250	136
	12 ¹ / ₂	1.400	152
	12 ⁵ / ₈	1.730	190

Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
14	5	.335	22
	5	.420	26
	6 ³ / ₄	.385	30
	6 ³ / ₄	.455	34
	6 ³ / ₄	.515	38
	8	.530	43
	8	.595	48
	8	.660	53
	10	.645	61
	10	.720	68
	10 ¹ / ₈	.785	74
	10 ¹ / ₈	.855	82
	14 ¹ / ₂	.710	90
	14 ⁵ / ₈	.780	99
	14 ⁵ / ₈	.860	109
	14 ⁵ / ₈	.940	120
	14 ³ / ₄	1.030	132
	15 ¹ / ₂	1.090	145
	15 ⁵ / ₈	1.190	159
	15 ⁵ / ₈	1.310	176
16	15 ³ / ₄	1.440	193
	15 ³ / ₄	1.560	211
	15 ⁷ / ₈	1.720	233
	16	1.890	257
	16 ¹ / ₈	2.070	283
	16 ¹ / ₄	2.260	311
	16 ³ / ₈	2.470	342
	16 ¹ / ₂	2.660	370
	16 ⁵ / ₈	2.840	398
	16 ³ / ₄	3.030	426
	5 ¹ / ₂	.345	26
	5 ¹ / ₂	.440	31
	7	.430	36
	7	.505	40
18	7	.565	45
	7 ¹ / ₈	.630	50
	7 ¹ / ₈	.715	57
	10 ¹ / ₄	.665	67
	10 ¹ / ₄	.760	77
	10 ³ / ₈	.815	89
	10 ³ / ₈	.985	100
	6	.425	35
	6	.525	40
	6 ¹ / ₁₆	.605	46
21	7 ¹ / ₂	.570	50
	7 ¹ / ₂	.630	55
	7 ¹ / ₂	.695	60
	7 ⁵ / ₈	.750	65
	7 ⁵ / ₈	.810	71
	11	.680	76
	11 ¹ / ₈	.770	86
	11 ¹ / ₈	.870	97
	11 ¹ / ₄	.940	106
	11 ¹ / ₄	1.060	119
	6 ¹ / ₂	.450	44
	6 ¹ / ₂	.535	50



Nominal Depth of Section	Width of Flange	Thickness of Flange	Wt. Per Foot (in lbs.)
21	6 ¹ / ₂	.650	57
	8 ¹ / ₄	.615	62
	8 ¹ / ₄	.685	68
	8 ¹ / ₄	.740	73
	8 ³ / ₈	.835	83
	8 ³ / ₈	.930	93
	12 ³ / ₈	.875	111
	12 ³ / ₈	.960	122
24	12 ¹ / ₂	1.150	147
	7	.505	55
	7	.590	62
	9	.585	68
	9	.680	76
	9	.770	84
	9 ¹ / ₈	.875	94
	12 ³ / ₄	.750	104
27	12 ³ / ₄	.850	117
	12 ⁷ / ₈	.960	131
	12 ⁷ / ₈	1.090	146
	13	1.220	162
	10	.640	84
	10	.745	94
	10	.830	102
	10 ¹ / ₈	.930	114
30	14	.975	146
	14	1.080	161
	14 ¹ / ₈	1.190	178
	10 ¹ / ₂	.670	99
	10 ¹ / ₂	.760	108
	10 ¹ / ₂	.850	116
	10 ¹ / ₂	.930	124
	10 ¹ / ₂	1.000	132
33	15	1.060	173
	15	1.180	191
	15 ¹ / ₈	1.310	211
	11 ¹ / ₂	.740	118
36	11 ¹ / ₂	.855	130
	11 ¹ / ₂	.960	141
	12	.790	135
	12	.940	150
36	12	1.020	160



TECHNICAL DATA

Steel Pipe Data SCHEDULE 40 & 80

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
3/8	40	.675	.091	.083	.567
	80		.126	.061	.738
1/2	40	.840	.109	.132	.850
	80		.147	.101	1.087
3/4	40	1.050	.113	.230	1.130
	80		.154	.186	1.473
1	40	1.315	.133	.374	1.678
	80		.179	.311	2.171
1 1/4	40	1.660	.140	.647	2.272
	80		.191	.555	2.996
1 1/2	40	1.900	.145	.882	2.717
	80		.200	.765	3.631
2	40	2.375	.154	1.452	3.652
	80		.218	1.279	5.022
2 1/2	40	2.875	.203	2.072	5.790
	80		.276	1.834	7.660
3	40	3.500	.216	3.200	7.570
	80		.300	2.860	10.250
3 1/2	40	4.000	.226	4.280	9.110
	80		.318	3.850	12.510
4	40	4.500	.237	5.510	10.790
	80		.337	4.980	14.980

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
5	40	5.563	.258	8.660	14.620
	80		.375	7.870	20.780
6	40	6.625	.280	12.510	18.970
	80		.432	11.920	28.570
8	40	8.625	.322	21.600	28.550
	80		.500	19.800	43.390
10	40	10.750	.365	34.100	40.480
	80		.593	31.100	64.400
12	40	12.750	.406	48.500	53.600
	80		.687	44.000	88.600
14	40	14.000	.437	58.500	63.000
	80		.750	51.200	107.000
16	40	16.000	.500	76.500	83.000
	80		.843	69.700	137.000
18	40	18.000	.563	97.200	105.000
	80		.937	88.500	171.000
20	40	20.000	.593	120.400	123.000
	80		1.031	109.400	209.000
24	40	24.000	.687	174.200	171.000
	80		1.218	158.200	297.000
30	20	30.000	.500	286.000	158.000
36	API	36.000	.500	417.000	190.000

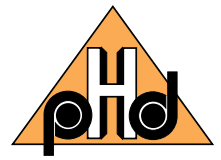
Spacing of Hangers For Steel Pipe

Nominal Pipe Size, Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
Maximum Span. Feet	7	7	7	7	9	10	11	12	13	14	16	17	19	22	23	25	27	28	30	32
Recommended Hanger Rod Sizes	3/8	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1 1/8 1 1/4 1 1/4 OR TRAPEZE		

Note: Spacing and capacities are based on pipe filled with water. Additional valves and fittings increase the load and therefore closer hanger spacing is required.

*Many Codes and specifications require pipe hangers to be spaced every 10 feet regardless of size. Check local codes.

TECHNICAL DATA



Copper Tube Data

TYPE L

Tube Size	Tubing O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Water	Pipe
1/4	.375	.030	.034	.126
3/8	.500	.035	.062	.198
1/2	.625	.040	.100	.285
5/8	.750	.042	.151	.362
3/4	.875	.045	.209	.455
1	1.125	.050	.357	.655
1 1/4	1.375	.055	.546	.884
1 1/2	1.625	.060	.767	1.140
2	2.125	.070	1.341	1.750
2 1/2	2.625	.080	2.064	2.480
3	3.125	.090	2.949	3.330
3 1/2	3.625	.100	3.989	4.290
4	4.125	.110	5.188	5.380
5	5.125	.125	8.081	7.610
6	6.125	.140	11.616	10.200
8	8.125	.200	20.289	19.260
10	10.125	.250	31.590	30.100
12	12.125	.280	45.426	40.400

TYPE K

Tube Size	Tubing O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Water	Pipe
1/4	.375	.035	.032	.145
3/8	.500	.049	.055	.269
1/2	.625	.049	.094	.344
5/8	.750	.049	.144	.418
3/4	.875	.065	.188	.641
1	1.125	.065	.337	.839
1 1/4	1.375	.065	.527	1.040
1 1/2	1.625	.072	.743	1.360
2	2.125	.083	1.310	2.060
2 1/2	2.625	.095	2.000	2.920
3	3.125	.109	2.960	4.000
3 1/2	3.625	.120	3.900	5.120
4	4.125	.134	5.060	6.510
5	5.125	.160	8.000	9.670
6	6.125	.192	11.200	13.870
8	8.125	.271	19.500	25.900
10	10.125	.338	30.423	40.300
12	12.125	.405	43.675	57.800

Spacing of Hangers For Copper Tubing

Tubing Size	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12
Span in Ft.	6	8	8	10	10	10	12	12	12	12	12	14	14	18	19

Note: Spacing and capacities are based on pipe filled with water. Additional valves and fittings increase the load and therefore closer hanger spacing is required.

AWWA Ductile Iron Pipe Data

Based on AWWA C108-70, Table 8.2.

Add flange weight for flanged cast iron pipe.

Nom. Pipe Size	Class	O.D. D.I. Pipe	Wall Thick.	Wt. Per Foot (in lbs.)	
				Pipe	Water
3	53	3.96	.31	11.20	3.80
4	53	4.80	.32	14.20	5.90
6	53	6.90	.34	22.00	13.10
8	53	9.05	.36	31.00	23.00
10	53	11.10	.38	40.40	36.40
12	53	13.20	.40	50.70	52.30
14	53	15.30	.42	62.40	71.10
16	53	17.40	.43	72.80	93.10
18	53	19.50	.44	83.60	117.90
20	53	21.60	.45	95.20	145.80
24	53	25.80	.47	119.20	210.20
30	53	32.00	.51	161.30	326.50
36	53	38.30	.58	219.50	469.30
42	53	44.50	.65	285.20	634.90
48	53	50.80	.72	360.30	828.90

Glass Pipe Data

REGULAR SCHEDULE

Nom. Pipe Size	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
			Pipe	Water
1 1/2	1.84	.12	.64	.89
2	2.34	.14	.94	1.45
3	3.41	.17	1.60	3.19
4	4.53	.20	2.60	5.79
6	6.66	.24	4.70	12.78

HEAVY SCHEDULE

1	1.31	.16	.60	.35
1 1/2	1.84	.17	.87	.76
2	2.34	.17	1.10	1.36
3	3.41	.20	2.00	3.06
4	4.53	.26	3.40	5.44
6	6.66	.33	6.30	12.42

Spacing of Hangers for glass pipe support every 8-10 ft. Pad all hangers. Use only clevis or trapeze, do not tie down pipe.



TECHNICAL DATA

PVC Plastic Pipe Data SCHEDULE 40 & 80

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
1/8	40	.405	.068	.025	.043
	80		.095	.016	.055
1/4	40	.540	.088	.045	.074
	80		.119	.031	.094
3/8	40	.675	.091	.083	.100
	80		.126	.061	.129
1/2	40	.840	.109	.132	.150
	80		.147	.101	.150
3/4	40	1.050	.113	.230	.199
	80		.154	.186	.259
1	40	1.315	.133	.374	.295
	80		.179	.311	.382
1 1/4	40	1.660	.140	.647	.400
	80		.191	.555	.527
1 1/2	40	1.900	.145	.882	.478
	80		.200	.765	.639
2	40	2.375	.154	1.452	.643
	80		.218	1.279	.884

Pipe Size	Schedule No.	O.D.	Wall Thickness	Wt. Per Foot (in lbs.)	
				Water	Pipe
2 1/2	40	2.875	.203	2.072	1.020
	80		.276	1.834	1.350
3	40	3.500	.216	3.200	1.333
	80		.300	2.860	1.804
3 1/2	40	4.000	.226	4.280	1.598
	80		.318	3.850	2.195
4	40	4.500	.237	5.510	1.899
	80		.337	4.980	2.636
5	40	5.563	.258	8.660	2.770
	80		.375	7.870	4.126
6	40	6.625	.280	12.150	3.339
	80		.432	11.290	5.028
8	40	8.625	.322	21.600	5.280
	80		.500	19.800	8.023
10	40	10.750	.366	34.100	7.505
	80		.593	31.100	11.894
12	40	12.750	.406	48.500	10.023
	80		.687	44.000	16.365

Spacing of Hangers For PVC Plastic Pipe

Schedule 40 Pipe Size	Support Spacings (In Feet)									
	Temperature									
	20°F	40°F	60°F	80°F	100°F	110°F	120°F	130°F	140°F	150°F
1/2 to 3/4	5.00	4.75	4.50	4.25	4.00	3.75	3.33	3.00	2.66	2.00
1 to 1 1/4	5.50	5.25	5.00	4.66	4.33	4.00	3.75	3.33	2.80	2.25
1 1/2 to 2	5.80	5.50	5.25	5.00	4.66	4.33	3.80	3.50	3.00	2.50
2 1/2	6.66	6.33	6.00	5.50	5.25	4.80	4.50	4.00	3.50	2.80
3	6.80	6.50	6.25	5.80	5.50	5.25	4.75	4.25	3.66	3.00
4	7.33	7.00	6.50	6.25	5.80	5.50	5.00	4.50	3.80	3.25
6	7.80	7.50	7.00	6.80	6.33	5.80	5.33	4.80	4.25	3.50

Schedule 80 Pipe Size	Support Spacings (In Feet)									
	Temperature									
	20°F	40°F	60°F	80°F	100°F	110°F	120°F	130°F	140°F	150°F
1/2 to 3/4	5.75	5.50	5.25	4.80	4.50	4.33	3.80	3.50	3.00	2.50
1	6.33	6.00	5.75	5.33	5.00	4.60	4.33	3.80	3.33	2.75
1 1/4 to 1 1/2	6.66	6.33	6.00	5.66	5.25	4.80	4.50	4.00	3.50	3.00
2	7.00	6.50	6.25	6.00	5.50	5.12	4.75	4.33	3.66	3.12
2 1/2	7.80	7.50	7.00	6.66	6.33	5.80	5.33	4.75	4.25	3.33
3	8.20	7.75	7.33	7.00	6.50	6.00	5.50	5.00	4.33	3.50
4	8.66	8.25	7.80	7.33	6.80	6.33	5.80	5.25	4.66	3.75
6	9.80	9.33	8.80	8.33	7.80	7.33	6.50	6.00	5.12	4.25

Conduit Data

ELECTRICAL METALLIC TUBING DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.706	N/A	.29	N/A	.54
3/4	.922	—	.45	—	1.16
1	1.163	—	.65	—	1.83
1 1/4	1.510	—	.96	—	2.96
1 1/2	1.740	—	1.11	—	3.68
2	2.197	—	1.41	—	4.45
2 1/2	2.875	—	2.15	—	6.41
3	3.500	—	2.60	—	9.30
3 1/2	4.000	—	3.25	—	12.15
4	4.500	—	3.90	—	15.40

Note: 2 1/2 through 4" EMT same as steel rigid conduit.

STEEL RIGID CONDUIT DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.840	1.010	.80	1.17	1.04
3/4	1.050	1.250	1.09	1.75	1.40
1	1.315	1.525	1.65	2.62	2.35
1 1/4	1.660	1.869	2.15	4.31	3.58
1 1/2	1.900	2.155	2.58	5.89	4.55
2	2.375	2.650	3.52	8.53	7.21
2 1/2	2.875	3.250	5.67	11.51	10.22
3	3.500	3.870	7.14	16.51	14.51
3 1/2	4.000	4.500	8.60	19.05	17.49
4	4.500	4.875	10.00	24.75	21.48
5	5.563	6.000	13.20	35.87	30.83
6	6.625	7.200	17.85	50.69	43.43

INTERMEDIATE METAL CONDUIT DATA

Nominal Size EMT Conduit	O.D. Conduit	O.D. Coupling	Weight Conduit W/C Plg. lbs./ft.	Approx. Max. Weight Conduit and Conductor lbs./ft.	
				Lead Covered	Not Lead Covered
1/2	.815	1.010	.60	.97	.84
3/4	1.029	1.250	.82	1.48	1.13
1	1.290	1.525	1.16	2.13	1.86
1 1/4	1.638	1.869	1.50	3.66	2.93
1 1/2	1.883	2.155	1.82	5.13	3.79
2	2.360	2.650	2.42	7.43	6.11
2 1/2	2.857	3.250	4.28	10.12	8.83
3	3.476	3.870	5.26	14.63	12.63
3 1/2	3.971	4.500	6.12	16.57	15.01
4	4.466	4.875	6.82	21.57	18.30

Threaded Rod Data

Nominal Rod Dia. (in inches)	Root Area Thread (in inches) ²	Max. Rec. Load/lbs.	
		650°F	750°F
1/4	.027	240	210
3/8	.068	610	540
1/2	.126	1130	1010
5/8	.202	1810	1610
3/4	.302	2710	2420
7/8	.419	3770	3360
1	.552	4960	4420
1 1/8	.693	6230	5560
1 1/4	.889	8000	7140
1 1/2	1.293	11630	10370
1 3/4	1.744	15700	14000
2	2.300	20700	18460
2 1/4	3.023	27200	24260
2 1/2	3.719	33500	29880



TECHNICAL DATA

Cast Iron Data

SERVICE WEIGHT CAST IRON SOIL PIPE DATA (Bell & Spigot Type)

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
2	2.25	.17	4.00	1.24
3	3.25	.17	6.00	2.88
4	4.25	.18	8.00	5.15
5	5.25	.18	10.40	8.14
6	6.25	.18	13.00	11.80
8	8.38	.23	20.00	21.34
10	10.50	.28	29.00	33.62
12	12.50	.28	38.00	48.51
15	15.62	.31	51.00	76.55

EXTRA WEIGHT CAST IRON SOIL PIPE DATA (Bell & Spigot Type)

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
2	2.38	.190	5.00	1.36
3	3.50	.250	9.00	3.06
4	4.50	.250	12.00	5.44
5	5.50	.250	15.00	8.51
6	6.50	.250	19.00	12.25
8	8.62	.310	30.00	21.78
10	10.75	.375	43.00	34.02
12	12.75	.375	54.00	48.99
15	15.88	.440	75.00	76.55

NO-HUB CAST IRON SOIL PIPE DATA

Nominal Pipe Size	O.D. of Cast Iron Pipe	Wall Thickness	Weight Per Foot (in lbs.)	
			Pipe	Water
1½	1.90	.16	2.70	.85
2	2.35	.16	3.60	1.40
3	3.35	.16	5.20	3.12
4	4.38	.19	7.40	5.44
5	5.30	.19	9.60	8.24
6	6.30	.19	11.00	11.92
8	8.38	.23	18.00	21.34
10	10.50	.28	26.20	33.62
12	12.50	.28	35.50	48.51

PHD Manufacturing, Inc. –

follows the guidelines of the Metal Framing Manufacturers Association in the manufacture and recommended use of strut systems. In all design applications using strut systems and accessories, proper engineering design practices should be applied and load limits observed. The following pages include helpful information to assist the user in the proper design of strut systems.

Appropriate beam and column loading information is provided with the dimensional tables accompanying each channel. In addition, the following discussion and tables are

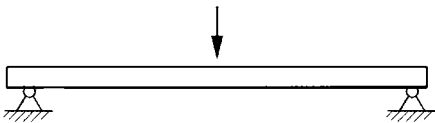
designed to assist in the proper selection and use of PHD strut products. Basic engineering information is provided to define the concepts needed to design a safe and economical strut installation.

Design of Strut Systems

PHD struts are often installed to serve either as beams or columns in structural applications. A brief discussion of these types of structural elements and their safe design follows:

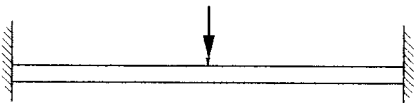
BEAMS

Structural members installed in a horizontal attitude and subject to vertical and/or horizontal loads are known as beams. The method by which a beam is mounted affects the load-carrying capability of the beam. Common mounting methods include:



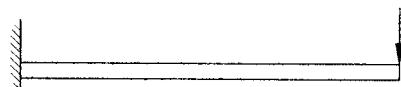
Simple Beam –

A simple beam is one that is supported at both ends without being restricted from bending or flexing. Most beams are analyzed as simply supported beams, even though they are often rigidly fixed at their supports. PHD beam load data are based upon simple beam configurations unless otherwise noted.



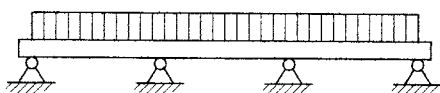
Fixed End Beam –

A fixed end beam is supported at both ends in such a way that motion or bending of the beam is restricted. An example of a fixed end beam is a strut welded at both ends to a very rigid structure. The result is a beam capable of carrying greater loads, but subject to large bending moments at the supports.



Cantilever Beam –

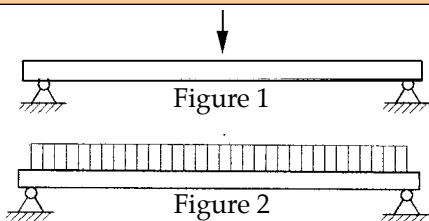
A cantilevered beam is one that is fixed at one end and completely unsupported at the other end.



Continuous Beam –

A continuous beam is supported at three or more points along its length. Continuous beams act similarly to simple beams, particularly at the end spans. However, the counter-balancing effect of adjacent spans restricts movement at the support, much like a fixed beam.

TYPES OF BEAM LOADING



Beam Loading

Beams are loaded in several ways, as shown below.

Concentrated Load –

Also known as a point load, this type of load is applied at one point along the span of the beam. See Figure 1. A beam may have multiple concentrated loads along its span.

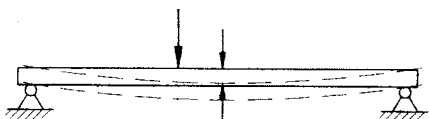
Uniform Load –

This is a load spread evenly over a length of the beam's span. See Figure 2. It may cover the entire span or only a portion.

Combined Load –

Concentrated loads and uniform loads may be carried simultaneously by a beam, arranged in any combination.

BEAM DEFLECTION



Deflection –

Deflection is the amount of displacement, or sag, experienced by a load-carrying beam. All loaded beams will deflect to a greater or lesser degree, depending upon:

- ▲ The size and placement of loads
- ▲ The beam material
- ▲ The manner of supporting the beam
- ▲ The stiffness of the beam

PHD provides deflection values for beams of various spans in the tables accompanying each channel shape. When determining the deflection of a strut, the rule of thumb observed by the industry is that a deflection of 1/240th of the beam's span is acceptable.

The following table of beam formulas contains factors to be applied when analyzing a strut/beam in various configurations. These factors account for the difference in deflection that will be experienced by beams mounted in various configurations and subject to various types of loads.

Also included in the tables of channel information are values for the Moment of Inertia (I) and Section Modulus (S) of the channel. These values are given for both the X-X and Y-Y axis of the channel. They are measures of the stiffness of the beam's cross-sectional shape, and are used to calculate deflection. Deflection decreases as I and S increase. The Modulus of Elasticity (E), listed below I and S, is a measure of the beam material's resistance to bending. Again, as E increases, deflection decreases.

SAFETY FACTOR

Safety Factor –

The design loads given for strut beam loads are based on a simple beam condition using allowable stress of 25,000 psi. This allowable stress results in a safety factor of 1.68. This is based upon a virgin steel minimum yield strength of 33,000 psi cold worked during rolling to an average yield stress of 42,000 psi.

Aluminum typically has an elastic modulus which is 1/3 that of steel even though they may have identical strength. As a result, the deflection of aluminum channel will be three times that of steel channel under equal loading. In areas where structures will be subject to general viewing, deflection can produce a displeasing effect. To the untrained eye, a sagging channel may appear to be a result of poor design or excessive loading. This is not usually the case. Many properly designed channel installations will show a noticeable deflection at their designed loads. In areas where cosmetics are not important, deflection should not be a factor. Designing an entire installation based on minimal deflection could result in an over designed structure. This translates into increased material and installation cost. Where cosmetics are important, it may be necessary to limit the deflection to an aesthetically pleasing amount. This "acceptable deflection" amount is typically given as a fraction of the span. 1/240 span deflection is typically the limit where the amount of deflection appears negligible. For example, a beam span of 240" would be allowed 1" (240/240) of deflection at the mid point. A 120" span would only be allowed 1/2" (120/240) of deflection. The maximum load for the channel must be limited in order to remain under these deflection requirements. The allowable load resulting in 1/240 span deflection is posted in the beam load chart for each channel size.

For even more stringent deflection requirements, an allowable load is listed in the beam load charts which results in 1/360 span deflection. This amount of deflection is sometimes used for beams in finished ceilings that are to be plastered.

Bending Moments & Stresses –

When loads are placed on a beam, the effect is to flex the beam across its unsupported span. The measure of this effect is called the bending moment. Formulas for bending moments created by various load and beam support combinations are given in the following tables.

When the bending moment of a loaded beam is divided by the Section Modulus of the beam, the resulting value is called bending stress. It is this bending stress that is most commonly evaluated to determine whether a beam is strong enough for the loads it must support.

The maximum bending stress prescribed by structural codes is 25,000 psi, (172.37mPa), and this is the stress upon which PHD load figures are based.

Again, the method of supporting a beam affects the maximum bending moment of the beam. The following table gives modifying factors based upon types of beam supports. Users of PHD struts should take care to apply the proper load factor for the specific beam support configuration in order to determine the proper maximum load that the strut will safely support.

BENDING MOMENTS & STRESSES

Twisting & Lateral Bracing –

For long spans and when loads are apt to cause torsion on the beam, it is a good practice to brace the beam to prevent twisting or lateral bending. PHD offers various types of braces for this purpose.

Loading of strut on long spans can cause torsional stress, resulting in the tendency of the strut to twist or bend laterally. This phenomenon reduces the allowable beam loads as shown in the beam loading charts. It is recommended that long spans be supported in a manner to prevent twisting (fixed ends), and that the channel have adequate lateral bracing. Many typical strut applications provide this support and bracing inherently. Piping, tubing, cable trays, or conduits mounted to the strut with straps and clamps prevent twisting or lateral movement. If no such lateral support exists, contact the factory for loading recommendations.

TWISTING & LATERAL BRACING

Spot Welding –

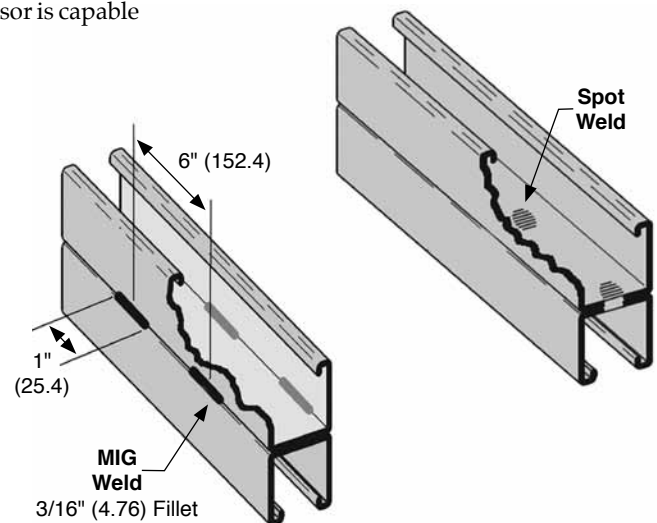
Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" (63.5) to 3" (76.2) apart continuously down the length of the channel. Consistency is maintained by the use of highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.

MIG Welding –

MIG welded, more properly called gas metal arc welded (GMAW) combination channels and fittings, are produced when physical dimensions or certain combinations require a weld process other than automatic spot welding. The same quality control requirements are imposed on MIG welded and spot-welded products.

WELDING



Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.

COLUMNS

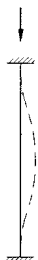


Figure 1

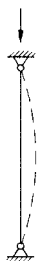


Figure 2



Figure 3



Figure 4

Columns –

Structural members installed in a vertical attitude and subject to vertical loads are known as columns. The loads on a column have the effect of compressing the column and attempting to deflect the column laterally. As with beams, the method by which a column is mounted affects the load-carrying capability of the column. The effect of each method is quantified by the value “K”, given for each support condition shown below.

Loads on a column may be concentric (directly in line with the column’s vertical axis) or eccentric (offset horizontally from the vertical axis). PHD provides allowable column loads for concentric loading conditions. In addition, the tables accompanying the channels contain a value called the “radius of gyration”. This value can be used by a qualified structural engineer to analyze the effect of eccentric loads on strut columns.

Common mounting methods for columns include:

Fixed Top, Fixed Bottom –

Both the top and bottom of the column are rigidly mounted in such a way that rotation and displacement are prevented. The value of “K” for this configuration is .65. See Figure 1.

Pinned Top, Pinned Bottom –

Both the top and bottom of the column are mounted in such a way that rotation is permitted but displacement is prevented. The value of “K” for this configuration is 1.0. See Figure 2.

Pinned Top, Fixed Bottom –

The top of the column is pinned to allow rotation, and the bottom of the column is rigidly mounted in such a way that rotation and displacement are prevented. This is a common method. And is the “standard” for which PHD allowable column loads are listed. The value of “K” for this configuration is .80. See Figure 3.

Free Top, Fixed Bottom –

The bottom of the column is rigidly mounted. The top of the column is free to move laterally, but is restrained to prevent rotation. The value of “K” for this configuration is 1.2. See Figure 4.

As stated above, allowable column loads published in this catalog are based on the “Pinned Top, Fixed Bottom” mounting configuration, which has a “K” factor of .80. For any of the other mounting configurations, a qualified design professional can use the “K” values given to calculate the allowable column load.

BOLT TORQUE

Bolt Torque –

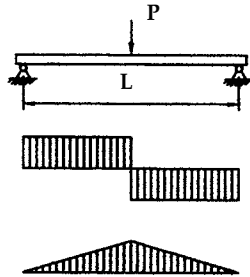
Bolt torque values are given to ensure the proper connection between PHD Metal Framing components. It is important to understand that there is a direct, but not necessarily consistent, relationship between bolt torque and tension in the bolt. Too much tension in the bolt can cause it to break or crush the component parts. Too little tension in the bolt can prevent the connection from developing its full load capacity. The torque values given have been developed over many years of experience and testing.

These are based on using a properly calibrated torque wrench with a clean dry (non-lubricated) PHD fitting, bolt and nut. A lubricated bolt or nut can cause extremely high tension in the connection and may lead to bolt failure. It must be noted that the accuracy of commercial torque wrenches varies widely and it is the responsibility of the installer to ensure that proper bolt torque has been achieved.

Bolt Torque							
Bolt Size		1/4	5/16	3/8	1/2	5/8	3/4
Rec. Torque	ft-lbs	6	11	19	50	100	125
	N-m	(8)	(15)	(26)	(68)	(136)	(170)
Max. Torque	ft-lbs	7	15	25	70	125	135
	N-m	(9)	(20)	(34)	(95)	(170)	(183)

BEAM DIAGRAMMS AND COMMON FORMULAS

Simply Supported Beams

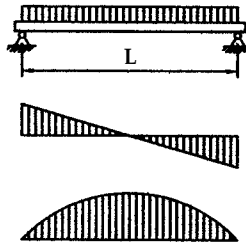


$$R = P/2$$

$$V_{MAX} = P/2$$

$$M_{MAX} = PL/4$$

$$\Delta_{MAX} = \frac{PL^3}{48EI}$$

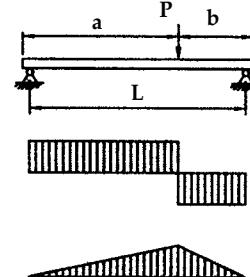


$$R = W/2$$

$$V_{MAX} = W/2$$

$$M_{MAX} = WL/8$$

$$\Delta_{MAX} = \frac{5WL^3}{384EI}$$



$$R_1 = Pb/L$$

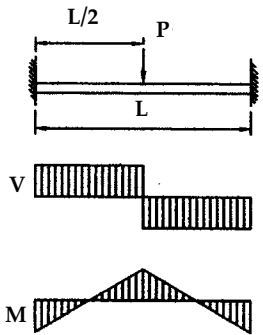
$$R_2 = Pa/L$$

$$V_{MAX} = Pa/L$$

$$M_{MAX} = Pab/L$$

$$\Delta_{MAX} = \frac{Pab}{27EIL}(a+2b)\sqrt{3a(a+2b)}$$

Fixed End Beams

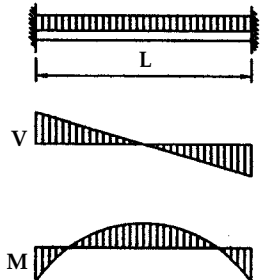


$$R = P/2$$

$$V_{MAX} = P/2$$

$$M_{MAX} = PL/8$$

$$\Delta_{MAX} = \frac{PL^3}{192EI}$$

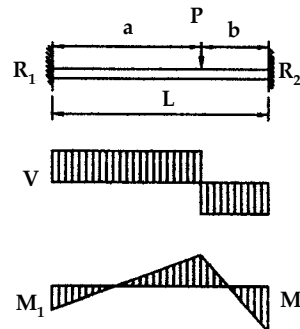


$$R = W/2$$

$$V_{MAX} = W/2$$

$$M_{MAX} = WL/12$$

$$\Delta_{MAX} = \frac{WL^3}{384EI}$$



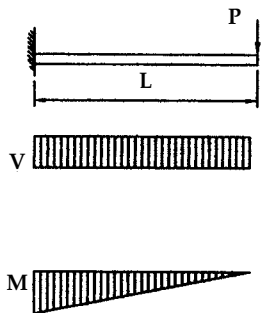
$$R_1 = \frac{Pb^2}{L^3}(3a+b)$$

$$R_2 = \frac{Pa^2}{L^3}(a+3b)$$

$$M_1 = \frac{Pab^2}{L^2}$$

$$M_2 = \frac{Pa^2b}{L^2}$$

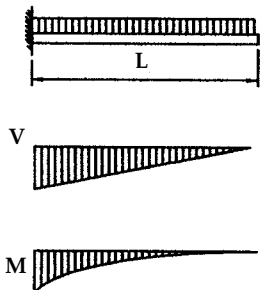
Cantilever Beams



$$V_{MAX} = P$$

$$M_{MAX} = PL$$

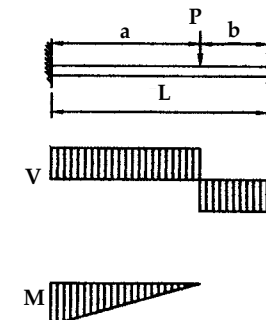
$$\Delta_{MAX} = \frac{PL^3}{3EI}$$



$$V_{MAX} = W$$

$$M_{MAX} = WL/2$$

$$\Delta_{MAX} = \frac{WL^3}{8EI}$$

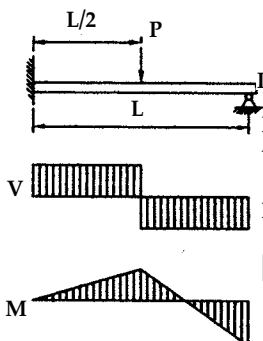


$$V_{MAX} = P$$

$$M_{MAX} = Pb$$

$$\Delta_{MAX} = \frac{Pb^2(3L-b)}{6EI}$$

Beams with one end Fixed, one end Simply Supported

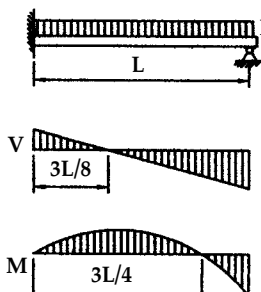


$$R_1 = 5P/16$$

$$V_{MAX} = 11P/16$$

$$M_{MAX} = \frac{3PL}{16}$$

$$\Delta_{MAX(at P)} = 0.447L$$

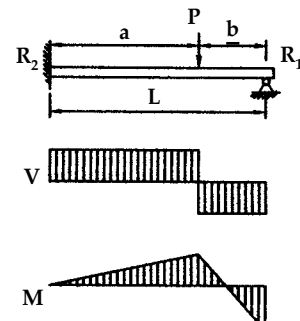


$$R_1 = 3W/8$$

$$V_{MAX} = 5W/8$$

$$M_{MAX} = WL/8$$

$$\Delta_{MAX} = \frac{WL^3}{185EI}$$



$$R_1 = \frac{Pb^2}{2L^3}(a+2L)$$

$$R_2 = \frac{Pa}{2L^3}(3L^2-a^2)$$

$$M_{(at P)} = R_1a$$

$$M_{(at R_2)} = \frac{Pab}{2L^3}(a+L)$$



TECHNICAL DATA

Beam Load and Deflection Conversion Factors –

The allowable beam loads listed for various spans of each channel assume that the beam is a simply supported, single-span beam. Although this is the most common condition, it is not always true. For other support conditions, multiply the listed allowable load by the factors in this table to obtain the proper load for the given mounting type.

Load & Support Configuration	Diagram	Load Factor	Deflection Factor
1) Simply Supported Beam, Uniform Load		1.00	1.00
2) Simply Supported Beam, Concentrated Load at Mid-span		.50	.80
3) Simply Supported Beam, Two equal Concentrated Loads at $1/4$ Points		1.00	1.10
4) Fixed End Beam, Uniform Load		1.50	.30
5) Fixed End Beam, Concentrated Load at Mid-Span		1.00	.40
6) Cantilever Beam, Uniform Load		.25	2.40
7) Cantilever Beam, Concentrated Load at End		.12	3.20
8) Continuous Beam, Two Equal Spans, Uniform Load Both Spans		1.00	.42
9) Continuous Beam, Two Equal Spans, Uniform Load on One Span		1.30	.92
10) Continuous Beam, Two Equal Spans, Concentrated Load at Mid-span of Each		.62	.71
11) Continuous Beam, Two Equal Spans, Concentrated Load at Mid-Span of One.		.66	.48

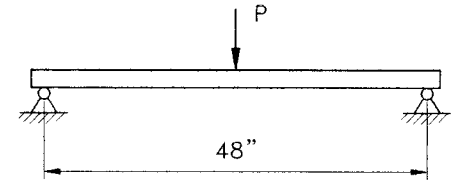
SAMPLE PROBLEMS

Problem 1

The Beam at right is a PHD 1001 Channel, simply supported. What is the maximum allowable load P? How much will the beam deflect under that load?

Answer

From the table of Beam and Column Loads for 1001 Channel, the load for this span is 851 lbs. and the deflection is .22". From the table of load factors above, the load conversion factor is .50 and the deflection factor is .80. Therefore the maximum load $P = 851 \times .50 = 425$ lbs., and the deflection is $.22" \times .80 = .176"$.

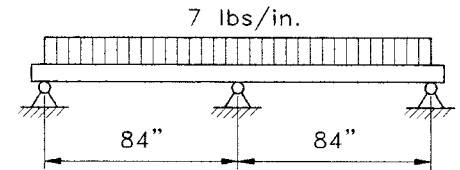


Problem 2

A PHD 1001 Channel is supported at 3 points as shown, making it a continuous beam with 2 spans. The required loading condition is a uniform load of 7 lbs. per inch over both spans. Is the Channel able to safely support this load?

Answer

The entire load on one span of this beam is $7 \text{ lbs./in} \times 84" = 588$ lbs. The allowable load is 486, and the load factor is 1.00, so the allowable load remains 486 lbs. Therefore the beam is not acceptable, since the required load exceeds the allowable load. A different PHD channel must be used, or the load must be decreased.



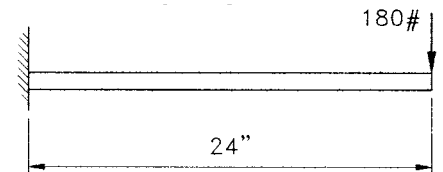
Problem 3

The cantilever beam shown at right carries a concentrated load of 180 lbs. at the end of the 24" PHD 1001 Channel. Is the load acceptable? Calculate the maximum bending moment and deflection.

Answer

The maximum load is 1702 lbs., and the load factor is .12, so the maximum load is $1702 \times .12 = 204$ lbs. The desired 180 lb. load is within the allowable.

From the table of beam formulas, the maximum bending moment for this support condition is $M = PL$. For the beam shown, then, $M = 180 \text{ lb.} \times 24" = 4320$ inch-pounds. Deflection for this cantilever beam $= PL^3/3EI$. E = modulus of elasticity, which is 30×10^6 for steel. I is the Moment of Inertia, listed in the channel information as $.189 \text{ in}^4$. The deflection then, is found by the equation $180(24)^3/3(30 \times 10^6)(.189) = .146"$.

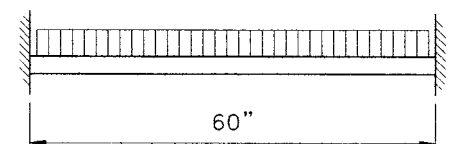


Problem 4

Determine load and deflection of a PHD 1001 Channel fixed at both ends and carrying a uniform load over its entire 60" span.

Answer

Maximum load from the chart is 681 lbs., and the load factor is 1.50, so the load for this beam is $681 \times 1.50 = 1021.5$ lbs. Similarly, the deflection for this beam is .35" and the deflection factor is .30, so the deflection $= .35 \times .30 = .105"$.





TECHNICAL DATA

CONVERSION FACTORS FOR UNITS OF MEASUREMENT

To Convert From	To	Multiply By	To Convert From	To	Multiply By
Length					
Inch	Millimeter	25.4	Millimeter	Inch	0.03937
Foot	Meter	0.3048	Meter	Foot	3.28084
Yard	Meter	0.9144	Meter	Yard	1.09361
Mile	Kilometer	1.6093	Kilometer	Mile	0.62137
Area					
Square Inch	Sq. Millimeter	645.16	Sq. Millimeter	Square Inch	0.001550
Square Foot	Sq. Meter	0.0929	Sq. Meter	Square Foot	10.7639
Square Yard	Sq. Meter	0.8361	Sq. Meter	Square Yard	1.19599
Square Mile	Sq. Kilometer	2.5899	Sq. Kilometer	Square Mile	0.3861
Volume					
Gallon	Liter	3.7854	Liter	Gallon	0.26417
Quart	Liter	0.9463	Liter	Quart	1.05669
Cubic Inch	Cubic Millimeter	16387.06	Cubic Millimeter	Cubic Inch	0.000061
Cubic Foot	Cubic Meter	0.0283	Cubic Meter	Cubic Foot	35.31466
Cubic Yard	Cubic Meter	0.76455	Cubic Meter	Cubic Yard	1.30795
Mass					
Ounce	Gram	28.3495	Gram	Ounce	0.035274
Pound	Kilogram	0.45359	Kilogram	Pound	2.20462
Short Ton	Kilogram	907.185	Kilogram	Short Ton	0.0011
Force					
Ounce-Force	Newton	0.278014	Newton	Ounce-Force	3.59694
Pound-Force	Newton	4.44822	Newton	Pound-Force	0.22481
Pressure					
Pound-Force per Square Inch	Kilopascal	6.894757	Kilopascal	Pound-Force per Square Inch	0.145038
Foot of Water (39.2°F)	Kilopascal	2.98898	Kilopascal	Ft. of Water	0.334562
Inch of Mercury (32°F)	Kilopascal	3.38638	Kilopascal	In. of Mercury	0.295301
Bending Moment					
Pound-Force-Inch	Newton-Meter	0.112985	Newton-Meter	Pound-Force-Inch	8.85073
Pound-Force-Foot	Newton-Meter	1.355818	Newton-Meter	Pound-Force-Foot	0.73756
Energy, Work, Heat					
Foot-Pound-Force	Joule	1.355818	Joule	Foot-Pound-Force	0.73756
British Thermal Unit (BTU)	Joule	1055.056	Joule	BTU	0.000948
Calorie	Joule	4.1868	Joule	Calorie	0.23884
Kilowatt Hour	Joule	3,600,000	Joule	Kilowatt Hour	2.78 ⁻⁷
Power					
Foot-Pound-Force Per Second	Watt	1.355818	Watt	Foot-Pound-Force Per Second	0.73756
British Thermal Unit Per Hour	Watt	0.29307	Watt	BTU/Hr	3.41214
Horsepower	Kilowatt	0.7457	Kilowatt	Horsepower	1.341022
Temperature					
Degree Fahrenheit	Degree Celsius	(°F-32)/1.8	Degree Celsius	Degree Fahrenheit	1.8x°C + 32

MATERIAL SPECIFICATIONS

CHANNEL

Pre-Galvanized

ASTM A-653 Grade 33 Steel Sheet Zinc Coated by Hot Dip Process

Plain, Powder Coated, or Hot Dip Galvanized

ASTM A-1011 / A-1011M Grade 33, Hot Rolled Carbon Steel Sheet and Strip, Structural Quality

Stainless Steel

ASTM A-240, Type 304, and ASTM A-240, Type 316

Aluminum

Aluminum alloy 6005-T5

PIPE CLAMPS

Steel

ASTM A-1011 / A-1011M, 1008-1010 Grade, Commercial Quality;

Stainless Steel

ASTM A-240, Type 304, and ASTM A-240, Type 316

ACCESSORIES

Steel

1/4" thickness and below ASTM A-1011 / A-1011M, 1008-1010 Grade, Commercial Quality; 3/8" thickness and above ASTM A-36, Structural Grade C.Q.

Stainless Steel

ASTM A-240, Type 304, and ASTM A-240 Type 316

Aluminum

Aluminum alloy 6005-T5 Structural Grade

CHANNEL NUTS

Steel

ASTM A-576, Grade M1015, Case Hardened to RC25 min.

Stainless Steel

ASTM A-240, Type 304, and ASTM A-240, Type 316

Aluminum

Aluminum alloy 5052-H32

ALUMINUM

To determine the approximate load data for strut, multiply the load data found in this catalog by a factor of 0.38.

The high strength to weight ratio of channel made of aluminum greatly reduces the overall cost of installation through ease of handling and field cutting.

Aluminum owes its excellent corrosion resistance to its ability to form an aluminum oxide film that immediately reforms when scratched or cut. In most outdoor applications, aluminum has excellent resistance to "weathering". The resistance to chemicals, indoor or outdoor, can best be determined by tests conducted by the user with exposure to the specific conditions for which it is intended.

STAINLESS STEEL

Because of its corrosion resistance, stainless steel is recommended for applications where corrosion is a problem. Load data for strut is the same as the load data in this catalog.

Stainless steel channel is available in AISI Type 304 or 316 material. Both are non-magnetic and belong to the austenitic stainless steels group, based on alloy content and crystallographic structure. Like carbon steel, stainless steel exhibits increased strength when cold worked by roll-forming.

Several conditions make the use of stainless steel ideal. These include reducing long term maintenance costs, high ambient temperatures, appearance, and stable structural properties such as yield strength, and high creep strength.

Type 304 resists most organic chemicals, dyestuffs, and a wide variety of inorganic chemicals at elevated or cryogenic temperatures. Type 316 contains slightly more nickel and adds molybdenum to give it better corrosion resistance in chloride and sulfuric acid environments.

CARBON STEEL

Channels made from high-quality carbon steel are continuously roll formed to precise dimensions. By cold working the steel mechanical properties are increased, allowing lightweight structures to carry the required load. Corrosion resistance of carbon steel varies widely with coating and alloy. See "Finishes" for more detailed information.



FINISHES

ZINC COATING

PHD offers 3 basic forms of zinc coating on its products:

- 1) **Electro-Plated Zinc** (Electro-galvanized)
- 2) **Pre-Galvanized Zinc**
- 3) **Hot Dipped Galvanized**

Note: The corrosion resistance of zinc is based on its thickness, the environment and the coating process used.

For best results, a zinc rich paint should be applied to field cuts. The zinc rich paint will provide immediate protection for these areas and eliminate the short time period for galvanic action to "heal" the damaged coating.

Zinc offers two types of protection:

- **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.

ELECTRO-PLATED ZINC (ASTM B633 SC1 & SC3)

This type of coating is recommended for use indoors in relatively dry areas. The steel is submersed in a bath of zinc salts, through the process of electrolysis, a coating of pure zinc adheres to the steel with a molecular bond. A maximum of .5 mills of zinc can be applied using this method.

SC1 (Mild) has a Zinc coating of 0.2 MIL and is recommended for dry indoor use. SC1 is the standard finish thickness. SC3 (Severe) has a Zinc coating of 0.5 MIL.

PRE-GALVANIZED ZINC (ASTM A653 COATING G90)

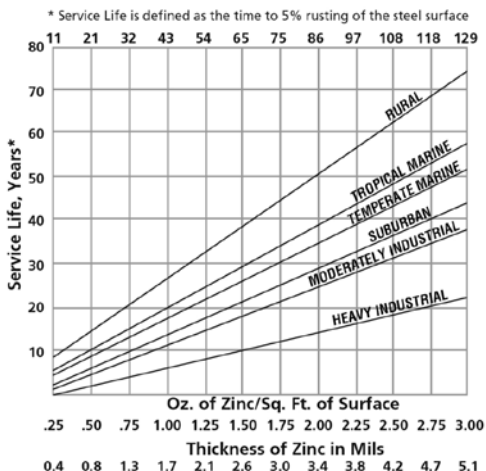
This type of coating is suitable for extended exposure in dry or mildly corrosive atmospheres but not generally recommended for use outdoors in industrial environments. Also known as "mill galvanized" or "hot-dipped mill galvanized", pre-galvanized zinc coatings are produced by rolling the steel coils or sheets through molten zinc, at the steel mill, the material is then cut or slit to size. Zinc near the uncoated edges or weld areas becomes a sacrificial anode which protects the bare areas.

The pre-galvanized zinc coating conforms to a G-90 thickness designation per ASTM A653. The zinc thickness is .75 MIL or .45 oz/sq ft of surface area.

HOT-DIP GALVANIZED (ASTM 123)

Recommended for prolonged outdoor exposure and will usually protect steel in most atmospheric environments. After fabrication the part is immersed in a bath of molten zinc. A metallurgical bond is formed resulting in a zinc coating that coats all surfaces including edges. Please note that some items cannot be hot-dipped galvanized due to design, tolerances or threaded components. Check with the PHD factory or your local representative when questionable. Threaded components on hot dipped galvanized products will be electro-plated.

Life of Protection vs. Thickness of Zinc and Type of Atmosphere



The zinc coating is typically 2.6 MIL or 1.5 oz/sq ft of surface area.

As shown in the graph at left, when the zinc coating is double, the service life is double under most conditions.

Comparison of Zinc Finishing

Finish	Zinc Thickness
Hot-Dip Galvanized	2.6 MIL
Pre-Galvanized	0.75 MIL
Electro-Galvanized (SC1)	0.2 MIL
Electro-Galvanized (SC3)	0.5 MIL

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

PLAIN

PHD offers two types of primer coatings:

- 1) Red Primer
- 2) Yellow Primer

Both can be used indoors or outdoors and offer a degree of protection from the elements. These coatings are also used in applications where painting of the metal is desired.

PRIMER COATING

PVC coating helps reduce noise and protect the pipe or tubing from the metal surface of the hanger. Corrosion resistance protection is minimal.

PVC COATING

PHD offers a variety of epoxy finishes in both commercial or military grades that offer a high degree of corrosion resistance. Contact factory for more detailed information.

EPOXY COATING

Designed for use with copper tubing. This coating provides a better level of corrosion resistance than the traditional copper plated finish. It also acts as a protective barrier, avoiding contact between dissimilar metals. The copper color epoxy powder is applied by an electrostatic method, and the coated parts are baked at 180 degrees for 20 minutes.

COPPER COLOR EPOXY FINISH (MSS-SP 58)

Gauge	Nominal	
3	.239	(6.07)
7	.179	(4.55)
11	.120	(3.05)
12	.105	(2.67)
13	.090	(2.29)
14	.075	(1.91)
16	.060	(1.52)
18	.048	(1.22)

STEEL GAUGES

Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.



CHANNEL GREEN QUALITY: POLYESTER

Powder Properties

Test Method	Powder Properties	Tolerances
ASTM D3451 (18.30)	Specific Gravity	1.33 ± 0.03
ASTM D3451 (18.30)	Theoretical Coverage	144.58 ± 4.0 FT ² /Lb/Mil.
ASTM D3451 (13)	Volatile Content	Max. 2.5%
ASTM D3451 (13)	Storage Temperature Max	80°F

Coating Properties

All tests performed on Substrate 0.032 CRS
Pretreatment Bonderite 1000

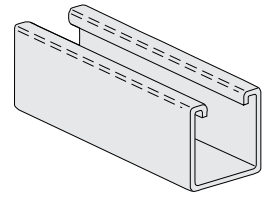
Test Method	Coating Properties	Tolerances/ Specifications
ASTM D523	Gloss 20°/60°	70-80
ASTM D2454	Over Bake Resistance Time	100%
ASTM D3363	Pencil Hardness	H - 2H
ASTM D2794 (Modified)	Direct Impact (Gardner)	80 in. Lbs.
ASTM D2794 (Modified)	Reverse Impact (Gardner)	80 in. Lbs.
ASTM D33598B	Adhesion (Cross Hatch)	Pass No Adhesion Loss
ASTM D5222	Flexibility (Mandrel)	¹ / ₈ Bend No Fracture
ASTM 117	Salt Spray	1000 Hrs.
ASTM D2247	Humidity	500 Hrs.

Application

Test Method	Application	Cure Schedule
Electrostatic Spray	Ambient Temperature	15' @ 190°C (375°F) Recommend Minimum Film Thickness 1.5

Selection Chart

Figure Number	Width	Height	Material Size	See Page Number
1001-1042	1-5/8	1-5/8	12 Ga.	26
1101-1142	1-5/8	1-5/8	14 Ga.	28
1201-1242	1-5/8	13/16	12 Ga.	30
1301-1342	1-5/8	13/16	14 Ga.	32
1401-1442	1-5/8	1	12 Ga.	34
1501-1542	1-5/8	3-1/4	12 Ga.	36
1601-1642	1-5/8	2-7/16	12 Ga.	38
1701-1742	1-5/8	1-3/8	12 Ga.	40



Channel

PHD's metal framing channel is cold formed on our modern rolling mills from 12 Ga., 14 Ga., and 16 Ga., low carbon steel strips. A continuous slot with interned lips provides the ability to make attachments at any point.

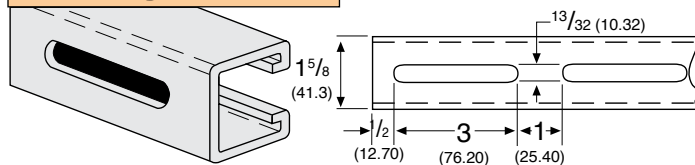
Lengths

Standard lengths are 10' (3.05m) and 20' (6.09m) with length tolerance of $\pm 1/8"$ ($\pm 3.2\text{mm}$). Custom lengths are available upon request.

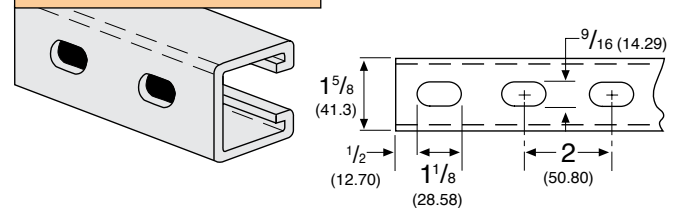
Design Load (Steel & Stainless Steel)

The design loads given for strut beam loads are based on a simple beam condition using an allowable stress of 25,000 psi (172.37mPa). This allowable stress results in a safety factor of 1.68. This is based upon virgin steel minimum yield strength of 33,000 psi (227.53mPa) cold worked during rolling to an average yield stress of 42,000 psi (289.58mPa). For aluminum channel loading multiple steel loading by a factor of 0.38.

Long Slots

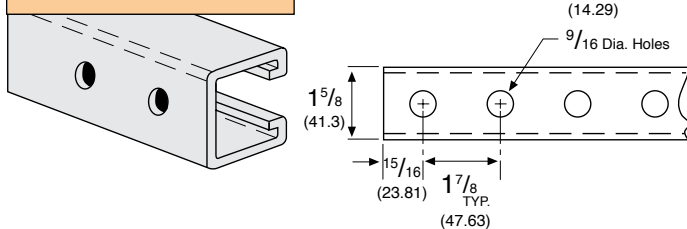


Slots



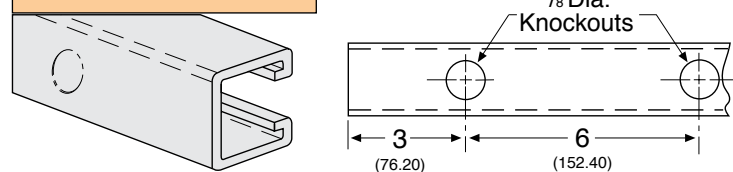
PHD's slotted series of channels offer full flexibility. A variety of pre-punched slot patterns eliminate the need for precise field measuring for hole locations. Slots offer wide adjustments in the alignment and bolt sizing.

Holes



A variety of pre-punched 9/16" (14.3mm) diameter hole patterns are available in PHD channels. These hole patterns provide an economical alternative to costly field drilling required for many applications.

Knockouts



PHD Channels are furnished with 7/8" (22.2mm) knockouts on 6" (152 mm) centers, allowing for perfect fixture alignment on spans up to 20' (6.09m).

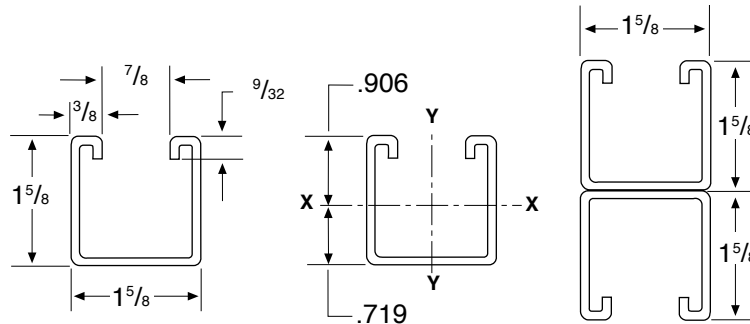
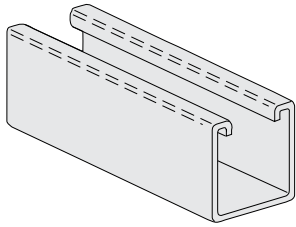
Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.



CHANNEL

1001-1042

1⁵/₈" X 1⁵/₈" X 12 Gauge

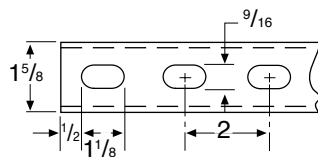
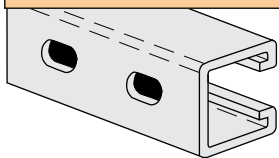


ORDERING: Specify Figure No., finish and number of feet.

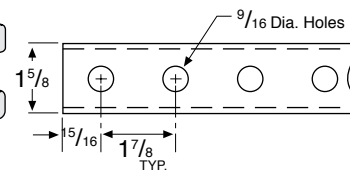
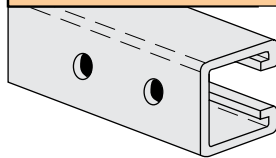
Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1001	1002	No Openings	1.77	500	500
1001A	1002A	Welded Back to Back	3.54	200	300
1011	1012	With 1 ¹ / ₈ " X 9 ⁹ / ₁₆ " slots on 2" centers	1.70	500	500
1011A	1012A	Welded Back to Back	3.40	200	300
1021	1022	With 9 ⁹ / ₁₆ " dia. holes on 1 ⁷ / ₈ " centers	1.70	500	500
1021A	1022A	Welded Back to Back	3.40	200	300
1031	1032	With 3" slots	1.68	500	500
1041	1042	With 7 ⁷ / ₈ " Knockouts on 6" centers	1.77	500	500

Available in aluminum and stainless steel. Price on request. To order aluminum, add suffix AL to fig. number. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

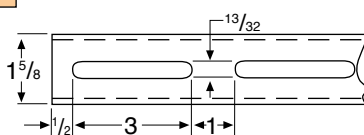
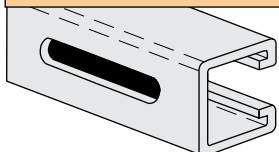
1011-1012



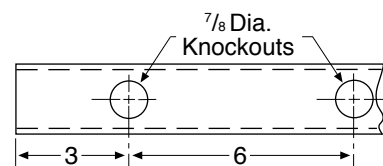
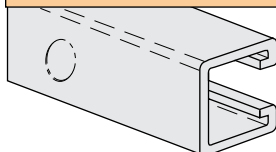
1021-1022



1031-1032



1041-1042



Elements of Selection

1001-1042

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1001	.561	.189	.209	.580	.239	.294	.653
1001A	1.122	.958	.589	.924	.478	.588	.653

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1001	12"	10454	2610	.01	2610
1001A		21625	2610*	.01	2610*
1001	18"	9950	2269	.03	2269
1001A		21433	2610*	.01	2610*
1001	24"	9311	1702	.06	1702
1001A		21164	2610*	.02	2610*
1001	30"	8582	1361	.09	1361
1001A		20819	2610*	.03	2610*
1001	36"	7801	1135	.13	1135
1001A		20397	2610*	.06	2610*
1001	42"	6998	972	.17	972
1001A		19898	2610*	.09	2610*
1001	48"	6193	851	.22	758
1001A		19322	2405	.13	2405
1001	54"	5392	756	.28	599
1001A		18669	2138	.16	2138
1001	60"	4718	681	.35	485
1001A		17940	1924	.20	1924
1001	66"	4202	619	.42	401
1001A		17134	1749	.24	1749
1001	72"	3791	567	.51	337
1001A		16251	1603	.28	1603
1001	84"	3176	486	.69	248
1001A		14255	1374	.38	1255
1001	96"	2728	425	.90	190
1001A		11951	1202	.50	961
1001	108"	2381	378	1.13	150
1001A		9524	1069	.63	759
1001	120"	2101	340	1.40	121
1001A		7715	962	.78	615

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1011 & 1012	15%
1021 & 1022	10%
1031 & 1032	30%
1041 & 1042	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1101-1142

1⁵/₈" X 1⁵/₈" X 14 Gauge

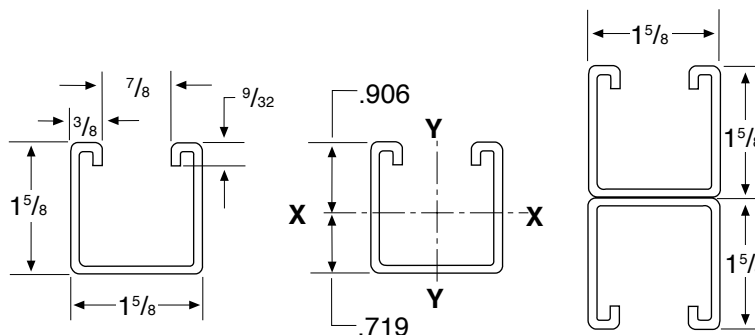
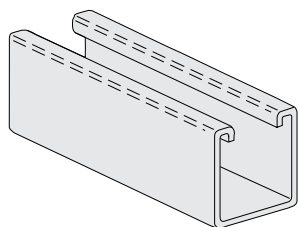
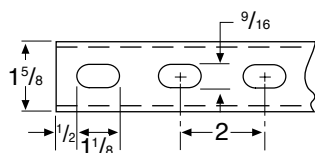
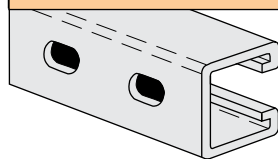


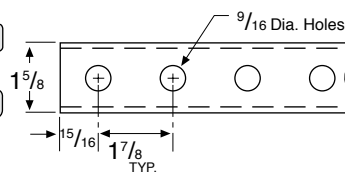
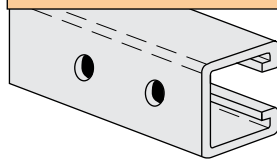
Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1101	1102	No Openings	1.30	500	500
1101A	1102A	Welded Back to Back	2.60	200	300
1111	1112	With 1 ¹ / ₈ " X 9/16" slots on 2" centers	1.28	500	500
1111A	1112A	Welded Back to Back	2.56	200	300
1121	1122	With 9/16" dia. holes on 1 ⁷ / ₈ " centers	1.30	500	500
1121A	1122A	Welded Back to Back	2.74	200	300
1131	1132	With 3" slots	1.29	500	500
1141	1142	With 7/8" Knockouts on 6" centers	1.30	500	500

ORDERING:
Specify Figure No.,
finish and number
of feet.

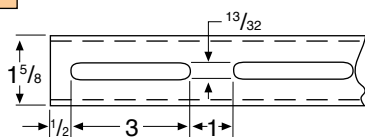
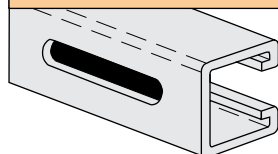
1111-1112



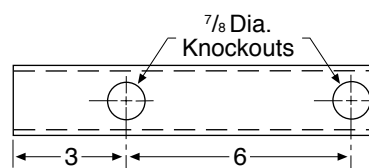
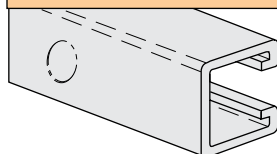
1121-1122



1131-1132



1141-1142



Elements of Selection

1101-1142

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1101	.417	.149	.166	.597	.183	.225	.662
1101A	.834	.741	.456	.942	.366	.450	.662

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1101	12"	6441	1750	.01	1750
1101A		13212	1750*	.01	1750*
1101	24"	5874	1379	.06	1379
1101A		12993	1750*	.01	1750*
1101	36"	5038	919	.13	919
1101A		12627	1750*	.05	1750*
1101	48"	4043	689	.23	607
1101A		12115	1750*	.12	1750*
1101	60"	3008	551	.36	389
1101A		11456	1518	.20	1518
1101	72"	2324	460	.51	270
1101A		10651	1265	.28	1265
1101	84"	1898	394	.70	198
1101A		9700	1084	.38	990
1101	96"	1608	345	.91	152
1101A		8602	949	.50	758
1101	108"	1397	306	1.15	120
1101A		7358	843	.63	599
1101	120"	1236	276	1.42	97
1101A		6024	759	.78	485

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1111 & 1112	15%
1121 & 1122	10%
1131 & 1132	30%
1141 & 1142	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

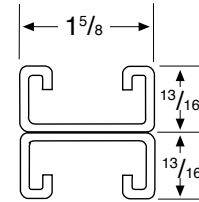
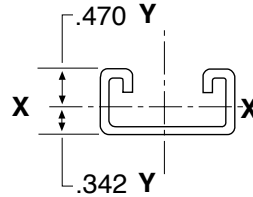
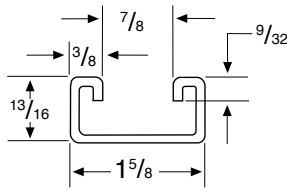
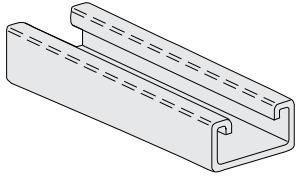
Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1201-1242

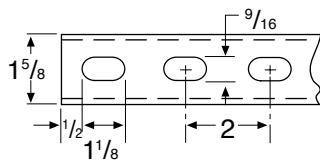
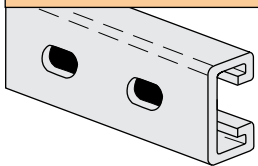
1⁵/₈" X 1³/₁₆" X 12 Gauge



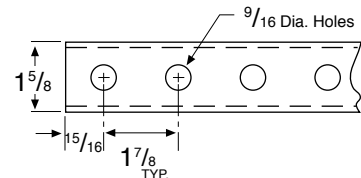
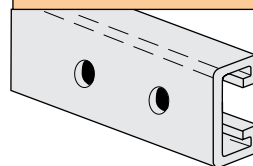
ORDERING:
Specify Figure No.,
finish and number
of feet.

Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1201	1202	No Openings	1.22	500	1000
1201A	1202A	Welded Back to Back	2.52	500	500
1211	1212	With 1 ¹ / ₈ " X 9/16" slots on 2" centers	1.15	500	1000
1211A	1212A	Welded Back to Back	2.36	500	500
1221	1222	With 9/16" dia. holes on 1 ⁷ / ₈ " centers	1.16	500	1000
1221A	1222A	Welded Back to Back	2.40	500	500
1231	1232	With 3" slots	1.15	500	1000
1241	1242	With 7/8" Knockouts on 6" centers	1.27	500	1000

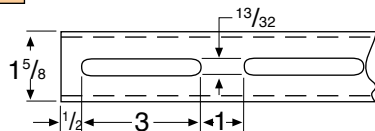
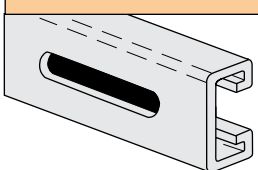
1211-1212



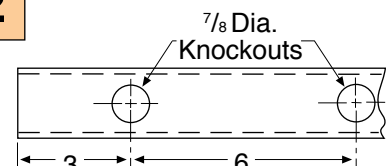
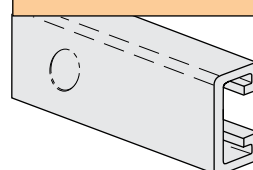
1221-1222



1231-1232



1241-1242



Elements of Selection

1201-1242

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1201	.376	.033	.068	.297	.115	.142	.554
1201A	.752	.148	.182	.444	.230	.284	.554

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1201 1201A	12"	8407 19160	1079 1270*	.02 .01	1079 1270*
1201 1201A	24"	7519 17444	539 1270*	.10 .05	506 1270*
1201 1201A	36"	5397 15275	360 1013	.24 .14	225 1013
1201 1201A	48"	3178 12692	270 759	.43 .25	126 607
1201 1201A	60"	2034 9683	216 608	.67 .39	81 388
1201 1201A	72"	- 6780	180 506	.96 .56	56 270
1201 1201A	84"	- 4981	154 434	1.31 .77	41 198
1201 1201A	96"	- 3814	135 380	1.71 1.00	32 152
1201 1201A	108"	- 3013	120 338	2.16 1.27	25 120
1201 1201A	120"	- -	108 304	2.67 1.56	20 97

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1211 & 1212	15%
1221 & 1222	10%
1231 & 1232	30%
1241 & 1242	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

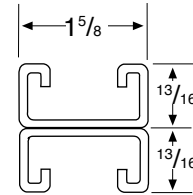
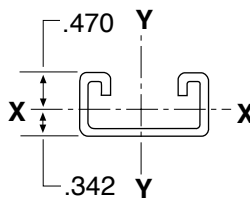
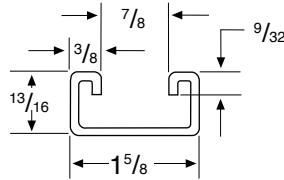
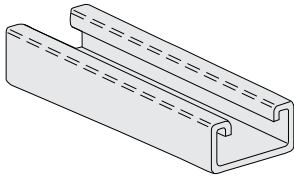
Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1301-1342

1⁵/₈" X 1³/₁₆" X 14 Gauge

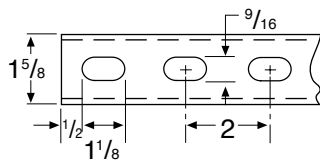
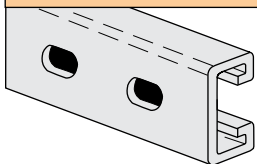


ORDERING:
Specify Figure No.,
finish and number
of feet.

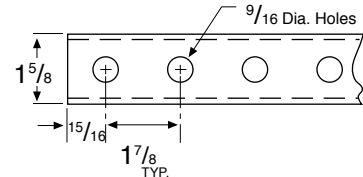
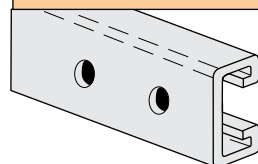
Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1301	1302	No Openings	.93	500	1000
1301A	1302A	Welded Back to Back	1.86	500	500
1311	1312	With 1 ¹ / ₈ " X 9/16" slots on 2" centers	.86	500	1000
1311A	1312A	Welded Back to Back	1.72	500	500
1321	1322	With 9/16" dia. holes on 1 ⁷ / ₈ " centers	.88	500	1000
1321A	1322A	Welded Back to Back	1.92	500	500
1331	1332	With 3" slots	.87	500	1000
1341	1342	With 7/8" Knockouts on 6" centers	.97	500	1000

Available in aluminum and stainless steel. Price on request. To order aluminum, add suffix AL to fig. number. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

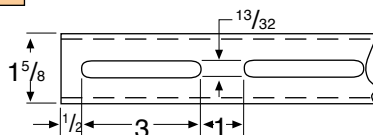
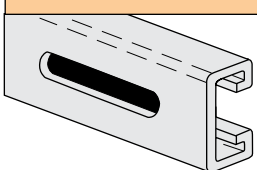
1311-1312



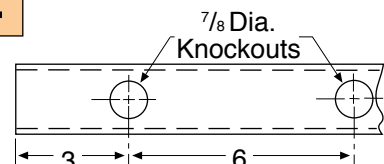
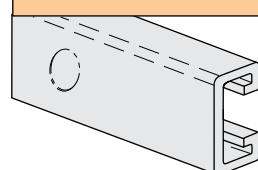
1321-1322



1331-1332



1341-1342



Elements of Selection

1301-1342

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1301	.295	.027	.056	.302	.110	.135	.610
1301A	.590	.122	.150	.455	.220	.270	.610

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1301	12"	6186	870	.03	870
1301A		12763	870*	.01	870*
1301	24"	5464	465	.11	430
1301A		12135	870*	.04	870*
1301	36"	4300	310	.24	191
1301A		11087	832	.14	832
1301	48"	2703	233	.43	108
1301A		9620	624	.25	499
1301	60"	1730	186	.68	69
1301A		7734	499	.39	319
1301	72"	1201	155	.97	48
1301A		5571	416	.56	222
1301	84"	-	133	1.32	35
1301A		4093	357	.76	163
1301	96"	-	116	1.73	27
1301A		3134	312	1.00	125
1301	108"	-	103	2.19	21
1301A		2476	277	1.27	98
1301	120"	-	93	2.70	17
1301A		-	250	1.56	80

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1311 & 1312	15%
1321 & 1322	10%
1331 & 1332	30%
1341 & 1342	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

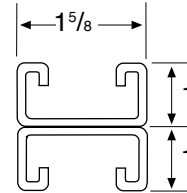
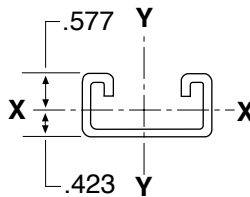
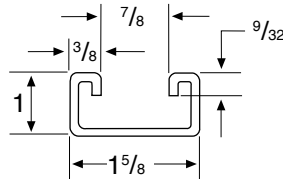
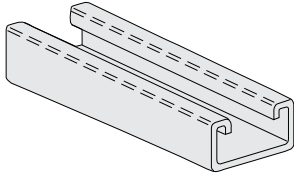
Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1401-1442

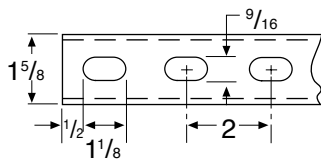
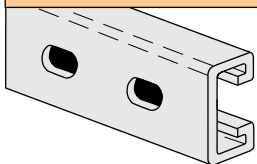
1⁵/₈" X 1" X 12 Gauge



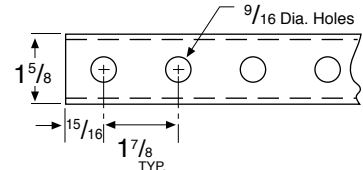
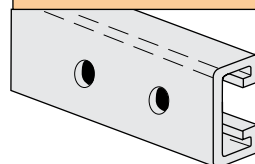
ORDERING:
Specify Figure No.,
finish and number
of feet.

Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1401	1402	No Openings	1.38	500	1000
1401A	1402A	Welded Back to Back	2.88	500	400
1411	1412	With 1 ¹ / ₈ " X ⁹ / ₁₆ " slots on 2" centers	1.34	500	1000
1411A	1412A	Welded Back to Back	2.72	500	400
1421	1422	With ⁹ / ₁₆ " dia. holes on 1 ⁷ / ₈ " centers	1.39	500	1000
1421A	1422A	Welded Back to Back	2.78	500	400
1431	1432	With 3" slots	1.31	500	1000
1441	1442	With ⁷ / ₈ " Knockouts on 6" centers	1.44	500	1000

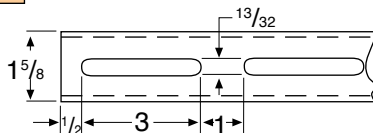
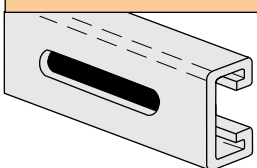
1411-1412



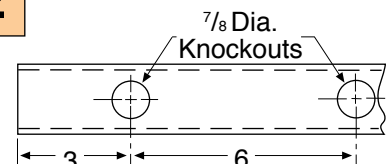
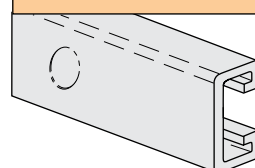
1421-1422



1431-1432



1441-1442



Elements of Selection

1401-1442

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1401	.430	.055	.095	.357	.163	.201	.616
1401A	.860	.263	.263	.553	.327	.402	.616

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1401	12"	9138	1538	.02	1538
1401A		21094	1590*	.01	1590*
1401	24"	8137	769	.09	769
1401A		19757	1590*	.04	1590*
1401	36"	7050	513	.20	388
1401A		18094	1428	.11	1428
1401	48"	5405	384	.35	218
1401A		16139	1071	.20	1053
1401	60"	3512	308	.55	140
1401A		13906	857	.32	674
1401	72"	2439	256	.79	97
1401A		11387	714	.46	468
1401	84"	1792	220	1.07	71
1401A		8645	612	.62	344
1401	96"	-	192	1.41	55
1401A		6619	535	.81	263
1401	108"	-	171	1.78	43
1401A		5230	476	1.03	208
1401	120"	-	154	2.20	35
1401A		4236	428	1.27	168

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1411 & 1412	15%
1421 & 1422	10%
1431 & 1432	30%
1441 & 1442	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1501-1542

1⁵/₈" X 3¹/₄" X 12 Gauge

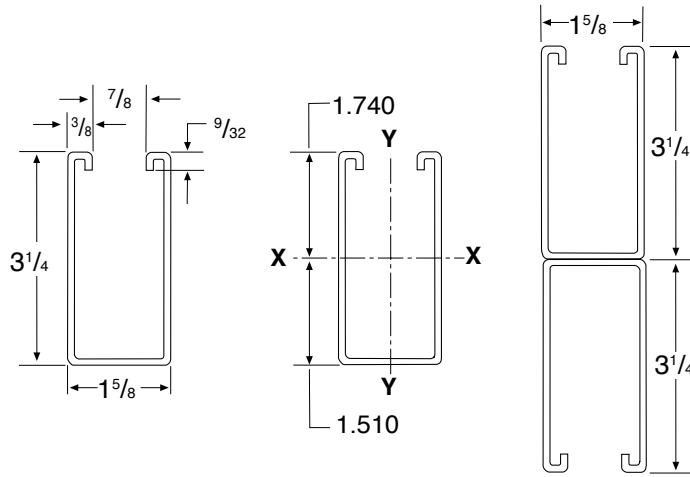
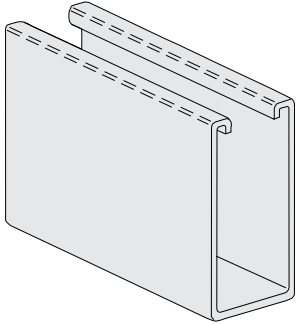
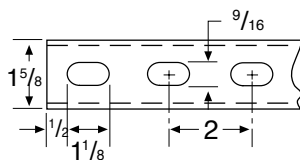
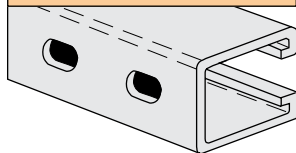


Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1501	1502	No Openings	2.99	300	300
1501A	1502A	Welded Back to Back	5.98	100	200
1511	1512	With 1 ¹ / ₈ " X 9/16" slots on 2" centers	2.90	300	300
1511A	1512A	Welded Back to Back	5.80	100	200
1521	1522	With 9/16" dia. holes on 17/8" centers	2.91	300	300
1521A	1522A	Welded Back to Back	6.02	100	200
1531	1532	With 3" slots	2.89	300	300
1541	1542	With 7/8" Knockouts on 6" centers	2.91	300	300

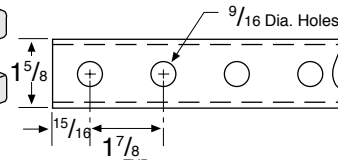
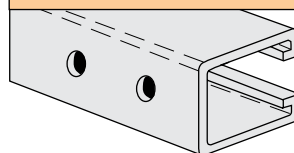
ORDERING:
Specify Figure No.,
finish and number
of feet.

Available in stainless steel. Price on request. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

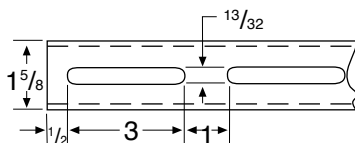
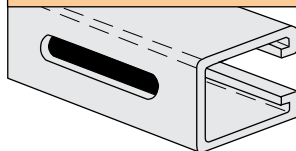
1511-1512



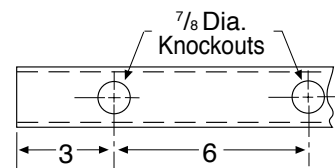
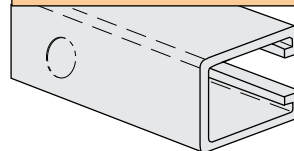
1521-1522



1531-1532



1541-1542



Elements of Selection

1501-1542

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1501	.902	1.115	.641	1.112	.436	.537	.695
1501A	1.804	6.349	1.953	1.876	.873	1.074	.695

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1501	24"	8190	5130	.03	5130
1501A		17701	5130*	.01	5130*
1501	36"	7311	3488	.07	3488
1501A		17416	5130*	.02	5130*
1501	48"	6214	2616	.12	2616
1501A		17016	5130*	.04	5130*
1501	60"	4988	2093	.18	2093
1501A		16503	5130*	.08	5130*
1501	72"	3816	1744	.26	1744
1501A		15876	5130*	.14	5130*
1501	84"	3063	1495	.36	1460
1501A		15135	4552	.19	4552
1501	96"	2564	1308	.47	1118
1501A		14279	3983	.25	3983
1501	108"	2213	1163	.59	884
1501A		13310	3541	.32	3541
1501	120"	1953	1046	.73	716
1501A		12226	3187	.39	3187

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1511 & 1512	15%
1521 & 1522	10%
1531 & 1532	30%
1541 & 1542	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1601-1642

1⁵/₈" X 2⁷/₁₆" X 12 Gauge

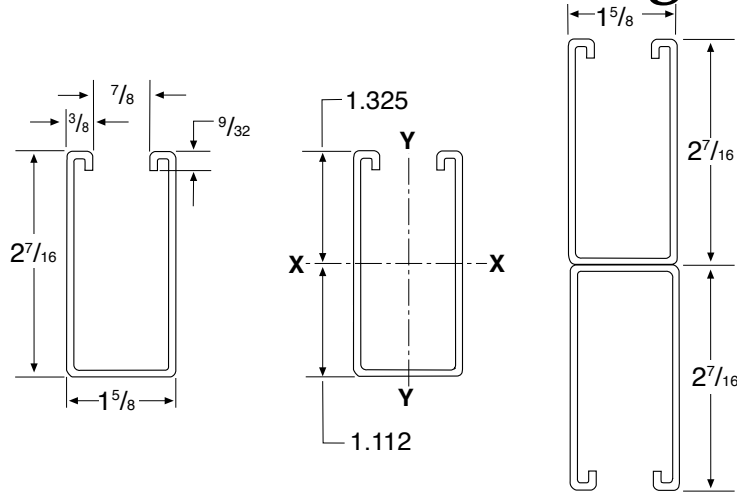
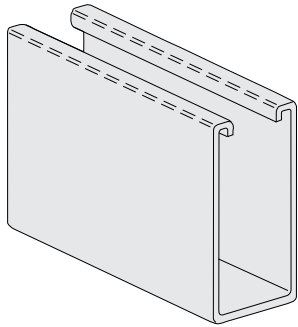
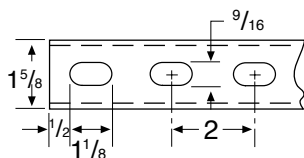
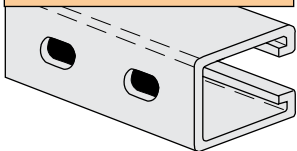


Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1601	1602	No Openings	2.30	300	400
1601A	1602A	Welded Back to Back	4.60	200	200
1611	1612	With 1 ¹ / ₈ " X 9/ ₁₆ " slots on 2" centers	2.23	300	400
1611A	1612A	Welded Back to Back	4.46	200	200
1621	1622	With 9/ ₁₆ " dia. holes on 1 ⁷ / ₈ " centers	2.25	300	400
1621A	1622A	Welded Back to Back	4.86	200	200
1631	1632	With 3" slots	2.21	300	400
1641	1642	With 7/ ₈ " Knockouts on 6" centers	2.48	300	400

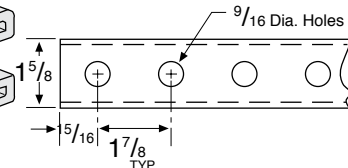
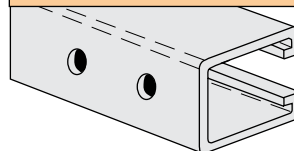
ORDERING:
Specify Figure No.,
finish and number
of feet.

Available in stainless steel. Price on request. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

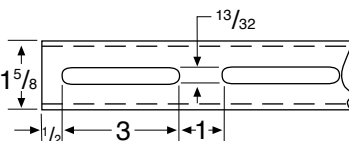
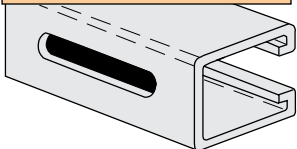
1611-1612



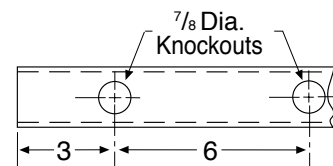
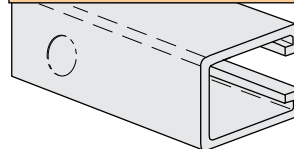
1621-1622



1631-1632



1641-1642



Elements of Selection

1601-1642

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1601	.732	.531	.401	.852	.338	.416	.680
1601A	1.464	2.874	1.179	1.401	.676	.832	.680

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1601	12"	10140	3880	.01	3880
1601A		20820	3880*	.01	3880*
1601	24"	9244	3273	.04	3273
1601A		20519	3880*	.01	3880*
1601	36"	7933	2182	.09	2182
1601A		20017	3880*	.03	3880*
1601	48"	6386	1636	.15	1636
1601A		19315	3880*	.07	3880*
1601	60"	4785	1309	.24	1309
1601A		18412	3847*	.13	3847*
1601	72"	3717	1091	.35	947
1601A		17309	3206	.19	3206
1601	84"	3052	935	.47	696
1601A		16005	2748	.26	2748
1601	96"	2600	818	.62	533
1601A		14500	2404	.33	2404
1601	108"	2271	727	.77	421
1601A		12795	2137	.42	2137
1601	120"	2019	655	.96	341
1601A		10889	1924	.52	1844

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1611 & 1612	15%
1621 & 1622	10%
1631 & 1632	30%
1641 & 1642	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

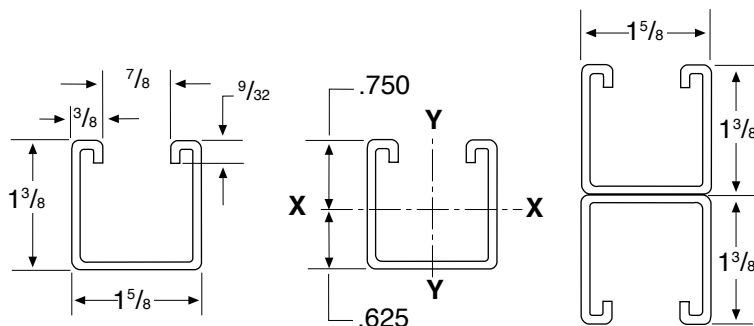
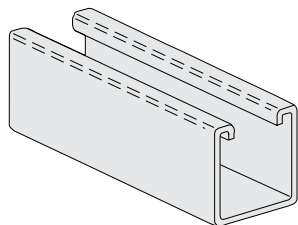
Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.



CHANNEL

1701-1742

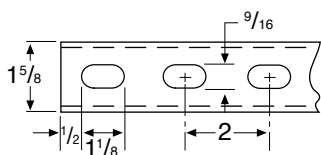
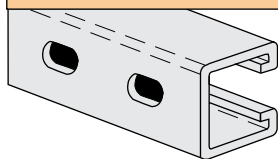
1⁵/₈" X 1³/₈" X 12 Gauge



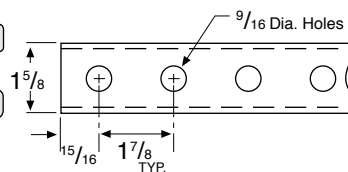
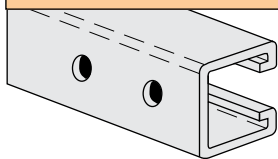
ORDERING:
Specify Figure No.,
finish and number
of feet.

Fig. Number		Type - Description	Weight Per Foot (in Lbs.)	Bundle Qty.	
10 ft.	20 ft.			10 ft.	20 ft.
1701	1702	No Openings	1.59	500	500
1701A	1702A	Welded Back to Back	3.40	200	300
1711	1712	With 1 ¹ / ₈ " X ⁹ / ₁₆ " slots on 2" centers	1.54	500	500
1711A	1712A	Welded Back to Back	3.24	200	300
1721	1722	With ⁹ / ₁₆ " dia. holes on 1 ⁷ / ₈ " centers	1.65	500	500
1721A	1722A	Welded Back to Back	3.30	200	300
1731	1732	With 3" slots	1.59	500	500
1741	1742	With ⁷ / ₈ " Knockouts on 6" centers	1.70	500	500

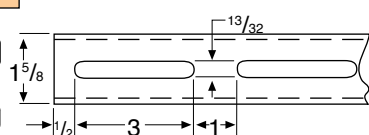
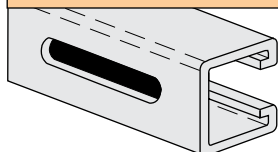
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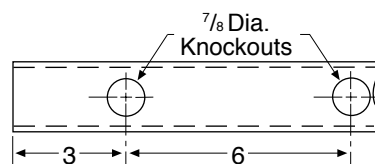
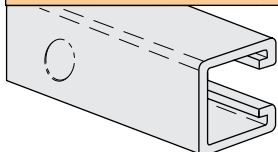
1721-1722



1731-1732



1741-1742



Elements of Selection

1701-1742

Figure Number	X-X Axis				Y-Y Axis		
	Area of Section Inches ²	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches ⁴	Section Modulus Inches ³	Radius of Gyration Inches
1701	.508	.124	.159	.494	.209	.257	.641
1701A	1.016	.613	.445	.776	.418	.514	.641

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1701	12"	10278	2210	.02	2210
1701A		21320	2210*	.01	2210*
1701	24"	9104	1299	.07	1299
1701A		20806	2210*	.02	2210*
1701	36"	7640	866	.15	866
1701A		19950	2210*	.08	2210*
1701	48"	6151	649	.26	495
1701A		18751	1817	.15	1817
1701	60"	4778	520	.41	317
1701A		17210	1454	.23	1454
1701	72"	3870	433	.59	220
1701A		15326	1211	.33	1092
1701	84"	3243	371	.80	162
1701A		13100	1038	.45	802
1701	96"	2774	325	1.04	124
1701A		10525	909	.59	614
1701	108"	2403	289	1.32	98
1701A		8316	808	.75	485
1701	120"	1993	260	1.63	79
1701A		6736	727	.92	393

Beam Loads

Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI. When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads

Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1711 & 1712	15%
1721 & 1722	10%
1731 & 1732	30%
1741 & 1742	5%

TECHNICAL DATA

SPOT WELDING

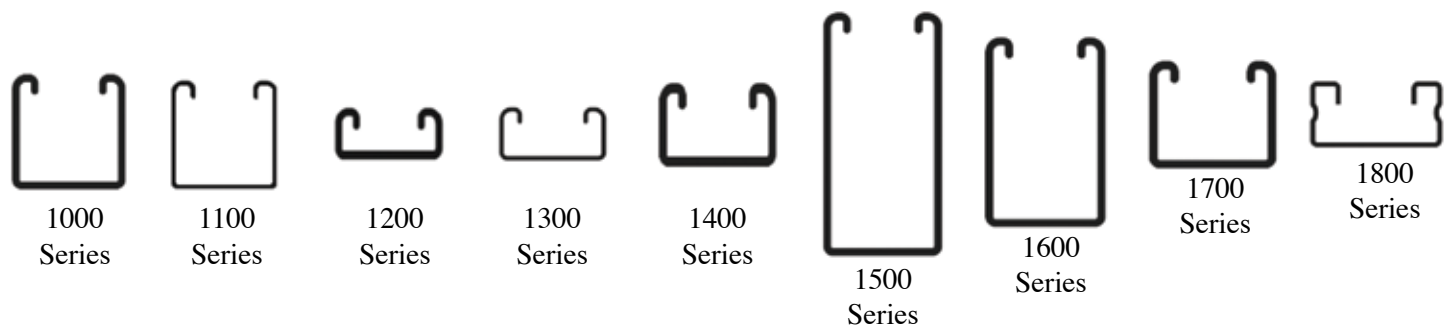
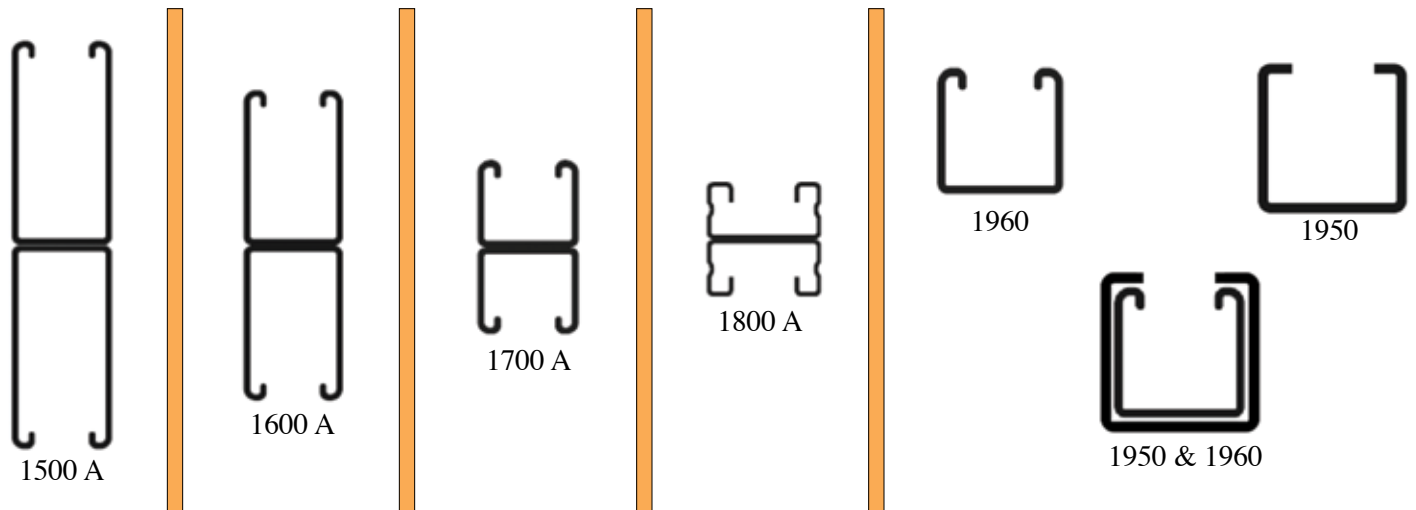
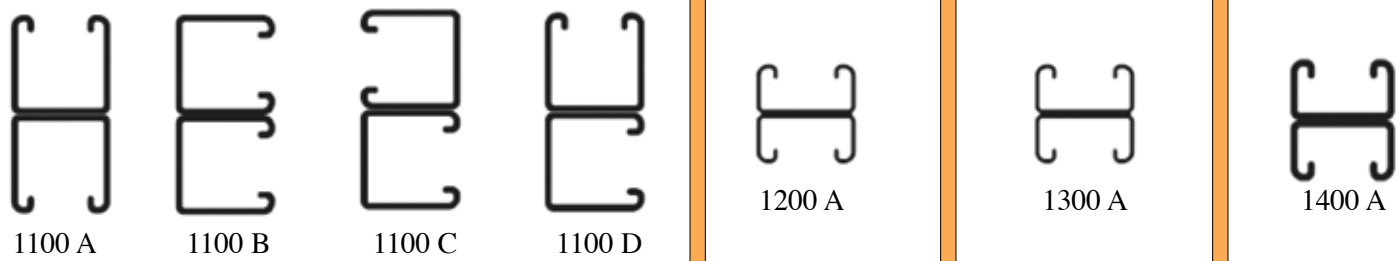
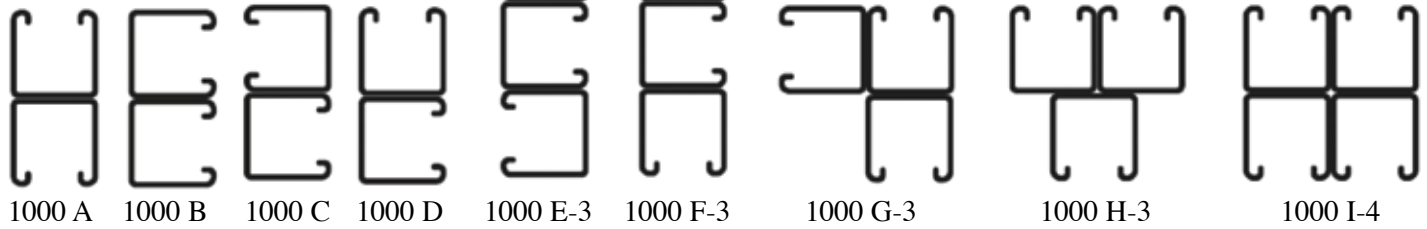
Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" to 3" apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.

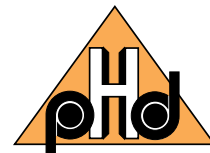


STRUT CHANNEL

Channel Combinations



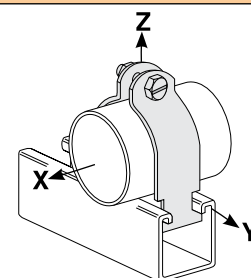
STRUT CLAMPS



I.P. Pipe Clamp

2001-2016

Fig. Number	Pipe Size	O.D. Size	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
					X	Y	Z	
2001	3/8	•	100	16 Ga.	50	50	400	.10
2002	1/2	•	100	16 Ga.	50	50	400	.10
2003	3/4	•	100	14 Ga.	75	75	600	.14
2004	1	•	100	14 Ga.	75	75	600	.17
2005	1 1/4	•	100	14 Ga.	75	75	600	.21
2006	1 1/2	•	50	12 Ga.	125	125	800	.30
2007	2	2 3/8	50	12 Ga.	125	125	800	.35
2008	2 1/2	2 7/8	50	12 Ga.	125	125	800	.39
2009	3	3 1/2	50	12 Ga.	125	125	800	.46
2010	3 1/2	4	50	11 Ga.	150	200	1000	.65
2011	4	4 1/2	25	11 Ga.	150	200	1000	.66
2012	5	•	25	11 Ga.	150	200	1000	.79
2013	6	6 5/8	25	11 Ga.	150	200	1000	1.00
2014	8	8 5/8	25	11 Ga.	200	250	1000	1.14
2015	10	10 3/4	25	11 Ga.	200	250	1000	1.43
2016	12	12 3/4	25	11 Ga.	200	250	1000	1.74



MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

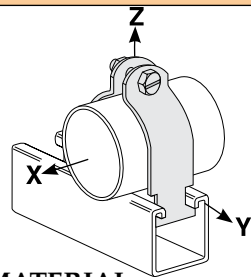
ORDERING:
Specify figure number and pipe size.

Available in aluminum and stainless steel. Price on request. To order aluminum, add suffix AL to fig. number. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

Universal Pipe Clamp for EMT, IMC & GRC

2101-2107

Fig. Number	Nominal Size	O.D. Size Range	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
					X	Y	Z	
2101	3/8	.557 to .706	100	16 Ga.	50	50	400	.11
2102	1/2	.706 to .840	100	16 Ga.	50	50	400	.11
2103	3/4	.922 to 1.050	100	14 Ga.	50	50	400	.15
2104	1	1.163 to 1.315	100	14 Ga.	50	50	400	.17
2105	1 1/4	1.510 to 1.660	100	14 Ga.	50	50	400	.19
2106	1 1/2	1.740 to 1.90	50	12 Ga.	75	75	600	.30
2107	2	2.197 to 2.375	50	12 Ga.	75	75	600	.35



MATERIAL:
Low carbon steel

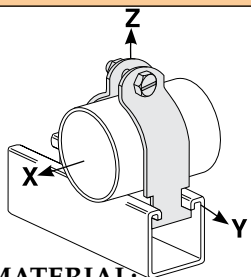
FINISH:
Electro-galvanized

ORDERING: Specify figure number and nominal size.

EMT Conduit Clamp

2201-2207

Fig. Number	EMT Size	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
				X	Y	Z	
2201	3/8	100	16 Ga.	50	50	400	.09
2202	1/2	100	16 Ga.	50	50	400	.09
2203	3/4	100	16 Ga.	50	50	400	.10
2204	1	100	14 Ga.	50	50	600	.14
2205	1 1/4	100	14 Ga.	50	50	600	.16
2206	1 1/2	50	12 Ga.	75	75	800	.27
2207	2	50	12 Ga.	75	75	800	.30



MATERIAL:
Low carbon steel

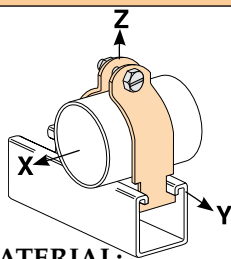
FINISH:
Electro-galvanized

ORDERING: Specify figure number and EMT size.



STRUT CLAMPS

2301-2314



MATERIAL:
Low carbon steel

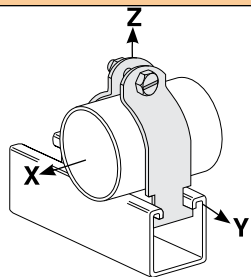
FINISH:
Copper Color Epoxy Finish

ORDERING:
Specify figure number
and tube size.

Copper Tubing Clamp

Fig. Number	Tube Size	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
				X	Y	Z	
2301	1/4	100	16 Ga.	50	50	400	.09
2302	3/8	100	16 Ga.	50	50	400	.09
2303	1/2	100	16 Ga.	50	50	400	.09
2304	3/4	100	16 Ga.	50	50	400	.10
2305	1	100	14 Ga.	75	75	600	.14
2306	1 1/4	100	14 Ga.	75	75	600	.16
2307	1 1/2	100	14 Ga.	75	75	600	.17
2308	2	50	12 Ga.	125	125	800	.29
2309	2 1/2	50	12 Ga.	125	125	800	.35
2310	3	50	12 Ga.	125	125	800	.40
2311	3 1/2	25	12 Ga.	150	200	1000	.51
2312	4	25	12 Ga.	150	200	1000	.61
2313	5	25	11 Ga.	150	200	1000	.74
2314	6	25	11 Ga.	200	250	1000	.94

2401-2435



APPLICATION:

For use with No-Hub
Cast Iron Soil Pipe

Fig. Number	No-Hub Cast Iron Soil Nom. Pipe Size
2006	1 1/2
2007	2
2424	3
2430	4
2437	5
2445	6
2460	8
2477	10
2493	12

MATERIAL:
Low carbon steel

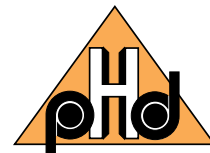
FINISH:
Electro-galvanized

ORDERING:
Specify figure number
and O.D. tube size.

O.D. Tube Clamp

Fig. Number	O.D. Size	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
				X	Y	Z	
2401	1/4	100	16 Ga.	50	50	400	.09
2402	3/8	100	16 Ga.	50	50	400	.09
2403	1/2	100	16 Ga.	50	50	400	.10
2404	5/8	100	16 Ga.	50	50	400	.10
2405	3/4	100	16 Ga.	50	50	400	.10
2406	7/8	100	16 Ga.	50	50	400	.10
2407	1	100	14 Ga.	75	75	600	.13
2408	1 1/8	100	14 Ga.	75	75	600	.14
2409	1 1/4	100	14 Ga.	75	75	600	.14
2410	1 3/8	100	14 Ga.	75	75	600	.16
2411	1 1/2	100	14 Ga.	75	75	600	.16
2412	1 5/8	100	14 Ga.	75	75	600	.17
2413	1 3/4	50	12 Ga.	125	125	800	.27
2414	1 7/8	50	12 Ga.	125	125	800	.28
2415	2	50	12 Ga.	125	125	800	.28
2416	2 1/8	50	12 Ga.	125	125	800	.29
2417	2 1/4	50	12 Ga.	125	125	800	.32
2418	2 1/2	50	12 Ga.	125	125	800	.34
2419	2 5/8	50	12 Ga.	125	125	800	.35
2420	2 3/4	50	12 Ga.	125	125	800	.37
2421	3	50	12 Ga.	125	125	800	.39
2422	3 1/8	50	12 Ga.	125	125	800	.40
2423	3 1/4	50	12 Ga.	125	125	800	.42
2424	3 3/8	50	12 Ga.	125	125	800	.43
2425	3 5/8	50	11 Ga.	150	200	1000	.51
2426	3 3/4	50	11 Ga.	150	200	1000	.53
2427	3 7/8	50	11 Ga.	150	200	1000	.54
2428	4 1/8	50	11 Ga.	150	200	1000	.57
2429	4 1/4	25	11 Ga.	150	200	1000	.59
2430	4 3/8	25	11 Ga.	150	200	1000	.60
2431	4 5/8	25	11 Ga.	150	200	1000	.62
2432	4 3/4	25	11 Ga.	150	200	1000	.64
2433	4 7/8	25	11 Ga.	150	200	1000	.65
2434	5	25	11 Ga.	150	200	1000	.67
2435	5 1/8	25	11 Ga.	150	200	1000	.68

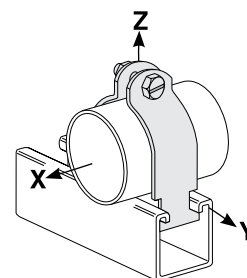
STRUT CLAMPS



O.D. Tube Clamp - Cont'd.

Fig. Number	O.D. Size	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
				X	Y	Z	
2436	5 ¹ / ₄	25	11 Ga.	150	200	1000	.70
2437	5 ³ / ₈	25	11 Ga.	150	200	1000	.71
2438	5 ¹ / ₂	25	11 Ga.	150	200	1000	.72
2439	5 ⁵ / ₈	25	11 Ga.	150	200	1000	.85
2440	5 ³ / ₄	25	11 Ga.	150	200	1000	.87
2441	5 ⁷ / ₈	25	11 Ga.	150	200	1000	.88
2442	6	25	11 Ga.	150	200	1000	.90
2443	6 ¹ / ₈	25	11 Ga.	200	250	1000	.94
2444	6 ¹ / ₄	25	11 Ga.	200	250	1000	.93
2445	6 ³ / ₈	25	11 Ga.	200	250	1000	.95
2446	6 ¹ / ₂	25	11 Ga.	200	250	1000	.98
2447	6 ³ / ₄	25	11 Ga.	200	250	1000	.99
2448	6 ⁷ / ₈	25	11 Ga.	200	250	1000	1.00
2449	7	25	11 Ga.	200	250	1000	1.01
2450	7 ¹ / ₈	25	11 Ga.	200	250	1000	1.02
2451	7 ¹ / ₄	25	11 Ga.	200	250	1000	1.04
2452	7 ³ / ₈	25	11 Ga.	200	250	1000	1.07
2453	7 ¹ / ₂	25	11 Ga.	200	250	1000	1.09
2454	7 ⁵ / ₈	25	11 Ga.	200	250	1000	1.10
2455	7 ³ / ₄	25	11 Ga.	200	250	1000	1.12
2456	7 ⁷ / ₈	25	11 Ga.	200	250	1000	1.13
2457	8	25	11 Ga.	200	250	1000	1.15
2458	8 ¹ / ₈	25	11 Ga.	200	250	1000	1.17
2459	8 ¹ / ₄	25	11 Ga.	200	250	1000	1.18
2460	8 ³ / ₈	25	11 Ga.	200	250	1000	1.20
2461	8 ¹ / ₂	25	11 Ga.	200	250	1000	1.21

2436-2461



MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

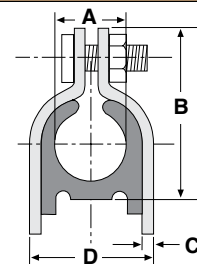
ORDERING:
Specify figure number and O.D. tube size.

Available in aluminum and stainless steel. Price on request. To order aluminum, add suffix AL to fig. number. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

Clamp With Cushion

Fig. Number	O.D. Size A	Nom. Tube Size	B	C	D	Std. Package	Wt. Each (in Lbs.)
2501	1 ¹ / ₄	1 ¹ / ₈	1 ¹ / ₁₆	.060	1 ¹ / ₂	30	.12
2502	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₄	.060	5 ⁵ / ₈	30	.13
2503	1 ¹ / ₂	3 ³ / ₈	1 ³ / ₈	.060	3 ³ / ₄	30	.13
2504	5 ⁵ / ₈	1 ¹ / ₂	1 ¹ / ₂	.060	7 ⁷ / ₈	20	.15
2505	3 ³ / ₄	5 ⁵ / ₈	1 ³ / ₄	.075	1 ¹ / ₈	20	.21
2506	7 ⁷ / ₈	3 ³ / ₄	1 ⁷ / ₈	.075	1 ¹ / ₄	20	.22
2507	1 ¹ / ₈	1	2 ¹ / ₁₆	.075	1 ¹ / ₂	10	.29
2508	1 ³ / ₈	1 ¹ / ₄	2 ⁷ / ₁₆	.075	1 ³ / ₄	10	.33
2509	1 ⁵ / ₈	1 ¹ / ₂	3	.105	2 ¹ / ₄	10	.42
2510	2 ¹ / ₈	2	3 ³ / ₈	.105	2 ³ / ₄	10	.50
2511	2 ⁵ / ₈	2 ¹ / ₂	3 ⁷ / ₈	.105	3 ¹ / ₄	10	.62
2512	3 ¹ / ₈	3	4 ⁵ / ₁₆	.105	3 ³ / ₄	10	.66
2514	4 ¹ / ₈	4	5 ¹ / ₂	.125	4 ³ / ₄	10	.88

2501-2514



MATERIAL:
Low carbon steel

FINISH:
Western gold

ORDERING:
Specify figure number and O.D. size.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

Cushion Material

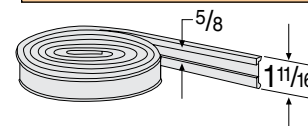
MATERIAL:
EPDM

STOCK:
Thickness: 1¹/₈
Length: 25 ft./box

Service Temp: -70° to 350°F
Weight per ft: .102

ORDERING: Specify figure number and number of feet.

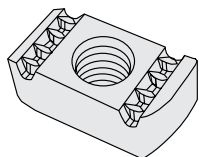
2600





STRUT NUTS

3001-3011



MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

ORDERING: Specify figure number and thread size.

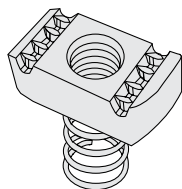
Strut Nut without Spring

Fig. Number	Thread Size	Std. Package	Thickness	Weight Each (in Lbs.)
3001	#8-32	100	1/4	.06
3002	#10-24	100	1/4	.06
3003	#10-32	100	1/4	.06
3004*	1/4	100	1/4	.06
3005	5/16	100	1/4	.07
3006*	3/8	100	3/8	.09
3007	7/16	100	3/8	.09
3008*	1/2	100	1/2	.12
3009	5/8	100	1/2	.13
3010	3/4	100	1/2	.13
3011	7/8	100	1/2	.13

Available in stainless steel. To order, specify 316 and add suffix SS to fig. number. Price on request.

*Available in aluminum. To order, add suffix AL to fig. number. Price on request.

3101-3111



MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

ORDERING: Specify figure number and thread size.

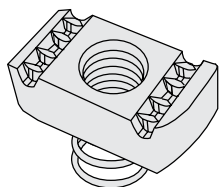
Strut Nut with Spring

Fig. Number	Thread Size	Std. Package	Thickness	Weight Each (in Lbs.)
3101	#8-32	100	1/4	.07
3102	#10-24	100	1/4	.07
3103	#10-32	100	1/4	.07
3104*	1/4	100	1/4	.07
3105	5/16	100	1/4	.07
3106*	3/8	100	3/8	.10
3107	7/16	100	3/8	.10
3108*	1/2	100	1/2	.13
3109	5/8	50	1/2	.15
3110	3/4	50	1/2	.15
3111	7/8	50	1/2	.15

Available in stainless steel. To order, specify 316 and add suffix SS to fig. number. Price on request.

*Available in aluminum. To order, add suffix AL to fig. number. Price on request.

3201-3210



MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

Strut Nut with Short Spring

Fig. Number	Thread Size	Std. Package	Thickness	Weight Each (in Lbs.)
3201	#8-32	100	1/4	.07
3202	#10-24	100	1/4	.07
3203	#10-32	100	1/4	.07
3204	1/4	100	1/4	.07
3205	5/16	100	1/4	.07
3206	3/8	100	3/8	.09
3207	7/16	100	3/8	.09
3208	1/2	100	3/8	.09
3209	5/8	50	3/8	.10
3210	3/4	50	3/8	.10

ORDERING: Specify figure number and thread size.

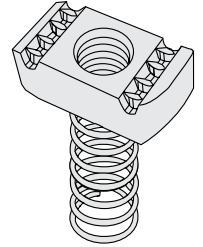
STRUT NUTS



Strut Nut with Long Spring

3301-3311

Fig. Number	Thread Size	Std. Package	Thickness	Weight Each (in Lbs.)
3301	#8-32	100	$\frac{1}{4}$	.07
3302	#10-24	100	$\frac{1}{4}$	.07
3303	#10-32	100	$\frac{1}{4}$	.07
3304	$\frac{1}{4}$	100	$\frac{1}{4}$	.07
3305	$\frac{5}{16}$	100	$\frac{1}{4}$	.07
3306	$\frac{3}{8}$	100	$\frac{3}{8}$	.10
3307	$\frac{7}{16}$	100	$\frac{3}{8}$	.09
3308	$\frac{1}{2}$	100	$\frac{1}{2}$	.13
3309	$\frac{5}{8}$	50	$\frac{1}{2}$	.15
3310	$\frac{3}{4}$	50	$\frac{1}{2}$	.15
3311	$\frac{7}{8}$	50	$\frac{1}{2}$	.14



ORDERING: Specify figure number and thread size.

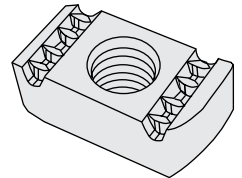
MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

Shallow Strut Nut without Spring

3351-3353

Fig. Number	Thread Size	Std. Package	Thickness	Weight Each (in Lbs.)
3351	$\frac{1}{2}$	100	$\frac{3}{8}$	.09
3352	$\frac{5}{8}$	100	$\frac{3}{8}$	.11
3353	$\frac{3}{4}$	100	$\frac{3}{8}$	.09



ORDERING: Specify figure number and thread size.

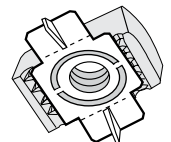
MATERIAL:
Low carbon steel

FINISH:
Electro-galvanized

Squeeze Nut

3404-3408

Fig. Number	Thread Size	Std. Package	Wt. Each (in Lbs.)
3404	$\frac{1}{4}$	100	.07
3406	$\frac{3}{8}$	100	.10
3408	$\frac{1}{2}$	100	.13



ORDERING: Specify figure number and thread size.
NOTE: Fits all profiles of strut

MATERIAL:
Low carbon steel

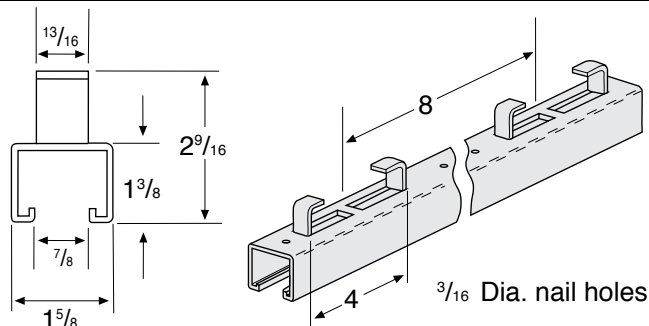
FINISH:
Electro-galvanized



CONTINUOUS CONCRETE INSERT

4001-4002

1⁵/₈" X 1³/₈" X 12 Gauge



MATERIAL: Low carbon steel

FINISH: Pre-galvanized

ORDERING: Available in various lengths. Specify length and figure number.

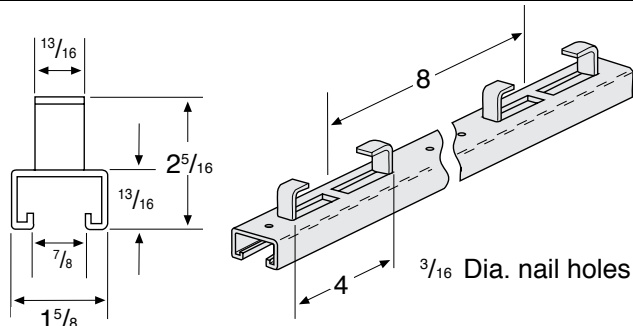
Fig. Number	Length (feet)	Max. Rec. Load/Lbs./ft.	Wt. Per Foot	Bundle Qty.
4001	10	2000	1.79	240
4002	20	2000	1.78	480

Note: Furnished with styrofoam filler.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

4101-4102

1⁵/₈" X 1³/₁₆" X 12 Gauge



MATERIAL: Low carbon steel

FINISH: Pre-galvanized

ORDERING: Available in various lengths. Specify length and figure number.

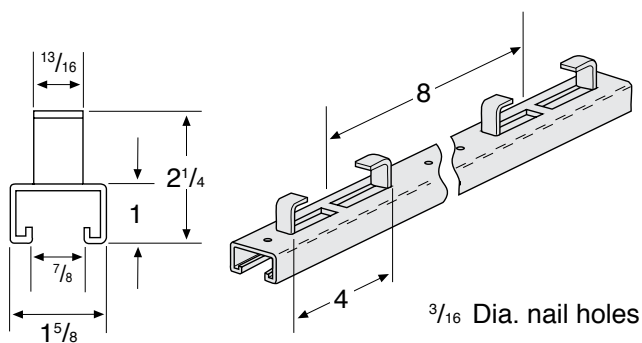
Fig. Number	Length (feet)	Max. Rec. Load/Lbs./ft.	Wt. Per Foot	Bundle Qty.
4101	10	1500	1.34	240
4102	20	1500	1.35	480

Note: Furnished with styrofoam filler.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

4201-4202

1⁵/₈" X 1" X 12 Gauge



MATERIAL: Low carbon steel

FINISH: Pre-galvanized

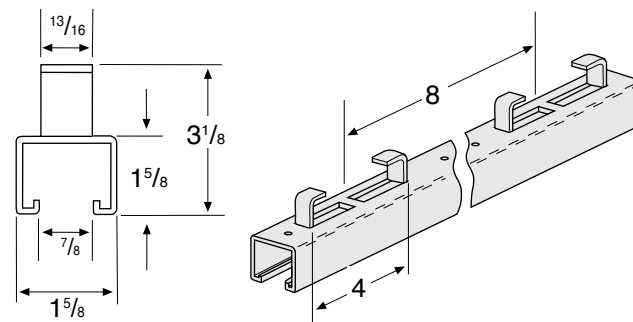
ORDERING: Available in various lengths. Specify length and figure number.

Fig. Number	Length (feet)	Max. Rec. Load/Lbs./ft.	Wt. Per Foot	Bundle Qty.
4201	10	2000	1.52	240
4202	20	2000	1.51	480

Note: Furnished with styrofoam filler.

4301-4302

1⁵/₈" X 1⁵/₈" X 12 Gauge



MATERIAL: Low carbon steel

FINISH: Pre-galvanized

ORDERING: Available in various lengths. Specify length and figure number.

Fig. Number	Length (feet)	Max. Rec. Load/Lbs./ft.	Wt. Per Foot	Bundle Qty.
4301	10	2000	1.99	240
4302	20	2000	1.99	480

Note: Furnished with styrofoam filler.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

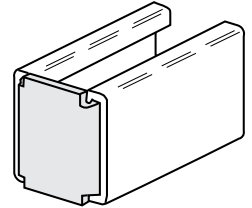
END CAPS & PLASTIC CLOSURES



4405-4420

Type A End Caps

Fig. Number	Std. Package	Use With Fig. Numbers	Wt. Each (in Lbs.)
4405	100	1000 & 4300	.10
4406	100	1300	.05
4410	100	1700 & 4000	.08
4420	100	1400 & 4200	.08



ORDERING: Specify figure number.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

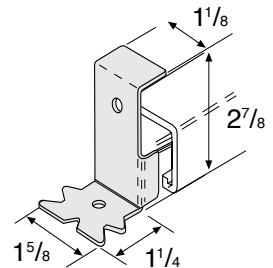
MATERIAL: Low carbon steel

FINISH: Electro-galvanized

4440-4470

Type B End Caps

Fig. Number	Std. Package	Use With Fig. Numbers	Wt. Each (in Lbs.)
4440	100	4000	.15
4450	100	4200	.15
4460	100	4100	.15
4470	100	4300	.15



ORDERING: Specify figure number.

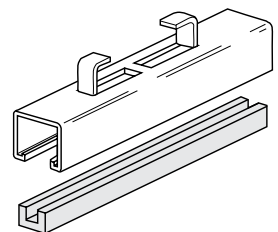
MATERIAL: Low carbon steel

FINISH: Electro-galvanized

4500

Plastic Closure Strip

Fig. Number	Std. Length (feet)	Wt. Per Foot (in Lbs.)
4500	10	.14



ORDERING: Specify figure number.

MATERIAL: Plastic

FINISH: Plain



FLAT PLATE FITTINGS

5000-5004 Square Washer

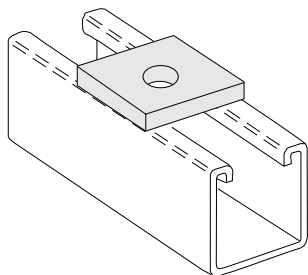


Fig. Number	Rod Size	Std. Package	Wt. Each (in Lbs.)
5000	1/4	100	.18
5001	3/8	100	.17
5002	1/2	100	.17
5003	5/8	100	.16
5004	3/4	100	.16

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and rod size.

5005-5009 No Turn Square Washer

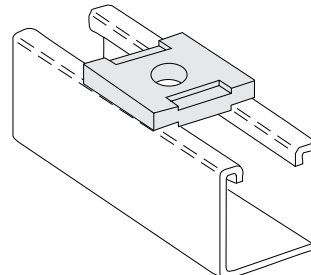


Fig. Number	Rod Size	Std. Package	Wt. Each (in Lbs.)
5005	1/4	100	.18
5006	3/8	100	.17
5007	1/2	100	.17
5008	5/8	100	.16
5009	3/4	100	.16

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and rod size.

5010-5012 2-Hole Splice Plate

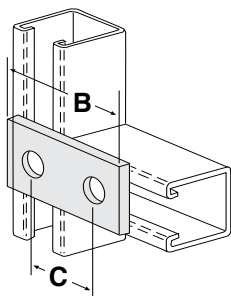


Fig. Number	Length B	C	Std. Package	Wt. Each (in Lbs.)
5010	3 1/2	1 7/8	50	.37
5011	4 5/8	2 1/2	50	.50
5012	3 3/4	1 5/8	50	.34

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

5013-5014 3-Hole Splice Plate

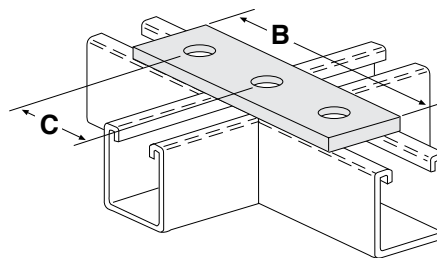


Fig. Number	Length B	C	Std. Package	Wt. Each (in Lbs.)
5013	5 3/8	1 7/8	25	.55
5014	4 7/8	1 5/8	25	.50

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

FLAT PLATE FITTINGS



5015 4-Hole Splice Plate

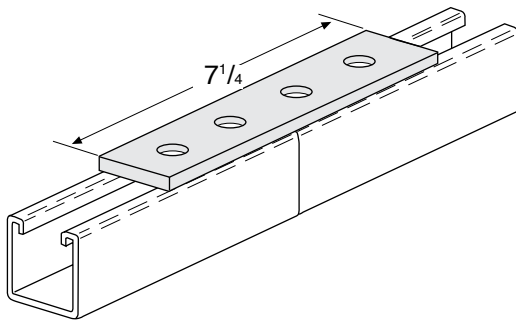


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5015	50	.75

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5017 4-Hole Splice Plate

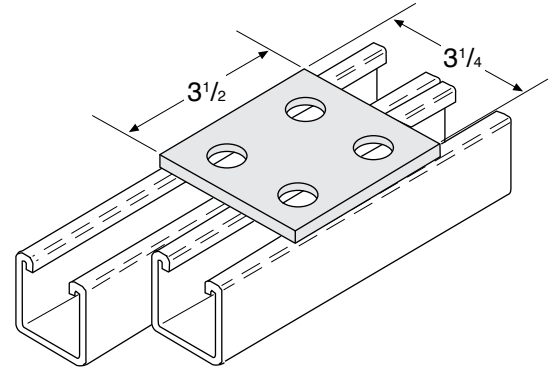


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5017	50	.55

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5019 5-Hole Splice Plate

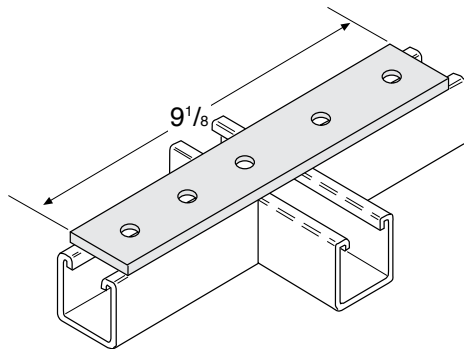


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5019	50	.96

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5020 2-Hole Swivel Plate

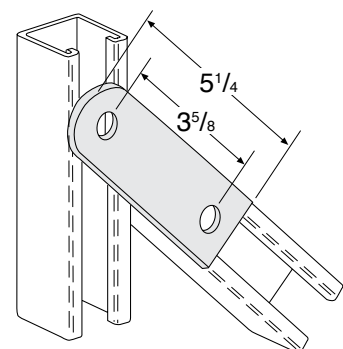


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5020	50	.56

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end



FLAT PLATE FITTINGS

5023 3-Hole Swivel Plate

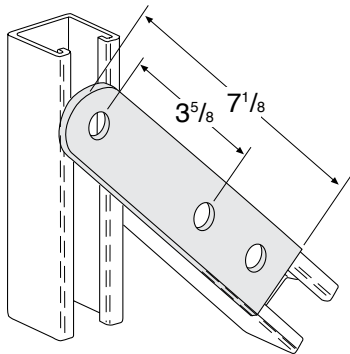


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5023	50	.76

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$ X $1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5025 3-Hole Corner Plate

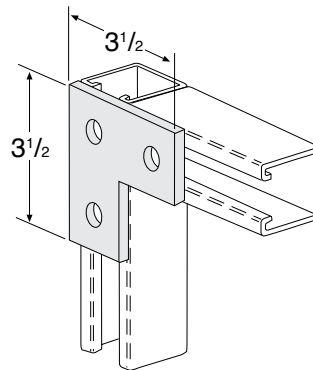


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5025	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5030 4-Hole Corner Plate

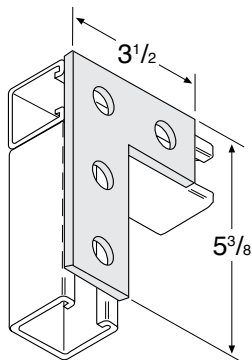


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5030	25	.75

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5035 4-Hole Tee Plate

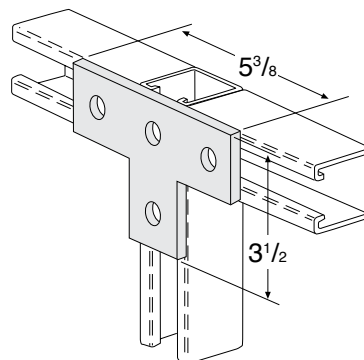


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5035	25	.75

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

FLAT PLATE FITTINGS



5040 5-Hole Cross Plate

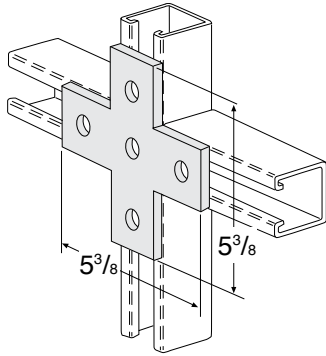


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5040	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5045 3-Hole Corner Gusset Plate

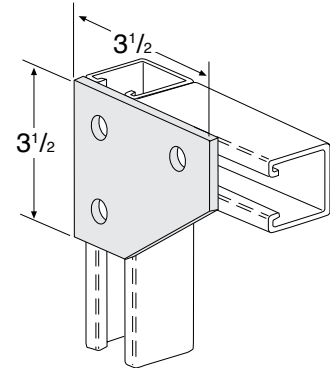


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5045	25	.70

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5050 4-Hole Corner Gusset Plate

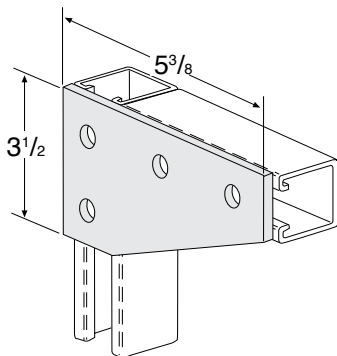


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5050	25	1.02

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5060 5-Hole Corner Gusset Plate

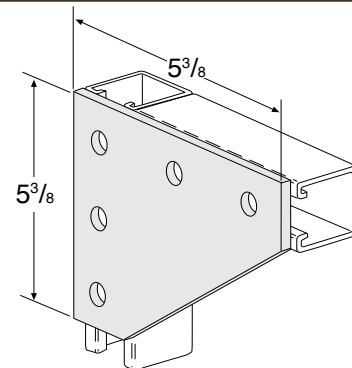


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5060	25	1.45

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5065

3-Hole Tee Gusset Plate

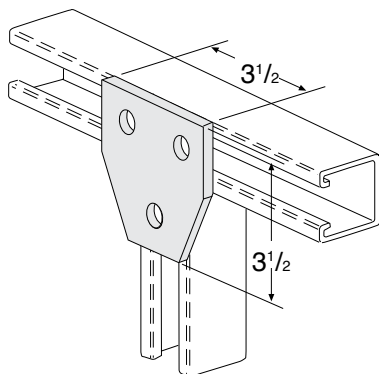


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5065	25	.70

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5075

4-Hole Tee Gusset Plate

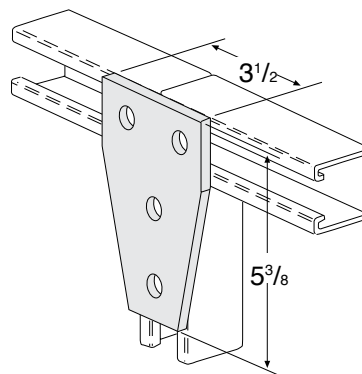


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5075	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5080

5-Hole Tee Gusset Plate

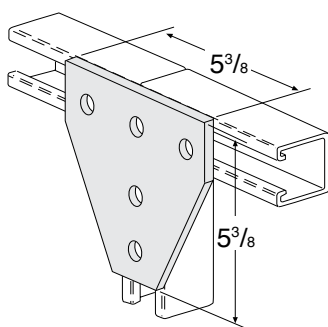


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5080	25	1.43

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5085

6-Hole Tee Gusset Plate

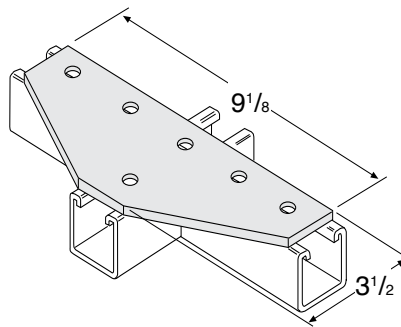


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5085	10	1.49

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5090 6-Hole Cross Gusset Plate

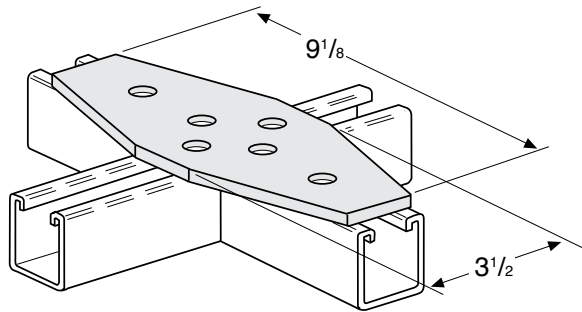


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5090	10	1.66

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5095 7-Hole Cross Gusset Plate

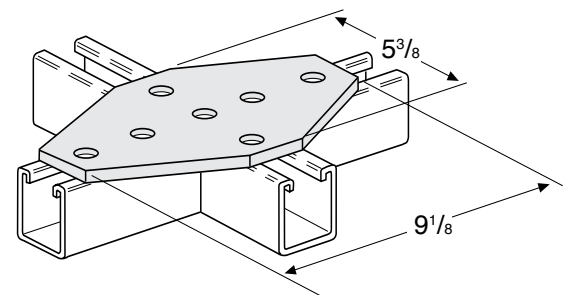


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5095	10	2.32

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers



90° FITTINGS

5101-5107 1-Hole Angle

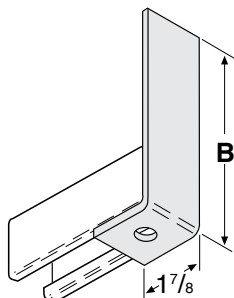


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5101	3 ⁷ / ₈	50	.48
5103	5 ⁷ / ₈	25	.83
5105	7 ⁷ / ₈	25	1.05
5107	9 ⁷ / ₈	25	1.30

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

5110 2-Hole Corner Angle

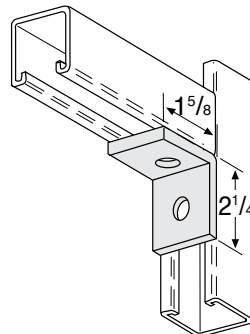


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5110	50	.36

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

5112 2-Hole Corner Angle

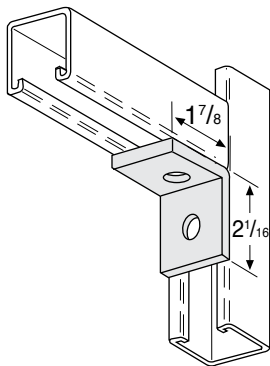


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5112	50	.37

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

5115-5118 2-Hole Corner Angle

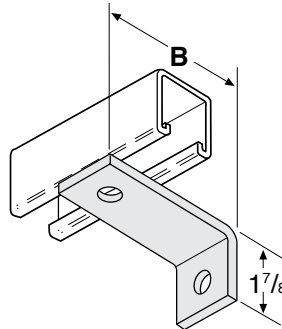


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5115	3	50	.49
5116	3 ¹ / ₂	50	.54
5118	4	50	.61

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

90° FITTINGS



5119

"No-Turn" 2-Hole Corner Angle

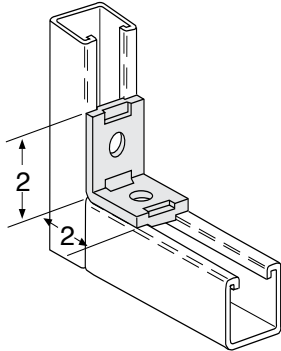


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5119	50	.40

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5120

3-Hole Corner Angle

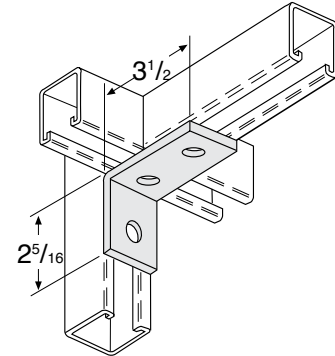


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5120	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5121

3-Hole Corner Angle

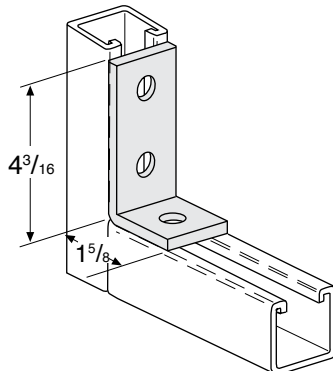


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5121	25	.50

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5122

3-Hole Corner Angle

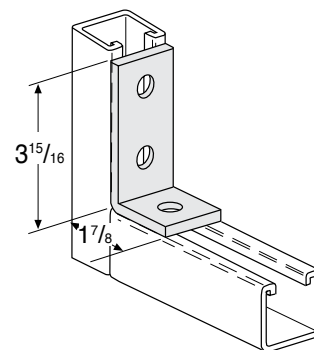


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5122	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5123

3-Hole Corner Angle

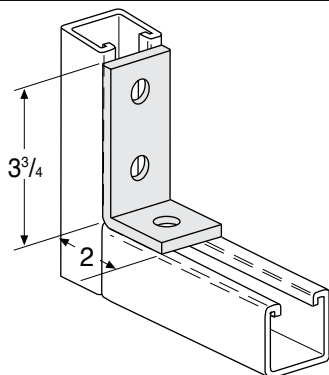


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5123	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5130

4-Hole Corner Angle

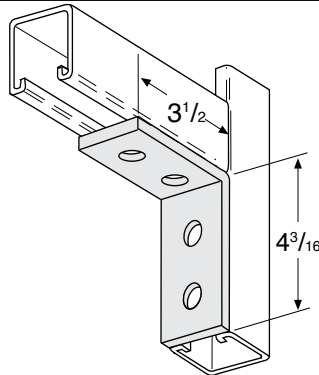


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5130	25	.78

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5131

4-Hole Corner Angle

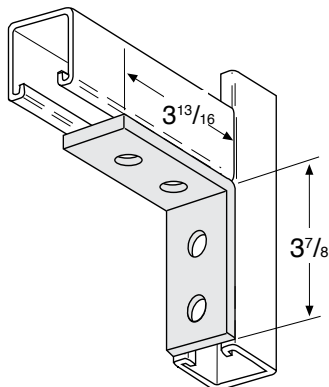


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5131	25	.76

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5135

4-Hole Corner Angle

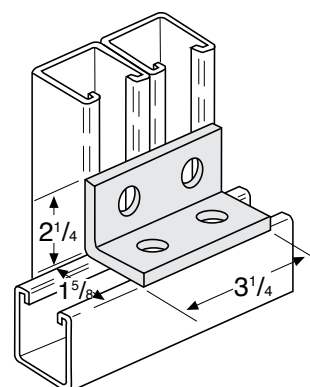


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5135	25	.73

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{5}{8}$ on centers

90° FITTINGS



5140 & 5145 3-Hole Offset Bent Angle

Fig. 5140 Right
Fig. 5145 Left

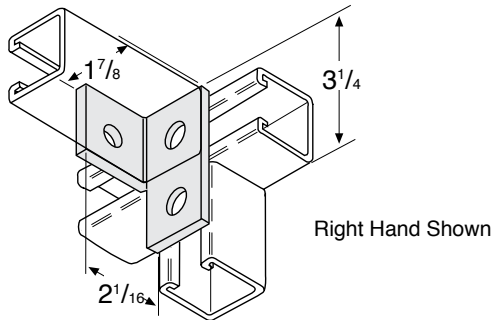


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5140	25	.53
5145	25	.53

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{5}{8}$ on centers

5141 & 5146 3-Hole Offset Bent Angle

Fig. 5141 Right
Fig. 5146 Left

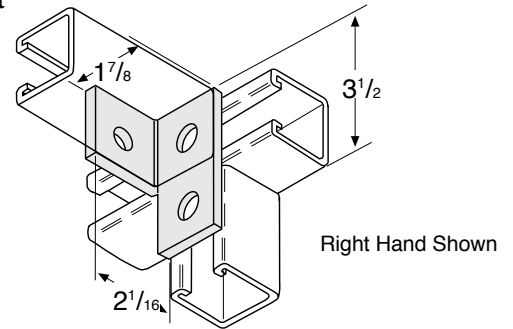


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5141	25	.53
5146	25	.53

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5148 3-Hole Offset Bent Tee

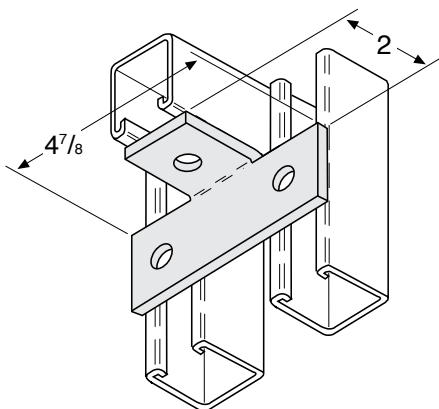


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5148	25	.71

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5150 4-Hole Offset Bent Tee

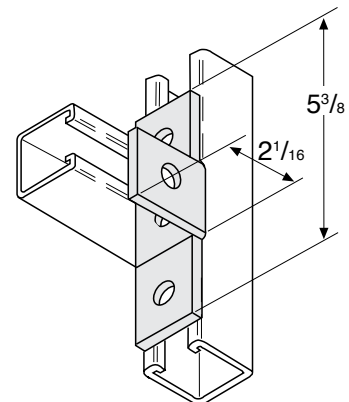


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5150	25	.77

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5155 & 5156 4-Hole Offset Bent Tee

Fig. 5155 Right
Fig. 5156 Left

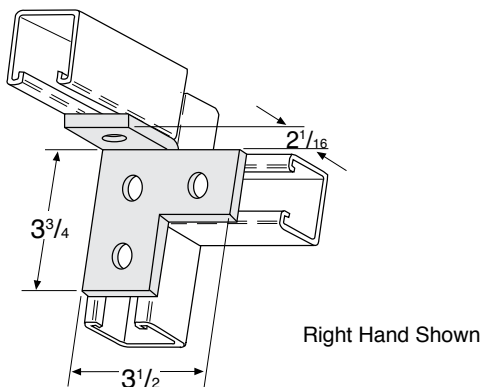


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5155	25	.76
5156	25	.76

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5160 5-Hole Offset Bent Tee

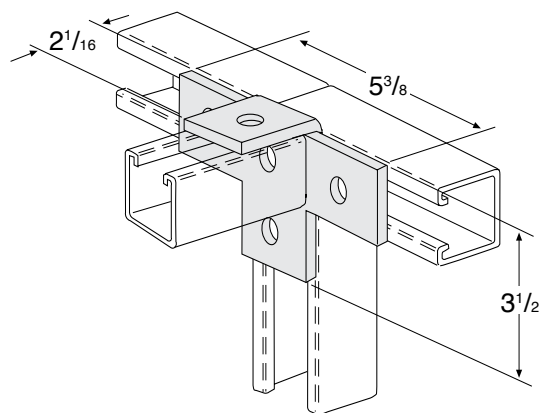


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5160	25	1.00

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5165 Universal Shelf Bracket

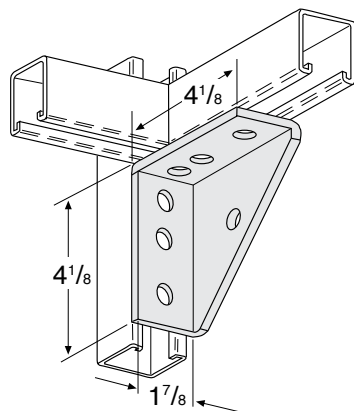


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5165	15	1.51

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5166 Universal Welded Shelf Bracket

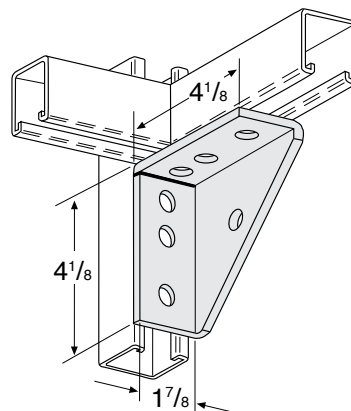


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5166	15	1.53

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

90° FITTINGS



5170 & 5175 4-Hole Corner Gusset

Fig. 5170 Right
Fig. 5175 Left

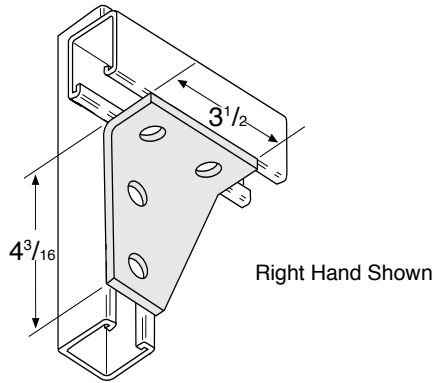


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5170	25	1.00
5175	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5171 & 5176 4-Hole Corner Gusset

Fig. 5171 Right
Fig. 5176 Left

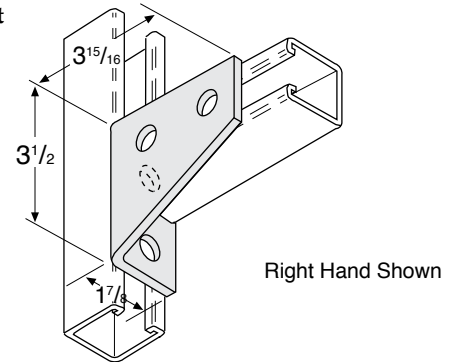


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5171	25	1.00
5176	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5180 3-Hole Gussetted Shelf Angle

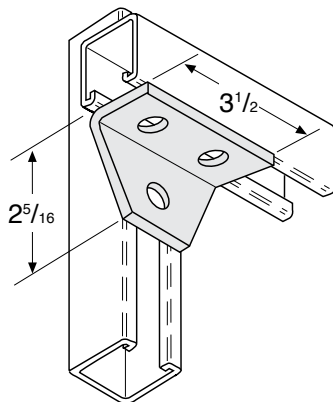


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5180	25	.72

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5185 4-Hole Gussetted Shelf Angle

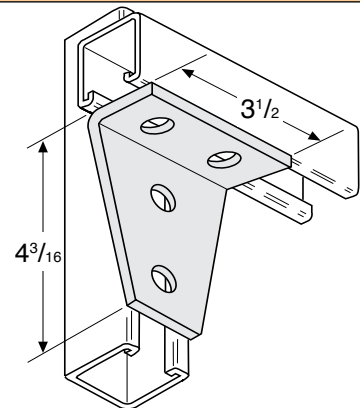


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5185	25	1.02

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers



90° FITTINGS

5186

4-Hole Gussetted Shelf Angle

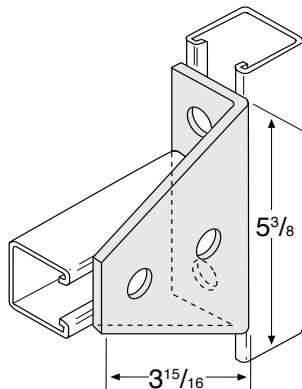


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5186	25	1.48

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5190

5-Hole Gussetted Shelf Angle

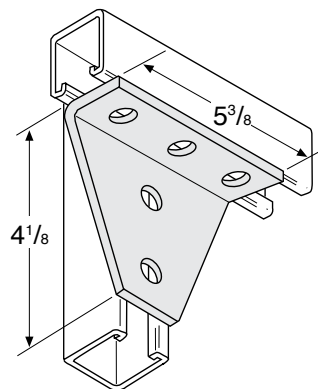


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5190	10	1.98

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5200

4-Hole Joint Angle Connector

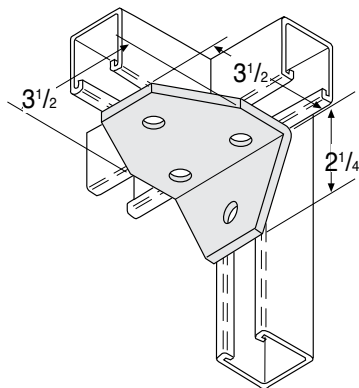


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5200	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5205

5-Hole Joint Angle Connector

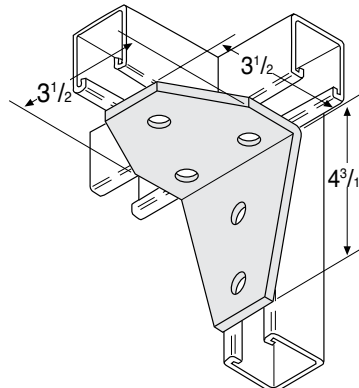


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5205	20	1.33

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

90° FITTINGS



5210 & 5211 6-Hole Gussetted Corner Connector

Fig. 5210 Right
Fig. 5211 Left

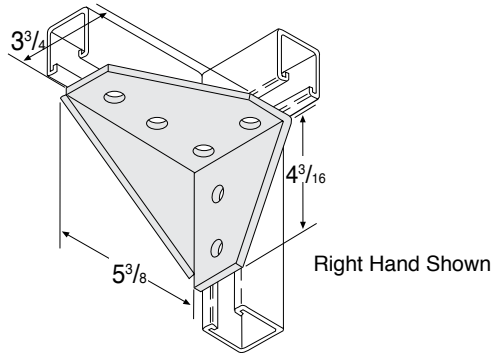


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5210	15	2.29
5211	15	2.29

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5220 2-Hole Adjustable Corner Angle

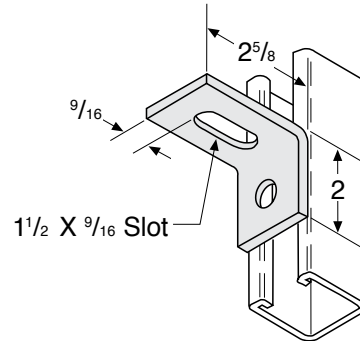


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5220	25	.42

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5221 2-Hole Adjustable Corner Angle

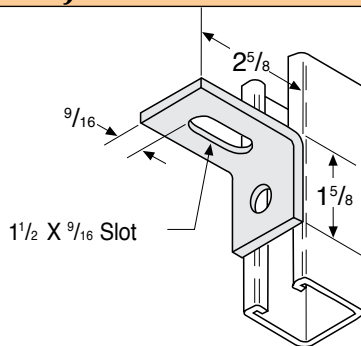


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5221	25	.36

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5225 2-Hole Adjustable Corner Angle

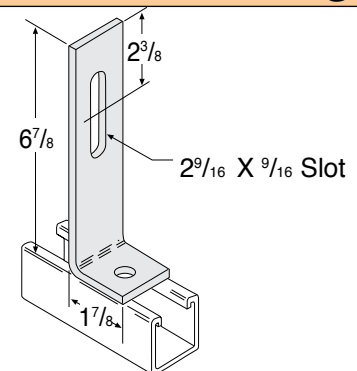


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5225	25	.85

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5226

2-Hole Adjustable Corner Angle

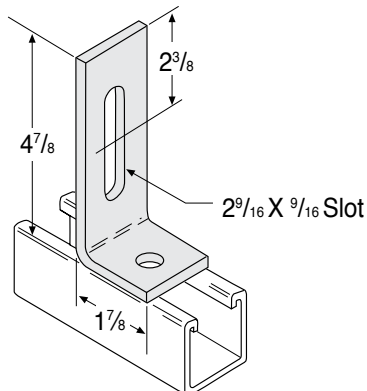


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5226	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$ X $1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5228

2-Hole Adjustable Corner Angle

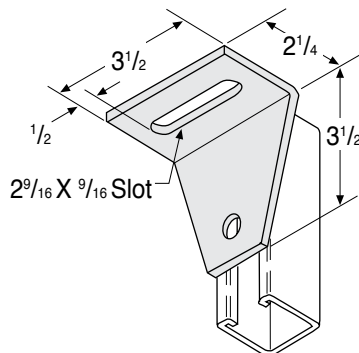


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5228	25	.97

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5230

3-Hole Adjustable Corner Angle

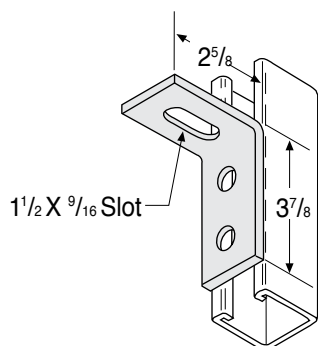


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5230	25	.59

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$ X $1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5250

4-Hole Adjustable Corner Angle

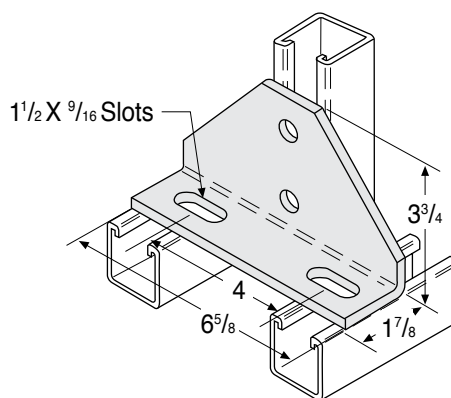


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5250	10	1.90

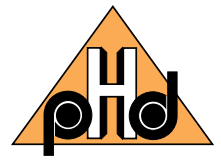
MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

90° FITTINGS



5255

4-Hole Adjustable Corner Angle

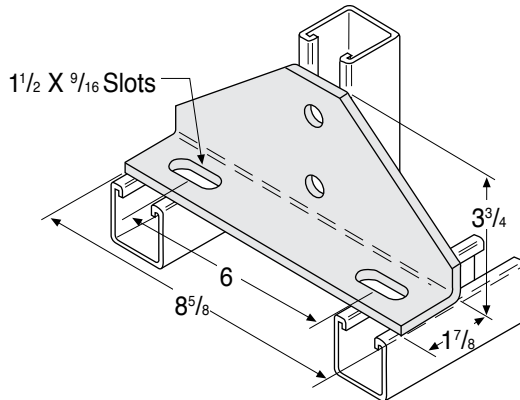


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5255	10	2.56

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5260

2-Hole Tapped Corner Angle

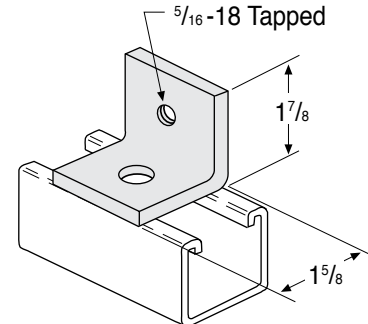


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5260	50	.33

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5270

2-Hole Bus Duct Angle

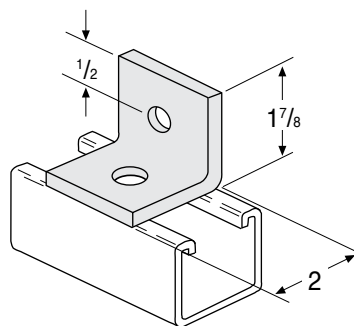


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5270	50	.37

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

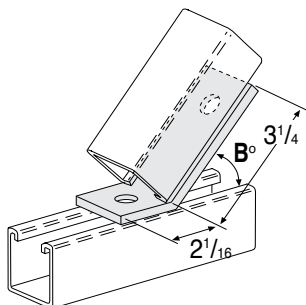
ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.



ANGLE FITTINGS

5301-5315



2-Hole Open Angle Connector

Fig. Number	Angle B°	Std. Package	Wt. Each (in Lbs.)
5301	7 1/2	25	.58
5302	15	25	.58
5303	22 1/2	25	.58
5304	30	25	.58
5306	37 1/2	25	.58
5307	52 1/2	25	.58
5308	60	25	.58
5309	67 1/2	25	.58
5310	75	25	.58
5311	82 1/2	25	.58
5315	45	25	.58

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

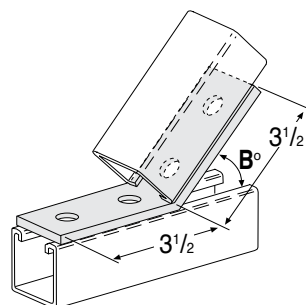
MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and angle "B".

HOLE DIM: 9/16 dia. • 13/16 from end

5340-5350



4-Hole Open Angle Connector

Fig. Number	Angle B°	Std. Package	Wt. Each (in Lbs.)
5340	7 1/2	25	.78
5341	15	25	.78
5342	22 1/2	25	.78
5343	30	25	.78
5344	37 1/2	25	.78
5345	45	25	.78
5346	52 1/2	25	.78
5347	60	25	.78
5348	67 1/2	25	.78
5349	75	25	.78
5350	82 1/2	25	.78

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and angle "B".

HOLE DIM: 9/16 dia. • 13/16 from end • 1 7/8 on centers

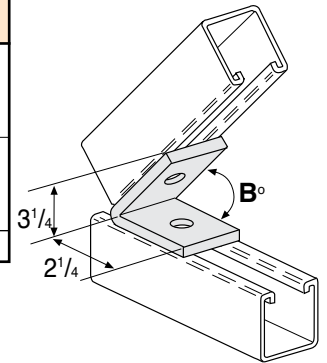
ANGLE FITTINGS



2-Hole Closed Angle Connector

5360-5366

Fig. Number	Angle B°	Std. Package	Wt. Each (in Lbs.)
5360	37½	25	.58
5361	45	25	.58
5362	52½	25	.58
5363	60	25	.58
5364	67½	25	.58
5365	75	25	.58
5366	82½	25	.58



Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

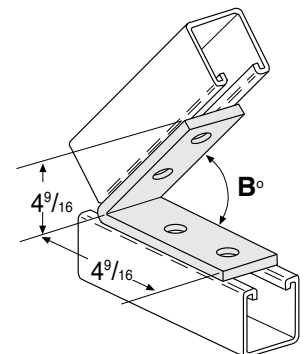
ORDERING: Specify figure number and angle "B".

HOLE DIM: 9/16 dia. • 13/16 from end

4-Hole Closed Angle Connector

5370-5376

Fig. Number	Angle B°	Std. Package	Wt. Each (in Lbs.)
5370	37½	25	.95
5371	45	25	.95
5372	52½	25	.95
5373	60	25	.95
5374	67½	25	.95
5375	75	25	.95
5376	82½	25	.95



Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and angle "B".

HOLE DIM: 9/16 dia. • 13/16 from end



BRACES

5410-5412

2-Hole 45° Knee Brace

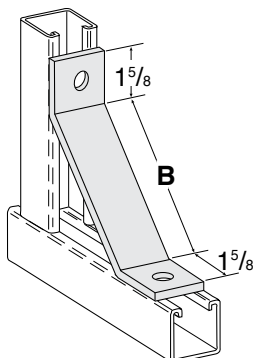


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5410	12	15	1.60
5411	16	Bulk	2.18
5412	18	Bulk	2.80

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5420-5427

2-Hole 45° Tubing Knee Brace

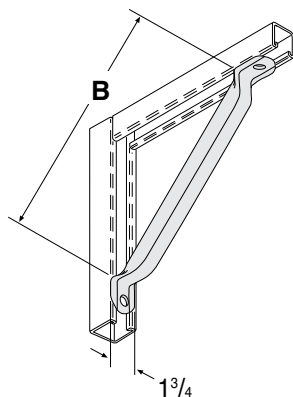


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5420	18	Bulk	1.45
5421	24	Bulk	1.86
5422	30	Bulk	2.25
5423	36	Bulk	2.66
5424	42	Bulk	3.07
5425	48	Bulk	3.48
5426	54	Bulk	3.89
5427	60	Bulk	4.30

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5430-5440

2-Hole Straight Tubing Brace

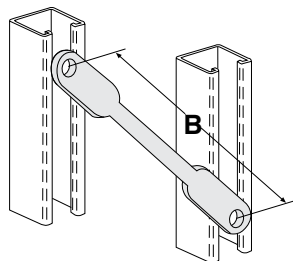


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5430	18	Bulk	1.33
5431	24	Bulk	1.74
5432	30	Bulk	2.15
5433	36	Bulk	2.56
5434	42	Bulk	2.95
5435	48	Bulk	3.35
5436	54	Bulk	3.80
5437	60	Bulk	4.20
5438	72	Bulk	5.00
5439	84	Bulk	5.85
5440	96	Bulk	6.70

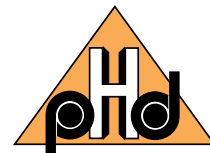
MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

"U" FITTINGS



5501 3-Hole "U" Support

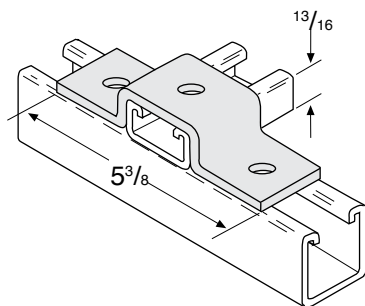


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5501	25	.66

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5503 5-Hole "U" Support

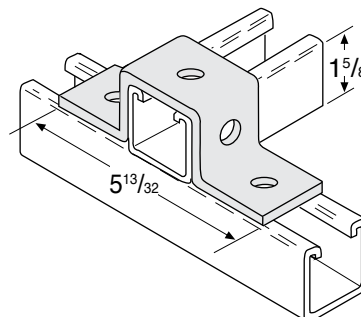


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5503	25	.85

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5505 3-Hole "U" Support

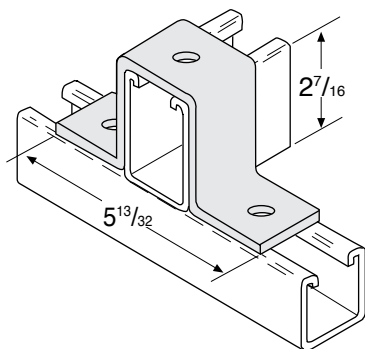


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5505	25	1.08

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5507 3-Hole "U" Support

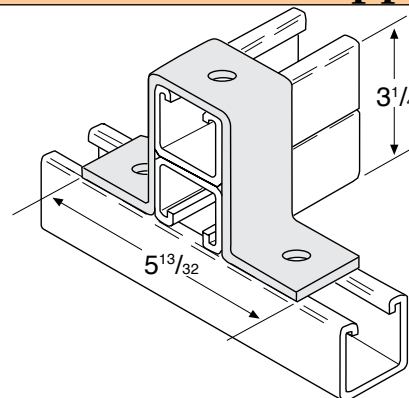


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5507	10	1.25

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5509 3-Hole "U" Support

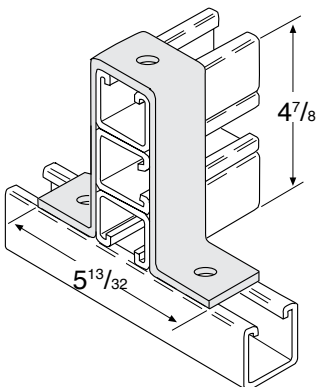


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5509	10	1.57

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5513 3-Hole "U" Support

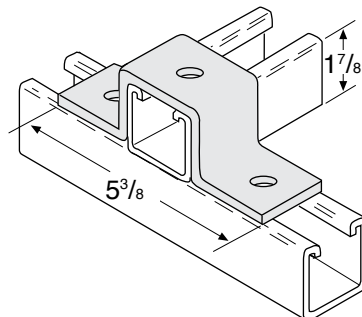


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5513	25	.95

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5517 5-Hole "U" Support

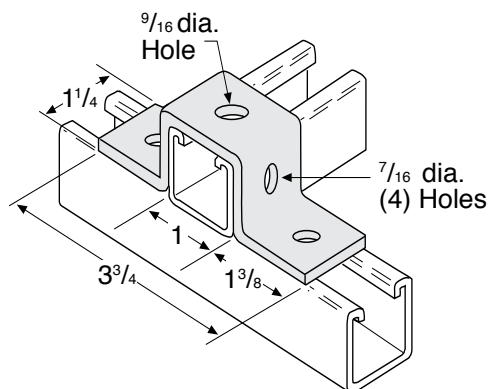


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5517	25	.51

MATERIAL: 7 Ga.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5521 6-Hole "U" Support

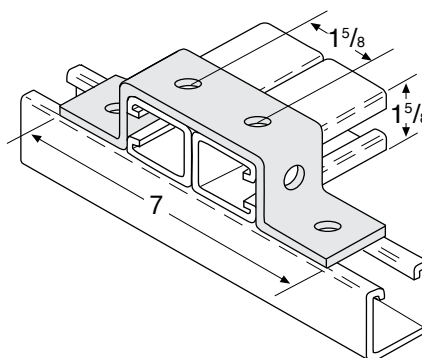


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5521	10	1.04

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

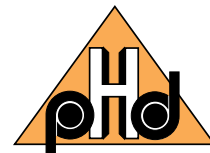
MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

"U" FITTINGS



5530-5532 Slotted 3-Hole "U" Support

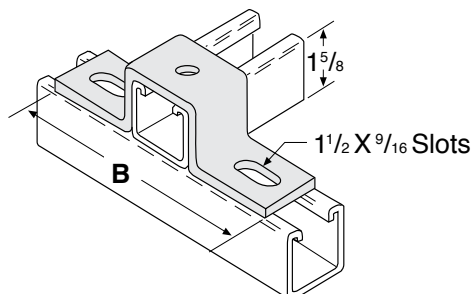


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5530	7 ¹ / ₄	10	.96
5531	8 ¹ / ₂	10	1.11
5532	10 ³ / ₈	10	1.29

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$ X $1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

5541 1 Stud Ring Connector

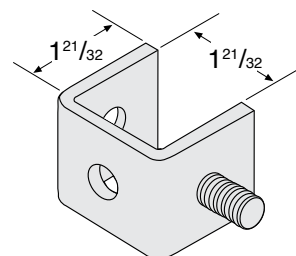


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5541	25	.53

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

5542 2 Stud Ring Connector

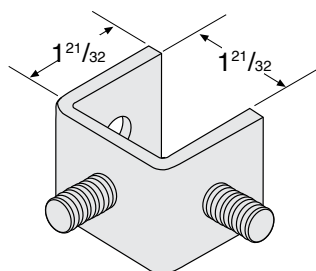


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5542	25	.59

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

5543 2 Stud Ring Connector

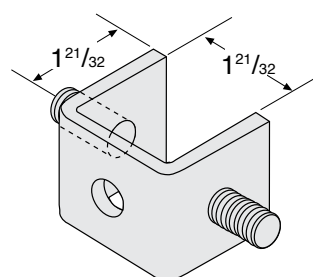


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5543	25	.59

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.



"Z" FITTINGS

5550 2-Hole Offset "Z" Support

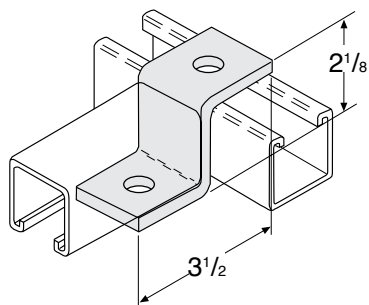


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5550	25	.55

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5551 2-Hole "Z" Support For #1200 Strut

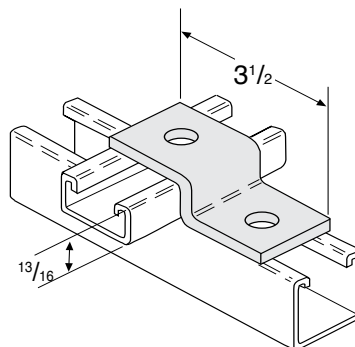


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5551	50	.47

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5552 3-Hole "Z" Support For #1500 Strut

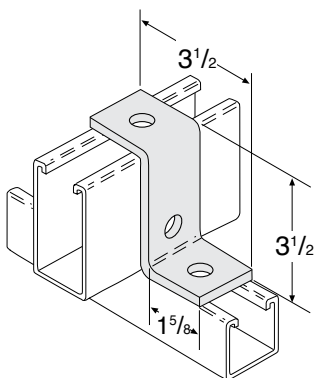


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5552	25	.70

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5553 2-Hole "Z" Support For #1600 Strut

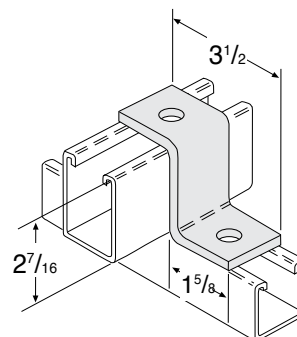


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5553	25	.67

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

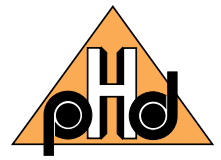
MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

"Z" FITTINGS



5554 3-Hole "Z" Support For #1000 Strut

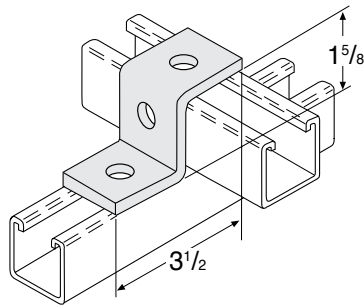


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5554	50	.51

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5556 2-Hole Offset "Z" Support

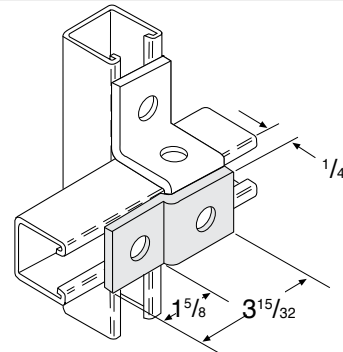


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5556	25	.38

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5558 2-Hole "Z" Support

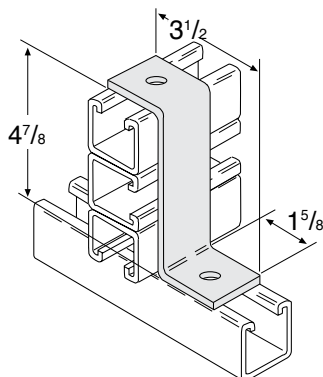


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5558	25	.90

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5560-5562 2 Hole "Z" Bus Duct Connection

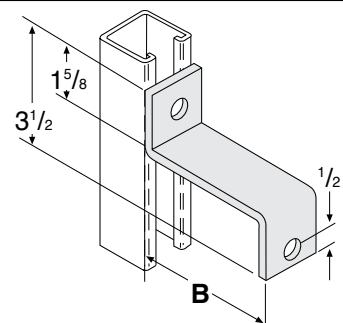


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5560	$4\frac{3}{4}$	25	.89
5561	$3\frac{25}{32}$	25	.78
5562	$2\frac{13}{32}$	25	.62

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5565 Tapped "Z" Support

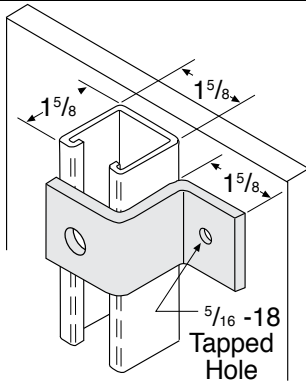


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5565	25	.51

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5570-5574 2-Hole "Z" Support

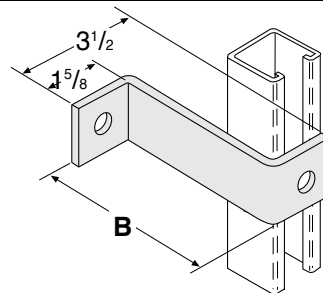


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5570	4	25	.77
5571	5	25	.95
5572	6	25	.98
5573	7	25	1.05
5574	8	25	1.20

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5575 3-Hole Sheath Corner Connection

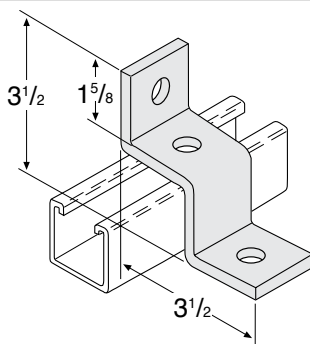


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5575	25	.68

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5580 Channel Hanger For #1000 Strut

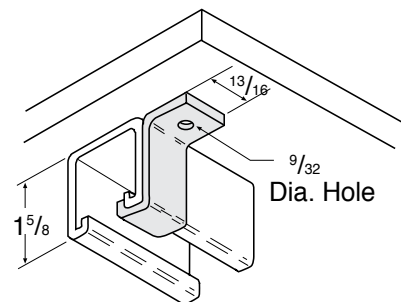


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5580	100	.09

MATERIAL: 11 Ga.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

"Z" FITTINGS



5581 Channel Hanger For #1200 Strut

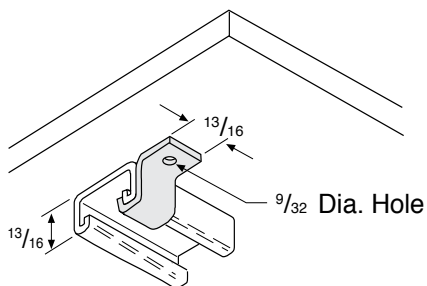


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5581	100	.07

MATERIAL: 11 Ga.
FINISH: Electro-galvanized
ORDERING: Specify figure number.

5582 Channel Hanger For #1500 Strut

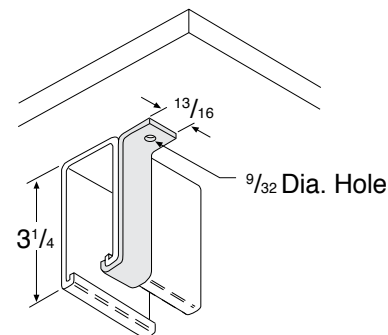


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5582	100	.13

MATERIAL: 11 Ga.
FINISH: Electro-galvanized
ORDERING: Specify figure number.

5583 Channel Hanger For #1600 Strut

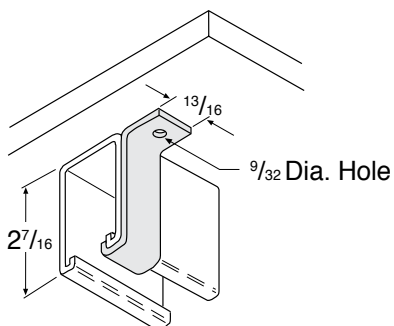


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5583	100	.11

MATERIAL: 11 Ga.
FINISH: Electro-galvanized
ORDERING: Specify figure number.

5590 Adjustable Offset Gusseted "Z" Support

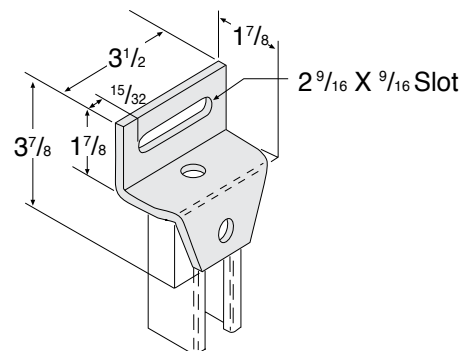


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5590	10	1.02

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4
FINISH: Electro-galvanized
ORDERING: Specify figure number.
HOLE DIM: 9/16 dia. • 13/16 from end

5600 & 5601 3-Hole Corner Connector

Fig. 5600 Right
Fig. 5601 Left

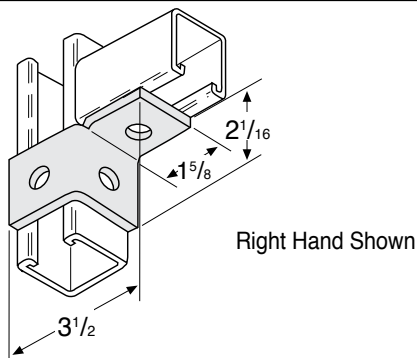


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5600	25	.60
5601	25	.60

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5605 & 5606 4-Hole Corner Connector

Fig. 5605 Right
Fig. 5606 Left

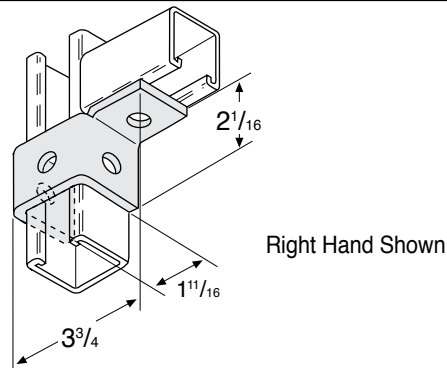


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5605	25	.70
5606	25	.70

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5610 & 5611 5-Hole Corner Connector

Fig. 5610 Right
Fig. 5611 Left

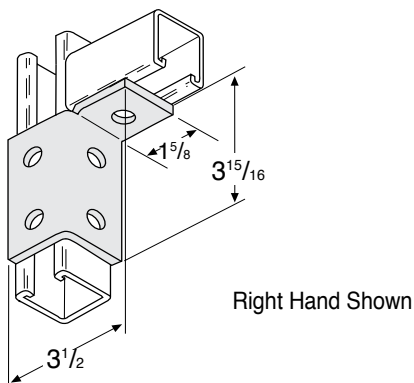


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5610	25	1.00
5611	25	1.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{1}{8}$ on centers

5615 & 5616 6-Hole Corner Connector

Fig. 5615 Right
Fig. 5616 Left

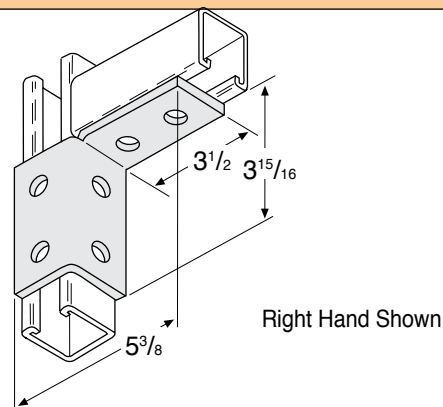


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5615	25	1.20
5616	25	1.20

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{1}{8}$ on centers

5620 4-Hole Double Corner Connector

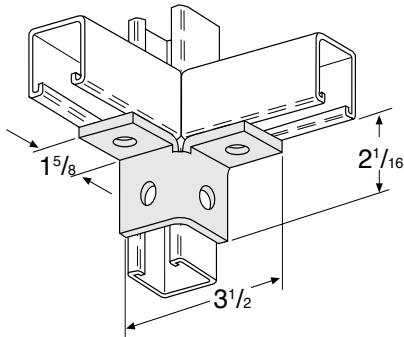


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5620	25	.76

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5625 6-Hole Double Corner Connector

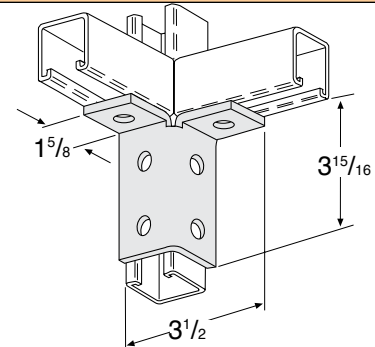


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5625	25	1.15

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5630 8-Hole Double Corner Connector

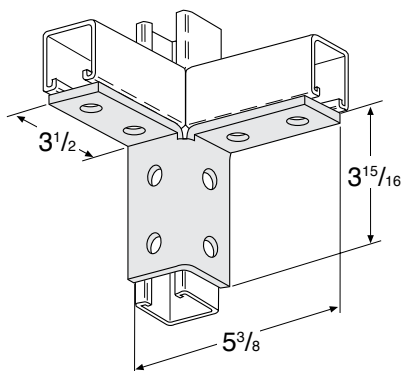


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5630	10	1.55

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $\frac{17}{8}$ on centers

5635 5-Hole Double Wing Connector

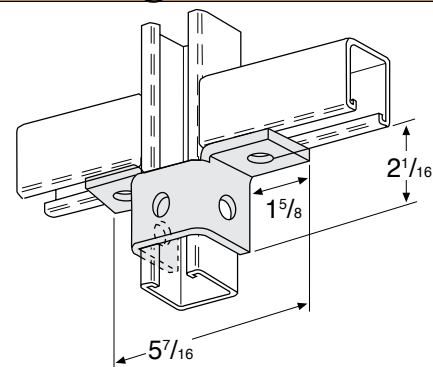


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5635	15	.93

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5640 8-Hole Double Wing Connector

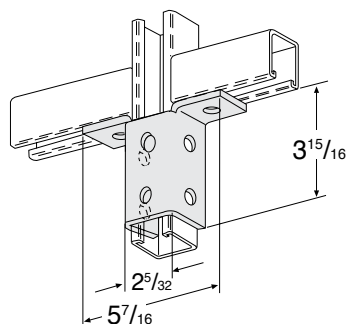


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5640	10	1.77

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5645 10-Hole Double Wing Connector

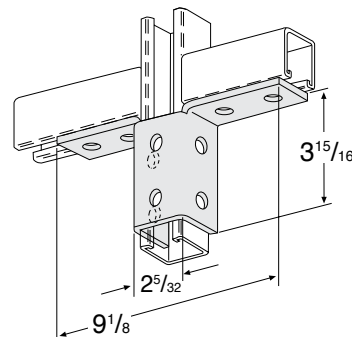


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5645	10	2.02

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5650 6-Hole Triple Wing Connector

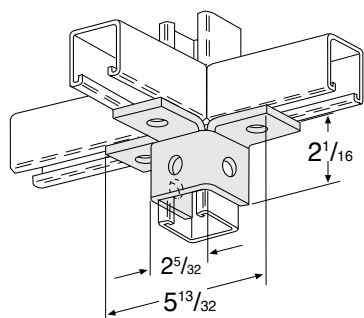


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5650	10	1.07

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5655 12-Hole Triple Wing Connector

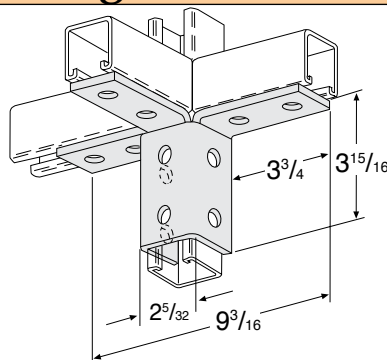


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5655	10	2.39

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5660 9-Hole Triple Wing Connector

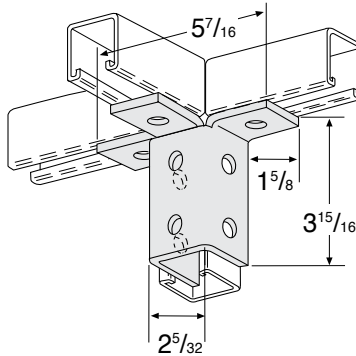


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5660	10	1.93

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5665 8-Hole Gussetted Double Corner Connector

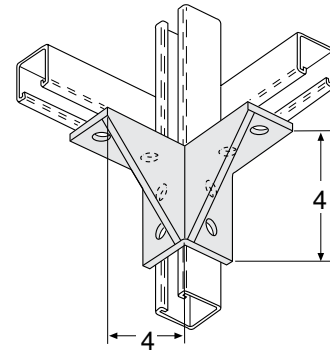


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5665	5	2.17

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5675 10-Hole Gussetted Double Corner Connector

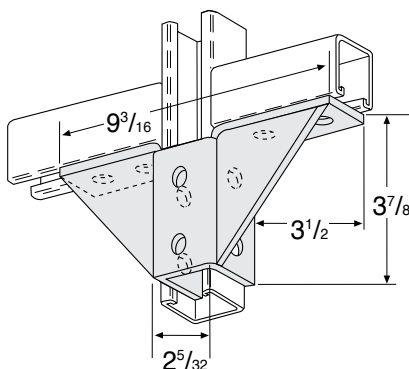


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5675	5	2.85

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5685 8-Hole Gussetted Double Corner Connector

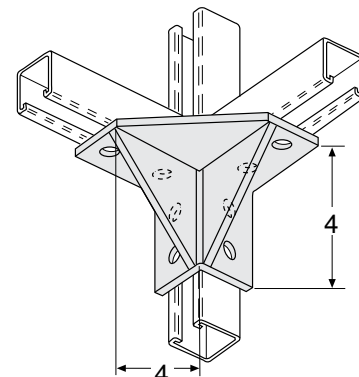


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5685	5	4.70

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers



CLEVIS FITTINGS

5700-5704 1-Hole U Washer

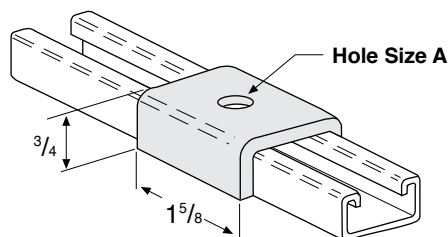


Fig. Number	Size	Hole Size A	Std. Package	Wt. Each (in Lbs.)
5700	1/4	5/16	100	.18
5701	3/8	7/16	100	.18
5702	1/2	9/16	100	.18
5703	5/8	11/16	100	.18
5704	3/4	13/16	100	.17

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 10 gauge

FINISH: Electro-galvanized

ORDERING: Specify figure number.

5705 2-Hole Splice Clevis For #1200 Strut

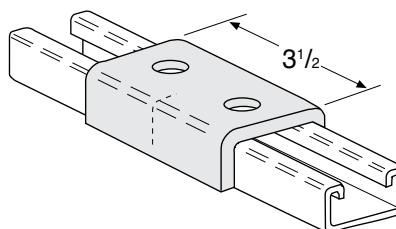


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5705	20	.78

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end • 1 7/8 on centers

5710 3-Hole Splice Clevis For #1200 Strut

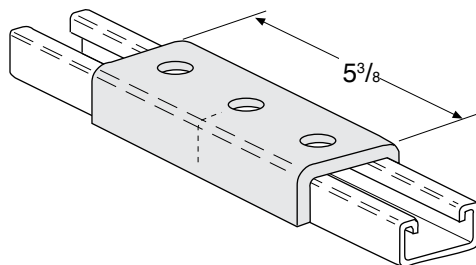


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5710	20	1.25

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end • 1 7/8 on centers

5715 4-Hole Splice Clevis For #1200 Strut

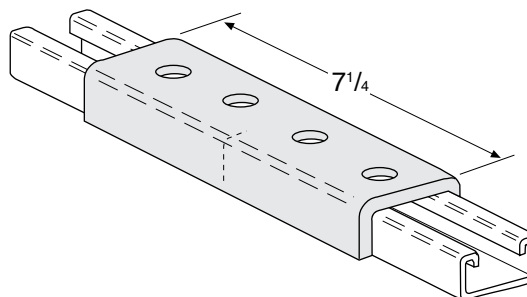


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5715	20	1.75

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end • 1 7/8 on centers

5720 2-Hole Splice Clevis For #1000 Strut

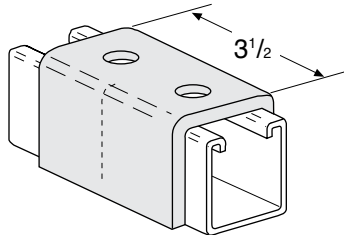


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5720	20	1.19

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5730 4-Hole Splice Clevis For #1000 Strut

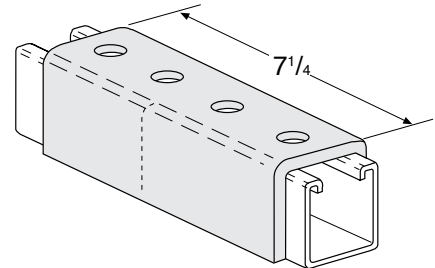


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5730	10	2.68

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end • $1\frac{7}{8}$ on centers

5750-5752 2-Hole Clevis

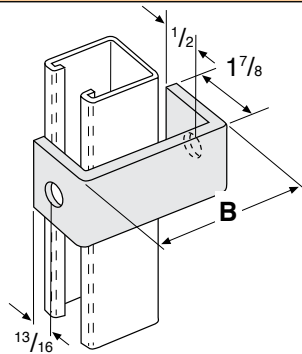


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5750	$2\frac{13}{32}$	25	.57
5751	$3\frac{25}{32}$	25	.73
5752	$4\frac{3}{4}$	25	.84

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5760-5764 2-Hole Clevis

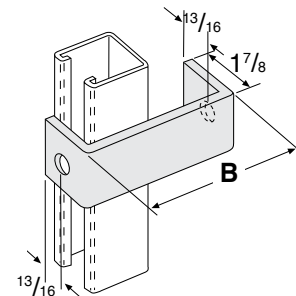


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5760	4	25	.78
5761	5	25	.89
5762	6	25	1.07
5763	7	25	1.12
5764	8	25	1.24

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end



CLEVIS FITTINGS

5770 3-Hole Clevis

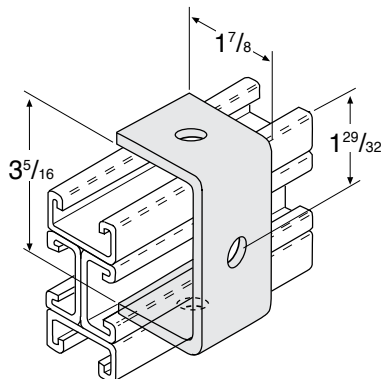


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5770	25	.75

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5775 3-Hole Suspension Clevis

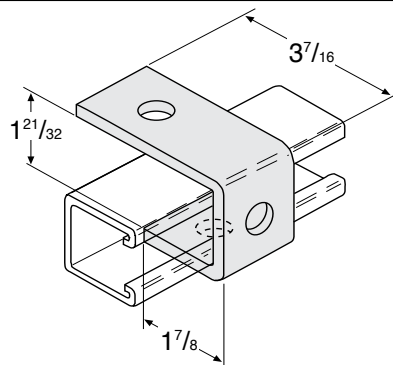


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5775	25	.75

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

5780 4-Hole Suspension Clevis

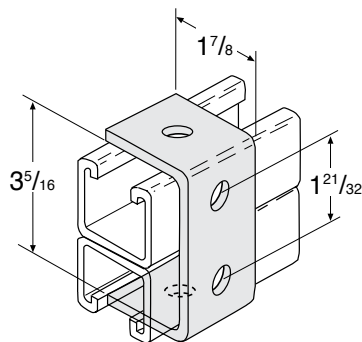


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5780	20	.71

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

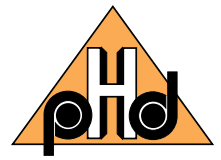
MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia. • $\frac{13}{16}$ from end

MISCELLANEOUS FITTINGS



5801 & 5802 Single Pipe Axle Support for 1 1/4" Pipe

Fig. 5801 Right
Fig. 5802 Left

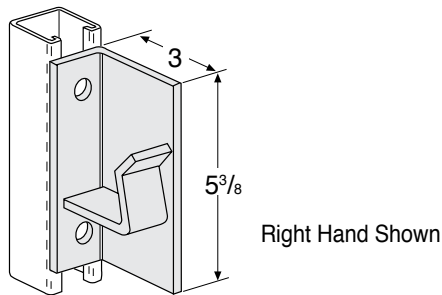


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5801	10	2.25
5802	10	2.25

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

5803 & 5804 Single Pipe Axle Support for 2" Pipe

Fig. 5803 Right
Fig. 5804 Left

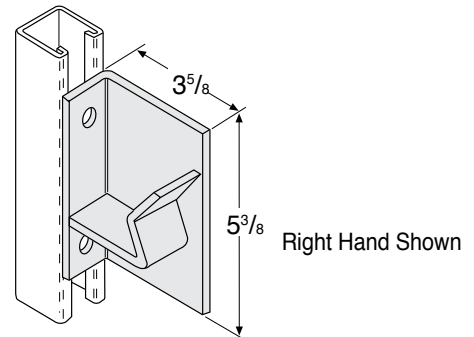


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5803	10	2.46
5804	10	2.46

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

5821 Pipe Support Bracket

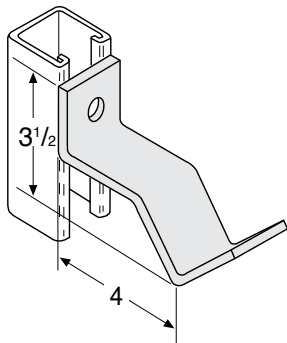


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5821	20	.88

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

5825-5827 Series Ladder Rungs

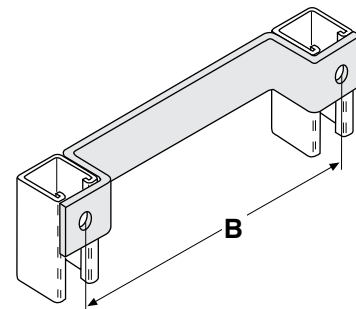


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
5825	12	10	1.76
5826	15	10	2.02
5827	18	bulk	2.34

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

5830-5834 Wall Ladder Brackets

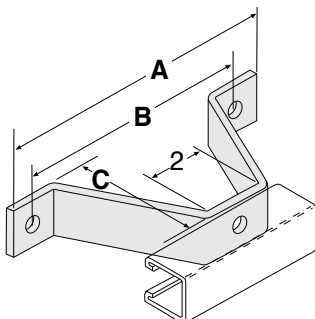


Fig. Number	A	Length B	C	Std. Package	Wt. Each (in Lbs.)
5830	7 ⁵ / ₈	6	2 ³ / ₈	10	1.10
5831	9 ⁵ / ₈	8	4 ³ / ₈	10	1.64
5832	11 ⁵ / ₈	10	6 ³ / ₈	10	2.00
5833	13 ⁵ / ₈	12	8 ³ / ₈	10	2.53
5834	15 ⁵ / ₈	14	10 ³ / ₈	bulk	3.18

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia. • 13/16 from end

5835-5837 Pipe Coupling Fitting

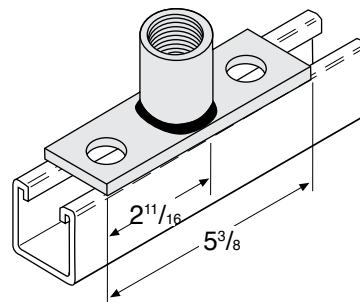


Fig. Number	Pipe Size	Std. Package	Wt. Each (in Lbs.)
5835	1/2	10	.77
5836	3/4	10	.84
5837	1	10	1.05

MATERIAL: 1/4 X 1⁵/₈

FINISH: Electro-galvanized

ORDERING: Specify figure number and pipe size.

HOLE DIM: 9/16 dia. • 13/16 from end

5840 Trolley Beam Support

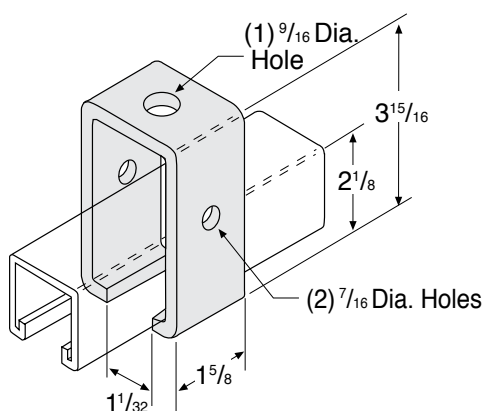


Fig. Number	Std. Package	Wt. Each (in Lbs.)	Design Load (in Lbs.)
5840	25	1.02	1200

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

5845 Trolley Beam Joint Support

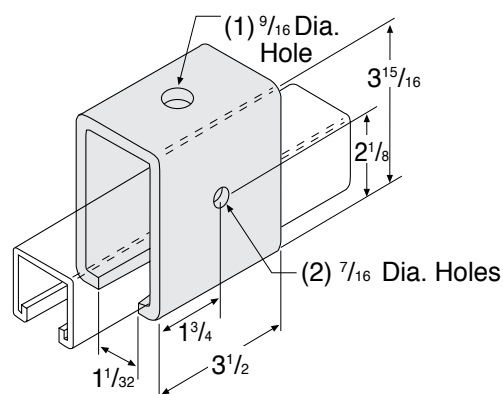


Fig. Number	Std. Package	Wt. Each (in Lbs.)	Design Load (in Lbs.)
5845	15	2.20	2500

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

5860 45° Stair Support

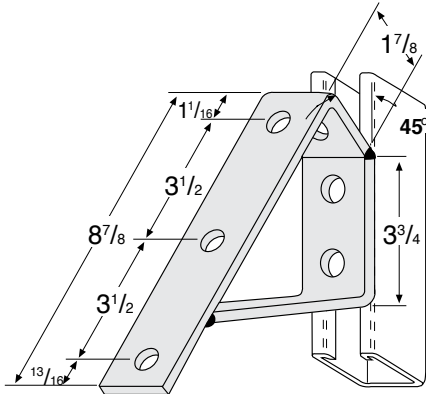


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5860	10	2.20

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

5861 37 1/2° Stair Support

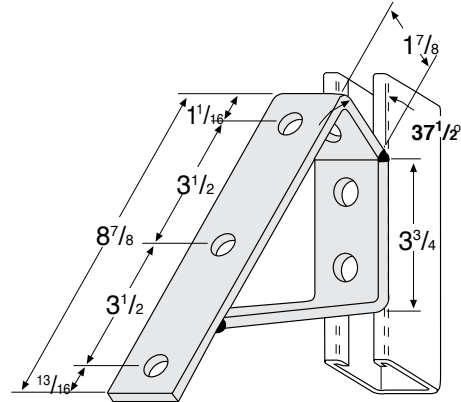


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5861	10	2.06

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4} \times 1\frac{5}{8}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

5870 4-Bearing Trolley Assembly

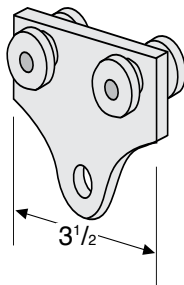


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5870	10	1.10
FPM	RPM	Design Load (in Lbs.)
180	600	300
90	300	450
30	100	600

Design Load based on use with PHD 1000 Series Strut Channel

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

5875 2 Bearing Trolley Assembly

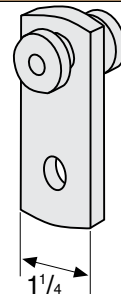


Fig. Number	Std. Package	Wt. Each (in Lbs.)
5875	25	.48
FPM	RPM	Design Load (in Lbs.)
180	600	150
90	300	225
30	100	437

Design Load based on use with PHD 1000 Series Strut Channel

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

6005

Post Base for 1⁵/₈ Strut

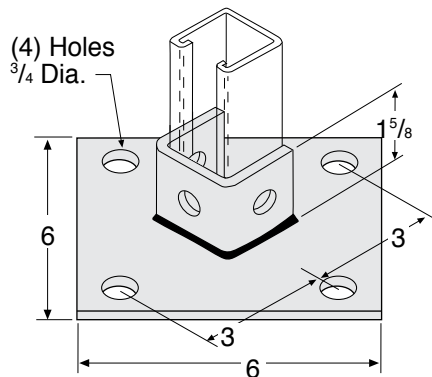


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6005	10	3.14

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia.

6010

Post Base for 1⁵/₈ Strut

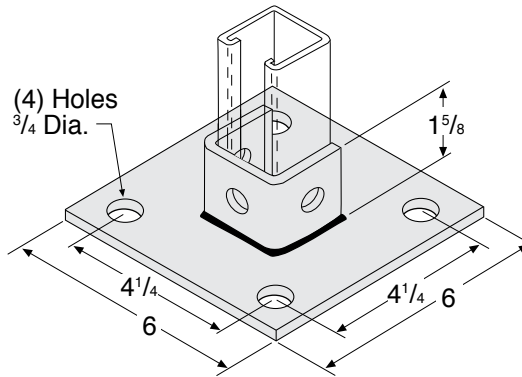


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6010	10	3.14

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia.

6015

Post Base for 1⁵/₈ Strut

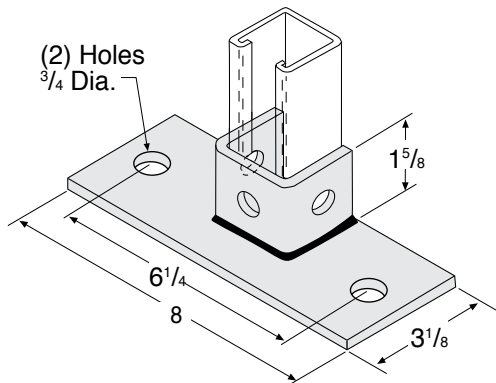


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6015	10	2.30

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia.

6020

Post Base for 1⁵/₈ Strut

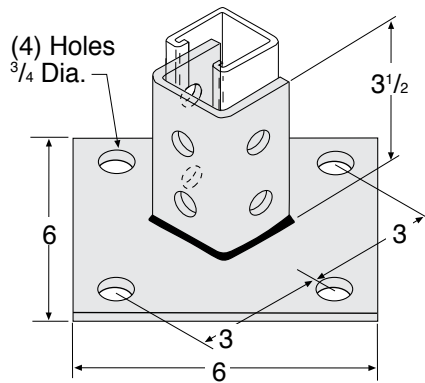


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6020	10	3.92

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia.

POST BASES



6025

Post Base for 1⁵/₈ Strut

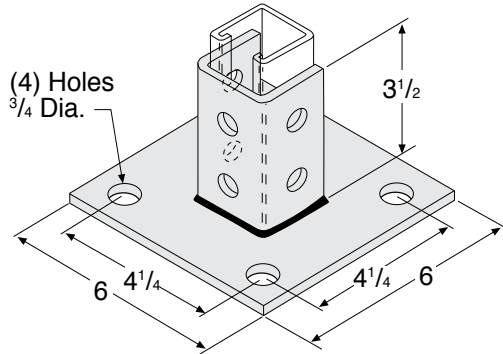


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6025	10	3.92

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end • 17/8 on centers

6030

Post Base for 1⁵/₈ Strut

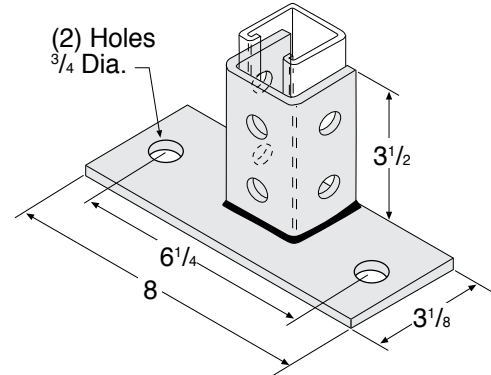


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6030	10	3.12

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end • 17/8 on centers

6035

Post Base for Double 1⁵/₈ Strut

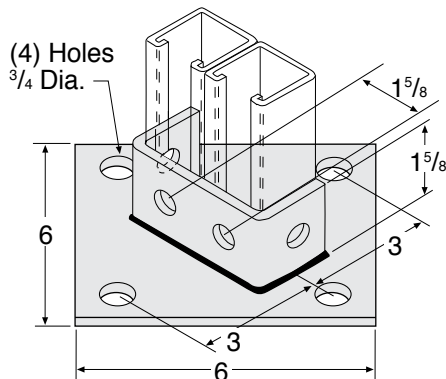


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6035	10	3.30

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6040

Post Base for Double 1⁵/₈ Strut

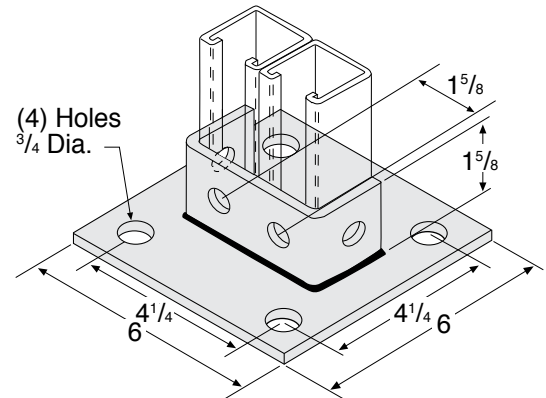


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6040	10	3.30

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6045

Post Base for Double 1⁵/₈ Strut

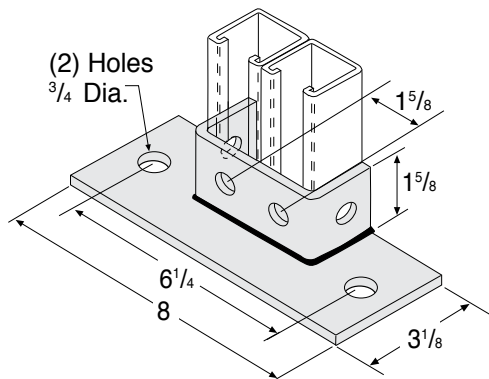


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6045	10	2.50

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6050

Post Base for Double 1⁵/₈ Strut

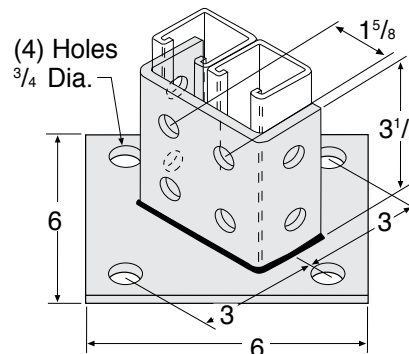


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6050	10	4.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6060

Post Base for Double 1⁵/₈ Strut

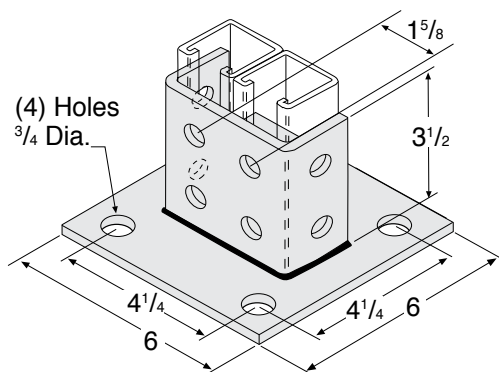


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6060	10	4.00

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6065

Post Base for Double 1⁵/₈ Strut

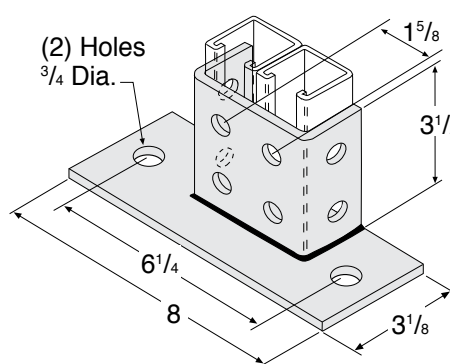


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6065	10	3.20

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

POST BASES



6080

Post Base for 1⁵/₈ Back to Back Strut

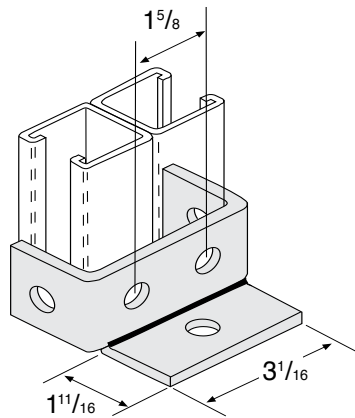


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6080	10	1.30

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia. • 13/16 from end

6095

Post Base for 1⁵/₈ Strut

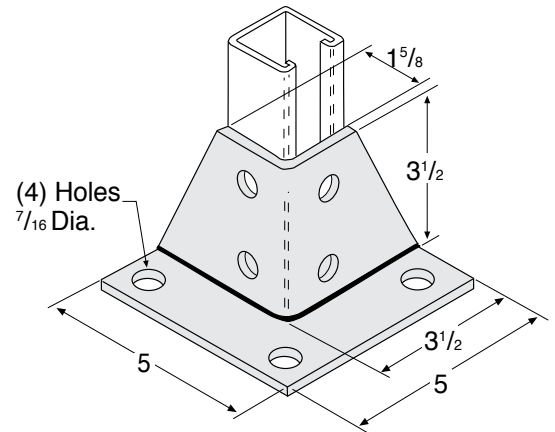


Fig. Number	Std. Package	Wt. Each (in Lbs.)
6095	10	2.97

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: 9/16 dia.

6101-6122 Shelf Bracket

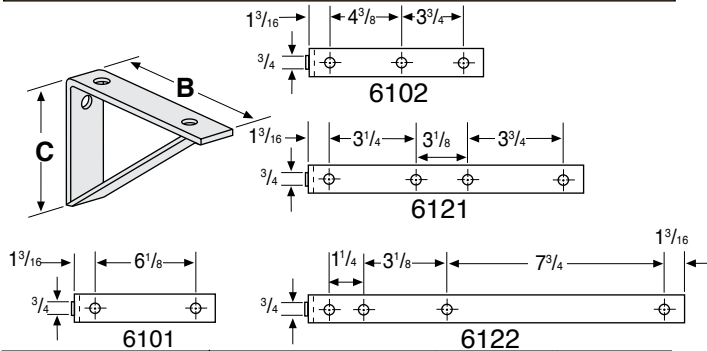


Fig. Number	Length B	C	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6101	8 1/2	4	800	10	1.68
6102	10 1/2	4	800	10	2.02
6121	12 1/2	6	900	Bulk	2.58
6122	14 1/2	6	900	Bulk	2.95

Note: Load based on use with 12 ga. strut.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

6123-6125 Shelf Bracket

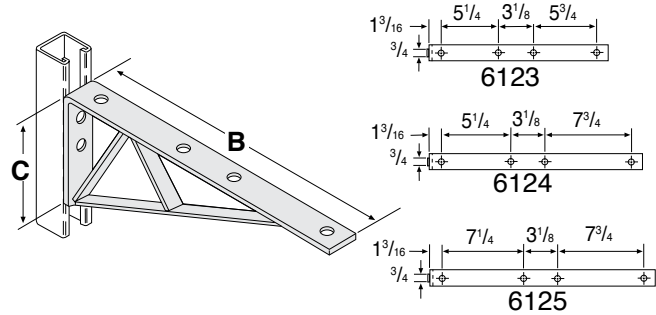


Fig. Number	Length B	C	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6123	16 1/2	6	1200	Bulk	4.05
6124	18 1/2	6	1070	Bulk	4.68
6125	20 1/2	6	600	Bulk	4.90

Note: Load based on use with 12 ga. strut. Bulk packaging.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

6130-6135 Single Channel Bracket

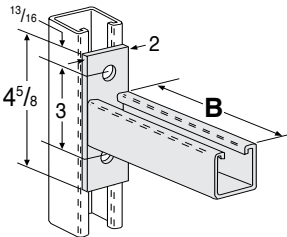


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6130	6	1200	10	1.85
6131	9	900	10	1.95
6132	12	600	10	2.93
6133	14	500	Bulk	3.20
6134	18	400	Bulk	4.01
6135	24	300	Bulk	5.09

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia.

6140-6144 Double Channel Bracket

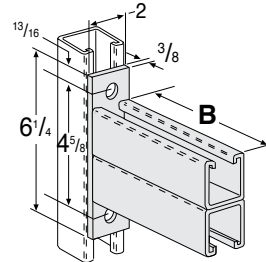


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6140	12	2000	Bulk	5.05
6141	18	1300	Bulk	7.10
6142	24	1000	Bulk	9.15
6143	30	800	Bulk	11.20
6144	36	650	Bulk	13.25

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia.

BRACKETS



6150-6152 Braced Single Bracket

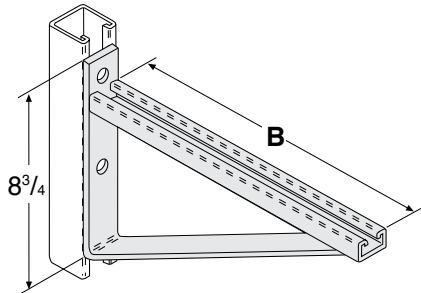


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6150	12	1600	15	3.88
6151	18	850	Bulk	5.06
6152	24	850	Bulk	7.20

PHD 1400 Series 1" profile 12 ga. strut channel used to fabricate this product.

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia.

6202-6208 Interlocking Channel Bracket (Slot Up)

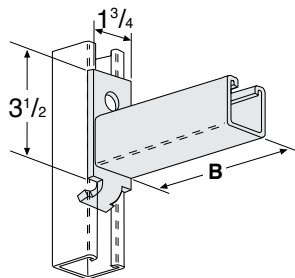


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6202	6	1200	10	1.50
6204	12	600	10	2.50
6206	18	400	Bulk	3.50
6208	24	300	Bulk	4.50

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

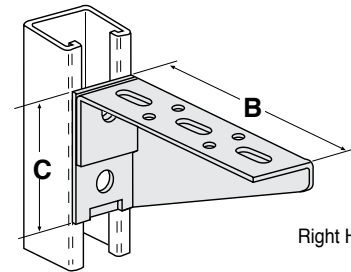
MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: 9/16 dia.

6160-6172 Braced Single Bracket



Right Hand Shown

Fig. Number	Length B	C	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6160	24	6 7/16	225	Bulk	3.70
6161	26	6 15/16	225	Bulk	4.25
6162	28	7 7/16	225	Bulk	4.80
6163	30	7 15/16	225	Bulk	5.20
6164	12	3 7/16	275	10	1.43
6165	14	3 15/16	275	Bulk	1.62
6166	16	4 7/16	275	Bulk	2.04
6167	18	4 15/16	275	Bulk	2.32
6168	20	5 7/16	250	Bulk	2.75
6169	22	5 15/16	250	Bulk	3.17
6170	6	1 15/16	275	10	.58
6171	8	2 7/16	275	10	.82
6172	10	2 15/16	275	10	1.03

Note: Load based on use with 12 ga. strut.

MATERIAL: 12 Ga.

FINISH: Electro-galvanized

ORDERING: Specify figure number, R or L and length "B"

6212-6218 Interlocking Channel Bracket (Slot Down)

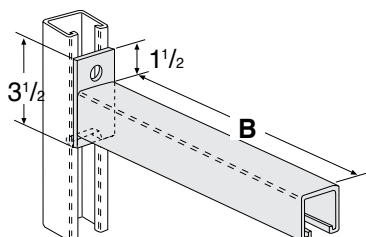


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6212	6	1200	10	1.50
6214	12	600	10	2.50
6216	18	400	Bulk	3.50
6218	24	300	Bulk	4.50

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia.

6222 & 6224 Wrap-Around Channel Bracket (Slot Up)

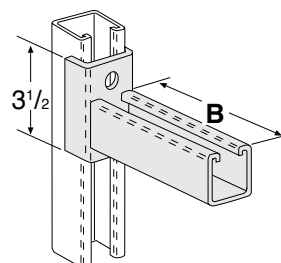


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6222	6	1600	10	1.90
6224	12	800	10	2.75

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia.

6232 & 6234 Wrap-Around Channel Bracket (Slot Down)

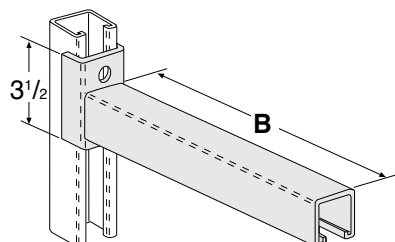


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6232	6	1600	10	1.90
6234	12	800	10	2.75

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia.

6246 & 6248 Wrap-Around Channel Bracket (Slot Up)

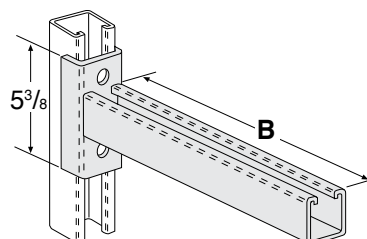


Fig. Number	Length B	Uniform Load (in Lbs.)	Std. Package	Wt. Each (in Lbs.)
6246	18	600	Bulk	4.30
6248	24	450	Bulk	5.10

Note: Load based on use with 12 ga. PHD 1000 series strut channel.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number and length "B".

HOLE DIM: $\frac{9}{16}$ dia.

BRACKETS



6305

Single Channel Bracket Support For 1001 & 1101 Strut

Note: Load is in "in.-lbs." and applies to fitting only, not strength of strut arm. Load rating is based on use with 12 gauge strut. If 14 gauge strut is used, load is reduced to 4400 in.-lbs.

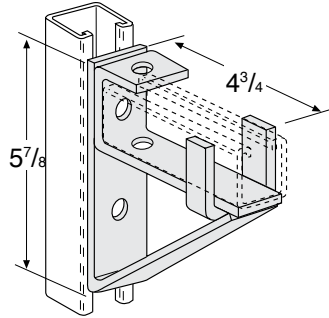


Fig. Number	Uniform Load in. - Lbs.	Std. Package	Wt. Each (in Lbs.)
6305	6300	10	2.10

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

6310

Double Channel Bracket Support For 1001A & 1101A Strut

Note: Load is in "in.-lbs." and applies to fitting only, not strength of strut arm. Load rating is based on use with 12 gauge strut. If 14 gauge strut is used, load is reduced to 9100 in.-lbs.

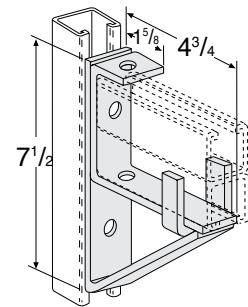


Fig. Number	Uniform Load in. - Lbs.	Std. Package	Wt. Each (in Lbs.)
6310	13000	10	2.66

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: $\frac{1}{4}$

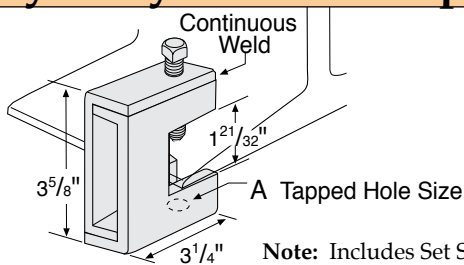
FINISH: Electro-galvanized

ORDERING: Specify figure number.

HOLE DIM: $\frac{9}{16}$ dia.

BEAM CLAMPS

7001 & 7002 Heavy Duty Beam Clamp



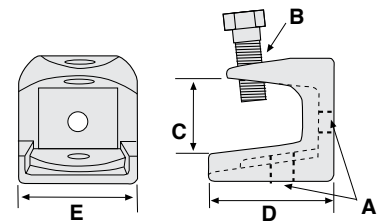
Note: Includes Set Screw.

Fig. Number	A	Material Size	Set Screw	Max. Rec. Load/Lbs.	Std. Package	Wt. Each (in Lbs.)
7001	$\frac{3}{8}$	$\frac{3}{16}$	$\frac{1}{2}$ X 2	1300	10	1.56
7002	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$ X 2	1900	10	2.01

For beams between $\frac{3}{4}$ " & $1\frac{5}{8}$ " thick flanges

Fig. Number	Material Size	A	B	C	D	E	Std. Package	Wt. Each (in Lbs.)
7005	1	$\frac{1}{4}$ - 20	$\frac{5}{16}$	1	$1\frac{1}{4}$	1	100	.25
7006	1	$\frac{3}{8}$ - 16	$\frac{5}{16}$	1	$1\frac{1}{4}$	1	100	.25
7007	2	$\frac{3}{8}$ - 16	$\frac{1}{2}$	$1\frac{3}{8}$	2	2	10	.95

7005-7007 Beam Clamp



MATERIAL:

7001 & 7002 - Low carbon steel

7005-7007 - Malleable iron

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7011 & 7012 "I" Beam Clamp

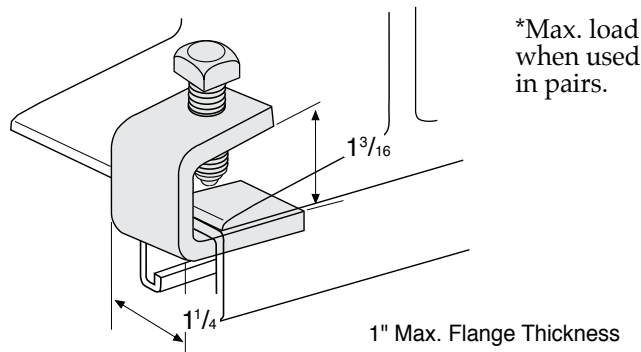


Fig. Number	Material Size	Set Screw	Std. Package	Max. Rec. Load/lbs.	Wt. Each (in Lbs.)
7011	1/4	3/8	50	450*	.26
7012	3/8	1/2	25	900*	.64

Note: Includes Set Screw.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7020 & 7025 "I" Beam Clamp

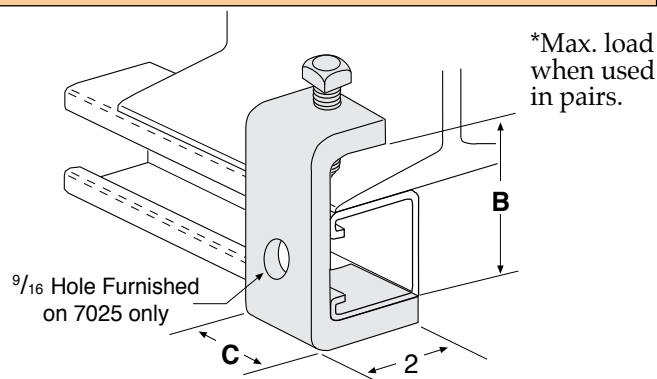


Fig. Number	B	C	Std. Package	Max. Rec. Load/lbs.	Wt. Each (in Lbs.)
7020	2	1 1/8	25	900*	.72
7025	2 1/2	1 1/2	25	500*	.94

Note: Includes Set Screw.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 3/8

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7030 "Z" Beam Clamp

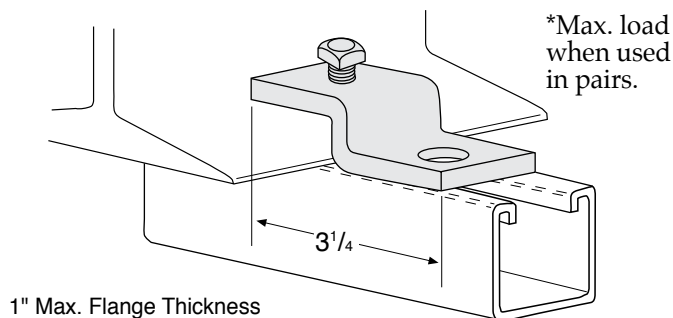


Fig. Number	Set Screw	Std. Package	Max. Rec. Load/lbs.	Wt. Each (in Lbs.)
7030	1/2	25	450*	.63

Note: Includes Set Screw. Order 1/2" -13 X 1 3/4 HHCS and Strut Nut Separately

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 3/8

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7040 Beam Clamp

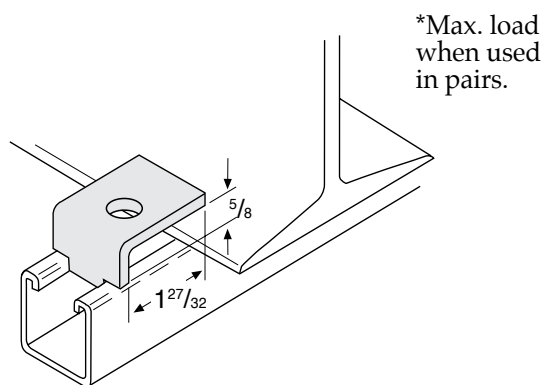


Fig. Number	Std. Package	Max. Rec. Load/lbs.	Wt. Each (in Lbs.)
7040	50	600*	.26

Note: Order 1/2" -13 X 1 3/4 HHCS and Strut Nut Separately

MATERIAL: 1/4 X 1 5/8

FINISH: Electro-galvanized

ORDERING: Specify figure number.

BEAM CLAMPS



7050 & 7051 Square U-Bolt

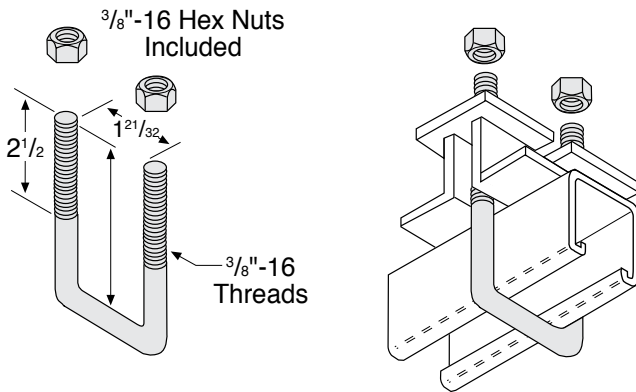


Fig. Number	Length B	Std. Package	Wt. Each (in Lbs.)
7050	3 ³ / ₈	25	.25
7051	5	25	.33

MATERIAL: Low carbon steel

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7060 Beam Clamp For use with 1⁵/₈ Strut

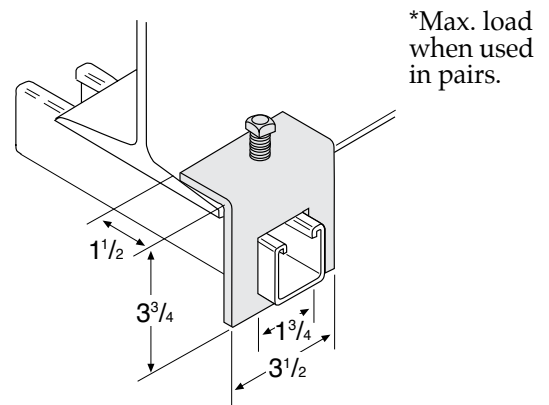


Fig. Number	Set Screw	Std. Package	Max. Rec. Load/lbs.	Wt. Each (in Lbs.)
7060	1/2	25	500*	1.07

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

Fig. Number	Std. Package	Max. Rec. Load/Lbs.	Wt. Each (in Lbs.)
7070	25	1000*	.80
7075	25	1000*	.88
7076	25	1000*	1.12

*Max. load when used in pairs. 3/4" (19.05) Max. Flange Thickness

7070-7076 Beam Clamp

MATERIAL: 1/4

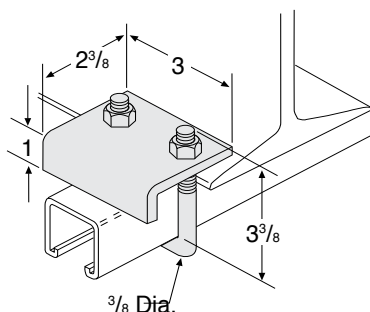
FINISH: Electro-galvanized

ORDERING: Specify figure number.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

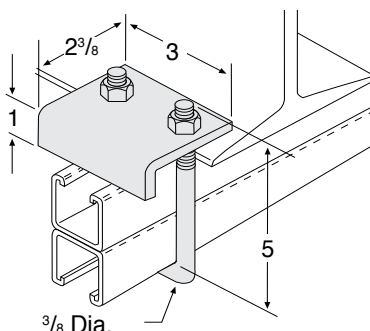
7070

For use with 1-5/8 Strut



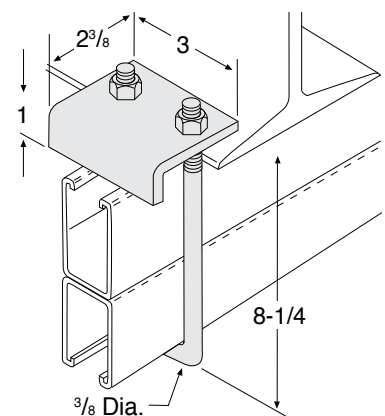
7075

For use with 3-1/4 Strut



7076

For use with 1500A Series Strut





PIPE CLAMPS

7231-7238 One Hole Clamp For O.D. Tubing

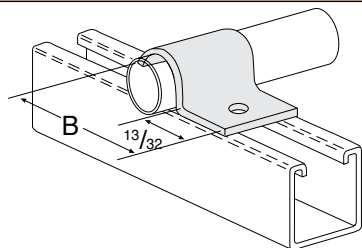


Fig. Number	Tubing O.D.	B	Std. Package	Wt. Each (in Lbs.)
7231	1/4	1 1/16	100	.03
7232	5/16	1 1/8	100	.03
7233	3/8	1 1/8	100	.04
7234	1/2	1 3/16	100	.04
7235	5/8	1 1/4	100	.05
7236	3/4	1 5/16	100	.06
7237	7/8	1 3/8	100	.06
7238	1	1 7/16	100	.07

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

MATERIAL: 14 Ga.

FINISH: Electro-galvanized

ORDERING: Specify figure number and O.D. size.

7370 Pipe Stop

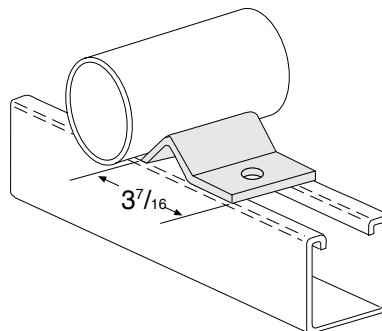


Fig. Number	Std. Package	Wt. Each (in Lbs.)
7370	50	.38

MATERIAL: 1/4

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7251-7263 Standard Pipe Strap

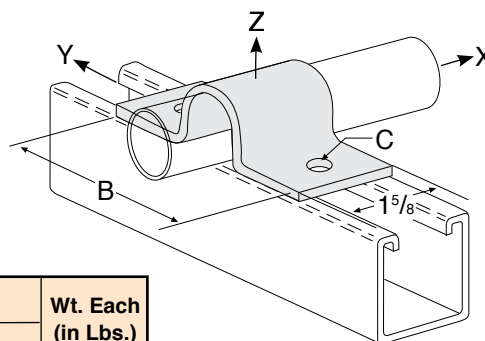


Fig. Number	Pipe Size	B	C	Std. Package	Material Size	Max. Rec. Loads (in Lbs.)			Wt. Each (in Lbs.)
						X	Y	Z	
7251	1/2	2 7/8	5/16	25	1/8	105	150	600	.29
7252	3/4	3 1/16	5/16	25	1/8	105	150	600	.32
7253	1	3 1/2	5/16	25	1/8	120	150	600	.35
7254	1 1/4	3 13/16	5/16	25	1/8	120	150	600	.41
7255	1 1/2	3 15/16	5/16	25	1/8	120	150	600	.45
7256	2	5 1/16	7/16	10	1/4	180	480	1200	1.00
7257	2 1/2	6 3/16	7/16	10	1/4	180	480	1200	1.13
7258	3	6 11/16	7/16	10	1/4	300	480	1200	1.32
7259	3 1/2	7 5/16	7/16	10	1/4	300	480	1200	1.51
7260	4	8	7/16	10	1/4	450	600	1500	1.66
7261	5	9	7/16	10	1/4	450	600	1500	1.91
7262	6	10 1/8	7/16	10	1/4	450	600	1500	2.23
7263	8	12	7/16	5	1/4	600	800	2000	2.97

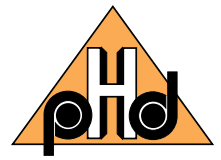
MATERIAL: Low carbon steel

FINISH:
Electro-galvanized

ORDERING: Specify figure number and pipe size.

Available in stainless steel. To order, specify 304 or 316 and add suffix SS to fig. number. Price on request.

PIPE ROLLERS



7400 Separate Rollers

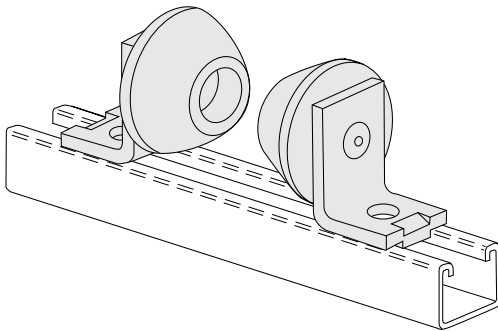


Fig. Number	For Pipe Sizes	Max. Rec. Load (in Lbs)	Std. Package	Wt. Per Set (in Lbs.)
7400	1/2 X 8	500	10 sets	1.55

MATERIAL: Cast Aluminum Rolls w/steel bracket.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7501-7506 Pipe Roller with Axle

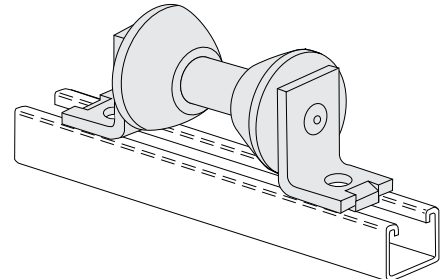


Fig. Number	For Pipe Sizes	Max. Rec. Load (in Lbs)	Std. Package	Wt. Each (in Lbs.)
7501	1 - 3	750	10	1.59
7502	3 - 4	750	10	1.66
7503	4 - 6	750	10	1.79
7504	6 - 8	750	10	1.82
7505	10	750	10	1.90
7506	12	750	10	1.93

MATERIAL: Cast Alum. Rolls w/steel bracket and axle.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7530 60° Separate Rollers

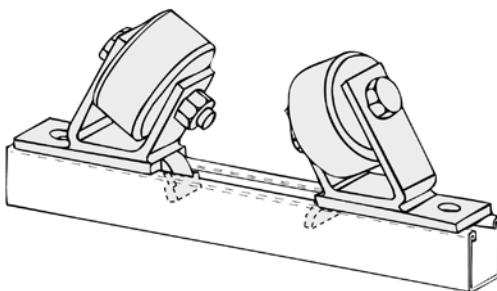


Fig. Number	For Pipe Sizes	Max. Rec. Load (in Lbs)	Std. Package	Wt. Each (in Lbs.)
7530	6 - 18	1500	5 sets	4.10

MATERIAL: Cast Aluminum Rolls w/steel bracket.

FINISH: Electro-galvanized

ORDERING: Specify figure number.

7560 60° Rollers with Center Roller

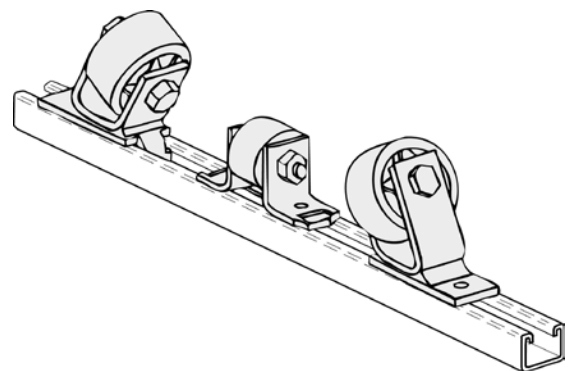


Fig. Number	For Pipe Sizes	Max. Rec. Load (in Lbs)	Std. Package	Wt. Per Set (in Lbs.)
7560	20 - 30	2000	5 sets	5.70

MATERIAL: Cast Aluminum Rolls w/steel bracket.

FINISH: Electro-galvanized

ORDERING: Specify figure number.



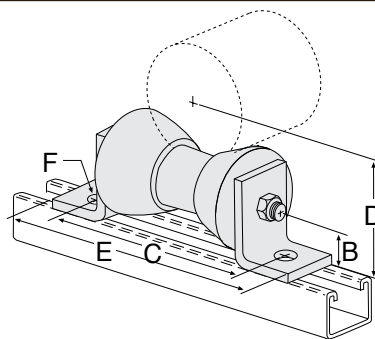
PIPE ROLLERS

7581 - 7585 Roller Support

MATERIAL: Cast Iron Rolls w/ steel bracket and axle.

FINISH: Electro-galvanized

ORDERING: Specify figure number.



B
Center of axle to
bottom of plate

D
Center of pipe to
bottom of plate

Fig. Number	Pipe Size	B	C	D	E	F	Material Size	Max. Rec. Load/Lbs.	Std. Package	Wt. Each (in Lbs.)
7581	2	1 ¹ / ₄	5 ⁵ / ₈	3 ¹ / ₈	6 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	390	Bulk	1.77
7581	2 ¹ / ₂	1 ¹ / ₄	5 ⁵ / ₈	3 ⁵ / ₁₆	6 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	390	Bulk	1.77
7581	3	1 ¹ / ₄	5 ⁵ / ₈	3 ⁵ / ₈	6 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	390	Bulk	1.77
7581	3 ¹ / ₂	1 ¹ / ₄	5 ⁵ / ₈	4	6 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	390	Bulk	1.77
7582	4	1 ¹ / ₄	6 ¹ / ₈	4 ¹ / ₁₆	7 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	600	Bulk	2.31
7582	5	1 ¹ / ₄	6 ¹ / ₈	4 ⁹ / ₁₆	7 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	600	Bulk	2.31
7582	6	1 ¹ / ₄	6 ¹ / ₈	5 ¹ / ₁₆	7 ⁵ / ₈	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	600	Bulk	2.31
7583	8	1 ⁷ / ₈	8 ¹ / ₄	7 ⁵ / ₁₆	9 ³ / ₄	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	800	Bulk	5.42
7583	10	1 ⁷ / ₈	8 ¹ / ₄	8 ⁵ / ₈	9 ³ / ₄	9 ⁹ / ₁₆	1 ¹ / ₄ X 1 ⁵ / ₈	800	Bulk	5.42
7584	12	2 ⁷ / ₁₆	12 ³ / ₄	9 ³ / ₄	14 ³ / ₄	13 ¹³ / ₁₆	3 ³ / ₈ X 2	1300	Bulk	10.40
7584	14	2 ⁷ / ₁₆	12 ³ / ₄	10 ¹ / ₂	14 ³ / ₄	13 ¹³ / ₁₆	3 ³ / ₈ X 2	1300	Bulk	10.40
7585	16	2 ¹⁵ / ₁₆	14 ¹ / ₄	12	16 ¹ / ₄	13 ¹³ / ₁₆	3 ³ / ₈ X 2 ¹ / ₂	2300	Bulk	15.08
7585	18	2 ¹⁵ / ₁₆	14 ¹ / ₄	13 ¹ / ₈	16 ¹ / ₄	13 ¹³ / ₁₆	3 ³ / ₈ X 2 ¹ / ₂	2300	Bulk	15.08
7585	20	2 ¹⁵ / ₁₆	14 ¹ / ₄	14 ³ / ₈	16 ¹ / ₄	13 ¹³ / ₁₆	3 ³ / ₈ X 2 ¹ / ₂	2300	Bulk	15.08

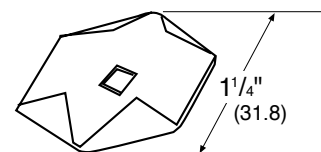
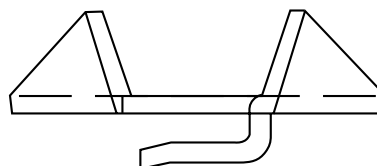
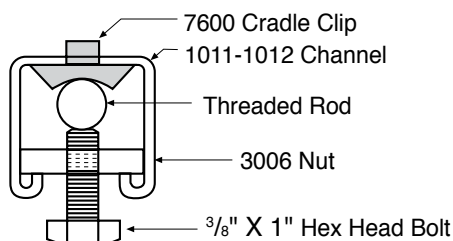
HARDWARE

7600 Cradle Clip

MATERIAL: 16 gauge

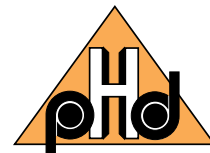
FINISH: Electro-galvanized

ORDERING: Specify figure number.



Rod Size		Std. Package	Weight Each	
			Lbs.	kg
3/8	(10)	500	0.03	(0.01)
1/2	(12)	500	0.03	(0.01)
5/8	(16)	500	0.03	(0.01)

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