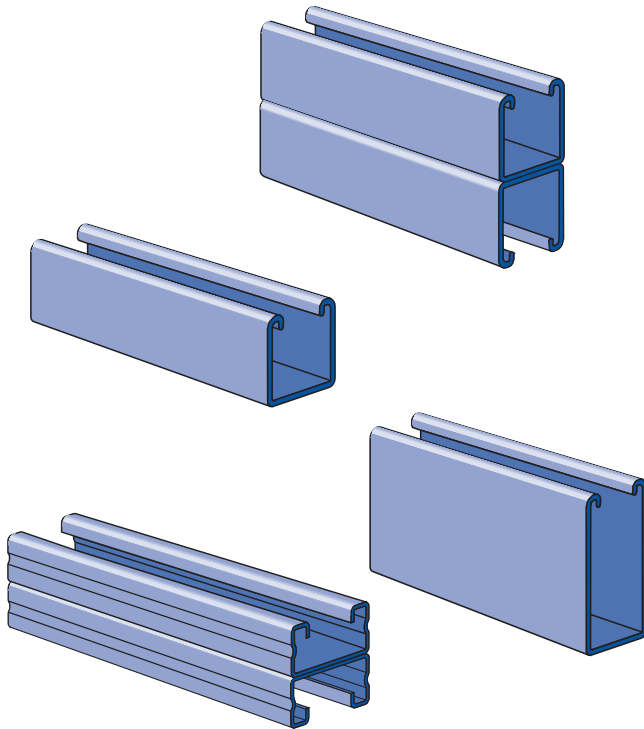


1⁵/₈" CHANNEL



MATERIAL

Unistrut channels are accurately and carefully cold formed to size from low-carbon strip steel.

All spot-welded combination members, except P1001T, are welded 3" (76 mm) maximum on center.

STEEL: PLAIN

12 Ga. (2.7 mm), 14 Ga.(1.9 mm) and
16 Ga. (1.5 mm) ASTM A1011 SS GR 33

STEEL: PRE-GALVANIZED

12 Ga. (2.7 mm), 14 Ga. (1.9 mm) and
16 Ga. (1.5mm) ASTM A653 GR 33

For other materials, see Special Metals or
Fiberglass sections.

FINISHES

All channels are available in:

- Perma Green III (GR)
- Pre-galvanized (PG), conforming to ASTM A653 G90
- Hot-dipped galvanized (HG), conforming to ASTM A123
- Plain (PL)
- Unistrut Defender™ (DF), conforming to ASTM A1046

Channel Selection Chart	23
P1000 (12 Gauge)	24 - 29
P1100 (14 Gauge)	30 - 32
P2000 (16 Gauge)	33 - 35
P3000 (12 Gauge)	36 - 38
P3300 (12 Gauge)	39 - 41
P4000 (16 Gauge)	42 - 44
P4100 (14 Gauge)	45 - 47
P4400 (12 Gauge)	48 - 50
P4520 (12 Gauge)	51 - 53
P5000 (12 Gauge)	54 - 56
P5500 (12 Gauge)	57 - 59
Closure Strips	60
End Caps and Frame Caps	61
Lateral Bracing Load Reduction Chart & Bearing Loads.....	62

DIMENSIONS

Imperial dimensions are illustrated in inches. Metric dimensions are shown in millimeters and rounded to one decimal place.

STANDARD LENGTHS

Standard lengths are 10 feet (3.05m) and 20 feet (6.10m). Tolerances are $\pm\frac{1}{8}$ " (3 mm). Special lengths are available for a small cutting charge with a tolerance of $\pm\frac{1}{8}$ " (3 mm).

CURVED CHANNEL

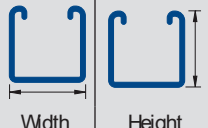
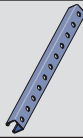
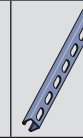
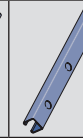
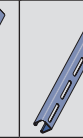
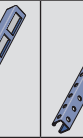
Contact your local Unistrut Service Center or Unistrut Corporation for more information.

LOAD DATA

All beam and column load data pertains to carbon steel and stainless steel channels. Load tables and charts are constructed to be in accordance with the SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS 2007 EDITION published by the AMERICAN IRON AND STEEL INSTITUTE USING ASD METHOD. Loads are based on 33 ksi steel cold formed to 42 ksi.

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

CHANNEL SELECTION CHART

Channel	Channel Dimensions		Material & Thickness			Hole Pattern Styles						
			Steel	Stainless Steel	Alum.							
	Width	Height										
	In (mm)	In (mm)	gauge	gauge	In (mm)	HS	T	WT	KO	SL	DS	H3
P1000	1½ (41.3)	1½ (41.3)	12 ga	12 ga	0.109 (2.8)	■	■	■	■	■	■	■
P1100	1½ (41.3)	1½ (41.3)	14 ga	14 ga	—	■	■	■	■	■	—	—
P2000	1½ (41.3)	1½ (41.3)	16 ga	—	—	■	■	■	■	■	—	—
P3000	1½ (41.3)	1½ (34.9)	12 ga	—	—	■	■	■	■	■	—	—
P3300	1½ (41.3)	¾ (22.2)	12 ga	12 ga	—	■	■	■	—	■	—	—
P4000	1½ (41.3)	1¾ (20.6)	16 ga	16 ga	0.078 (2.0)	■	■	■	—	■	—	—
P4100	1½ (41.3)	1¾ (20.6)	14 ga	—	—	■	■	■	—	■	—	—
P4400	1½ (41.3)	1 (25.4)	12 ga	—	—	■	■	■	—	■	—	—
P4520	1½ (41.3)	1¾ (20.6)	12 ga	—	—	■	■	■	—	■	—	—
P5000	1½ (41.3)	3¼ (82.6)	12 ga	12 ga	—	■	■	■	■	■	—	—
P5500	1½ (41.3)	2¾ (61.9)	12 ga	—	0.109 (2.8)	■	■	■	■	■	—	—

CHANNELS & COMBINATIONS IN DESCENDING ORDER OF STRENGTH

Channel	Area In ² (cm ²)	Weight lbs/ft (kg/m)	I In ⁴ (cm ⁴)	s In ³ (cm ³)	Allow. Moment In-lbs (N·m)
P5001	1.793 11.57	6.10 9.1	6.227 259.2	1.916 31.4	48,180 5,440
P1004A	1.965 12.68	6.68 9.9	4.068 169.3	1.669 27.4	41,980 4,740
P5501	1.452 9.37	4.94 7.3	2.805 116.8	1.151 18.9	28,940 3,270
P1001C41	2.221 14.33	7.55 11.2	1.856 77.2	1.142 18.7	28,720 3,250
P5000	0.897 5.78	3.05 4.5	1.098 45.7	0.627 10.3	15,770 1,780
P1001	1.111 7.16	3.78 5.6	0.928 38.6	0.571 9.4	14,360 1,620
P1101	0.835 5.39	2.84 4.2	0.733 30.5	0.451 7.4	11,340 1,280
P3001	1.000 6.45	3.40 5.1	0.591 24.6	0.430 7.0	10,810 1,220
P5500	0.726 4.68	2.47 3.7	0.522 21.7	0.390 6.4	9,820 1,110
P2001	0.684 4.41	2.32 3.5	0.618 25.7	0.381 6.2	9,570 1,080
P9200	0.489 3.16	2.23 3.3	0.279 11.6	0.297 4.9	7,480 850
P4401	0.849 5.48	5.77 8.5	0.26 10.6	0.26 4.2	6,410 725
A1001	0.609 3.93	2.07 3.1	0.302 12.6	0.242 4.0	6,070 690
P9000	0.387 2.50	1.88 2.8	0.166 6.9	0.205 3.4	5,150 580
P1000	0.555 3.58	1.89 2.8	0.185 7.7	0.202 3.3	5,070 570
P3301	0.790 5.10	2.69 4.0	0.176 7.3	0.201 3.3	5,060 570
P4521	0.77 4.97	2.62 3.9	0.15 6.1	0.18 2.9	4,538 513

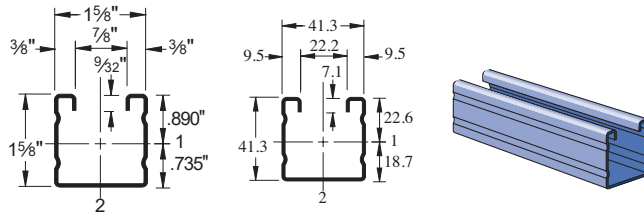
Channel	Area In ² (cm ²)	Weight lbs/ft (kg/m)	I In ⁴ (cm ⁴)	s In ³ (cm ³)	Allow. Moment In-lbs (N·m)
P1100	0.418 2.69	1.42 2.1	0.145 6.0	0.162 2.6	4,060 460
P3000	0.500 3.23	1.70 2.5	0.120 5.0	0.153 2.5	3,850 430
P4101	0.579 3.74	1.97 2.9	0.117 4.9	0.143 2.4	3,610 410
P2000	0.342 2.21	1.16 1.7	0.125 5.2	0.140 2.3	3,520 400
P4001	0.478 3.14	1.66 2.5	0.104 4.3	0.128 2.1	3,210 360
A3301	0.459 2.96	1.56 2.3	0.077 3.2	0.103 1.7	2,590 290
P4400	0.424 2.74	2.89 4.3	0.053 2.2	0.092 1.5	2,300 260
A1000	0.305 1.96	1.04 1.5	0.061 2.5	0.086 1.4	2,170 250
P3300	0.395 2.55	1.34 2.0	0.037 1.5	0.072 1.2	1,800 200
P4520	0.384 2.48	1.31 1.9	0.031 1.3	0.064 1.0	1,615 183
A4001	0.264 1.70	0.90 1.3	0.037 1.5	0.058 1.0	1,470 170
P6001	0.213 1.38	0.73 1.1	0.045 1.9	0.055 0.9	1,400 160
P4100	0.290 1.87	0.98 1.5	0.026 1.1	0.054 0.9	1,360 150
P4000	0.244 1.57	0.83 1.2	0.023 0.9	0.049 0.8	1,230 140
A3300	0.230 1.48	0.78 1.2	0.017 0.7	0.038 0.6	950 110
P6000	0.107 0.69	0.36 0.5	0.009 0.4	0.020 0.3	510 60
P7001	0.148 0.96	0.50 0.8	0.007 0.3	0.018 0.3	460 50
P7000	0.074 0.48	0.25 0.4	0.002 0.1	0.007 0.1	170 20

Combinations not shown in catalog are available on special order.
Consult factory for more details.

P2000 & P2001 Channels

P2000

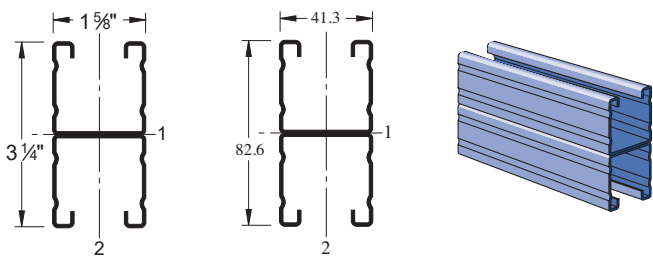
GR PG



Wt/100 Ft: 116 Lbs (173 kg/100 m)
Allowable Moment 3,520 In-Lbs (400 N·m)
16 Gauge Nominal Thickness .060" (1.5mm)

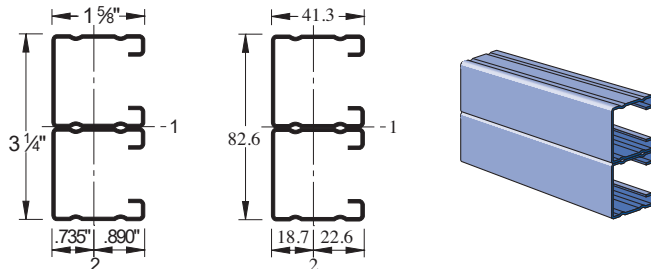
P2001

GR PG



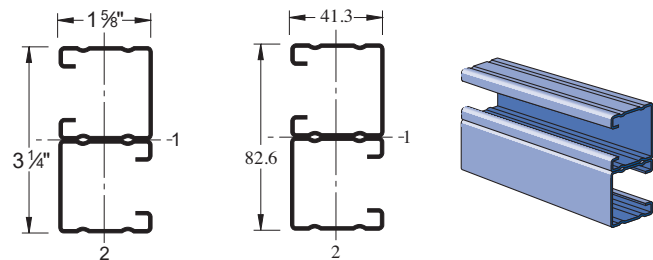
Wt/100 Ft: 232 Lbs (346 kg/100 m)
Allowable Moment 9,570 In-Lbs (1,080 N·m)
16 Gauge Nominal Thickness .060" (1.5mm)

P2001 A



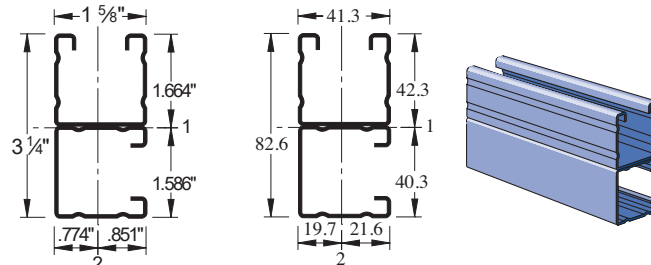
Wt/100 Ft: 232 Lbs (346 kg/100 m)
Allowable Moment 11,660 In-Lbs (1,320 N·m)
16 Gauge Nominal Thickness .060" (1.5mm)

P2001 B



Wt/100 Ft: 232 Lbs (346 kg/100 m)
Allowable Moment 11,660 In-Lbs (1,320 N·m)
16 Gauge Nominal Thickness .060" (1.5mm)

P2001 C



Wt/100 Ft: 232 Lbs (346 kg/100 m)
Allowable Moment 10,350 In-Lbs (1,170 N·m)
16 Gauge Nominal Thickness .060" (1.5mm)

P2000 HS

GR PG

P2000 KO

GR PG

9/16" (14.3) Dia. Holes
1 7/8" (47.6) on Center

7/8" (22.2) Knockouts
6" (152.4) on Center

Wt/100 Ft: 113 Lbs (168 kg/100 m)

Wt/100 Ft: 117 Lbs (174 kg/100 m)

P2000 SL

GR PG

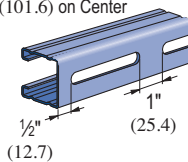
P2000 T

GR PG

P2000 WT

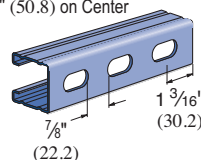
DF GR HG PG PL

Slots are
3" (76.2) x 1 1/2" (10.3)
4" (101.6) on Center



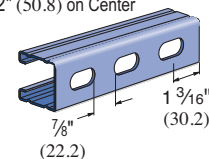
Wt/100 Ft: 113 Lbs (168 kg/100 m)

Slots are
1 1/8" (28.6) x 9/16" (14.3)
2" (50.8) on Center



Wt/100 Ft: 113 Lbs (168 kg/100 m)

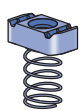
Slots are
1 1/8" (28.6) x 9/16" (14.3)
2" (50.8) on Center



Wt/100 Ft: 113 Lbs (168 kg/100 m)

CHANNEL NUTS (REFER TO PAGES 73,74 FOR DETAILS)

SEE PAGE 73, 74



P1006-0832
P1006-1024
P1006-1420
P1007
P1008
P1009
P1010



P1008T
P1006T1420
P1010T



P1012
P1012S
P1023S



P1012
P1023
P1024S



P3006-0832
P3006-1024
P3006-1420
P3007
P3008
P3009
P3010



P3016-0632
P3016-0832
P3016-1024
P3016-1420

Channel Finishes: PL, GR, HG, PG, ZD; Standard Lengths: 10' & 20'


P2000 - BEAM LOADING

Span In	Max Allowable Uniform Load Lbs	Defl. at Uniform Load In	Uniform Loading at Deflection		
			Span/180 Lbs	Span/240 Lbs	Span/360 Lbs
24	1,170	0.06	1,170	1,170	1,170
36	780	0.13	780	780	610
48	590	0.23	590	510	340
60	470	0.36	440	330	220
72	390	0.52	300	230	150
84	340	0.71	220	170	110
96	290	0.91	170	130	90
108	260	1.16	130	100	70
120	230	1.41	110	80	50
144	200	2.12	80	60	40
168	170	2.86	60	40	30
192	150	3.76	40	30	20
216	130	4.64	30	30	NR
240	120	5.88	30	NR	NR

P2001 - BEAM LOADING

Span In	Max Allowable Uniform Load Lbs	Defl. at Uniform Load In	Uniform Loading at Deflection		
			Span/180 Lbs	Span/240 Lbs	Span/360 Lbs
24	1,610*	0.02	1,610*	1,610*	1,610*
36	1,610*	0.05	1,610*	1,610*	1,610*
48	1,600	0.13	1,600	1,600	1,600
60	1,280	0.20	1,280	1,280	1,080
72	1,060	0.28	1,060	1,060	750
84	910	0.38	910	830	550
96	800	0.51	800	630	420
108	710	0.64	670	500	330
120	640	0.79	540	410	270
144	530	1.13	380	280	190
168	460	1.56	280	210	140
192	400	2.02	210	160	110
216	350	2.52	170	130	80
240	320	3.16	140	100	70

P2000 - COLUMN LOADING

Unbraced Height In	Maximum Allowable Load at Slot Face Lbs	Maximum Column Load Applied at C.G.			
		K = 0.65 Lbs	K = 0.80 Lbs	K = 1.0 Lbs	K = 1.2 Lbs
24	2,400	6,650	6,080	5,280	4,470
36	2,050	5,380	4,470	3,370	2,500
48	1,600	4,090	3,040	2,100	1,590
60	1,230	2,960	2,100	1,500	1,160
72	970	2,190	1,590	1,160	910
84	790	1,720	1,270	950	760
96	660	1,410	1,060	800	650
108	570	1,200	910	700	**
120	510	1,040	800	620	**
144	420	830	650	**	**

P2001 - COLUMN LOADING

Unbraced Height In	Maximum Allowable Load at Slot Face Lbs	Maximum Column Load Applied at C.G.			
		K = 0.65 Lbs	K = 0.80 Lbs	K = 1.0 Lbs	K = 1.2 Lbs
24	4,200	15,030	14,600	13,940	13,220
36	4,070	14,030	13,220	12,090	10,990
48	3,920	12,850	11,720	10,290	9,040
60	3,700	11,630	10,290	8,760	7,530
72	3,410	10,460	9,040	7,530	5,740
84	3,140	9,410	7,990	6,080	4,220
96	2,890	8,490	7,120	4,650	3,230
108	2,530	7,700	5,740	3,680	2,550
120	2,210	6,950	4,650	2,980	**
144	1,690	4,890	3,230	**	**

P2000/P2001 - ELEMENTS OF SECTION

Parameter	P2000		P2001	
Area of Section	0.342	In ²	0.684	In ²
Axis 1-1				
Moment of Inertia (I)	0.125	In ⁴	0.618	In ⁴
Section Modulus (S)	0.140	In ³	0.381	In ³
Radius of Gyration (r)	0.604	In	0.951	In
Axis 2-2				
Moment of Inertia (I)	0.151	In ⁴	0.302	In ⁴
Section Modulus (S)	0.186	In ³	0.372	In ³
Radius of Gyration (r)	0.665	In	0.665	In

Notes:

* Load limited by spot weld shear.

** KL/r > 200

NR = Not Recommended.

- Beam loads are given in total uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
- Beam loads are based on a simple span and assumed to be adequately laterally braced. Unbraced spans can reduce beam load carrying capacity. Refer to Page 62 for reduction factors for unbraced lengths.
- For pierced channel, multiply beam loads by the following factor:
 "KO" Series 95% "T" Series 85%
 "HS" Series 90% "SL" Series 85%
 "WT" Series 85%
- Deduct channel weight from the beam loads.
- For concentrated midspan point loads, multiply beam loads by 50% and the corresponding deflection by 80%. For other load conditions refer to page 18.
- All beam loads are for bending about Axis 1-1.