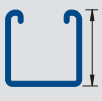
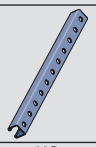
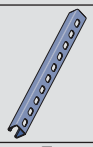
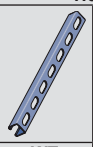
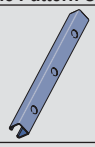
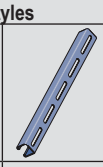
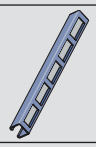
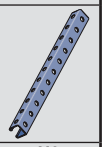
Channel Selection Chart

Channel	Channel Dimensions		Material & Thickness			Hole Pattern Styles						
	 Width	 Height	Steel	Stainless Steel	Alum.	 HS	 T	 WT	 KO	 SL	 DS	 H3
	In *(mm)*	In *(mm)*	gauge	gauge	In *(mm)*				*Steel Only*			
P1000	1⅝ *(41.3)*	1⅝ *(41.3)*	12 ga	12 ga	0.109 *(2.8)*	■	■	■	■	■	■	■
P1100	1⅝ *(41.3)*	1⅝ *(41.3)*	14 ga	14 ga	—	■	■	■	■	■	–	–
P2000	1⅝ *(41.3)*	1⅝ *(41.3)*	16 ga	—	—	■	■	■	■	■	–	–
P3000	1⅝ *(41.3)*	1⅜ *(34.9)*	12 ga	—	—	■	■	■	■	■	–	–
P3300	1⅝ *(41.3)*	⅞ *(22.2)*	12 ga	12 ga	—	■	■	■	–	■	–	–
P4000	1⅝ *(41.3)*	13⁄16 *(20.6)*	16 ga	16 ga	0.078 *(2.0)*	■	■	■	–	■	–	–
P4100	1⅝ *(41.3)*	13⁄16 *(20.6)*	14 ga	—	—	■	■	■	–	■	–	–
P4400	1⅝ *(41.3)*	1 *(25.4)*	12 ga	—	—	■	■	■	–	■	–	–
P4520	1⅝ *(41.3)*	13⁄16 *(20.6)*	12 ga	—	—	■	■	■	–	■	–	–
P5000	1⅝ *(41.3)*	3¼ *(82.6)*	12 ga	12 ga	—	■	■	■	■	■	–	–
P5500	1⅝ *(41.3)*	2 7⁄16 *(61.9)*	12 ga	—	0.109 *(2.8)*	■	■	■	■	■	–	–

Channels & Combinations in Descending Order of Strength

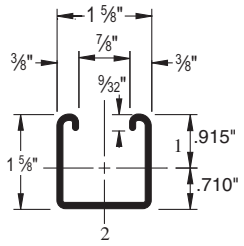
Channel	Area In² *(cm²)*	Weight lbs/ft *(kg/m)*	I In⁴ *(cm⁴)*	s In³*(cm³)*	Allow. Moment In-lbs *(N•m)*
P5001	1.793	6.10	6.227	1.916	48,180
	11.57	*9.1*	*259.2*	*31.4*	*5,440*
P1004A	1.965	6.68	4.068	1.669	41,980
	12.68	*9.9*	*169.3*	*27.4*	*4,740*
P5501	1.452	4.94	2.805	1.151	28,940
	9.37	*7.3*	*116.8*	*18.9*	*3,270*
P1001C41	2.221	7.55	1.856	1.142	28,720
	14.33	*11.2*	*77.2*	*18.7*	*3,250*
P5000	0.897	3.05	1.098	0.627	15,770
	5.78	*4.5*	*45.7*	*10.3*	*1,780*
P1001	1.111	3.78	0.928	0.571	14,360
	7.16	*5.6*	*38.6*	*9.4*	*1,620*
P1101	0.835	2.84	0.733	0.451	11,340
	5.39	*4.2*	*30.5*	*7.4*	*1,280*
P3001	1.000	3.40	0.591	0.430	10,810
	6.45	*5.1*	*24.6*	*7.0*	*1,220*
P5500	0.726	2.47	0.522	0.390	9,820
	4.68	*3.7*	*21.7*	*6.4*	*1,110*
P2001	0.684	2.32	0.618	0.381	9,570
	4.41	*3.5*	*25.7*	*6.2*	*1,080*
P9200	0.489	2.23	0.279	0.297	7,480
	3.16	*3.3*	*11.6*	*4.9*	*850*
P4401	0.849	5.77	0.26	0.26	6,410
	5.48	*8.5*	*10.6*	*4.2*	*725*
A1001	0.609	2.07	0.302	0.242	6,070
	3.93	*3.1*	*12.6*	*4.0*	*690*
P9000	0.387	1.88	0.166	0.205	5,150
	2.50	*2.8*	*6.9*	*3.4*	*580*
P1000	0.555	1.89	0.185	0.202	5,070
	3.58	*2.8*	*7.7*	*3.3*	*570*
P3301	0.790	2.69	0.176	0.201	5,060
	5.10	*4.0*	*7.3*	*3.3*	*570*
P4521	0.77	2.62	0.15	0.18	4,538
	4.97	*3.9*	*6.1*	*2.9*	*513*

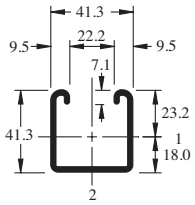
Channel	Area In² *(cm²)*	Weight lbs/ft *(kg/m)*	I In⁴ *(cm⁴)*	s In³*(cm³)*	Allow. Moment In-lbs *(N•m)*
P1100	0.418	1.42	0.145	0.162	4,060
	2.69	*2.1*	*6.0*	*2.6*	*460*
P3000	0.500	1.70	0.120	0.153	3,850
	3.23	*2.5*	*5.0*	*2.5*	*430*
P4101	0.579	1.97	0.117	0.143	3,610
	3.74	*2.9*	*4.9*	*2.4*	*410*
P2000	0.342	1.16	0.125	0.140	3,520
	2.21	*1.7*	*5.2*	*2.3*	*400*
P4001	0.478	1.66	0.104	0.128	3,210
	3.14	*2.5*	*4.3*	*2.1*	*360*
A3301	0.459	1.56	0.077	0.103	2,590
	2.96	*2.3*	*3.2*	*1.7*	*290*
P4400	0.424	2.89	0.053	0.092	2,300
	2.74	*4.3*	*2.2*	*1.5*	*260*
A1000	0.305	1.04	0.061	0.086	2,170
	1.96	*1.5*	*2.5*	*1.4*	*250*
P3300	0.395	1.34	0.037	0.072	1,800
	2.55	*2.0*	*1.5*	*1.2*	*200*
P4520	0.384	1.31	0.031	0.064	1,615
	2.48	*1.9*	*1.3*	*1.0*	*183*
A4001	0.264	0.90	0.037	0.058	1,470
	1.70	*1.3*	*1.5*	*1.0*	*170*
P6001	0.213	0.73	0.045	0.055	1,400
	1.38	*1.1*	*1.9*	*0.9*	*160*
P4100	0.290	0.98	0.026	0.054	1,360
	1.87	*1.5*	*1.1*	*0.9*	*150*
P4000	0.244	0.83	0.023	0.049	1,230
	1.57	*1.2*	*0.9*	*0.8*	*140*
A3300	0.230	0.78	0.017	0.038	950
	1.48	*1.2*	*0.7*	*0.6*	*110*
P6000	0.107	0.36	0.009	0.020	510
	0.69	*0.5*	*0.4*	*0.3*	*60*
P7001	0.148	0.50	0.007	0.018	460
	0.96	*0.8*	*0.3*	*0.3*	*50*
P7000	0.074	0.25	0.002	0.007	170
	0.48	*0.4*	*0.1*	*0.1*	*20*

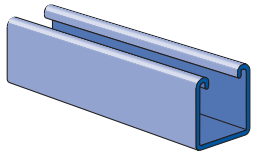
Combinations not shown in catalog are available on special order.
Consult factory for more details.

P1000®

DF GR HG PG PL



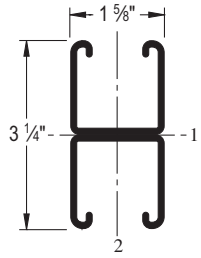


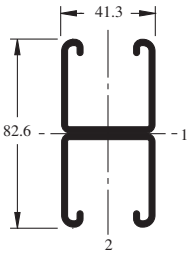


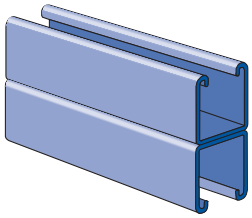
Wt/100 Ft:189 Lbs (281 kg/100 m)
Allowable Moment 5,070 In-Lbs (570 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001

DF GR HG PG PL

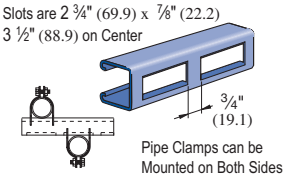






Wt/100 Ft: 378 Lbs (562 kg/100 m)
Allowable Moment 14,360 In-Lbs (1,620 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

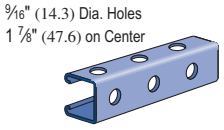
P1000 DS



Wt/100 Ft: 173 Lbs (257 kg/100 m)

P1000 H3

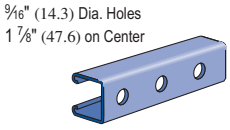
GR HG PG PL



Wt/100 Ft: 175 Lbs (260 kg/100 m)

P1000 HS

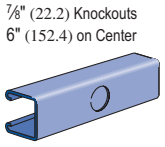
GR HG PG PL



Wt/100 Ft: 190 Lbs (283 kg/100 m)

P1000 KO

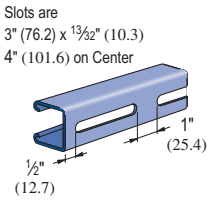
GR PG



Wt/100 Ft:185 Lbs (275 kg/100 m)

P1000 SL

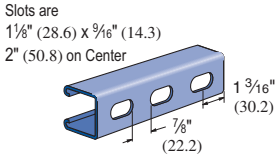
GR HG PG PL



Wt/100 Ft: 185 Lbs (275 kg/100 m)

P1000 T

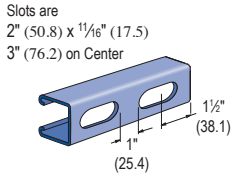
DF GR HG PG PL



Wt/100 Ft: 185 Lbs (275 kg/100 m)

P1000 WT

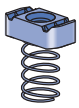
DF GR HG PG PL



Wt/100 Ft: 185 Lbs (275 kg/100 m)

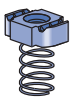
Channel Nuts (Refer to Pages 73,74 for Details)

See Page 73, 74



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

P1008T
P1006T1420
P1010T



P1024
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: DF, PL, GR, HG, PG, ZD; Standard Lengths: 10' & 20'

P1000 - 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	1,690	0.06	1,690	1,690	1,690
36	1,130	0.13	1,130	1,130	900
48	850	0.22	850	760	500
60	680	0.35	650	480	320
72	560	0.50	450	340	220
84	480	0.68	330	250	160
96	420	0.89	250	190	130
108	380	1.14	200	150	100
120	340	1.40	160	120	80
144	280	2.00	110	80	60
168	240	2.72	80	60	40
192	210	3.55	60	50	NR
216	190	4.58	50	40	NR
240	170	5.62	40	NR	NR

P1001 - 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	3,500*	0.02	3,500*	3,500*	3,500*
36	3,190	0.07	3,190	3,190	3,190
48	2,390	0.13	2,390	2,390	2,390
60	1,910	0.20	1,910	1,910	1,620
72	1,600	0.28	1,600	1,600	1,130
84	1,370	0.39	1,370	1,240	830
96	1,200	0.51	1,200	950	630
108	1,060	0.64	1,000	750	500
120	960	0.79	810	610	410
144	800	1.14	560	420	280
168	680	1.53	410	310	210
192	600	2.02	320	240	160
216	530	2.54	250	190	130
240	480	3.16	200	150	100

P1000 - Column Loading

Unbraced Height In	Max. 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	3,550	10,740	9,890	8,770	7,740
36	3,190	8,910	7,740	6,390	5,310
48	2,770	7,260	6,010	4,690	3,800
60	2,380	5,910	4,690	3,630	2,960
72	2,080	4,840	3,800	2,960	2,400
84	1,860	4,040	3,200	2,480	1,980
96	1,670	3,480	2,750	2,110	1,660
108	1,510	3,050	2,400	1,810	**
120	1,380	2,700	2,110	**	**
144	1,150	2,180	1,660	**	**

P1001 - Column Loading

Unbraced Height In	Max. 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	6,430	24,280	23,610	22,700	21,820
36	6,290	22,810	21,820	20,650	19,670
48	6,160	21,410	20,300	18,670	16,160
60	6,000	20,210	18,670	15,520	12,390
72	5,620	18,970	16,160	12,390	8,950
84	5,170	16,950	13,630	9,470	6,580
96	4,690	14,890	11,190	7,250	5,040
108	4,170	12,850	8,950	5,730	3,980
120	3,690	10,900	7,250	4,640	**
144	2,930	7,630	5,040	**	**

P1000/P1001 - Elements of Section

Parameter	P1000		P1001	
Area of Section	0.555	In^2	1.111	In^2
Axis 1-1				
Moment of Inertia (I)	0.185	In^4	0.928	In^4
Section Modulus (S)	0.202	In^3	0.571	In^3
Radius of Gyration (r)	0.577	In	0.914	In
Axis 2-2				
Moment of Inertia (I)	0.236	In^4	0.471	In^4
Section Modulus (S)	0.290	In^3	0.580	In^3
Radius of Gyration (r)	0.651	In	0.651	In

Notes:

* Load limited by spot weld shear.

** KL/r > 200

NR = Not Recommended.

1. Beam loads are given in *total* uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
2. 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.
3. For pierced channel, multiply beam loads by the following factor:

"KO" Series.....95% **"T" Series 85%**
"HS" Series .....90% **"SL" Series.....85%**
"H3" Series.....90% **"DS" Series.....70%**
"WT" Series.....85%

4. Deduct channel weight from the beam loads.
5. For concentrated midspan point loads, multiply beam loads by 50% and the corresponding deflection by 80%. For other load conditions refer to page 18.
6. All beam loads are for bending about Axis 1-1.

P1000 - Beam Loading (metric)

Span mm	Max Allowable Uniform Load kN	Defl. at Uniform Load mm	Uniform Loading at Deflection Span/180 kN	Span/240 kN	Span/360 kN
600	7.6	1	7.6	7.6	7.6
750	6.1	2	6.1	6.1	5.9
1,000	4.6	4	4.6	4.6	3.3
1,250	3.6	6	3.6	3.2	2.1
1,500	3.1	9	3.0	2.2	1.5
1,750	2.6	12	2.2	1.6	1.1
2,000	2.3	15	1.6	1.2	0.8
2,500	1.8	24	1.1	0.8	0.5
3,000	1.5	34	0.8	0.5	0.4
3,500	1.3	46	0.5	0.4	0.3
4,000	1.2	62	0.4	0.3	0.2
4,500	1.0	78	0.3	0.3	0.2
5,000	0.9	97	0.3	0.2	NR
6,000	0.8	136	0.2	NR	NR

P1001 - Beam Loading (metric)

Span mm	Max Allowable Uniform Load kN	Defl. at Uniform Load mm	Uniform Loading at Deflection Span/180 kN	Span/240 kN	Span/360 kN
600	15.6 *	1	15.6 *	15.6 *	15.6 *
750	15.6 *	1	15.6 *	15.6 *	15.6 *
1,000	13.0	2	13.0	13.0	13.0
1,250	10.4	3	10.4	10.4	10.4
1,500	8.7	5	8.7	8.7	7.4
1,750	7.4	7	7.4	7.4	5.5
2,000	6.5	9	6.5	6.3	4.2
2,500	5.2	13	5.2	4.0	2.7
3,000	4.3	19	3.7	2.8	1.9
3,500	3.7	26	2.8	2.0	1.4
4,000	3.2	34	2.1	1.6	1.1
4,500	2.9	44	1.6	1.2	0.8
5,000	2.6	53	1.3	1.0	0.7
6,000	2.2	78	0.9	0.7	0.4

P1000 - Column Loading (metric)

Unbraced Height mm	Maximum Allowable Load at Slot Face kN	Maximum Column Load Applied at C.G. K = 0.65 kN	K = 0.80 kN	K =1.0 kN	K = 1.2 kN
600	15.8	48.0	44.3	39.4	34.8
750	15.2	44.0	39.4	33.8	28.9
1,000	13.7	37.5	32.0	26.1	21.3
1,250	12.1	31.6	26.1	20.3	16.5
1,500	10.7	26.7	21.3	16.5	13.4
1,750	9.6	22.7	17.8	13.8	11.3
2,000	8.7	19.3	15.3	11.9	9.6
2,250	7.9	16.9	13.4	10.4	8.2
2,500	7.2	15.0	11.9	9.1	**
2,750	6.7	13.5	10.6	8.1	**

P1001 - Column Loading (metric)

Unbraced Height mm	Maximum Allowable Load at Slot Face kN	Maximum Column Load Applied at C.G. K = 0.65 kN	K = 0.80 kN	K =1.0 kN	K = 1.2 kN
600	28.6	108.2	105.3	101.3	97.4
750	28.3	105.0	101.3	96.5	92.2
1,000	27.8	99.6	95.0	89.7	83.9
1,250	27.3	94.7	89.7	81.7	70.1
1,500	26.8	90.3	83.9	70.1	56.4
1,750	25.4	86.7	74.8	58.6	43.5
2,000	23.9	79.4	65.5	47.7	33.3
2,250	22.2	71.9	56.4	37.9	26.3
2,500	20.4	64.4	47.7	30.7	21.3
2,750	18.5	56.9	39.6	25.4	17.6

P1000/P1001 - Elements of Section (metric)

Parameter	P1000		P1001	
Area of Section	3.58	cm^2	7.16	cm^2
Axis 1-1				
Moment of Inertia (I)	7.68	cm^4	38.62	cm^4
Section Modulus (S)	3.30	cm^3	9.36	cm^3
Radius of Gyration (r)	1.46	cm	2.32	cm
Axis 2-2				
Moment of Inertia (I)	9.80	cm^4	19.60	cm^4
Section Modulus (S)	4.75	cm^3	9.50	cm^3
Radius of Gyration (r)	1.65	cm	1.65	cm

Notes:

* Load limited by spot weld shear.

** KL/r > 200

NR = Not Recommended.

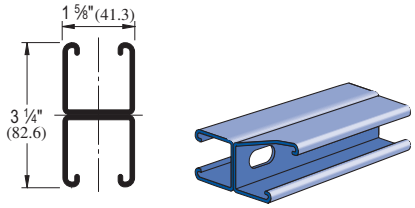
1. Beam loads are given in *total* uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
2. Beam loads are based on a simple span and assumed to be adequately laterally braced. Unbraced spans can reduce beam load carrying capacity. Refer to Page 62 for reduction factors for unbraced lengths.
3. For pierced channel, multiply beam loads by the following factor:

"KO" Series.....95%
"HS" Series 90%
"H3" Series.....90%
"WT" Series.....85%
"T" Series 85%
"SL" Series.....85%
"DS" Series.....70%

4. Deduct channel weight from the beam loads.
5. For concentrated midspan point loads, multiply beam loads by 50% and the corresponding deflection by 80%. For other load conditions refer to page 18.
6. All beam loads are for bending about Axis 1-1.

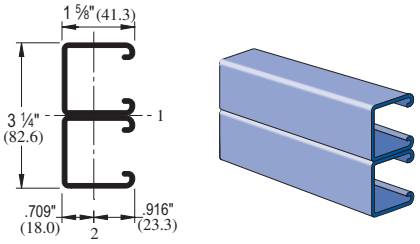
P1001 T

DF GR PG



Wt/100 Ft: 321 Lbs (478 kg/100 m)
Allowable Moment 12,200 In-Lbs (1,378 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

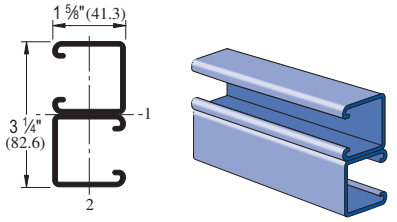
P1001 A



Wt/100 Ft: 378 Lbs (562 kg/100 m)
Allowable Moment 18,640 In-Lbs (2,110 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 B

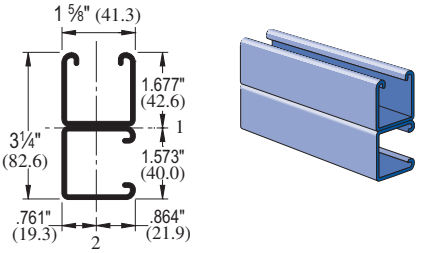
GR PG



Wt/100 Ft: 378 Lbs (562 kg/100 m)
Allowable Moment 18,640 In-Lbs (2,110 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

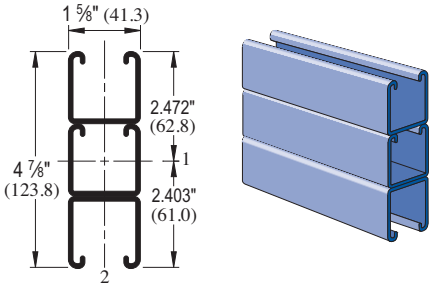
P1001 C

GR PG



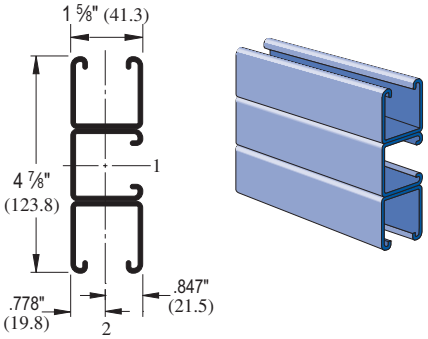
Wt/100 Ft: 378 Lbs (562 kg/100 m)
Allowable Moment 15,950 In-Lbs (1,800 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 3



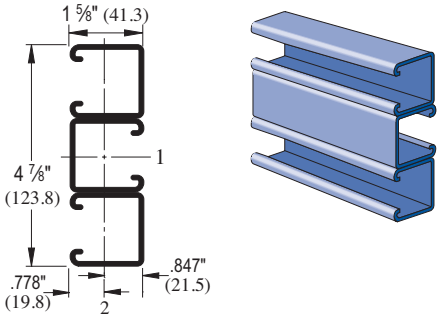
Wt/100 Ft: 566 Lbs (843 kg/100 m)
Allowable Moment 31,840 In-Lbs (3,600 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 A3



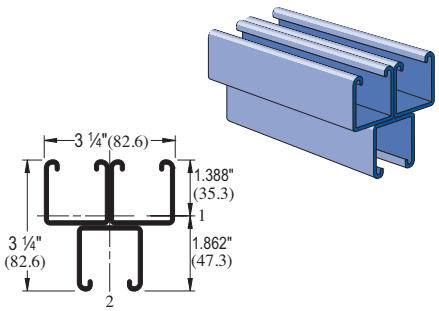
Wt/100 Ft: 566 Lbs (843 kg/100 m)
Allowable Moment 32,770 In-Lbs (3,700 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 B3



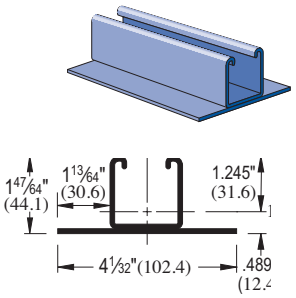
Wt/100 Ft: 566 Lbs (843 kg/100 m)
Allowable Moment 37,550 In-Lbs (4,240 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 D3



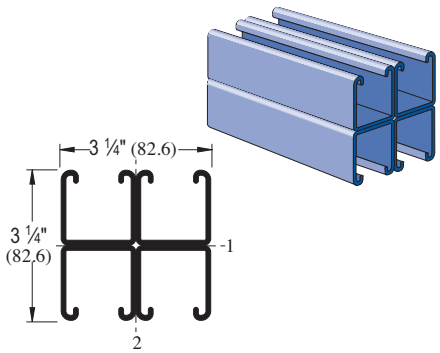
Wt/100 Ft: 566 Lbs (843 kg/100 m)
Allowable Moment 17,550 In-Lbs (1,980 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1003



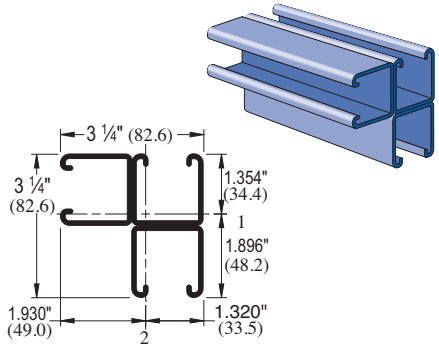
Wt/100 Ft: 333 Lbs (495 kg/100 m)
Allowable Moment 6,240 In-Lbs (700 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 C41



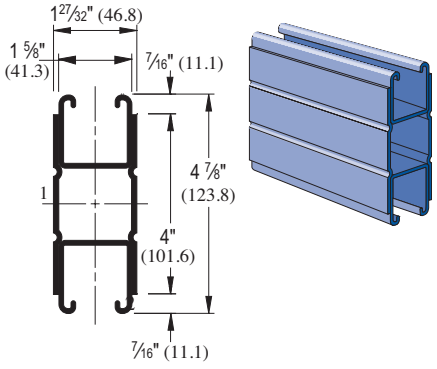
Wt/100 Ft: 755 Lbs (1,124 kg/100 m)
Allowable Moment 28,720 In-Lbs (3,250 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1001 C3



Wt/100 Ft: 566 Lbs (843 kg/100 m)
Allowable Moment 18,680 In-Lbs (2,110 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

P1004 A



Wt/100 Ft: 668 Lbs (994 kg/100 m)
Allowable Moment 41,970 In-Lbs (4,740 N•m)
12 Gauge Nominal Thickness .105" (2.7mm)

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

P1001 C41 - 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	7,040*	0.02	7,040*	7,040*	7,040*
36	6,380	0.07	6,380	6,380	6,380
48	4,790	0.13	4,790	4,790	4,790
60	3,830	0.20	3,830	3,830	3,240
72	3,190	0.28	3,190	3,190	2,250
84	2,740	0.39	2,740	2,480	1,660
96	2,390	0.50	2,390	1,900	1,270
108	2,130	0.64	2,000	1,500	1,000
120	1,910	0.78	1,620	1,220	810
144	1,600	1.14	1,130	840	560
168	1,370	1.55	830	620	410
192	1,200	2.02	630	480	320
216	1,060	2.54	500	380	250
240	960	3.16	410	300	200

P1004 A - 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	9,100*	0.01	9,100*	9,100*	9,100*
36	9,100*	0.05	9,100*	9,100*	9,100*
48	7,000	0.08	7,000	7,000	7,000
60	5,600	0.13	5,600	5,600	5,600
72	4,660	0.19	4,660	4,660	4,660
84	4,000	0.26	4,000	4,000	3,630
96	3,500	0.34	3,500	3,500	2,780
108	3,110	0.43	3,110	3,110	2,200
120	2,800	0.52	2,800	2,670	1,780
144	2,330	0.75	2,330	1,850	1,230
168	2,000	1.03	1,810	1,360	910
192	1,750	1.34	1,390	1,040	690
216	1,550	1.69	1,100	820	550
240	1,400	2.10	890	670	440

P1001 C41 - 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	12,690	46,920	44,980	42,360	39,890
36	12,250	42,680	39,890	36,660	34,050
48	11,820	38,740	35,720	32,640	30,430
60	11,470	35,500	32,640	29,980	28,220
72	11,180	32,970	30,430	28,220	26,820
84	10,900	31,040	28,840	27,010	24,870
96	10,580	29,570	27,680	26,170	19,840
108	10,310	28,440	26,820	22,310	15,670
120	10,070	27,560	26,170	18,280	12,700
144	8,740	26,320	19,840	12,700	8,820
168	7,360	21,890	14,570	9,330	**

P1004 A - 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	11,420	36,800	33,890	30,440	27,600
36	10,600	30,840	27,600	24,400	22,160
48	9,860	26,400	23,560	21,060	19,470
60	9,160	23,370	21,060	19,160	18,020
72	8,610	21,310	19,470	18,020	17,140
84	8,170	19,890	18,410	17,260	15,240
96	7,790	18,890	17,670	16,760	11,670
108	7,460	18,160	17,140	13,280	9,220
120	7,150	17,590	16,760	10,750	7,470
144	5,660	16,840	11,670	7,470	**
168	4,520	12,990	8,570	**	**

P1001 C41/ P1004 A - Elements of Section

Parameter	P1001 C41		P1004 A	
Area of Section	2.221	In^2	1.965	In^2
Axis 1-1				
Moment of Inertia (I)	1.856	In^4	4.068	In^4
Section Modulus (S)	1.142	In^3	1.669	In^3
Radius of Gyration (r)	0.914	In	1.439	In
Axis 2-2				
Moment of Inertia (I)	2.408	In^4	1.092	In^4
Section Modulus (S)	1.482	In^3	1.190	In^3
Radius of Gyration (r)	1.041	In	0.745	In

Notes:

* Load limited by spot weld shear.

** KL/r > 200

NR = Not Recommended.

1. Beam loads are given in *total* uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
2. 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.
3. 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%

4. Deduct channel weight from the beam loads.
5. For concentrated midspan point loads, multiply beam loads by 50% and the corresponding deflection by 80%. For other load conditions refer to page 18.
6. All beam loads are for bending about Axis 1-1.

P1001 C41 - Beam Loading (metric)

Span mm	Max Allowable Uniform Load kN	Defl. at Uniform Load mm	Uniform Loading at Deflection Span/180 kN	Span/240 kN	Span/360 kN
600	31.3 *	1	31.3 *	31.3 *	31.3 *
750	31.3 *	1	31.3 *	31.3 *	31.3 *
1,000	26.0	2	26.0	26.0	26.0
1,250	20.8	3	20.8	20.8	20.8
1,500	17.3	5	17.3	17.3	14.9
1,750	14.8	7	14.8	14.8	10.9
2,000	13.0	9	13.0	12.6	8.4
2,500	10.4	13	10.4	8.1	5.4
3,000	8.7	19	7.4	5.6	3.7
3,500	7.4	26	5.5	4.1	2.8
4,000	6.5	34	4.2	3.2	2.1
4,500	5.8	44	3.3	2.5	1.6
5,000	5.2	54	2.7	2.0	1.3
6,000	4.3	77	1.9	1.4	0.9

P1004 A - Beam Loading (metric)

Span mm	Max Allowable Uniform Load kN	Defl. at Uniform Load mm	Uniform Loading at Deflection Span/180 kN	Span/240 kgN	Span/360 kN
600	40.5 *	1	40.5 *	40.5 *	40.5 *
750	40.5 *	1	40.5 *	40.5 *	40.5 *
1,000	37.9	2	37.9	37.9	37.9
1,250	30.3	3	30.3	30.3	30.3
1,500	25.3	4	25.3	25.3	25.3
1,750	21.7	6	21.7	21.7	21.7
2,000	18.9	9	18.9	18.9	18.4
2,500	15.2	13	15.2	15.2	11.7
3,000	12.6	18	12.6	12.2	8.2
3,500	10.9	23	10.9	9.0	6.0
4,000	9.5	29	9.2	6.9	4.6
4,500	8.5	36	7.2	5.4	3.6
5,000	7.6	52	5.9	4.4	2.9
6,000	6.3	77	4.1	3.1	2.0

P1001 C41 - Column Loading (metric)

Unbraced Height mm	Maximum Allowable Load at Slot Face kN	Maximum Column Load Applied at C.G. K = 0.65 kN	K = 0.80 kN	K =1.0 kN	K = 1.2 kN
600	56.5	209.3	200.8	189.3	178.4
750	55.6	200.1	189.3	175.8	164.1
1,000	53.9	184.7	171.7	157.3	146.1
1,250	52.4	170.7	157.3	143.8	134.1
1,500	51.1	158.9	146.1	134.1	126.1
1,750	50.0	149.3	137.6	127.3	120.7
2,000	49.2	141.5	131.1	122.3	116.8
2,250	47.9	135.4	126.1	118.6	101.9
2,500	46.8	130.4	122.3	114.5	83.9
2,750	45.9	126.4	119.2	98.8	69.4

P1004 A - Column Loading (metric)

Unbraced Height mm	Maximum Allowable Load at Slot Face kN	Maximum Column Load Applied at C.G. K = 0.65 kN	K = 0.80 kN	K =1.0 kN	K = 1.2 kN
600	50.9	164.6	151.8	136.5	123.8
750	49.1	150.8	136.5	121.1	109.5
1,000	46.3	130.9	116.9	103.4	94.3
1,250	43.5	115.8	103.4	92.6	85.8
1,500	40.9	104.8	94.3	85.8	80.6
1,750	38.9	96.8	88.1	81.3	77.0
2,000	37.1	91.0	83.7	78.1	74.8
2,250	35.7	86.6	80.6	75.8	60.9
2,500	34.3	83.3	78.1	71.1	49.4
2,750	33.1	80.7	76.2	58.8	40.8

P1001 C41/ P1004 A - Elements of Section (metric)

Parameter		P1001 C41		P1004 A	
Area of Section		14.33	cm^2	12.68	cm^2
Axis 1-1					
	Moment of Inertia (I)	77.24	cm^4	169.33	cm^4
	Section Modulus (S)	18.71	cm^3	27.35	cm^3
	Radius of Gyration (r)	2.32	cm	3.66	cm
Axis 2-2					
	Moment of Inertia (I)	100.24	cm^4	45.44	cm^4
	Section Modulus (S)	24.29	cm^3	19.50	cm^3
	Radius of Gyration (r)	2.64	cm	1.89	cm

Notes:

* Load limited by spot weld shear.

** KL/r > 200

NR = Not Recommended.

1. Beam loads are given in *total* uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
2. 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.
3. 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%

4. Deduct channel weight from the beam loads.
5. For concentrated midspan point loads, multiply beam loads by 50% and the corresponding deflection by 80%. For other load conditions refer to page 18.
6. All beam loads are for bending about Axis 1-1.