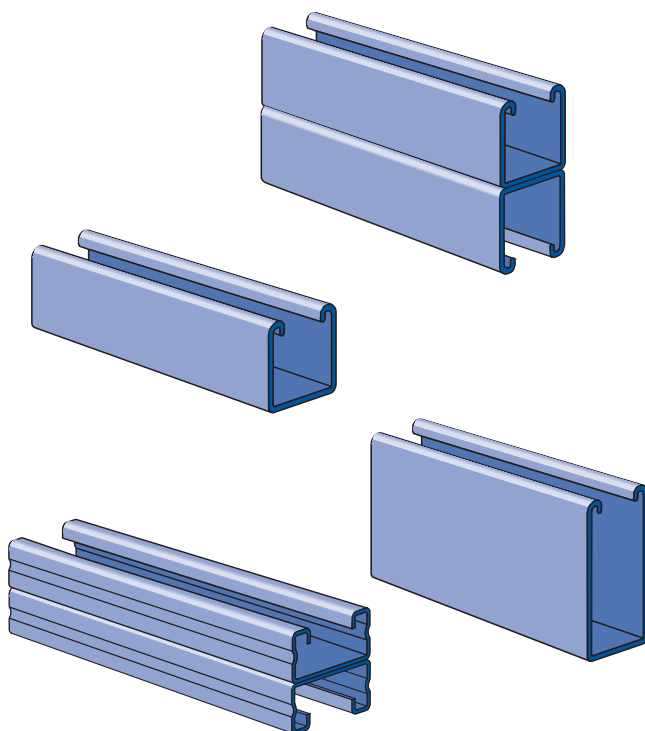




MATERIAL

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. (1.5 mm) 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

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P1000 (12 Gauge)	24 - 29
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P2000 (16 Gauge)	33 - 35
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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

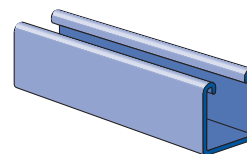
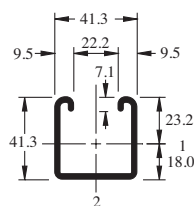
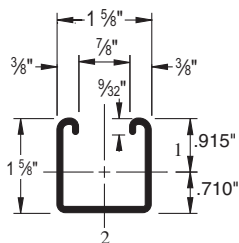
All beam and column load data pertains to carbon steel and stainless steel channels. Load tables and charts are constructed to be in accordance with the SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS 2007 EDITION published by the AMERICAN IRON AND STEEL INSTITUTE USING ASD METHOD.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



P1000®

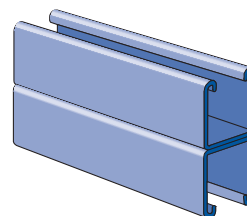
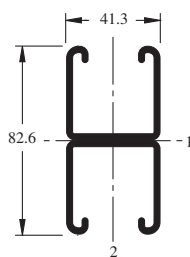
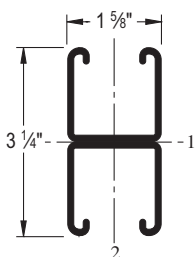
DF GR HG PG PL



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

P1000 H3

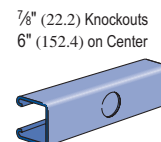
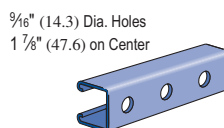
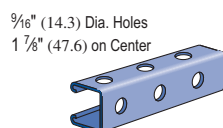
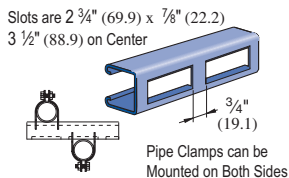
GR HG PG PL

P1000 HS

GR HG PG PL

P1000 KO

GR PG



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

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

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

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

P1000 SL

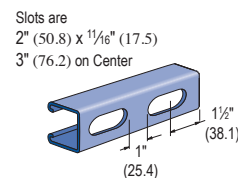
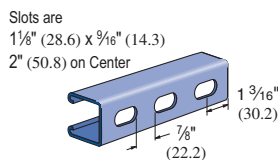
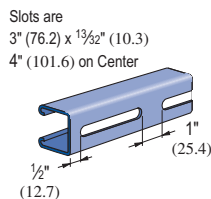
GR HG PG PL

P1000 T

DF GR HG PG PL

P1000 WT

DF GR HG PG PL



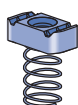
Wt/100 Ft: 185 Lbs (275 kg/100 m)

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

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

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

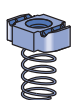
SEE PAGE 73, 74



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.

- 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" Series85%
"HS" Series90%	"SL" Series85%
"H3" Series.....90%	"DS" Series.....70%
"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.



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.

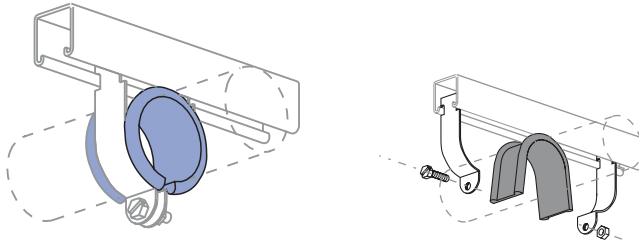
- Beam loads are given in total uniform load (W Lbs) not uniform load (w lbs/ft or w lbs/in).
- Beam loads are based on a simple span and assumed to be adequately laterally braced. Unbraced spans can reduce beam load carrying capacity. Refer to Page 62 for reduction factors for unbraced lengths.
- For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

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

P2600

UNICUSHION®: ISOLATION MATERIAL

Wt/Carton: 2.5 Lbs (1.1 kg)



- 25 feet per carton.
- Cut to length as shown in chart below.

UNICUSHION FEATURES

- Shock absorption
- Protection from corrosion and abrasion
- Allowance for expansion and contraction in pipe diameter
- Sound and vibration isolation
- Stability in use from - 50° F (-47° C) to + 350°F (+177° C)
- Flexible elastomer material
- Will not support combustion

UNICUSHION® CLAMP SELECTION GUIDE

EMT CONDUIT

Nominal Size	Use with Clamp	UNICUSHION Length In (mm)
3/8"	P1426	1 1/4 (44.5)
1/2"	P1111	2 1/8 (54.0)
3/4"	P1112	2 3/4 (69.9)
1"	P2032	3 5/8 (92.1)
1 1/4"	P2035	4 3/4 (120.7)
1 1/2"	P2037	5 1/2 (139.7)
2"	P1117	6 3/4 (171.5)

STANDARD PIPE OR RIGID CONDUIT

Nominal Size	Use with Clamp	UNICUSHION Length In (mm)
3/8"	P1111	2 1/8 (54.0)
1/2"	P2030	3 (76.2)
3/4"	P2031	3 1/4 (82.6)
1"	P2034	4 1/4 (108.0)
1 1/4"	P2037	5 1/4 (133.4)
1 1/2"	P2038	6 (152.4)
2"	P2042	7 1/2 (190.5)
2 1/2"	P2046	9 (228.6)
3"	P2051	11 (279.4)
3 1/2"	P2055	12 1/4 (311.2)
4"	P2059	14 (355.6)
5"	P2067	17 1/2 (444.5)
6"	P2070-66	20 3/4 (527.1)

COPPER TUBING TYPE K OR L

Nominal Size	Use with Clamp	UNICUSHION Length In (mm)
1/4"	P2026	1 1/8 (27.0)
3/8"	P2027	1 1/2 (38.1)
1/2"	P2028	2 1/8 (54.0)
5/8"	P2029	2 1/4 (57.2)
3/4"	P2030	3 (76.2)
1"	P2032	3 5/8 (92.1)
1 1/4"	P2034	4 1/2 (114.3)
1 1/2"	P1430	5 1/4 (133.4)
2"	P2040	6 3/4 (171.5)
2 1/2"	P2044	8 1/4 (209.6)
3"	P2048	10 (254.0)
3 1/2"	P2052	11 1/4 (285.8)
4"	P2056	12 1/2 (317.5)
5"	P2064	16 (406.4)
6"	P2070-62	19 (482.6)
8"	P2070-82	25 (635.0)

UNICUSHION® CLAMP CUTTING GUIDE

O. D. Size In (mm)	Use With Clamp	UNICUSHION Length In (mm)
1/4 (6.4)	P2025	7/8 (22.2)
3/8 (9.5)	P2026	1 1/8 (27.0)
1/2 (12.7)	P2027	1 1/2 (38.1)
5/8 (15.9)	P2028	2 1/8 (54.0)
3/4 (19.1)	P2029	2 1/4 (57.2)
7/8 (22.2)	P2030	3 (76.2)
1 (25.4)	P2031	3 1/4 (82.6)
1 1/8 (28.6)	P2032	3 5/8 (92.1)
1 1/4 (31.8)	P2033	4 (101.6)
1 3/8 (34.9)	P2034	4 1/2 (114.3)
1 1/2 (38.1)	P2035	4 3/4 (120.7)
1 5/8 (41.3)	P1430	5 1/4 (133.4)
1 3/4 (44.5)	P2037	5 1/2 (139.7)
1 7/8 (47.6)	P2038	6 (152.4)
2 (50.8)	P2039	6 1/2 (165.1)
2 1/8 (54.0)	P2040	6 3/4 (171.5)
2 1/4 (57.2)	P1117	7 1/4 (184.2)
2 3/8 (60.3)	P2042	7 1/2 (190.5)
2 1/2 (63.5)	P2043	8 (203.2)
2 5/8 (66.7)	P2044	8 1/4 (209.6)
2 3/4 (69.9)	P1118	8 3/4 (222.3)
2 7/8 (73.0)	P2046	9 1/4 (235.0)
3 (76.2)	P2047	9 3/4 (241.3)

O. D. Size In (mm)	Use With Clamp	UNICUSHION Length In (mm)
3 1/8 (79.4)	P2048	10 (254.0)
3 1/4 (82.6)	P2049	10 1/2 (266.7)
3 3/8 (85.7)	P1119	10 3/4 (273.1)
3 1/2 (88.9)	P2051	11 (279.4)
3 5/8 (92.1)	P2052	11 1/4 (285.8)
3 3/4 (95.3)	P2053	11 1/2 (292.1)
3 7/8 (98.4)	P1120	11 3/4 (298.5)
4 (101.6)	P2055	12 (304.8)
4 1/8 (104.8)	P2056	12 1/2 (317.5)
4 1/4 (108.0)	P2057	13 (330.2)
4 3/8 (111.1)	P1121	13 1/2 (342.9)
4 1/2 (114.3)	P2059	14 (355.6)
4 5/8 (117.5)	P2060	14 1/4 (362.0)
4 3/4 (120.7)	P2061	14 3/4 (374.7)
4 7/8 (123.8)	P2062	15 (381.0)
5 (127.0)	P2063	15 1/2 (393.7)
5 1/8 (130.2)	P2064	16 (406.4)
5 1/4 (133.4)	P2065	16 1/4 (412.8)
5 3/8 (136.5)	P2066	16 1/2 (419.1)
5 1/2 (139.7)	P2067	17 (431.8)
5 5/8 (142.9)	P2068	17 1/2 (444.5)
5 3/4 (146.1)	P2069	17 3/4 (450.9)
5 7/8 (149.2)	P2070	18 1/4 (463.6)

O. D. Size In (mm)	Use With Clamp	UNICUSHION Length In (mm)
6 (152.4)	P2070-61	18 1/2 (469.9)
6 1/8 (155.6)	P2070-62	19 (482.6)
6 1/4 (158.8)	P2070-63	19 1/4 (489.0)
6 3/8 (161.9)	P2070-64	19 3/4 (501.7)
6 1/2 (165.1)	P1124	20 (508.0)
6 5/8 (168.3)	P2070-66	20 1/2 (520.7)
6 3/4 (171.5)	P2070-67	21 (533.4)
6 7/8 (174.6)	P2070-70	21 1/4 (539.8)
7 (177.8)	P2070-71	21 3/4 (552.5)
7 1/8 (181.0)	P2070-72	22 (558.8)
7 1/4 (184.2)	P2070-73	22 1/2 (571.5)
7 3/8 (187.3)	P2070-74	22 3/4 (577.9)
7 1/2 (190.5)	P2070-75	23 1/4 (590.6)
7 5/8 (193.7)	P2070-76	23 1/2 (596.9)
7 3/4 (196.9)	P2070-77	24 (609.6)
7 7/8 (200.0)	P2070-80	24 1/2 (622.3)
8 (203.2)	P2070-81	24 3/4 (628.7)
8 1/8 (206.4)	P2070-82	25 (635.0)
8 1/4 (209.6)	P2070-83	25 1/2 (647.7)
8 3/8 (212.7)	P2070-84	26 (660.4)
8 1/2 (215.9)	P1126	26 1/4 (666.8)