

P9000 & P9200 TELESTRUT®

FOR 1 5/8" (41 MM) WIDTH SERIES CHANNEL



1 5/8" Channels

Nuts & Hardware

General Fittings

Pipe/Conduit Supports

Electrical Fittings

Concrete Inserts

1 1/4" Framing System

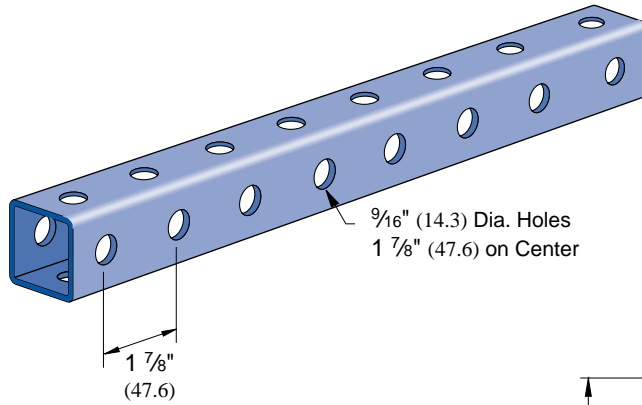
1 3/16" Framing System

Spec. Metals & Fiberglass

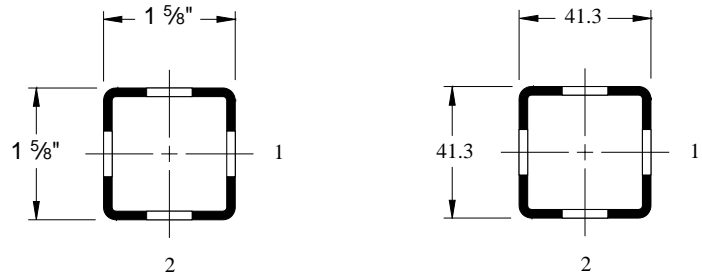
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P9000

TELESTRUT TUBING



PATENT PENDING

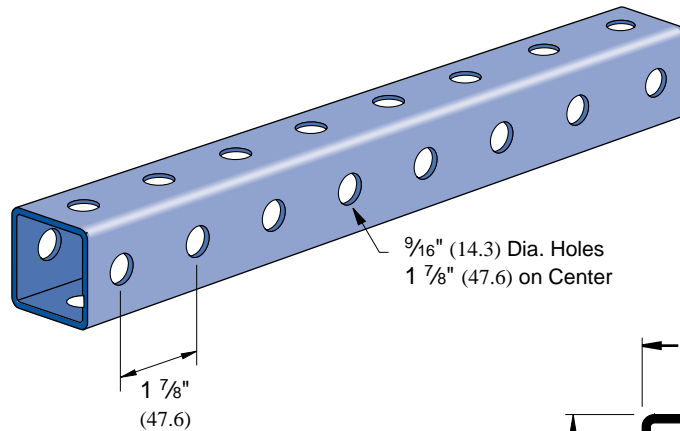


Note: Can be used with 1 5/8" (41mm) fittings.

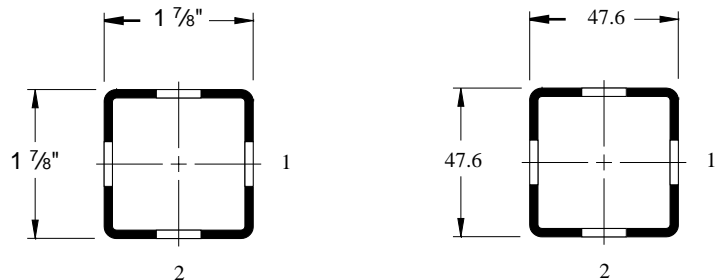
Weight: 205 Lbs/C Ft (305 kg/100 m)

P9200

TELESTRUT TUBING



PATENT PENDING



Note: Allows telescoping of P9000 and all 1 5/8" (41mm) Unistrut channels.

Weight: 223 Lbs/C Ft (332 kg/100 m)

Telestrut	Weight		Allowable Moment		Material Thickness		Standard Lengths		Finishes				Other Materials	
	Lbs/Ft	kg/m	In-Lb	Nm	In	mm	10'	20'	PL	GR	HG	PG	SS	EA
P9000	2.05	3.1	5,060	570	.105	2.7	■	■	■	■		■		
P9200	2.23	3.3	7,470	840	.105	2.7	■	■	■	■		■		

Nominal thickness of 12 gage strip steel is .105 inches.

CHANNELS & COMBINATIONS

FOR 1½" (41 MM) WIDTH SERIES CHANNEL



1 5/8" Channels
Nuts & Hardware
General Fittings
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1¼" Framing System
13/16" Framing System
Spec. Metals & Fiberglass
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MATERIAL

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

Spot-welded combination members are welded 3" (maximum) on center.

STEEL: PLAIN

12 Ga. (2.7 mm), 14 Ga.(1.9 mm)
ASTM A570 GR 33
16 Ga. (1.5 mm) ASTM A366

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 and Fiberglass section.

FINISHES

All channels are available in: Perma Green II (GR), pre-galvanized (PG), conforming to ASTM A653; Hot-dipped galvanized (HG), conforming to ASTM A123 or A153; and plain (PL).

STANDARD LENGTHS

Standard lengths are 10 feet (3.05m) and 20 feet (6.10m). Tolerances are +⅛" (3.2 mm) to +½" (12.7 mm) to allow for cutting. Special lengths are available for a small cutting charge with a tolerance of ±⅛" (3.2mm).

CURVED CHANNEL

Many Unistrut 1½" (41mm) channel sections are available as curved pieces in both single and combination styles. Contact your local Unistrut Service Center or Unistrut Corporation for ordering information.

DIMENSIONS

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

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 AUGUST 19, 1986 EDITION with DECEMBER 11, 1989 ADDENDUM published by the AMERICAN IRON AND STEEL INSTITUTE.

CHANNELS & COMBINATIONS

FOR 1 5/8" (41 MM) WIDTH SERIES CHANNEL



1 5/8" Channels

Nuts & Hardware

General Fittings

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1/4" Framing System

3/16" Framing System

Spec. Metals & Fiberglass

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CHANNEL SELECTION CHART

Channel	Channel Dimensions				Material & Thickness			Hole Pattern Styles					
	Width		Height		Steel	Stain- less Steel	Alum.	KO	T	SL	HS	DS	H3
	In	mm	In	mm									
P1000	1 5/8	41	1 5/8	41	12 ga	12 ga	.109	■	■	■	■	■*	■*
P1100	1 5/8	41	1 5/8	41	14 ga	14 ga	—	■	■	■	■		
P2000	1 5/8	41	1 5/8	41	16 ga	—	—	■	■	■	■		
P3000	1 5/8	41	1 3/8	35	12 ga	—	—	■	■	■	■		
P3300	1 5/8	41	7/8	22	12 ga	12 ga	—		■	■	■		
P4000	1 5/8	41	13/16	21	16 ga	16 ga	.078		■	■	■		
P4100	1 5/8	41	13/16	21	14 ga	—	—		■	■	■		
P5000	1 5/8	41	3/4	83	12 ga	—	—	■	■	■	■		
P5500	1 5/8	41	27/16	62	12 ga	—	.109	■	■	■	■		

- This reference chart reflects the available channels and hole patterns manufactured by Unistrut Corporation.
- Stainless steel sections are also available on special order in "T," "SL" and "HS" hole pattern.
- Metric equivalent for material thickness: 12 ga. (2.7 mm); 14 ga. (1.9 mm); and 16 ga. (1.5 mm).

* Not available in aluminum.

CHANNELS & COMBINATIONS IN DESCENDING ORDER OF STRENGTH

Channel	S in ³	I in ⁴	Area in ²	Weight Lbs/Ft
P5001	1.716*	5.578*	1.794	6.10
P1004 A	1.673	4.079	1.978	6.70
P5501	1.153	2.811	1.453	4.94
P1001 C41	1.145	1.860	2.223	7.60
P5000	.628	1.099	.897	3.05
P1001	.572	.930	1.112	3.80
P1101	.456	.741	.834	2.84
P3001	.431	.593	1.007	3.40
P5500	.391	.523	.726	2.47
P2001	.379	.616	.681	2.32
P9200	.297	.278	.489	2.23

Channel	S in ³	I in ⁴	Area in ²	Weight Lbs/Ft
P9000	.203	.164	.384	2.05
P3301	.202	.177	.797	2.70
P1000	.202	.185	.556	1.90
P1100	.166	.149	.417	1.42
P3000	.154	.121	.503	1.70
P4101	.141	.114	.574	1.94
P2000	.140	.124	.340	1.16
P4001	.125	.101	.478	1.64
P3300	.072	.037	.398	1.35
P4100	.053	.025	.287	.97
P4000	.048	.023	.239	.82

* Effective section properties.

BEAM LOADING DATA

Span	Telestrut	Max. Allowable Uniform Load		Deflection at Uniform Load		Uniform Loading at Deflections							
						Span/180		Span/240		Span/360			
		In	mm	Lbs	kN	In	mm	Lbs	kN	Lbs	kN	Lbs	kN
24	P9000 P9200	1690	7.5	0.06	2	1690	7.5	1690	7.5	1690	7.5	1690	7.5
		2490	11.1	0.05	1	2490	11.1	2490	11.1	2490	11.1	2490	11.1
36	P9000 P9200	1120	5.0	0.14	4	1120	5.0	1120	5.0	1120	5.0	800	3.6
		1660	7.4	0.12	3	1660	7.4	1660	7.4	1660	7.4	1350	6.0
48	P9000 P9200	840	3.7	0.25	6	840	3.7	670	3.0	670	3.0	450	2.0
		1240	5.5	0.22	6	1240	5.5	1140	5.1	1140	5.1	760	3.4
60	P9000 P9200	670	3.0	0.39	10	570	2.5	430	1.9	430	1.9	290	1.3
		1000	4.4	0.34	9	970	4.3	730	3.2	730	3.2	490	2.2
72	P9000 P9200	560	2.5	0.56	14	400	1.8	300	1.3	300	1.3	200	0.9
		830	3.7	0.49	12	670	3.0	510	2.3	510	2.3	340	1.5
84	P9000 P9200	480	2.1	0.77	19	290	1.3	220	1.0	220	1.0	150	0.7
		710	3.2	0.67	17	500	2.2	370	1.6	370	1.6	250	1.1
96	P9000 P9200	420	1.9	1.00	25	220	1.0	170	0.8	170	0.8	110	0.5
		620	2.8	0.87	22	380	1.7	280	1.2	280	1.2	190	0.8
108	P9000 P9200	370	1.6	1.25	32	180	0.8	130	0.6	130	0.6	90	0.4
		550	2.4	1.10	28	300	1.3	220	1.0	220	1.0	150	0.7
120	P9000 P9200	340	1.5	1.58	40	140	0.6	110	0.5	110	0.5	70	0.3
		500	2.2	1.37	35	240	1.1	180	0.8	180	0.8	120	0.5
144	P9000 P9200	280	1.2	2.25	57	100	0.4	70	0.3	70	0.3	50	0.2
		410	1.8	1.94	49	170	0.8	130	0.6	130	0.6	80	0.4
168	P9000 P9200	240	1.1	3.06	78	70	0.3	50	0.2	50	0.2	40	0.2
		360	1.6	2.7	69	120	0.5	90	0.4	90	0.4	60	0.3
192	P9000 P9200	210	0.9	4.00	102	60	0.3	40	0.2	40	0.2	NR	NR
		310	1.4	3.48	88	90	0.4	70	0.3	70	0.3	50	0.2
216	P9000 P9200	190	0.8	5.15	131	NR	NR	NR	NR	NR	NR	NR	NR
		280	1.2	4.48	114	70	0.3	60	0.3	60	0.3	40	0.2
240	P9000 P9200	170	0.8	6.32	161	NR	NR	NR	NR	NR	NR	NR	NR
		250	1.1	5.49	139	60	0.3	50	0.2	50	0.2	30	0.1

NR = Not Recommended

Notes:

1. Above loads include the weight of the member. This weight must be deducted to arrive at the net allowable load the beam will support.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. Allowable uniformly distributed loads are listed for various simple spans, that is, a beam on two supports. If load is concentrated at the center of the span, multiply load from the table by 0.5 and corresponding deflection by 0.8.
4. See page 66 for lateral bracing load reduction charts.

COLUMN LOADING DATA

Unbraced Height		Telestrut	Max. Design Load Applied at Col. Face		Maximum Column Load Applied at C.G.							
					K = .65		K = .80		K = 1.0		K = 1.2	
In	mm		Lbs	kN	Lbs	kN	Lbs	kN	Lbs	kN	Lbs	kN
24	610	P9000	3420	15.2	8230	36.6	8140	36.2	7990	35.5	7810	34.7
		P9200	4420	19.7	10530	46.8	10450	46.5	10310	45.9	10130	45.1
36	914	P9000	3240	14.4	8010	35.6	7810	34.7	7480	33.3	7070	31.4
		P9200	4240	18.9	10330	46.0	10130	45.1	9820	43.7	9430	41.9
48	1219	P9000	3010	13.4	7710	34.3	7350	32.7	6760	30.1	6040	26.9
		P9200	4010	17.8	10040	44.7	9700	43.1	9130	40.6	8450	37.6
60	1524	P9000	2750	12.2	7320	32.6	6760	30.1	5840	26.0	4720	21.0
		P9200	3740	16.6	9660	43.0	9130	40.6	8250	36.7	7180	31.9
72	1829	P9000	2470	11.0	6840	30.4	6040	26.9	4720	21.0	3330	14.8
		P9200	3440	15.3	9210	41.0	8450	37.6	7180	31.9	5630	25.0
84	2134	P9000	2180	9.7	6280	27.9	5190	23.1	3520	15.7	2440	10.9
		P9200	3130	13.9	8670	38.6	7630	33.9	5910	26.3	4150	18.5
96	2438	P9000	1890	8.4	5630	25.0	4210	18.7	2690	12.0	1870	8.3
		P9200	2810	12.5	8050	35.8	6690	29.8	4570	20.3	3180	14.1
108	2743	P9000	1630	7.3	4900	21.8	3330	14.8	2130	9.5	1480	6.6
		P9200	2490	11.1	7350	32.7	5630	25.0	3610	16.1	2510	11.2
120	3048	P9000	1410	6.3	4080	18.1	2690	12.0	1720	7.7	**	**
		P9200	2180	9.7	6570	29.2	4570	20.3	2930	13.0	2030	9.0

** $\frac{KL}{r} > 200$

ELEMENTS OF SECTION

Telestrut	Areas of Section		Axis 1 - 1						Axis 2 - 2					
			I		S		r		I		S		r	
	In ²	cm ²	In ⁴	cm ⁴	In ³	cm ³	In	cm	In ⁴	cm ⁴	In ³	cm ³	In	cm
P9000	.384	2.5	.164	6.8	.203	3.3	.653	1.7	.164	6.8	.203	3.3	.653	1.7
P9200	.489	3.2	.278	11.6	.297	4.9	.754	1.9	.278	11.6	.297	4.9	.754	1.9

I - Moment of Inertia

S - Section Modulus

r - Radius of Gyration

1½" Channels

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1¼" Framing System

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