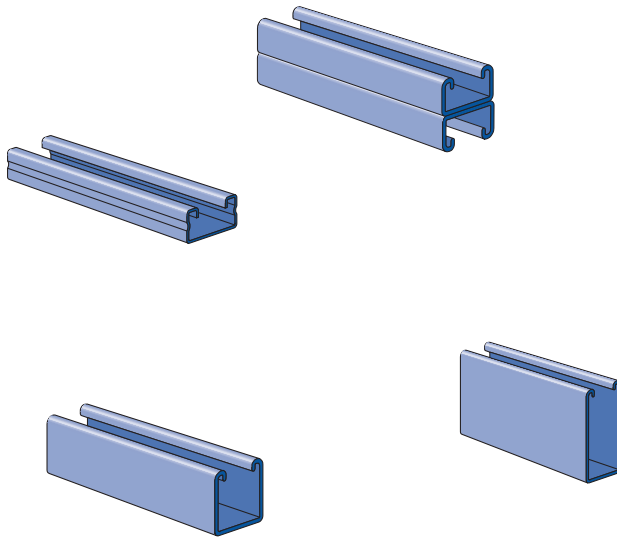




1 1/4" FRAMING SYSTEM



A1000 (14 Gauge)	183-184
A3300 (14 Gauge)	185-186
A4000 (19 Gauge)	187-198
A5000 (14 Gauge)	189
Channel Nuts and Closure Strips	190-191
Flat Plate Fittings	191
Ninety Degree Fittings.....	191-192
"Z" Shape Fittings	192
Angle and Wing Shape Fittings	193
"U" Shape Fittings	193
Pipe / Tubing Clips	194
Brackets	194

MATERIAL

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

STEEL: PLAIN

- 14 Gauge (1.9 mm), ASTM A1011 SS GR 33
- 19 Gauge (1.0 mm) ASTM A1008

STEEL: PRE-GALVANIZED

- 14 Gauge (1.9 mm) ASTM A653 GR 33,
- 19 Gauge (1.0 mm) ASTM A653 GR 33

Channel nuts are manufactured from mild steel bars conforming to ASTM A576, GR 1015, and are case hardened.

Fittings are made from hot rolled, pickled and oiled steel plate or strip and conform to ASTM A1011 SS GR 33.

Many framing channels are available in special metal on request. Consult factory for ordering information.

FINISHES

All channels and fittings are available in: Perma-Green III (GR), Pre-galvanized (PG), conforming to ASTM A653 GR 33 and plain (PL).

Nuts are available in plain or electro-galvanized (EG) finish.

Fittings are available in Perma-Green III (GR) or plain (PL).

STANDARD LENGTHS

Standard lengths are 10 feet (3.05M) and 20 feet (6.10M). Tolerances are: +1/8" (3.2 mm) to +1/2" (12.7 mm) to allow for cutting. Special lengths are available for a small cutting charge with a tolerance of ±1/8" (3.2mm).

APPLICATION

A framing system designed for medium loads, the 1 1/4" series is especially suitable for use in the OEM, commercial and display markets. It maintains a lightness in scale and a clean line that makes it aesthetically pleasing as well as functional.

THREADS

All threads on the nuts and bolts are Unified and American coarse screw threads.

DESIGN BOLT TORQUE

BOLT SIZE	1/4"-20	5/16"-18	3/8"-16
Rec. Torque	6	11	19
Ft/Lbs (N•m)	(8)	(15)	(26)
Max Torque	7	15	25
Ft/Lbs (N•m)	(9)	(20)	(34)

DIMENSIONS

Imperial dimensions are illustrated in inches. Metric dimensions are shown in parenthesis or as noted. Unless noted, all metric dimensions are 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 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	Safety Factor to Ultimate Strength
Beam Loads	1.67	2.0
Column Load	1.80	2.2



BEARING LOADS ON UNISTRUT CHANNEL

Loads are calculated based on 2001 Specification For The Design Of Cold Formed Steel Structural Members published by AISI

Channel	Bearing Length 1/4" (31.8 mm) Maximum Allowable Loads - Lbs (kN)	Bearing Length 1/4" (31.8 mm) Maximum Allowable Loads - Lbs (kN)	Bearing Length 2 1/2" (63.5 mm) Maximum Allowable Loads - Lbs (kN)
A1000	3,700 (16.46)	1,700 (7.56)	4,300 (19.13)
A3300	3,800 (16.90)	1,700 (7.56)	4,300 (19.13)
A4000	1,200 (5.34)	600 (2.67)	1,400 (6.23)
A5000	3,600 (16.01)	1,600 (7.12)	4,200 (18.68)

MAXIMUM ALLOWABLE PULL-OUT AND SLIP LOADS

Nut Size/ Thread	Channel	Gauge	Max Allowable Pull-Out Lbs (kN)	Resistance to Slip Lbs (kN)	Torque Ft-Lbs (N*m)
3/8" -16	A1000	14	900	500	19
			4.00	2.22	26
5/16" -18	A3300	14	900	500	11
			4.00	2.22	15
1/4" -20	A5000	14	900	500	6
			4.00	2.22	8
3/8" -16	A4000	19	300	400	19
			1.33	1.78	26

Nut design loads include a minimum safety factor of 3.

LATERAL BRACING LOAD REDUCTION CHARTS

Span		Single Channel				Double Channel		
Ft. (m)	In. (cm)	A1000	A3300	A4000	A5000	A1001	A3301	A4001
2 (0.6)	24 (61)	0.95	1.00	0.94	0.90	1.00	1.00	1.00
3 (0.9)	36 (91)	0.86	0.97	0.83	0.69	1.00	1.00	0.97
4 (1.2)	48 (122)	0.78	0.94	0.73	0.49	0.95	0.99	0.89
5 (1.5)	60 (152)	0.72	0.91	0.65	0.37	0.90	0.95	0.82
6 (1.8)	72 (183)	0.67	0.89	0.58	0.31	0.84	0.91	0.74
7 (2.1)	84 (213)	0.63	0.87	0.53	0.27	0.79	0.88	0.67
8 (2.4)	96 (244)	0.59	0.85	0.49	0.24	0.74	0.84	0.59
9 (2.7)	108 (274)	0.55	0.83	0.45	0.22	0.69	0.81	0.52
10 (3.1)	120 (305)	0.52	0.80	0.42	0.21	0.64	0.77	0.46
12 (3.7)	144 (366)	0.46	0.76	0.38	0.19	0.54	0.70	0.38

CHANNEL NUT WITH SPRING



	Part Number	Nut Size Thread	Wt/100 pcs Lbs (kg)	Use With
	A1006-1420	1/4" -20	6 (2.7)	A1000
A1007	5/16" -18	6 (2.7)		
A1008	3/8" -16	6 (2.7)		
	Part Number	Nut Size Thread	Wt/100 pcs Lbs (kg)	Use With
	A4006-1420	1/4" -20	5 (2.3)	A3300, A4000
A4007	5/16" -18	5 (2.3)		
A4008	3/8" -16	5 (2.3)		
	Part Number	Nut Size Thread	Wt/100 pcs Lbs (kg)	Use With
	A5006-1420	1/4" -20	6 (2.7)	A5000
A5007	5/16" -18	6 (2.7)		
A5008	3/8" -16	6 (2.7)		

CHANNEL NUT WITHOUT SPRINGS

	Part Number	Nut Size Thread	Wt/100 pcs Lbs (kg)	Use With
	A3006-1420	1/4" -20	5 (2.3)	A1000, A3300, A4000, & A5000
A3007	5/16" -18	5 (2.3)		
A3008	3/8" -16	5 (2.3)		
	Part Number	Nut Size Thread	Wt/100 pcs Lbs (kg)	Use With
	A3016-0832	#8 -32	1 (0.5)	A1000, A3300, A4000, & A5000
A3016-1024	#10 -24	1 (0.5)		
A3016-1032	#10 -32	1 (0.5)		
A3016-1420	1/4" -20	1 (0.5)		