Technical Data Sheet

P5500

Product Description:

Atkore Unistrut P5500 Channel is one of our larger channel options, Part of the original Unistrut Metal Framing System, which is 100% reusable due to its flexibility, adaptability, and versatility.

Features:

- Unistrut P5500 is commonly used for trapeze supports, seismic bracing, ceiling grids, pipe, conduit, duct, and cable tray supports, rack, and other general framing.

Standards:

- Mild Steel (PL)& Hot Dip Galvanised (HG) to AS/NZS1365, AS1594, AS/NZS4680, ISO1461
- Pre-Galvanised (GB)(TG) to AS1397
- Stainless Steel (SS) to AS1449, AS2837

Applications:

- Data Centers
- Renewables
- Infrastructure
- Commercial buildings
- Shopping Centers
- Warehouse & distribution

Finishes:

- TrueGalv [TG]
- Galvabond [GB]
- Stainless Steel [SS]
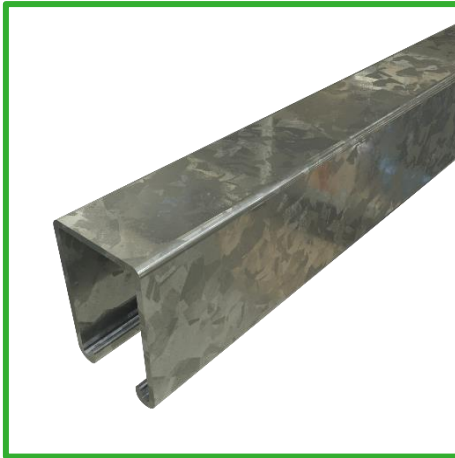- Hot-Dip Galvanised [HG]
- Plain [PL]

Note: Before using Atkore Unistrut Strut, it's essential to consult the manufacturer's specifications and guidelines to ensure proper installation and performance in your specific application.
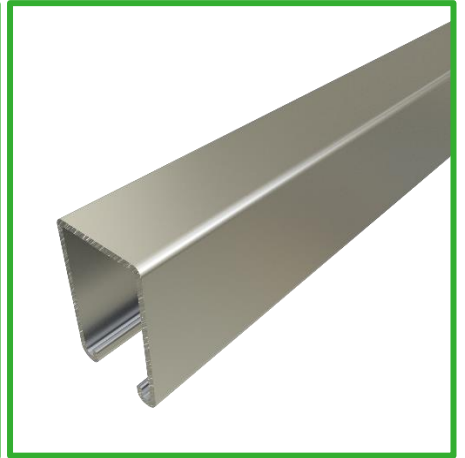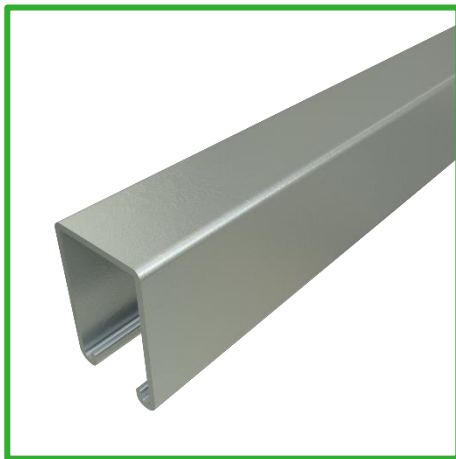
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Finishes:
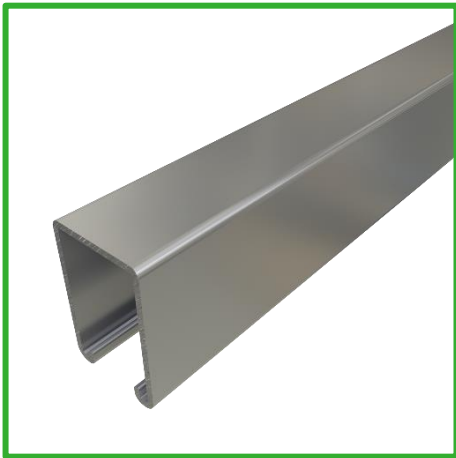
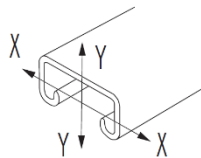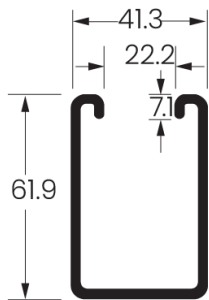
TrueGalv
(TG)

Galvabond
(GB)

Stainless Steel
(SS)

Hot Dip Galvanised
(HG)

Plain
(PL)

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Dimensions:

- 41.3
- 22.2
- 7.1
- 61.9

A - 433mm²
kg/m - 3.40kg/m
I x-x = 0.197 10⁶mm⁴
Z x-x = 5.730 10³mm³
r x-x = 21.3mm
I y-y = 0.131 10⁶mm⁴
Z y-y = 6.328 10³mm³
r y-y = 17.4mm

Note: All dimensions shown are in millimeters.

Australia		New Zealand				
Cat No	Mat No	Cat No	Mat No	Description	Material thickness	Weight
P5500-PL	3000098	P5500-PL	2081866	P5500 PLAIN 6M LENGTH	2.5MM	3.40kg/m
P5500-GB	4001200	P5500-GB	2080326	P5500 GALVABOND 6M LENGTH	2.5MM	3.40kg/m
P5500-TG	4039708	NA		P5500 TRUEGALV 6M LENGTH	2.5MM	3.40kg/m
P5500-HG	4001201	P5500-HG	2094394	P5500 HOT DIP GALVANISED 6M LENGTH	2.5MM	3.40kg/m
P5500-SS	4010164	NA		P5500 STAINLESS STEEL 316 6M LENGTH	2.5MM	3.67kg/m

Load Rating & Deflection:

Length (mm)	Max. Allowable Load (kg)	Deflection at Allowable Load (mm)	Max. Allowable Column Load (kg)
250	2759.18	0.14	5815.44
500	1412.24	0.57	4681.52
750	941.84	1.29	3444.6
1000	706.12	2.29	2432.02
1250	565.31	3.58	1772.27
1500	470.41	5.15	1403.13
1750	403.06	7.01	1170.63
2000	353.06	9.16	1017.68
2250	314.29	11.59	889.19
2500	282.65	14.31	796.4
2750	257.14	17.31	719.92
3000	235.71	20.61	655.68
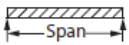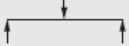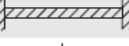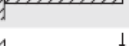
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Conversion factors

Design Load Data – Typical Strut Connection

Load tables in this catalogue for 41mm Strut width series are for single span beams supported at the ends. These can be used in the majority of cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are 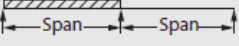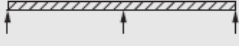shown in Table 1. Simply multiply the loads from the Beam Load Tables by the load factors given in Table 1. Similarly, multiply the deflections from the Beam Load Tables by the deflection factor given in Table 1.

Table 1

	Load and Support Condition		Load Factor	Deflection Factor
1	Simple Beam - Uniform Load		1.00	1.00
2	Simple Beam Concentrated Load at Centre		0.50	0.80
3	Simple Beam -Two Equal Concentrated Loads at 1/4 Points		1.00	1.10
4	Beam Fixed at Both Ends - Uniform Load		1.50	0.30
5	Beam Fixed at Both Ends - Concentrated Load at Centre		1.00	0.40
6	Cantilever Beam - Uniform Load		0.25	2.40
7	Cantilever Beam - Concentrated Load at End		0.12	3.20
8	Continuous Beam - Two Equal Spans - Uniform Load on One Span		1.30	0.92
9	Continuous Beam - Two Equal Spans - Uniform Load on Both Ends		1.00	0.42
10	Continuous Beam - Two Equal Spans - Concentrated Load at Centre of One Span		0.62	0.71
11	Continuous Beam - Two Equal Spans - Concentrated Load at Centre of Both Spans		0.67	0.48

Unistrut® Column Loading

The strength of axially loaded columns or compression members is, in part, dependent on the end conditions, that is, the degree of end fixity or restraint. A column with both ends fixed will support more load than one with both ends free or pin-ended.

Column loads published for UNISTRUT® sections in this catalogue are offered as a guide and assume a partially fixed end condition as usually found in flat ended columns that are laterally tied and braced, i.e. K = 1.0.

Assumed K values (effective length factors) for columns with varying end restraints are as follows:

End Condition Code

- Rotation fixed and translation fixed
- Rotation free and translation fixed
- Rotation fixed and translation free

| K Value | 0.65 | 0.80 | 1.0 | 1.2 |