

## Technical Data Sheet

### P5501

#### Product Description:

Atkore Unistrut P5501 back-to-back Channel is one of our larger channel options. Its back-to-back design offers users to attach to both sides of the channel length. Part of the original Unistrut Metal Framing System, which is 100% reusable due to its flexibility, adaptability, and versatility.



#### Features:

- Channel edges and nut's tapered grooves act as guides to provide positive alignment of connection.
- Nut teeth grip the channel's inturned edges, tying the channel sides together in a "box" configuration for added strength.
- Longitudinal movement of nut is resisted as hardened teeth bite into the inturned edges.

#### Standards:

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

#### Finishes:

- Galvabond [GB]
- Hot-Dip Galvanised [HG]
- Plain [PL]

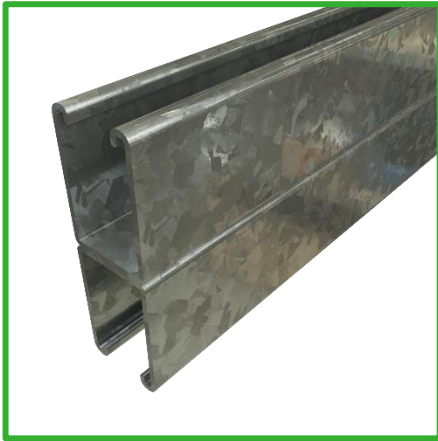
#### Applications:

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

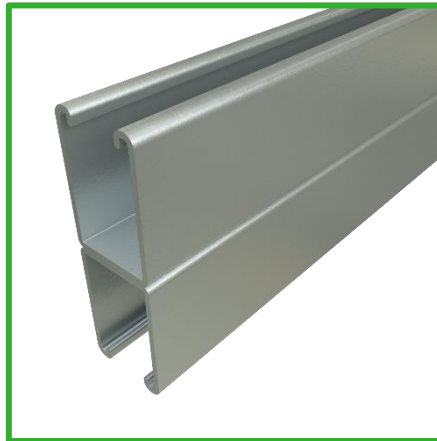
Note: Before using Atkore Unistrut Strut, it's essential to consult the manufacturer's specifications and guidelines to ensure proper installation and performance in your specific application.

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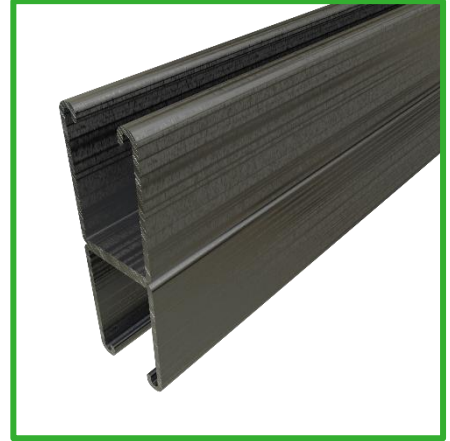
### Finishes:



Galvabond  
(GB)



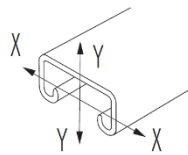
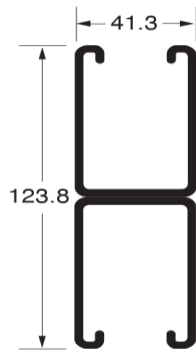
Hot Dip Galvanised  
(HG)



Plain  
(PL)

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### Dimensions:




A	-	867mm <sup>2</sup>
kg/m	-	6.80kg/m
I <sub>x-x</sub>	=	1.052 10 <sup>6</sup> mm <sup>4</sup>
Z <sub>x-x</sub>	=	16.990 10 <sup>3</sup> mm <sup>3</sup>
r <sub>x-x</sub>	=	34.8mm
I <sub>y-y</sub>	=	0.261 10 <sup>6</sup> mm <sup>4</sup>
Z <sub>y-y</sub>	=	12.662 10 <sup>3</sup> mm <sup>3</sup>
r <sub>y-y</sub>	=	17.4mm

Note: All dimensions shown are in millimeters.

Australia		New Zealand		Description	Material thickness	Weight
Cat No	Mat No	Cat No	Mat No			
P5501-PL	3000100	NA		P5501 PLAIN COMBINATION 6M LENGTH	2.5MM	6.80kg/m
P5501-GB	4001205	NA		P5501 GALVABOND COMBINATION 6M LENGTH	2.5MM	6.80kg/m
P5501-HG	4001206	P5501-HG	2077870	P5501 HOT DIP GALVANISED COMBINATION 6M LENGTH	2.5MM	6.80kg/m

### Load Rating & Deflection:

Length (mm) 	Max. Allowable Beam Load (kg) 	Deflection at Allowable Load (mm) 	Max. Allowable Column Load (kg) 
250	2,757.3	0.03	12,456.9
500	2,757.3	0.21	12,050.0
750	2,757.3	0.71	11,402.5
1000	2,090.4	1.27	10,554.1
1250	1,672.3	1.98	9,555.8
1500	1,394.0	2.86	8,461.6
1750	1,195.1	3.89	7,329.7
2000	1,045.2	5.08	6,211.1
2250	929.0	6.43	5,147.5
2500	836.2	7.93	4,184.9
2750	760.7	9.60	3,458.9
3000	696.5	11.42	2,906.2

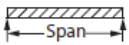
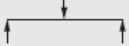

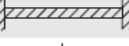

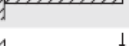

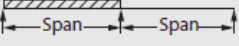

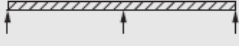

# Technical Data Sheet

## 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:

