

Technical Data Sheet

P4000

Product Description:

Atkore Unistrut P4000 Channel. Part of the original Unistrut Metal Framing System, which is 100% reusable due to its flexibility, adaptability, and versatility.

Features:

- This channel is commonly used for trapeze supports, seismic bracing, ceiling grids, pipe, conduit, duct, and cable tray supports, racks, and other general framing.
- Punched holes are also available for ease of installation.
- The advantage of a shallow, lighter gauge profile is to avoid over-engineering in a project that requires supporting lighter loads.



Standards:

- Mild Steel (PL)& Hot Dip Galvanised (HG) to AS/NZS1365, AS1594, AS/NZS4680, ISO1461
- Pre-Galvanised (GB)(TG) to AS1397
- Aluminium (AL) to AS1231

Applications:

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

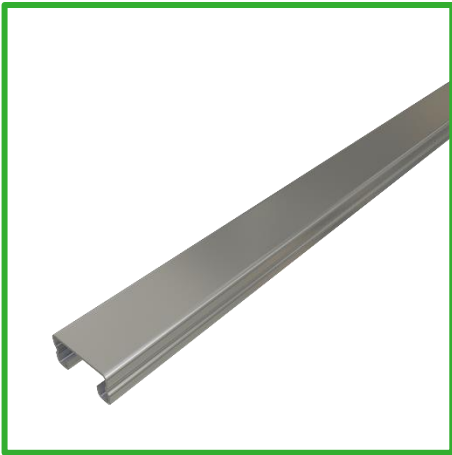
Finishes:

- TrueGalv [TG]
- Galvabond [GB]
- Aluminum [AL]
- 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.

Technical Data Sheet

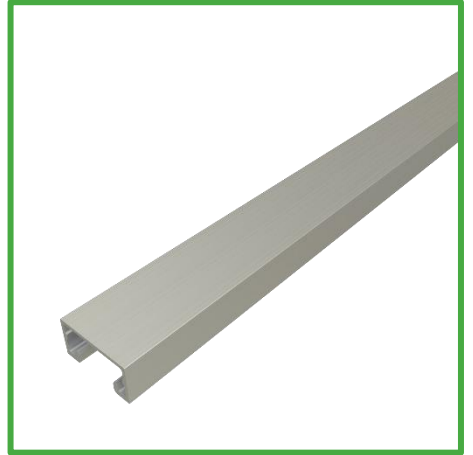
Finishes:



TrueGalv
(TG)



Galvabond
(GB)



Aluminium
(AL)



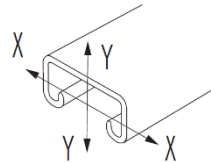
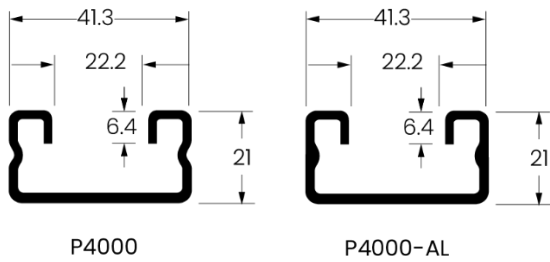
Hot Dip Galvanised
(HG)



Plain
(PL)

Technical Data Sheet

Dimensions:



- A - 160mm²
- kg/m - 1.26kg/m
- I x-x = 0.010 10⁶mm⁴
- Z x-x = 0.786 10³mm³
- r x-x = 7.8mm
- I y-y = 0.039 10⁶mm⁴
- Z y-y = 1.880 10³mm³
- r y-y = 15.6mm

Note: All dimensions shown are in millimeters.

Australia		New Zealand		Description	Material thickness	Weight
Cat No	Mat No	Cat No	Mat No			
P4000-PL	3000266	NA		P4000 PLAIN 6M LENGTH	1.6MM	1.26kg/m
P4000-GB	3000095	P4000-GB	2077028	P4000 GALVABOND 6M LENGTH	1.6MM	1.26kg/m
P4000-TG	4039707	NA		P4000 TRUEGALV 6M LENGTH	1.6MM	1.26kg/m
P4000-HG	4002214	P4000-HG	2092575	P4000 HOT DIP GALVANISED 6M LENGTH	1.6MM	1.26kg/m
P4000-AL	4001183	P4000-AL	2085711	P4000 ALUMINIUM 6M LENGTH	1.6MM	1.26kg/m

Load Rating & Deflection:

Length (mm)	Max. Allowable Load (kg)	Deflection at Allowable Load (mm)	Max. Allowable Column Load (kg)
250	428.57	0.44	2280.08
500	214.29	1.77	1662.14
750	142.86	3.98	1066.62
1000	107.14	7.08	666.89
1250	85.71	11.07	462.95
1500	71.43	15.94	341.6
1750	61.22	21.69	-
2000	53.06	28.33	-
2250	47.96	35.86	-
2500	42.86	44.27	-
2750	38.78	53.57	-
3000	35.71	63.57	-

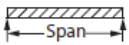
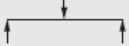

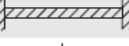

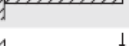

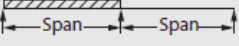

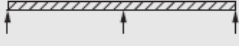

Technical Data Sheet

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:

