

2.4.7 FASTENERS

In order to achieve the loads shown in the Top Notch design tables, the following size and number of self-drilling screws are required for the support condition and type of material.

FIXINGS

Support Condition	Support Member			Number of Screws/Screw Gauge				
				Top Notch Purlin Size				
	Material	Grade	Min. Thickness (mm)	60x0.75 60x0.95	100x0.75 100x0.95	120x0.75 120x0.95	150x0.95	150x1.15
End	Cold-formed Steel	G450	1.45	2/12g	2/12g	2/14g	2/14g	2/14g
	Steel	G300	3	2/12g	2/12g	2/14g	2/14g	2/14g
	Timber		37*					
Internal	Cold-formed Steel	G450	1.45	4/12g	6/12g	6/14g	6/14g	8/14g
	Steel	G300	3	2/12g	4/12g	4/14g	4/14g	6/14g
	Timber		37*					

*Minimum screw embedment into timber support.

Notes to table

- *Cold-formed option* – 2/14g indicates 2 off 14 gauge self-drilling screws fastened into a cold-formed steel (Grade G450) support member of 1.45mm minimum thickness. The same rationale applies where 12 gauge screws are required.
- *Steel/timber option* – 2/12g indicates 2 off 12 gauge self-drilling screws fastened into a Grade 300 hot-rolled steel support member of 3mm minimum thickness or 2 off 12g x 50mm long Type 17 screws fastened into timber to achieve a minimum embedment length of 37mm. The same rationale applies where 14 gauge screws are required.
- Outward loads shall be adjusted to a lower value if less screws or thinner support members are used.
- When the number of specified fixings above cannot be fixed into the Top Notch and/or Top Notch is being installed in cyclonic regions, an additional hold-down strap should be used. Refer detail A in Section 2.4.11 (strap capacity 20 kN).
- Lap end fasteners shall be:
 - 2 screws for the 60 and 100 Top Notch, or
 - 4 screws for the 120 and 150 Top Notch
 positioned at each end. Refer drawing 2.4.11, detail D.
- A minimum distance of 20mm from the fastener to the end of the Top Notch purlin is required.