

OrbiPlate™

OrbiPlate™ overcomes the major headache that comes with bolted connections, getting the holes to line up!

Orbiplate™ takes the pain out of construction connections: No misalignment, No hot work, No delays.

Wherever you are in the construction process, OrbiPlate™ will save you time and money.

OrbiPlate™ System Overview

Applications

Connecting elements where tolerance or adjustment is required without hot work.

The OrbiPlate™ system is used where tolerance is required for on-site installation, for example connecting precast panels with cast-in ferrules or connecting steel to steel in façade applications. Using the OrbiPlate™ avoids costly cutting, welding and excessive crane time on site. OrbiPlate™ delivers orbital connection tolerances of up to 20mm where the ability to achieve location accuracy when positioning each member is required.



Feature




- A large washer with an elongated slot surrounded by teeth that locks the smaller washer in place, allowing positioning of the main structural bolt even with up to 20mm of misalignment.

Advantages

- Provides ± 20mm positional tolerance.
- Fine positional adjustment.

Benefits

- High structural capacity.
- Allows fine positional adjustment.
- Avoids misalignment delays and call outs.
- No hot work required on site.

 Engineer Architect	 Precast Factory	 Builder Steel Erector
Avoid call outs to solve erection problems	Quicker and cheaper than cast-in plate connections	Reduce hook time on the crane
Millimeter adjustable connections	Forget site rework & complaints when cast-in ferrules are out of position up to 20mm	Prevent delays caused by misalignment in connections
Available in Gal finish	Prevent delays waiting for imported cast-in solutions	Eliminate hot work
Neat (flush fitting)	Reduce congestion between reinforcing and cast-in components	Avoid the drilling required to use post-installed anchors

The System





Holes not lining up?



TWIST IT



PLACE IT



FIX IT

Installation

OrbiPlate™ is quick and easy to install.

The steel member is supplied to site with a pre-formed hole (70mm), to be cut at the centre of the ferrule location.

The main washer is then placed over the hole, rotated to locate the ferrule, then secured using a metric bolt which can be positioned anywhere along the elongated slot, providing up to 20mm tolerance in all directions.

AS 3850:- total accumulation of tolerances shall not be greater than 20mm.

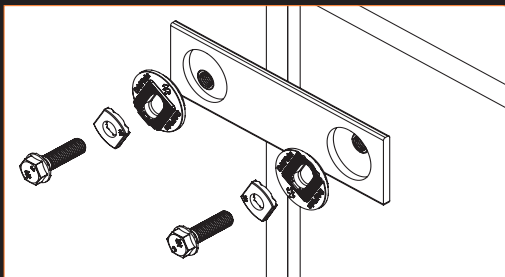
AS 4100 & NZS 3404:- tolerance on all structural dimensions shall be ± 2 mm.

Secure the connection with the class 8.8 bolt and walk away.

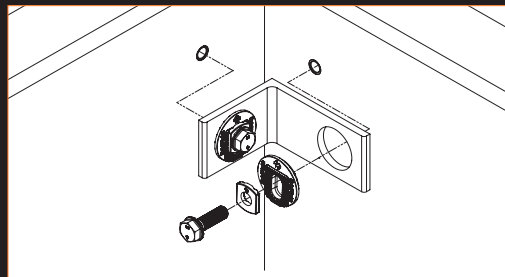
OrbiPlate™

Assembly Options

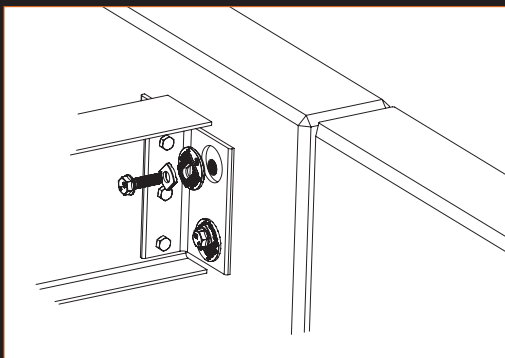
OrbiPlate™ fits into a pre-formed hole in a steel component
(diameter 70mm ± 1mm)



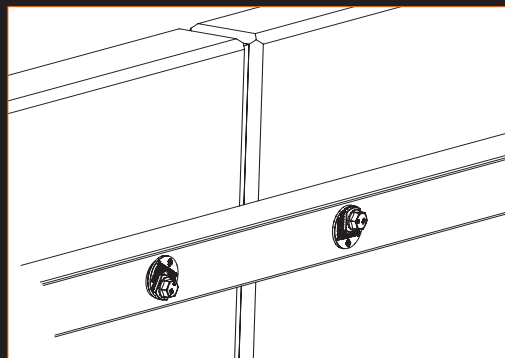
Straight panel to panel connection



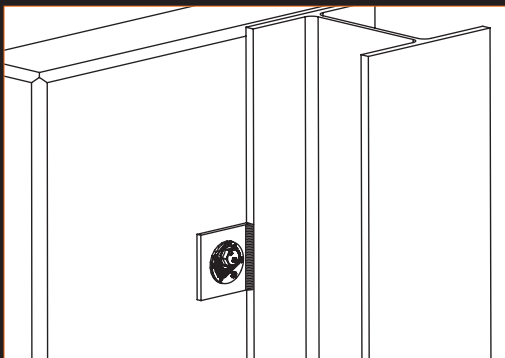
Corner panel to panel connection



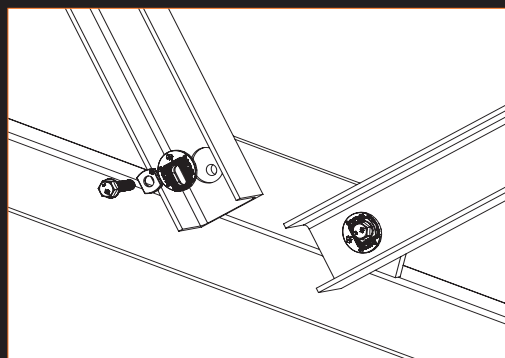
Roof beam to panel connection



Raker angle to panel connection



Column to panel connection



Steel to steel connection

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For further information about the Orbi Plate engineering capacity refer to the Orbi Plate Design Guide on the Ramset website

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Web Links

AUS:



NZ:



OrbiPlate™ System Part Numbers

Australia

Size	Part Number	Finish	Matching Ferrule	Fixture Thickness
M16	ORB2016BGH	HDG	FE16095GH	6 - 12mm
M20	ORB2020BGH	HDG	FE20095GH	6 - 16mm

New Zealand

M16	ORB2016BGH	HDG	FE16095GH	6 - 12mm
M20	ORB2020BGH	HDG	TIM20X75G	6 - 16mm
			FE20095GH	6 - 16mm

* Note: Ramset™ New Zealand TIM20x75G ferrules requires that a nail plate (part number NP20) be specified. Nail plate positions the ferrule below the concrete surface to ensure the M20 class 8.8 bolt does not bottom out inside the ferrule.