

Concealed Purlin Cleat Stainless Steel

FOR HIDDEN TIE DOWN TO TOP OF SUPPORT IN CORROSIVE ENVIRONMENTS

The stainless steel Concealed Purlin Cleat (for use in corrosive environments) is an economical hidden bracket for fixing purlins to top of rafters, or trusses to top of walls to resist uplift.

For durability information, please refer to **Corrosion Resistance of MiTek Metal Connectors,** available on the MiTek website at **mitek.com.au**

Available in two sizes, the SSCPC40 is 40mm wide and suited to narrow top support installations, while the SSCPC80, with an 80mm width is best suited to high wind uplift situations.

USES

- → Concealed Purlin Cleats provide a fast and easy method of anchoring purlins, rafters and trusses to the top of supports away from view.
- → They are also useful for fixing to timber plates on top of block walls.

ADVANTAGES

- → Quick and easy to apply, no nails required.
- → No fixing to side of support required.
- → Hidden from view.
- → Resists wind uplift.



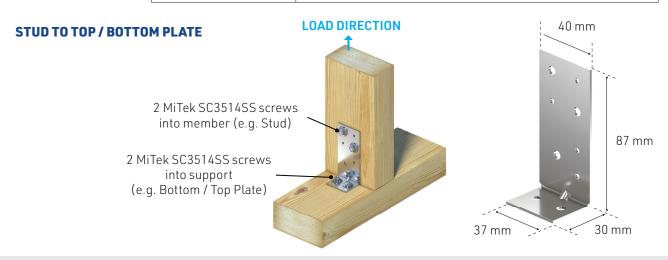
This Certified Engineering Building Product complies with the National Construction Code and Australian Standards.



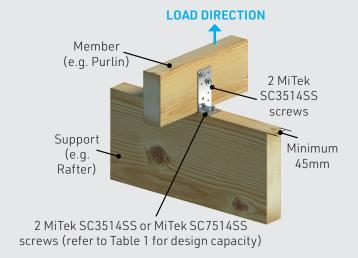


SPECIFICATIONS

Steel Grade	Stainless Steel 304-2B	
Thickness (Total Coated)	0.90mm	
Screws	SC3514SS MiTek – 14g x 35mm stainless steel screws and SC7514SS MiTek – 14g x 75mm stainless steel screws for use in double top plates or beams	
Product Code	SSCPC40; SSCPC80	



PURLIN / RAFTER / TRUSS TO LINTEL / BEAM



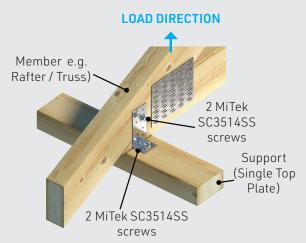
Member (e.g. Rafter / Truss) 2 MiTek SC3514SS screws Support (e.g. Beam /

LOAD DIRECTION

2 MiTek SC3514SS or MiTek SC7514SS screws (refer to Table 1 for design capacity)

Lintel)

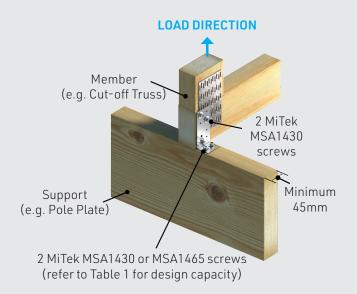
RAFTER / TRUSS TO TOP PLATE

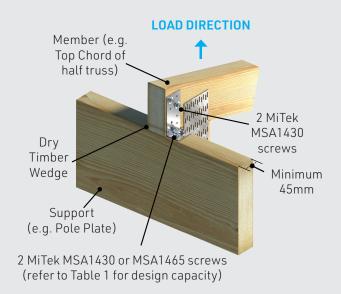


Support (Double Top Plate) 2 MiTek SC7514SS screws

MiTek®

TRUSS TO POLE PLATE





The design capacity is determined from Table 1 and 2 based on joint group, the number of screws and screw sizes fixed into member and support. When different timbers are used, base capacity on weaker joint group of member and support. The capacity is doubled when a pair of cleats is used in the connection.

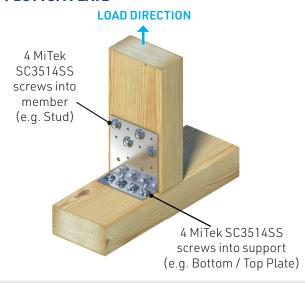
Longer MiTek SC7514SS screws are required if fixing down to double top plates or supporting beams for higher uplift capacity. The required number of screws into the support depends on its width as per Table 3. The location of the group of screws is to be centred on the support.

A sloping rafter may require a birdsmouth over the support to lower its bottom edge to achieve adequate edge distance of screw into member.

	Limit State Design Wind Uplift Capacity for Fixing a Single SSCPC40 (kN)				
	Timber Joint Group	2/SC3514SS screws into Member, and 2/SC3514SS screws into Support	2/SC3514SS screws into Member, and 2/SC7514SS screws into Support		
	J2	4.0	5.0		
	J3	3.5	5.0		
e 1	J4	2.5	3.5		
Table	J5	2.1	2.6		
	JD2	4.0	5.0		
	JD3	4.0	5.0		
	JD4	4.0	5.0		
	JD5	3.2	3.5		
	JD6	2.4	2.6		

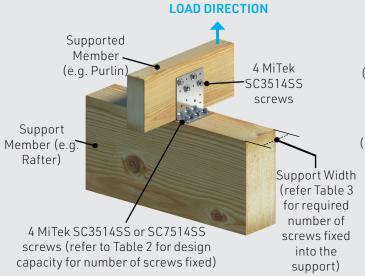
MiTek®

STUD TO TOP / BOTTOM PLATE

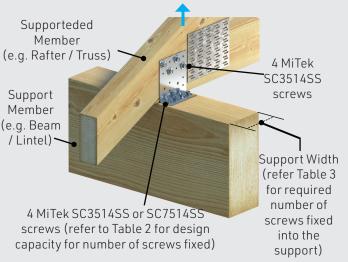




PURLIN / RAFTER / TRUSS TO LINTEL / BEAM



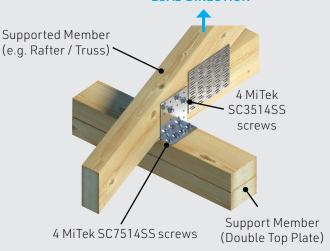
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RAFTER / TRUSS TO TOP PLATE

Supported Member (e.g. Rafter / Truss) 4 MiTek SC3514SS screws Support Member (Single Top Plate)

LOAD DIRECTION





	Limit State Design Wind Uplift Capacity for Fixing a Single SSCPC80 (kN)						
		4/SC3514SS screws into Member, and			4/SC3514SS screws into Member, and		
	Timber Joint Group	Number of SC3514SS screws into Support			Number of SC7514SS screws into Support		
		2	3	4	2	3	4
	J2	4.0	6.0	8.0	6.1	9.2	9.9
Table 2	J3	3.5	5.3	7.1	5.4	8.1	9.9
Тa	J4	2.5	3.8	5.1	3.9	5.8	7.0
	J5	2.1	3.1	4.1	3.2	4.7	5.1
	JD2	4.0	6.0	8.0	6.1	9.2	9.9
	JD3	4.0	6.0	8.0	6.1	9.2	9.9
	JD4	4.0	6.0	8.0	6.1	9.2	9.9
	JD5	3.2	4.8	6.4	4.9	7.0	7.0
	JD6	2.4	3.7	4.9	3.7	5.1	5.1

General notes

- 1. Design capacities have been obtained from laboratory testing and procedures given in AS 1649.
- 2. Design capacities in the tables incorporate the Category 1 factor (ϕ) for houses. For other categories, multiply the design capacities by the following factors. Refer to AS 1720.1 for full definition of each category.

Category	1	2	3
Adjustment factor	1.00	0.94	0.88

	Minimum support width			
6	Minimum Support Width (mm)	Number of Screw into Support		
Table 3	90	4		
	70	3		
	45	2		

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