Unitie
GALVANISED

Application

The Bremick® Unitie is used in numerous tie-down connection applications in timber framing. Applications include trusses or rafters to wall frame double top plates, joist to supporting beam, purlin to truss, and hanger to ceiling joist. Plus, various projects including carports, pergolas, decks, and other projects that require a right-angled joint connection.

Advantages

The Bremick® Unitie provides numerous benefits including:

- Multi-purpose connector that assists in connecting timbers at right angles and achieving a strong and rigid structure. Is more effective than skew or end nailing.
- Various tie-down applications including trusses or rafters to wall frame double top plates, joist to supporting beam, purlin to truss, and hanger to ceiling joist.
- Left- and right-hand product design allows the connector to be nailed into position to suit frame design and installer's nailing preference.
- Pre-drilled holes to allow easy fixing of hand driven nails.
- 12-gauge, Type 17 self-drilling screws can be driven through the pre-drilled holes and provide additional capacity.
- Unpunched nail hole product lines available. Dimples indicating location of machine-driven nails provided.
- Pre-punched nail to ease the locating of the Unitie into position.

Specifications

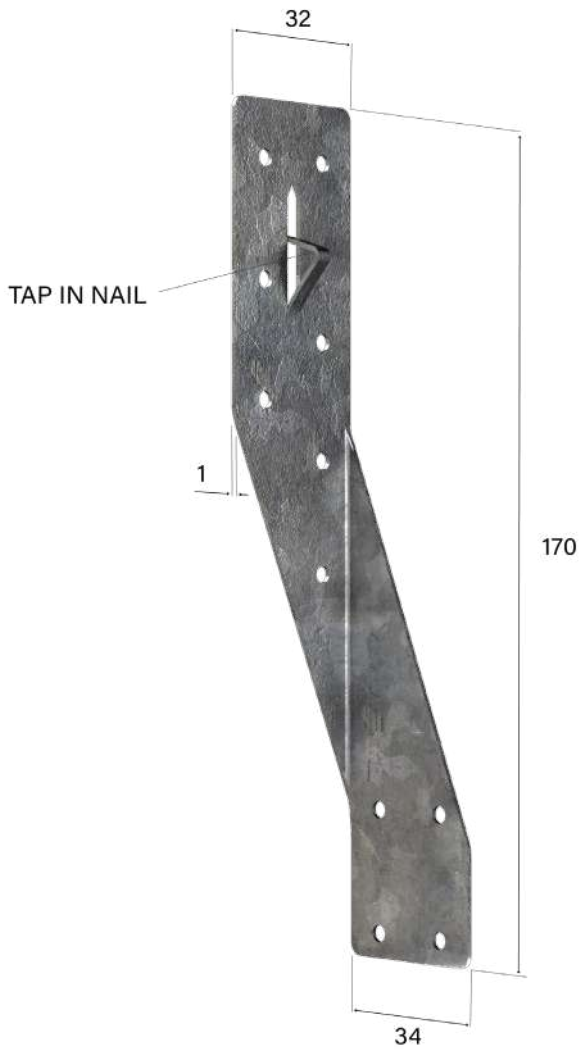
Steel Grade	G300
Coating	Z275 – Galvanised
Thickness	1.0mm
Width	32mm
Overall Length	170mm
Length A	120mm
Length B	86mm
Fasteners	Bremick® 35 x 3.15mm Timber Connector Nails (Gal) 32 x 2.5mm Screw Shank Machine Fastened Nails Bremick Type 17, 12g x 35mm Screws

AS1684 Compliant

Engineered Performance Tested Compliance

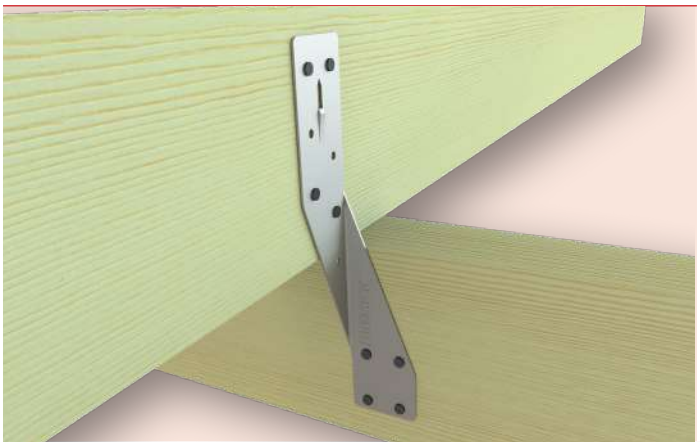
Bremick® Ranging

Product Code	Dimensions	Coating	Pack Qty
TULPG17032104	170mm x 32mm x 1.0mm – Left Hand	Z275 – Galvanised	50
TURPG17032104	170mm x 32mm x 1.0mm – Right Hand	Z275 – Galvanised	50
TULUG17032104	170mm x 32mm x 1.0mm – Left Hand (Unpunched – For Machine Driven Nail Use)	Z275 – Galvanised	50
TURUG17032104	170mm x 32mm x 1.0mm – Right Hand (Unpunched – For Machine Driven Nail Use)	Z275 – Galvanised	50

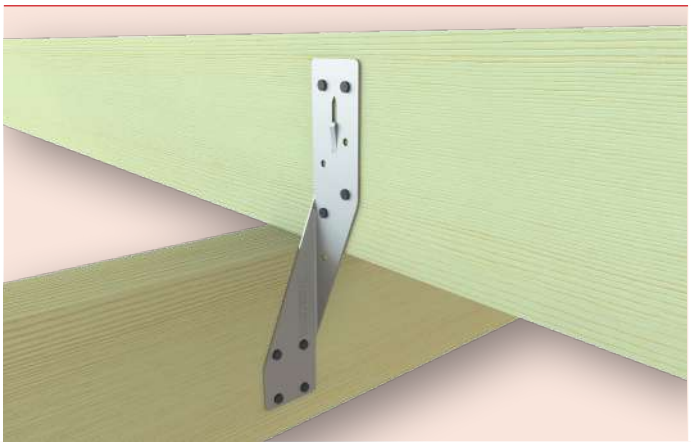


Installation Instructions

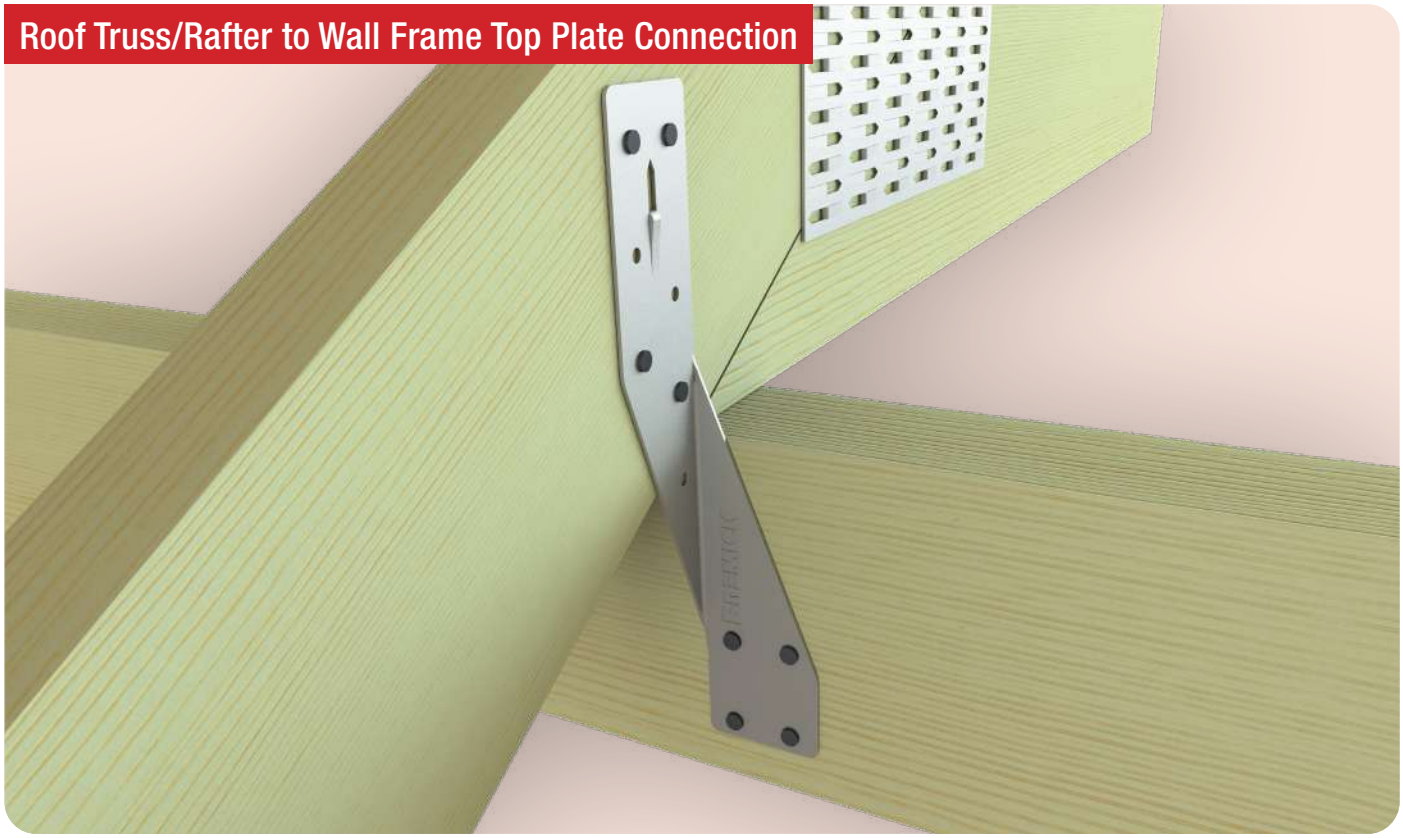
Unitie Left Hand



Unitie Right Hand



Roof Truss/Rafter to Wall Frame Top Plate Connection



1

Locate the Bremick® Unitie into position. The upper vertical is sitting flush against the truss/rafter and the lower vertical is sitting against the edge of the wall frame ribbon plate and lower wall frame top plate.

2

Fix Bremick Timber Connector Nails through the pre-punched holes as described in the image. 4 nails into each timber member.

Notes

1.Use half as many 12-gauge, Type 17 self-drilling screws to Bremick® Timber Connector Nails, to achieve the same capacity. More screws can be applied to boost the tie-down capacity. Screws are drilled through the pre-punched holes.

2.When fastening Bremick Unities with machine fired nails, use the Unities with unpunched holes. Fire the nails around the location of the dimples. Use 32 x 2.5mm galvanised, screw shank nails. 20% more nails should be used to match the capacity of the hand driven Bremick Timber Connector nail.

Installation Instructions

Right Angle Connection

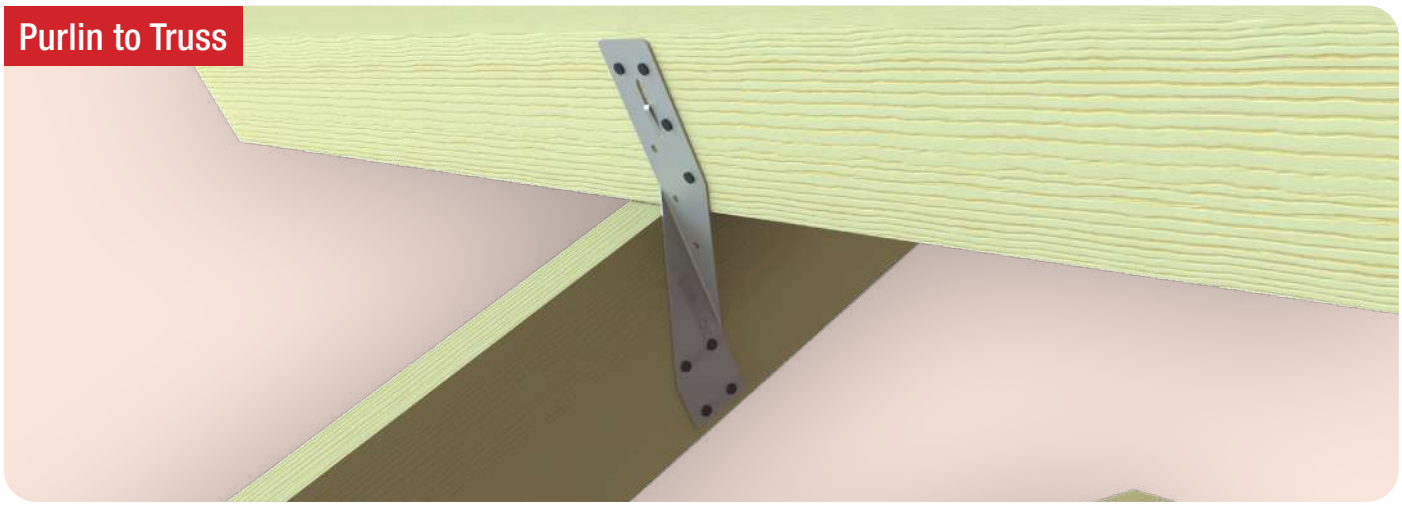
1

Locate the Bremick® Unitie into position. The upper vertical is sitting flush against the top timber member and the lower vertical is sitting flush against the bottom timber member.

2

Fix Bremick Timber Connector Nails through the pre-punched holes as described in the image. 4 nails into each timber member.

Purlin to Truss



1

Locate the Bremick® Unitie into position. The upper vertical is sitting flush against the purlin and the vertical is sitting flush against the truss top chord.

2

Fix Bremick Timber Connector Nails through the pre-punched holes as described in the image. 4 nails into each timber member.

Notes

1.Use half as many 12-gauge, Type 17 self-drilling screws to Bremick® Timber Connector Nails, to achieve the same capacity. More screws can be applied to boost the tie-down capacity. Screws are drilled through the pre-punched holes.

2.When fastening Bremick Unities with machine fired nails, use the Unities with unpunched holes. Fire the nails around the location of the dimples. Use 32 x 2.5mm galvanised, screw shank nails. 20% more nails should be used to match the capacity of the hand driven Bremick Timber Connector nail.

Technical Data

UNITIE

TULPG17032104 • TURPG17032104 • TULUG17032104 • TURUG17032104

UNITIE CAPACITY SINGLE

Table 1 UPLIFT CAPACITY: 4 - 3.15mm DIAMETER x 35mm MIN NAILS EACH END

1.2G+WU OR
0.9G-WU

	Seasoned Timber Capacity (kN) for a SINGLE UNITIE					
0.9G-WU	JD6	JD5	JD4	JD3	JD2	JD1
	1.2	1.6	2.0	2.3	2.3	2.3
	Unseasoned Timber Capacity (kN) for a SINGLE UNITIE					
JOINT GROUP	J6	J5	J4	J3	J2	J1
	0.8	1.1	1.4	2.0	2.3	2.3

UNITIE CAPACITY PAIR

Table 2 UPLIFT CAPACITY: 4 - 3.15mm DIAMETER x 35mm MIN NAILS EACH END

1.2G+WU OR
0.9G-WU

JOINT GROUP	Seasoned Timber Capacity (kN) for a PAIR of UNITIE					
	JD6	JD5	JD4	JD3	JD2	JD1
	2.0	2.8	3.3	4.5	4.5	4.5
	Unseasoned Timber Capacity (kN) for a PAIR of UNITIE					
JOINT GROUP	J6	J5	J4	J3	J2	J1
	1.3	1.8	2.3	3.3	4.5	4.5

Technical Data

UNITIE CAPACITY DOUBLE PAIR

Table 3 UPLIFT CAPACITY: 4 - 3.15mm DIAMETER x 35mm MIN NAILS EACH END

1.2G+WU OR
0.9G-WU

	Seasoned Timber Capacity (kN) for a DOUBLE PAIR of UNITIE					
0.9G-WU	JD6	JD5	JD4	JD3	JD2	JD1
	3.7	5.0	6.0	8.4	9.0	9.0
	Unseasoned Timber Capacity (kN) for a DOUBLE PAIR of UNITIE					
JOINT GROUP	J6	J5	J4	J3	J2	J1
	2.4	3.3	4.3	6.0	8.4	9.0

REMARKS

- Values for Category 1 (secondary members.) Values x 0.94 for Category 2 (primary members) and Category 3 Values x 0.88 for post disaster structures primary members.
- Reduce the tabulated capacities by 20% if 4/3.15 machine driven nails are used to each connected member.
- Nails must be spaced as per minimum requirements of AS1720.1
- Loads applied at a limit state wind load, apply additional load factors when designing for other load combinations when using AS1170.1
- Minimum nail length 35mm. Nails to be tight fit in holes.
- Connected members must be independently restrained against rolling.
- Steel capacity to be determined from testing and may govern results. Final capacity for each load case will be taken as the lesser of the timber connection capacity (provided in this document) or steel ultimate capacity (determined from testing) results.