Multinail Advance MegaHold Down

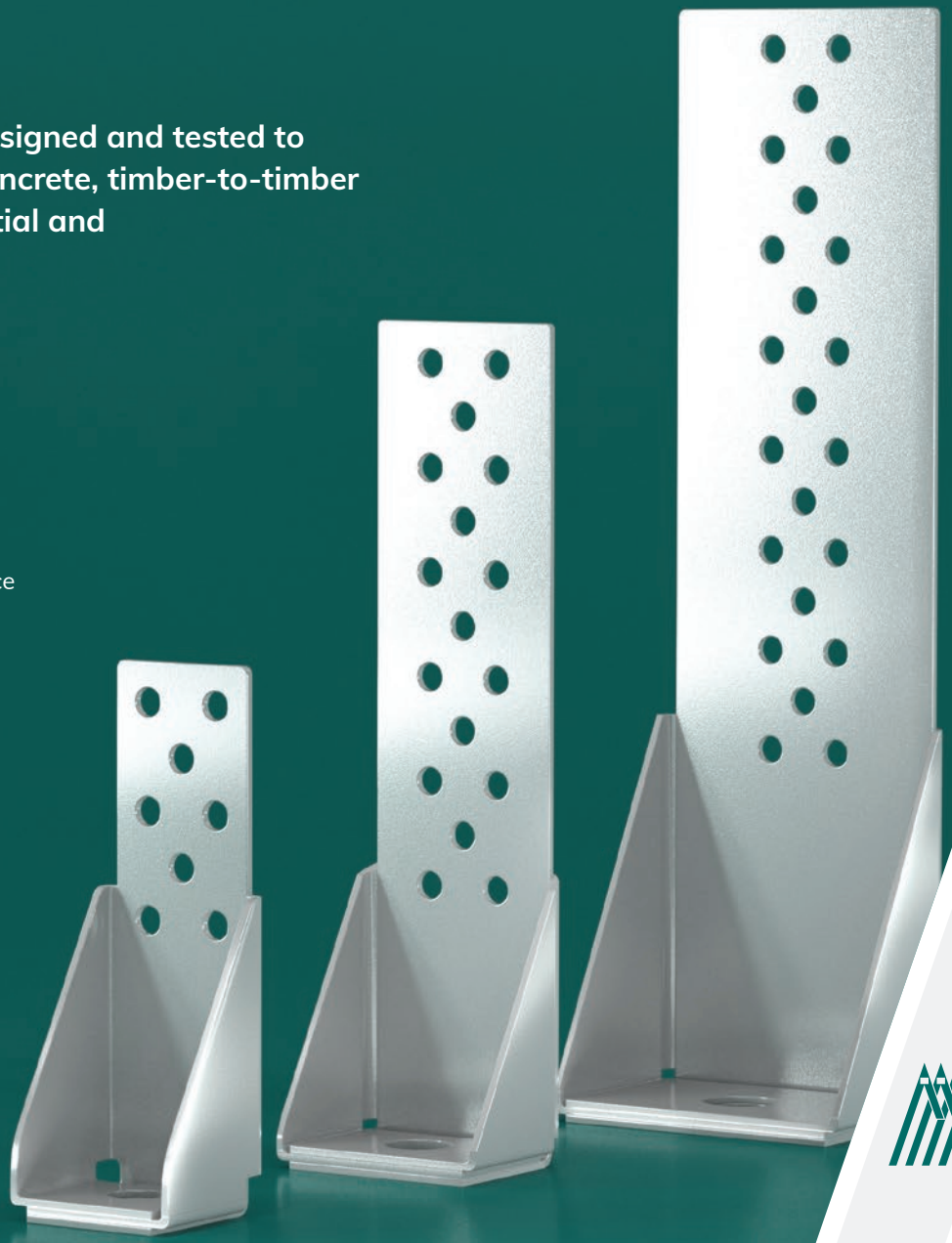
Multinail Advance MegaHold Down has been designed and tested to provide high tie-down capacity for timber-to-concrete, timber-to-timber and timber-to-steel connections in both residential and commercial construction.

Benefits of the MegaHold Down

MegaHold Down is a high-performance, easy-to-install bracket solution available in three different sizes with the versatility to use in multiple applications for supporting timber-to-timber, timber-to-concrete and wood-to-steel connections.

Internally tested MegaHold Down has been designed in accordance with Australian standards and has been rigorously tested to meet the most exacting requirements of multiple applications in timber construction.

Australian-Made Quality MegaHold Down is made from premium high-grade steel, optimising bracket weight and capacities to meet all static performance requirements.



MULTINAIL™ Advance

About Multinail

Multinail is an Australian family-owned business established for over 40 years with all its products engineered, tested and manufactured at our industry-leading facility in Queensland, Australia.

The company specialises in the provision of quality metal connectors, software and engineering services to our partner network of licensed timber fabricators. Together, we offer an industry-wide service supplying prefabricated structural systems designed and engineered for optimising the efficiency and quality of timber construction

About Multinail Advance

Multinail Advance is an exciting addition to the Multinail Brand. Our core focus is to introduce Multinail's extensive range of products and services to new markets while innovating and developing solutions tailored to both existing and emerging sectors.

Our primary focus includes multi-residential projects, mid-rise buildings, and mass timber construction.

Multinail Advance is committed to enhancing the competitive edge of our fabricators by expanding timber construction into new markets and contributing to the growth of the Australian timber industry.

Installation

The MegaHold Down is fixed with Multinail Advance 8mm Pan Head Screw to the timber vertical element and tie down anchor or bolt to timber or other material element. It is recommended you follow these instructions for all installations.

Note:

- All holes in the Multinail tie-down bracket are to be filled with Multinail Advance 8mm Pan Head screws
- Pre-drill for all screws with a 5.0mm diameter drill bit
- Maximum installation torque shall be no more than 10N.m, to avoid over-tightening the screw
- No impact driver or hammer drill is allowed to avoid over tightening the screw

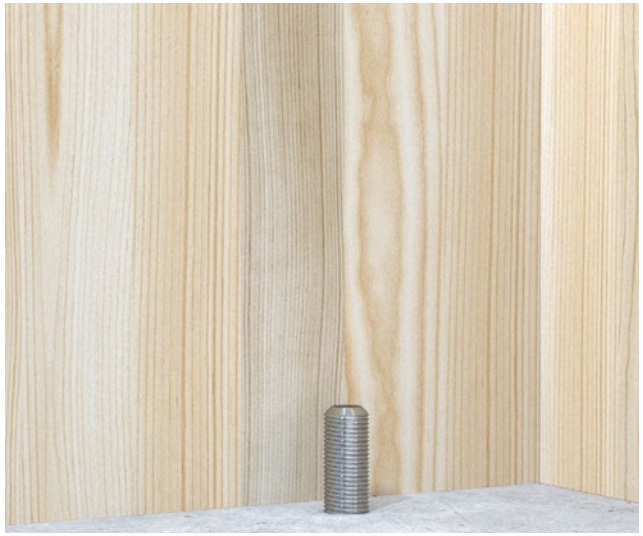


Figure 1 Place the tie-down anchor in concrete or bolt in timber or steel

Figure 2 Installation of the Multinail tie-down bracket with washer. Pre-drill for all screws using a 5.0mm diameter drill bit

Figure 3 Fix the bracket to the vertical timber element using Multinail Advance 8mm Pan head screws with adequate torque

Figure 4 Tightening of the nut with adequate torque

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Mass Timber Applications

Multinail Advance MegaHold Down can be used in CLT wall tie down to the concrete slab, through the CLT slab, or similar applications.

CLT walls can also be replaced with other timber-based wall panels.

Examples

Figure 5 STD440 with CLT wall and concrete slab

Figure 6 STD440 with CLT wall and CLT slab

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Lightweight Timber Applications

The MegaHold Down is designed to support a multiple range of applications and connection types to be used in lightweight timber framing.

Supported Timber Materials:

- CLT and other timber-based wall panels
- LVL and Glulam members
- Solid timber and lightweight timber wall frames

Supported Tie-Down Connection Types:

- Timber-to-timber
- Timber-to-concrete
- Timber-to-steel

Examples

Figure 7 Both Inside

Figure 8 Both Outside with single stud wall

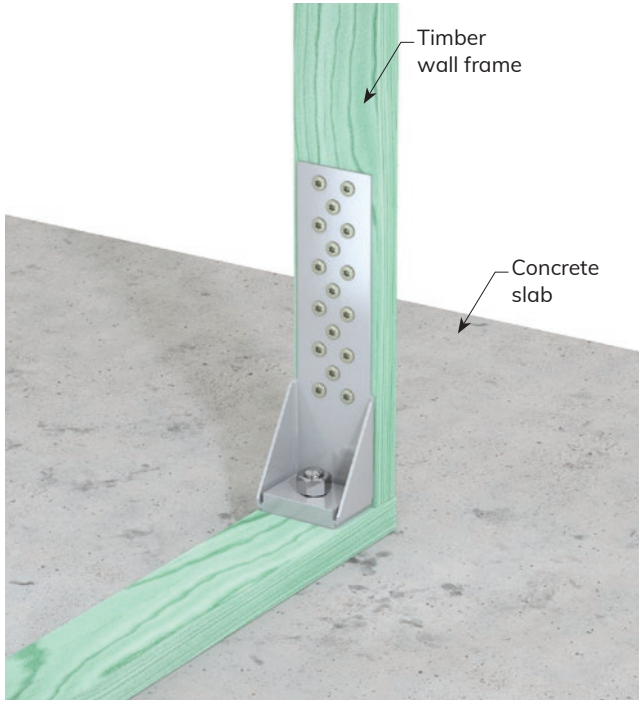

Figure 9 For use of light weight timber wall frame in the wall cavity

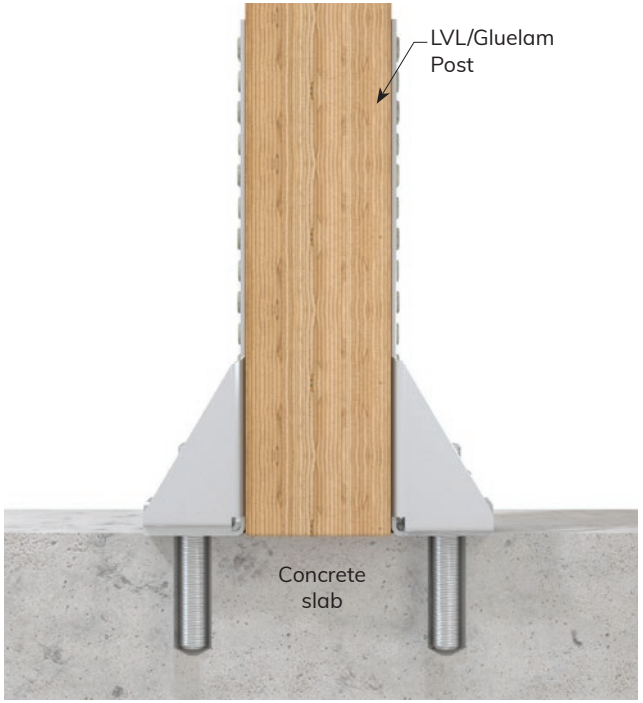

Figure 10 Bracing options

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Capacity

The following table gives the recommended Characteristic Design Capacities for Multinail MegaHold Down brackets. Characteristic capacities are for use in Limit State Design procedures to AS1720. 1-2010 by multiplying designed capacity factors (Φ) and modification factors (i.e.k1)

Table 1: Characteristic Capacities (kN)

Timber Grade	Characteristic Capacities (kN)		
	STD440-P	STD320-P	STD200-P
JD4 and above	92.5	53.9	34.7
JD5	76.0	53.9	28.6

Note:
Tie down anchor capacity for each MegaHold Down bracket must be equal to or larger than the Limit State Design capacity (values given in the table multiply by capacity factor and modification factors that determined by structural engineers). Alternatively, the Limit State Design Capacities must be reduced to the anchor tie-down capacity.

Kit Contents

Table 2: Kit Content

Kit code	MegaHold Down	Washer	Spacer	Screws
STD200-100	2	2	6	50
STD200-150	2	2	6	50
STD320-100	2	2	6	50
STD320-150	2	2	6	50
STD440-100	1	2	-	25

Note: concrete anchor is NOT included

STD200-100
contains 100mm long screws

STD200-150
contains 150mm long screws

STD320-100
contains 100mm long screws

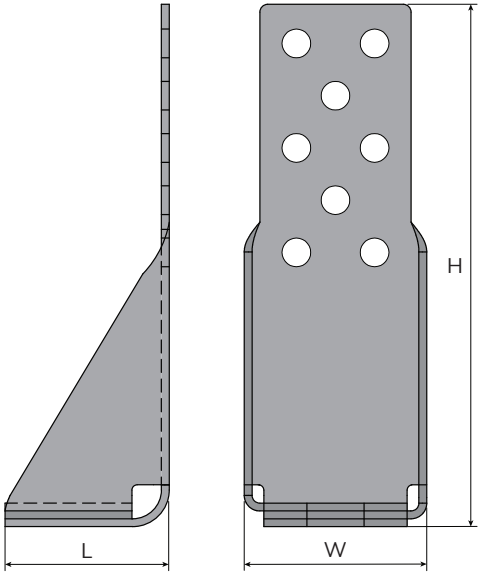
STD320-150
contains 150mm long screws

STD440-100
contains 100mm long screws

Technical Specifications

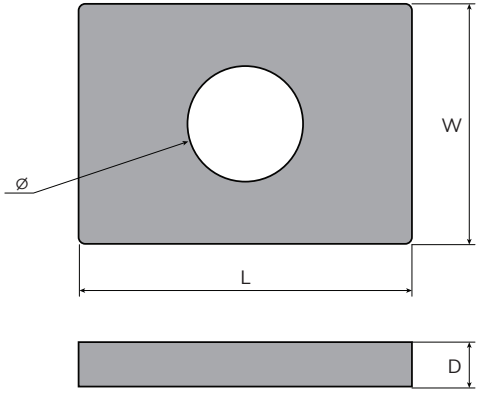
MegaHold Down

Steel
G350 Steel, Zinc, 3mm Thickness



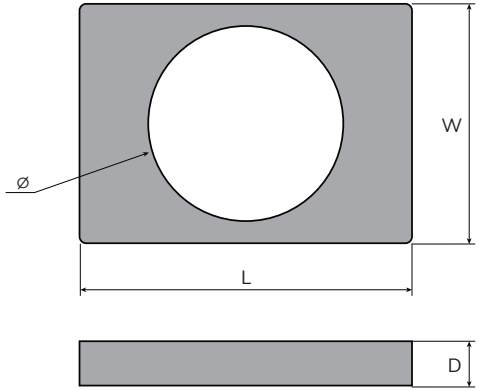
Washer

Steel
G250 Steel, Zinc, 10mm Thickness



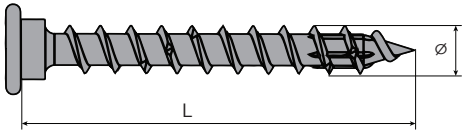
Spacer

Steel
G250 Steel, Zinc, 10mm Thickness



Screws

Steel
Hardened carbon steel, Electrocoated



Description and Packing

Product Code	Description H x W x L
STD200-P	200mm x 70mm x 63mm
STD320-P	320mm x 90mm x 63mm
STD440-P	440mm x 130mm x 86mm

Product Code	Description W x L x D x Ø
STD200W-P	54mm x 54mm x 10mm x Ø22mm
STD320W-P	54mm x 75mm x 10mm x Ø22mm
STD440W-P	72mm x 120mm x 10mm x Ø30mm

Product Code	Description W x L x D x Ø
STD200S-P	54mm x 54mm x 10mm x Ø37mm
STD320S-P	54mm x 75mm x 10mm x Ø37mm

Product Code	Description Ø x L	Carton Qty
CF08100-25	Ø8x100mm	25
CF08150-25	Ø8x150mm	25

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Multinail Advance Pty. Ltd.
155 Burnside Road, Stapylton
QLD 4207, Australia
Phone: +61 (0)7 3297 3250
Email: advance@multinail.com
www.multinail.com.au