



Manufacturing Suppliers Limited,
 560 Rosebank Road,
 Avondale 1026,
 Auckland,
 New Zealand

6TH November 2013

WARRANTOR: **MANUFACTURING SUPPLIERS LTD (MSL)**

PRODUCTS IN QUESTION:

Product Name	Anchor Type	Intended Use	Foundation side form
12 x 135 Through Bolt	Wedge anchor	External wall	Conventional shutter
12 x 160 Galvanised Chemical Stud	Epoxied stud anchor	External wall	Masonry block
12 x 150 Screw Bolt	Screwed anchor	External wall	Masonry block

- All product drawings and specifications have been independently reviewed to ensure they meet full specification at pre-manufacturing stage
- BRANZ Appraisal No.687 (2010) Amended June 2013 states the products noted above have full compliance with NZS 3604:2011 Section 7.5.12.2,3,4 for use in header block and standard bottom plate fixing.

Product Name	Characteristic (kN)*	Capacity (kN)*	Target Capacity (NZS 3640:2011)*
12 x 135 Through Bolt	15.22	12.20	7.00
12 x 160 Galvanised Chemical Stud	16.37	13.10	7.00
12 x 150 Screw Bolt	19.74	14.40	7.00

*BRANZ results for Tension Residual Loads (up-lift)

- As stipulated in BRANZ appraisal certificate No 294 for GIB® Bracing Systems “Proprietary Fixings with a minimum characteristic strength of 15kN may be used”
- Post sales transaction, MSL is not liable for any tie that has been damaged or come into contact with any substance, chemical or otherwise, that may cause the product/s to inherently corrode and/or effect its structural integrity.
- MSL provides a warranty that our products noted above meets the requirements of NZS3604:2011 –Timber-framed buildings

Verification of Warranty

Daniel Lawrence
 Business Development Manager