

Building Act 1993

Section 238(1)(a)

Building Regulations 2018

Regulation 126

GENERIC CERTIFICATE OF COMPLIANCE FOR PROPOSED BUILDING WORK

This certificate is issued to:

Levelmaster

This certificate is issued in relation to the building work at:

The State of Victoria

Nature of building work:

Design of LevelMaster Bracing Components Series for generic use in buildings

Building classification:

Any

Prescribed classes of building work for which this certificate is issued:

Any

Documents setting out the design that is certified by this certificate:

- Drawing Set – “Bracing [2024-2025].pdf” Rev 1 July 25.

The design certified by the certificate complies with the following provisions:

- AS/NZS 1170.0:2002 – Structural design actions Part 0: General principles
- AS 3990-1993 – Mechanical Equipment – Steelwork

I prepared the design, or part of the design, set out in the documents listed above.

I certify that the design set out in the documents listed above complies with the provisions set out above.

I believe that I hold the required skills, experience and knowledge to issue this certificate and can demonstrate this if requested to do so.

This document in no way reduces the responsibilities of the architect, builder or installer in the design and construction of this building.

Endorsed building engineer

Full Name: Roderick McDonald

Address: Black Square Engineering

1/15 Hook St,

Capalaba QLD 4157

Email: Rod.McDonald@blacksquareengineering.com.au

Endorsed building engineer area of engineering: Structural

Endorsed building engineer registration number: PE0014767

Date of issue of certificate: 21/07/2025

Signature:

The engineering works undertaken have been supervised by a registered Professional Engineer.



LEV 1779-REG 126-LEVEL MASTER BRACING-REV 0
21/07/2025

Roderick McDonald - Managing Director, Principal Engineer

BEng (Mech), MEng, FIEAust, CPEng, EngExec, NER, APEC Engineer, IntPE(Aus), RPEQ, MAICD

- BRACING NOTES
1.

CAST IN COLUMNS IS ACCEPTABLE. THE CAST IN DETAILS TO BE CONFIRMED AND DESIGNED BY THE PROJECT ENGINEER.
2.

BRACING ANGLES IN EXCESS OF 45° MAY REQUIRE ADDITIONAL HORIZONTAL BRACING. THIS IS TO BE DESIGNED BY THE PROJECT ENGINEER.
3.

BRACING MAY BE FIXED TO BEARERS. THIS IS TO BE DESIGNED BY THE PROJECT ENGINEER TO SUIT THE BEARER BEING USED.
4.

THE BRACING ROD AND NOTES COVERED IN THIS DRAWING ARE DESIGNED FOR RESIDENTIAL USE ONLY.
5.

THE 15kN LOAD LIMIT UTILISES 80% OF THE SHEAR CAPACITY OF THE LEADING TEK SCREW FASTENERS. CLASS 4-12g SCREWS (OR EQUIVALENT) WITH AN INDIVIDUAL SHEAR CAPACITY OF 9kN HAVE BEEN CONSIDERED. MINIMUM 3 SCREWS TO BE USED ON EACH SIDE OF THE POST.
6.

THE END BRACKET IS CONSIDERED FOR USE WITH A MINIMUM POST WIDTH OF 75mm AND A MAXIMUM POST WIDTH OF 150mm.
7.

SUITABILITY OF THE FABRICATED ITEMS HAS BEEN DETERMINED BY THE ALLOWABLE STRESSES DEFINED IN AS3990 AS FOLLOWS:
TENSION: 0.67 * YIELD / COMPRESSION: 0.6*YIELD / SHEAR: 0.4 * YIELD

NOTE 1

THE M16 BRACING ROD (WITH TURNBUCKLE) ASSEMBLY TENSION CAPACITY = 15kN. PROJECT ENGINEER TO CONFIRM THE FINAL BRACING CAPACITY DEPENDING ON THE HEIGHT AND SPAN.

NOTE 2

IF THE M16 BRACING ASSEMBLY TO BE USED WITH LEVELMASTER ADJUSTABLE POST HEAD SYSTEMS, THE TOTAL RACKING CAPACITIES COULD BE DOMINATED BY THE LATERAL CAPACITY OF THE POST HEAD COMPONENTS. REFER TO LEVELMASTER HOUSE STUMPS - TOP PLATES FOR FURTHER DETAILS.

NOTE 3

THE MAXIMUM DESIGN LATERAL LOAD ACCORDING TO BRACING TENSION CAPACITY UNDER TYPICAL BRACING ANGLES. (FOR REFERENCE)

MAX. LATERAL LOAD WITH M16 BRACING ROD (ASSEMBLY WITH TURNBUCKLE)

BRACING ANGLE (°)	MAX. LATERAL LOAD (kN)
30	20.5
45	17.0

