



Australian Government

Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/10B/73

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Allied Weighbridge Model ALW 3000 Weighing Instrument

submitted by S.R.O. Technology Pty. Limited
Unit 14, 70 Holbeche Road
Arndell Park NSW 2148

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 approved – interim certificate issued	18/06/03
1	Pattern & variants 1 & 2 – certificate issued	28/07/03
2	Variants 3 & 4 approved – interim certificate issued	31/05/06
3	Variants 3 & 4 approved – certificate issued	1/06/06
4	Pattern & variants 1 to 4 reviewed & updated – variant 5 approved – certificate issued	11/10/11
5	Variant 6 approved – certificate issued	22/05/14

Document History (cont...)

Rev	Reason/Details	Date
6	Pattern & variants 5 & 6 (Notes corrected) amended – certificate issued	04/02/22
7	Pattern amended (submitter name and markings) – certificate issued	08/03/23

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI (NSC) 6/10B/73' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI (NSC) 6/10B/73' in addition to the approval number of the instrument, and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates of Approval No S1/0/A or No S1/0B.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to the instrument shall be within the limits specified herein and in any approval documentation for the components where they are approved separately.

The pattern as approved herein or with substitute approved load cells and/or approved indicators and in other capacities, or with different platform sizes, shall comply with General Certificate of Approval No 6B/0.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.




Darryl Hines
Manager
Policy and Regulatory
Services

TECHNICAL SCHEDULE No 6/10B/73

1. Description of Pattern

**approved on 18/06/03
amended on 04/02/22
amended on 08/03/23**

An Allied Weighbridge model ALW 3000 class  self-indicating single interval non-automatic weighing instrument of 30 000 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model ALW 3000 basework has the platform fully supported by 4 load cells.

1.2 Load Cells

Four A & D model LCC11T030-K load cells of 30 000 kg capacity are used.

The load cells are also described in the approval documentation of approval No NMI (NSC) S410.

1.3 Indicator

A Ranger Instruments model 5000 digital indicator is used.

The indicator is also described in the approval documentation of approval No NMI (NSC) S363.

1.4 Sealing Provision


Provision is made for the calibration adjustments in the indicator to be sealed as described in the approval documentation for the indicator used.

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 Descriptive Markings and Notices

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full	S.R.O. Technology Pty. Limited (**)
Indication of accuracy class	
Pattern approval mark for the instrument	NMI (or NSC) 6/10B/73
Pattern approval mark for the indicator
Pattern approval mark for the load cells
Maximum capacity	Max kg or t #
Minimum capacity	Min kg or t #
Verification scale interval	e = kg or t #
Serial number of the instrument

These markings are also shown near the display of the result if they are not already located there.

** 'S.R.O. Technology Pty. Limited' may also be known as 'Precia Molen South Australia Pty Ltd', 'Adelaide Weighing Equipment', 'Allied Weighbridge Pty Ltd' or 'Precia Molen'.

2. Description of Variant 1 **approved on 18/06/03**

Allied Weighbridge ALW 3000 series instruments in capacities from 15 000 to 200 000 kg and approved for use with up to 4000 verification scale intervals, with the load receptor in the form of a platform fully supported by no less than 4 and with up to 10 NMI-approved load cells.

(Refer to **Notes for all variants** below.)

3. Description of Variant 2 **approved on 18/06/03**

Allied Weighbridge ALW 3000 series instruments in capacities from 15 000 to 200 000 kg and approved for use with up to 4000 verification scale intervals, with the load receptor in the form of a hopper or silo.

(Refer to **Notes for all variants** and **Notes for hopper variants** below.)

4. Description of Variant 3 **approved on 31/05/06**

Allied Weighbridge ALW 3000 series instruments in capacities from 100 to 14 999 kg and approved for use with up to 4000 verification scale intervals, with the load receptor in the form of a hopper.

Note: The load receptor may be in the form of a hopper or bag suspended from a base frame.

(Refer to **Notes for all variants** and **Notes for hopper variants** below.)

5. Description of Variant 4 **approved on 31/05/06**

Allied Weighbridge ALW 3000 series instruments in capacities from 100 to 14 999 kg and approved for use with up to 4000 verification scale intervals, with the load receptor in the form of a platform, with the platform fully supported by no less than 4 and with up to 10 NMI-approved load cells.

(Refer to **Notes for all variants** below.)

6. Description of Variant 5 **approved on 11/10/11**
amended on 04/02/22

Instruments of the Allied Weighbridge ALW 8000 series, which are similar to the ALW 3000 series as described for the pattern and variants 1 & 4.

Note: The ALW 8000 version of the pattern typically uses four Allied Weighbridge model ZSFY-A-30t load cells (as described in approval NMI S530), and a Rinstrum model R420 indicator (approval NMI S462).

(Refer to **Notes for all variants** below.)

7. Description of Variant 6 **approved on 22/05/14**
amended on 04/02/22

Instruments of the Allied Weighbridge ALW 8000 series which are similar to those as described for variant 5 but are now configured as multiple range instruments with the load receptor platform fully supported by no less than 4 and with up to 14 NMI-approved load cells.

Instruments are marked with the 'Maximum capacity' and with the 'Verification scale interval' for both interval ranges, in addition to the other data specified in clause **1.6 Descriptive Markings**.

(Refer to **Notes for all variants** below.)

Notes for all variants:

- (i) Instruments are approved for use with up to 4000 verification scale intervals (subject to the approval parameters of the load cells and indicator).
- (ii) Instruments used with more than 3000 verification scale intervals shall be provided with wind protection in accordance with clause **4. Wind Effects** of General Certificate of Approval No 6B/0.

Notes for all hopper variants:

- (i) Instruments are either:
 - (a) fitted with 3, 4 or 5 approved load cells (arranged symmetrically to ensure even loading of each cell) where the hopper is a vertical cylindrical or tank-type load receptor directly supported by the load cells; or
 - (b) fitted with 4 approved load cells where the hopper is a non-vertical cylindrical, or other hopper-type load receptor. Note: Instruments with more than 4 load cells may be acceptable if prior written agreement from NMI is obtained.
- (ii) Suitable provision must be made for the application of suitable verified masses to the instrument as required for verification purposes. It may be necessary for such masses to be incorporated within the design of the instrument.

TEST PROCEDURE No 6/10B/73

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Tests

For multi-interval and multiple range instruments with verification scale intervals of $e_1, e_2 \dots$, apply e_1 for zero adjustment, and maximum permissible errors apply $e_1, e_2 \dots$, as applicable for the load.

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