Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Certificate of Approval

NMI 6/18/38

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.

Associated Scale Services Model FO-290 Overhead-track Weighing Instrument

submitted by Associated Scale Services Pty Ltd
Unit 4, 47 Learoyd Road
Acacia Ridge QLD 4110

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 becomes subject to review on 1/07/22, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	15/08/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number ‘NMI 6/18/38 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 Certificate No S1/0B.

The pattern as approved herein or with substitute indicators shall comply with General Certificate No 6B/0.

Note: New instruments manufactured under this approval shall only use load cells and/or indicators with current Supplementary Certificates of Approval

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

Mr Darryl Hines

TECHNICAL SCHEDULE No 6/18/38

1. Description of Pattern approved on 15/08/17

An Associated Scale Services model FO-290 class (III) non-automatic overhead-track weighing instrument (Figure 1 and Table 1) of up to 290 kg maximum capacity. Instruments may also be known as SupplyWeigh model SW-290.

The pattern is approved for use with up to 2900 verification scale intervals, and with a verification scale interval of not less than 0.1 kg.

1.1 Trackwork

The model FO-290 trackwork has the weigh-rail (the 'live' section of rail) from 200 mm to 350 mm in length supported by a single load cell (Figure 1).

The instrument may also incorporate mechanical mechanisms to assist in loading and removing the load, however an operator is required to supervise the weighing operation (hence the instrument is considered to be a non-automatic weighing instrument).

Note: Satisfactory performance may be dependent on aspects of the lead-in and lead-out rails which support the instrument. Suitable installation conditions must be chosen to ensure satisfactory performance.

1.2 Load Cell

A single ANYLOAD model 108JA load cell of 300 kg maximum capacity is used and mounted as shown in Figure 2.

Note that only this make, model and capacity of load cell shall be used. The load cell carries a label with the make, model, capacity and serial number.

For the purposes of calculations required by General Certificate of Approval No 6B/0, if an alternative indicator is used, the following parameters may be used for the ANYLOAD model 108JA load cell of 300 kg maximum capacity:

Maximum capacity	300 kg
Accuracy Class	C
Maximum number of verification intervals	5000
Minimum value of verification scale interval	0.0244 kg
Minimum dead load output return value (DR)	0.0300 kg
Output rating (nominal)	2 mV/V
Input impedance (nominal)	415 ohm
Supply voltage (AC or DC)	10 V
Number of leads (plus shield)	4
Cable length (±0.1 m)	0.5 to 5 m (#)

(#) The cable length must not be altered after manufacture.

1.3 Indicator

A Rice Lake model 482 plus-2A digital indicator is used. The indicator is also described in the documentation of approval NMI S673.

1.4 Sealing Provision

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

1.5 Verification Provision

Provision is made for a verification mark to be applied.

1.6 Descriptive Markings and Notices

Instruments are marked with the following:

Manufacturer's mark, or name written in full	Associated Scale Services
Indication of accuracy class	(III)
Maximum capacity	*Max* ..... kg (*)
Minimum capacity	*Min* ..... kg (*)
Verification scale interval	*e* = ... kg (*)
Maximum subtractive tare (if less than *Max*)	*T* = - ..... kg
Serial number of the instrument	.....
Serial number of the load cells (#)	..... (#)
Pattern approval mark for the instrument	NMI 6/18/38
Pattern approval mark for the indicator	NMI S...

(*) These markings shall also be shown near the display of the result if they are not already located there.

(#) Alternatively, these may be marked on a nameplate for the trackwork.

2. Description of Variant 1 **approved on draft/17**

An Associated Scale Services model FO-600 overhead-track weighing instrument of up to 600 kg maximum capacity, approved for use with up to 3000 verification scale intervals, and with a verification scale interval of not less than 0.2 kg. The instrument uses a single ANYLOAD model 108JA load cell of 750 kg maximum capacity. Instruments may also be known as SupplyWeigh SW-600.

For the purposes of calculations required by General Certificate of Approval No 6B/0, if an alternative indicator is used, the following parameters may be used for the ANYLOAD model 108JA load cell of 750 kg maximum capacity:

Maximum capacity	750 kg
Accuracy Class	C
Maximum number of verification intervals	4000
Minimum value of verification scale interval	0.1875 kg
Minimum dead load output return value (DR)	0.0500 kg
Output rating (nominal)	2 mV/V
Input impedance (nominal)	415 ohm
Supply voltage (AC or DC)	10 V
Number of leads (plus shield)	4
Cable length (±0.1 m)	0.5 to 5 m (#)

(#) The cable length must not be altered after manufacture.

3. Description of Variant 2 approved on draft/17

An Associated Scale Services model FO-1000 overhead-track weighing instrument of up to 1000 kg maximum capacity, approved for use with up to 2000 verification scale intervals, and with a verification scale interval of not less than 0.5 kg. The instrument uses a single ANYLOAD model 108JA load cell of 1500 kg maximum capacity. Instruments may also be known as SupplyWeigh SW-1000

For the purposes of calculations required by General Certificate of Approval No 6B/0, if an alternative indicator is used, the following parameters may be used for the ANYLOAD model 108JA load cell of 1500 kg maximum capacity:

Maximum capacity	1500 kg
Accuracy Class	C
Maximum number of verification intervals	4000
Minimum value of verification scale interval	0.375 kg
Minimum dead load output return value (DR)	0.100 kg
Output rating (nominal)	2 mV/V
Input impedance (nominal)	415 ohm
Supply voltage (AC or DC)	10 V
Number of leads (plus shield)	4
Cable length (±0.1 m)	0.5 to 5 m (#)

(#) The cable length must not be altered after manufacture.

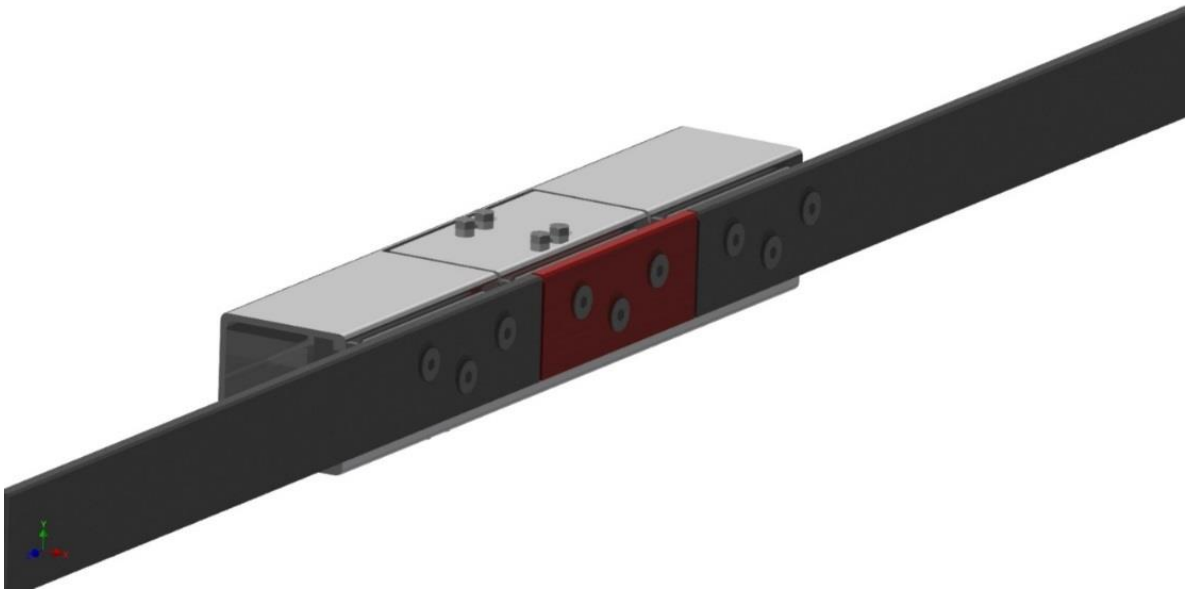
TEST PROCEDURE

Instruments should be tested in accordance with any tests specified in the approval documentation for the indicator use, and in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

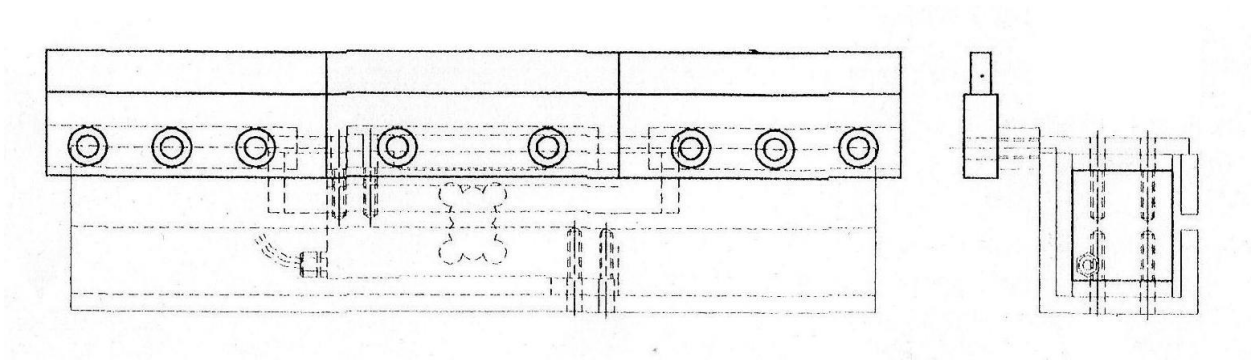
The maximum permissible errors are specified in Schedule 1 of the *National Measurement Regulations 2009*.

FIGURE 6/18/38 – 1



Associated Scale Services Model FO-290 Overhead-track Weighing Instrument

FIGURE 6/18/38 – 2



Load Cell Mounting Arrangement

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