



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval

NMI 6/4C/247

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.

Scanvaegt Model 410 Weighing Instrument

submitted by Marel New Zealand Limited
(formerly Scanvaegt Ltd)
Unit B, 17 Hobill Avenue
Wiri, Auckland
New Zealand

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 **1/05/22**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 approved – certificate issued	31/10/06
1	Pattern & variants 1 & 2 reviewed & updated – certificate issued	20/04/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/247' and only by persons authorised by the submitter.

It is the submitter'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 No S1/0/A or No S1/0B.

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

A handwritten signature in black ink, appearing to read 'A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

TECHNICAL SCHEDULE No 6/4C/247

1. Description of Pattern

approved on 31/10/06

A Scanvaegt model 410 class III single-interval self-indicating non-automatic weighing instrument (Table 1 and Figure 1) with a maximum capacity of 30 kg and a verification scale interval of 0.01 kg. Instruments are NOT FOR TRADING DIRECT WITH THE PUBLIC and shall be so marked.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices.

The instrument operates from mains AC power.

1.1 Basework

The Scanvaegt model 1025.20.30 basework has the load receptor directly supported by a single load cell. The load receptor has maximum nominal dimensions of 300 x 400 mm.

1.2 Load Cell

A Revere Transducers model SHBxR Class C3 load cell of 100 kg maximum capacity is used.

1.3 Indicator

A Scanvaegt model 411 digital indicator is used. The indicator may be mounted on a column (as shown in Figure 1) or it may also be located remotely.

The indicator also has additional functions including 'under/accept/over' display, accumulation of statistical information regarding weighings, and a 'library' function to allow storing/recall of 'under/accept/over' values and pre-set tare values against ID numbers. The additional functions (other than the indications of measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) are not approved for trade use.

1.3.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within $0.5e$ of zero.

The instrument has a semi-automatic zero-setting device (to set the instrument to within $\pm 0.25e$ of zero) with a nominal range of not more than 4% of the maximum capacity of the instrument.

The instrument has an initial zero-setting device with a nominal range of not more than 20% of the maximum capacity of the instrument.

1.3.2 Tare

A semi-automatic subtractive tare device and/or a pre-set tare device, each of up to maximum capacity, may be fitted.

In addition, an automatic subtractive taring device of up to the maximum capacity of the instrument may be fitted.

When a taring device is in use, the tare value may (optionally) be displayed temporarily by the use of Fn2 key.

1.3.3 Display Check


A display check is initiated whenever power is applied.

1.4 Levelling

The instrument is provided with adjustable feet and a level indicator.

1.5 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full
Indication of accuracy class	
Pattern approval mark for the instrument	NMI 6/4C/247
Maximum capacity	<i>Max</i> kg #1
Minimum capacity	<i>Min</i> kg #1
Verification scale interval	<i>e</i> = kg #1
Tare capacity (if less than <i>Max</i>)	<i>T</i> = - kg #2
Serial number of the instrument

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

#2 This marking is required if *T* is not equal to *Max*.

In addition, instruments shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

The calibration and set-up modes of the indicator are secured with a passcode.

In addition, a calibration event counter is incremented each time that adjustment of the instrument sensitivity is carried out, and a set-up parameter counter is incremented each time that alteration of significant parameters occurs. The value of these counters is shown (as C followed by a number for the calibration event counter, and as L followed by a number for the set-up parameter counter) in the display as part of the power-up display sequence (and in the TEST mode – activated by pressing the 'SET ZERO' key for more than 1.5 seconds). The value of these counters at the time of verification/certification shall be recorded on a destructible adhesive label attached to the instrument.

Any subsequent alteration to the calibration or parameters will be evident as the recorded values and the current counter values will differ.

2. Description of Variant 1

approved on 31/10/06

Certain models of the Scanvaegt 410 series, of differing capacities and verification scale intervals and using different Scanvaegt 1025 series baseworks, similar to the model 1025.20.30 basework described for the pattern but with different capacities and verification scale intervals, and using different capacity load cells.

The parameters of these models are listed below in Table 1.

TABLE 1

Basework Model	Maximum Capacity <i>Max</i>	Verification Scale Interval <i>e</i>	Minimum Capacity <i>Min</i>	Maximum Platform Dimensions mm x mm	Load cell Maximum Capacity, <i>E_{max}</i>
1025.15.15	15 kg	0.005 kg	0.1 kg	200 x 300	50 kg
1025.20.15	15 kg	0.005 kg	0.1 kg	300 x 400	50 kg
1025.20.30	30 kg	0.01 kg	0.2 kg	300 x 400	100 kg
1025.30.30	30 kg	0.01 kg	0.2 kg	500 x 600	100 kg
1025.30.60	60 kg	0.02 kg	0.4 kg	500 x 600	200 kg

All baseworks are fitted with a Revere Transducers model SHBxR Class C3 load cell.

3. Description of Variant 2

approved on 31/10/06

The models of the Scanvaegt 410 series (pattern or variant 1) in versions intended for battery power supply (6V, e.g. 4 x 1.5 V, D type).

TEST PROCEDURE No 6/4C/247

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*.

FIGURE 6/4C/247 – 1



Scanvaegt Model 410 Weighing Instrument

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