



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Certificate of Approval No 6/4D/313**

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

This is to certify that the approval for use for trade granted in respect of the

Avery Berkel Model GM 100 Weighing Instrument

submitted by Avery Berkel (a Division of ITW Limited)  
(formerly Avery Berkel International)  
Foundry Lane  
Smethwick  
West Midlands B662LP UNITED KINGDOM

has been cancelled in respect of new instruments as from 1 September 2010.

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

A handwritten signature in black ink, consisting of stylized cursive letters, positioned to the right of the signature text.



## National Standards Commission

12 Lyonpark Road, North Ryde NSW

### Certificate of Approval

**No 6/4D/313**

Issued under Regulation 60  
of the  
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This is to certify that an approval for use for trade has been granted in respect of the

Avery Berkel Model GM 100 Weighing Instrument

submitted by Avery Berkel International  
Foundry Lane  
Smethwick  
West Midlands B66 2LP  
UK.

**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.

### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 August 2008, and then every 5 years thereafter. Instruments purporting to comply with this approval shall be marked NSC No 6/4D/313 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 Commission 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 the Commission's Document NSC P 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

#### **Special Condition of Approval:**

Certain aspects of this instrument (in particular label and ticket formats) are able to be configured by the user. Whilst the Commission believes that acceptable label and ticket formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

### DESCRIPTIVE ADVICE

**Pattern:** approved 2 July 2003

- An Avery Berkel model GM 100 single interval self-indicating price-computing weighing instrument with a maximum capacity of 6 kg.

**Variants:** approved 2 July 2003

1. With certain other maximum capacities.
2. As multi-interval instruments of certain capacities.
3. Model GM 200 with column-mounted customer display.
4. Model GM 300 with column-mounted self-service keyboard.
5. Model GM 400 with column-mounted displays and vendor keyboard.

Technical Schedule No 6/4D/313 describes the pattern and variants 1 to 5.

### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/4D/313 dated 18 August 2003

Technical Schedule No 6/4D/313 dated 18 August 2003 (incl. Test Procedure)

Figures 1 to 6 dated 18 August 2003



TECHNICAL SCHEDULE No 6/4D/313

**Pattern:** Avery Berkel Model GM 100 Weighing Instrument

**Submittor:** Avery Berkel International  
Foundry Lane  
Smethwick  
West Midlands B66 2LP UK

## 1. Description of Pattern

An Avery Berkel model GM 100 single interval self-indicating price-computing weighing instrument (Figures 1 and 3) of maximum capacity of 6 kg with a verification scale interval of 0.001 kg.

Instruments have unit price to \$9999.99/kg, price to \$99999.99, a product look up (PLU) facility, and may be fitted with output sockets for the connection of peripheral and/or auxiliary devices.

Instruments are fitted with a double-sided alphanumeric display and an integral printer. Instruments can print tickets or (in pre-pack mode) labels to be attached to pre-packaged articles.

Note: Refer to the Special Condition of Approval.

### 1.1 Zero

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

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

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

The instrument has an automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

### 1.2 Tare

A semi-automatic and/or non-automatic keyboard-entered pre-set subtractive tare device, each of up to the maximum capacity of the instrument may be fitted.

Pre-set tare values may be associated with product look up (PLU) items.

### 1.3 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

### 1.4 Display Check

A display check is initiated whenever power is applied or the TEST button is pressed.

## 1.5 Networking

A number of instruments may be connected in a network to share common PLU data, and to accumulate and retrieve management information.

In addition, the network may be interfaced with a computer for the collection of management data, or the downloading of PLU data.

Note: The weighing and price-computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular weighing instrument does not necessitate reverification of any other weighing instrument in the network.

## 1.6 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

## 1.7 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of a destructible label placed over the calibration adjustment access hole located on the underside of the instrument, as shown in Figure 2.

## 1.8 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	.....
Name or mark of manufacturer's agent	.....
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	NSC No 6/4D/313
Maximum capacity	<i>Max</i> ..... g or kg *
Minimum capacity	<i>Min</i> ..... g or kg *
Verification scale interval	<i>e</i> = ..... g or kg *
Maximum tare capacity, if different from <i>Max</i>	<i>T</i> = - ..... g or kg
Serial number of the instrument	.....

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

## 2. Description of Variants

### 2.1 Variant 1

As single interval instruments of certain other capacities as listed below:

- of 12 kg maximum capacity with a verification scale interval of 0.002 kg. The maximum tare capacity is 9.998 kg; and
- of 15 kg maximum capacity with a verification scale interval of 0.005 kg. The maximum tare capacity is 9.995 kg.

## 2.2 Variant 2

As multi-interval instruments of certain other capacities as listed below:

- with a verification scale interval ( $e_1$ ) of 0.001 kg up to 3 kg and with a verification scale interval ( $e_2$ ) of 0.002 kg from 3 kg up to the maximum capacity of 6 kg.

The maximum semi-automatic and pre-set tare capacities are 1 kg; and

- with a verification scale interval ( $e_1$ ) of 0.002 kg up to 6 kg and with a verification scale interval ( $e_2$ ) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg.

The maximum semi-automatic and pre-set tare capacities are 2 kg.

Instruments are marked with the 'Maximum capacity' and with the 'Verification scale interval' for both interval ranges (Figure 3), in addition to the other data specified in clause 1.8 **Markings**.

## 2.3 Variant 3

The model GM 200 which is similar to the GM 100 but which has the customers' display mounted on a column (Figure 4).

## 2.4 Variant 4

The model GM 300 which has a self-service keyboard mounted on a column (Figure 5).

## 2.5 Variant 5

The model GM 400 which is similar to the GM 200 but which has both the customers' and vendors' displays mounted on a column, and which has provision for additional keyboard keys (Figure 6).

## TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

### **Maximum Permissible Errors at Verification/Certification**

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads,  $m$ , expressed in verification scale intervals,  $e$ , are:

- $\pm 0.5 e$  for loads  $0 \leq m \leq 500$ ;
- $\pm 1.0 e$  for loads  $500 < m \leq 2\,000$ ; and
- $\pm 1.5 e$  for loads  $2\,000 < m \leq 10\,000$ .

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

FIGURE 6/4D/313 – 1



Avery Berkel Model GM 100 Weighing Instrument

FIGURE 6/4D/313 – 2

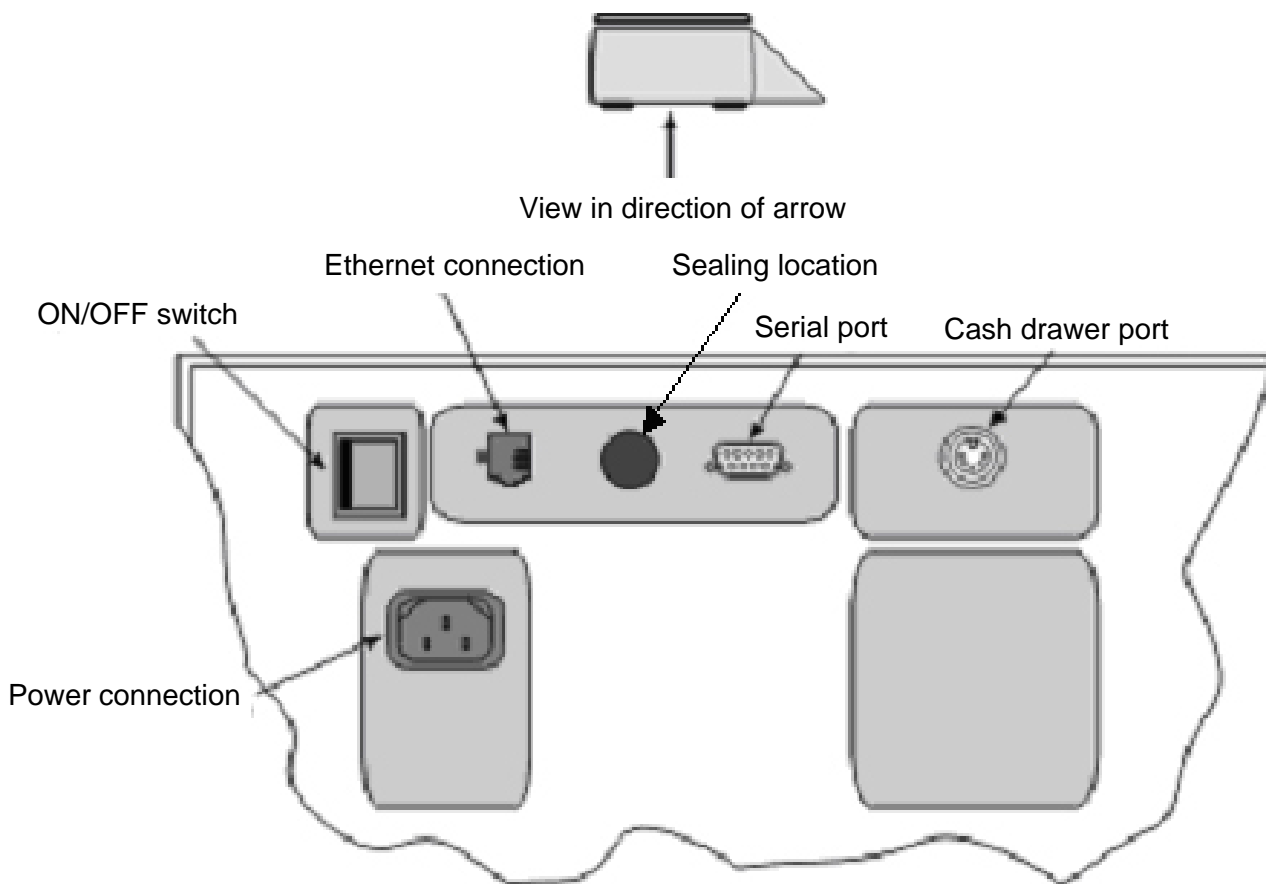
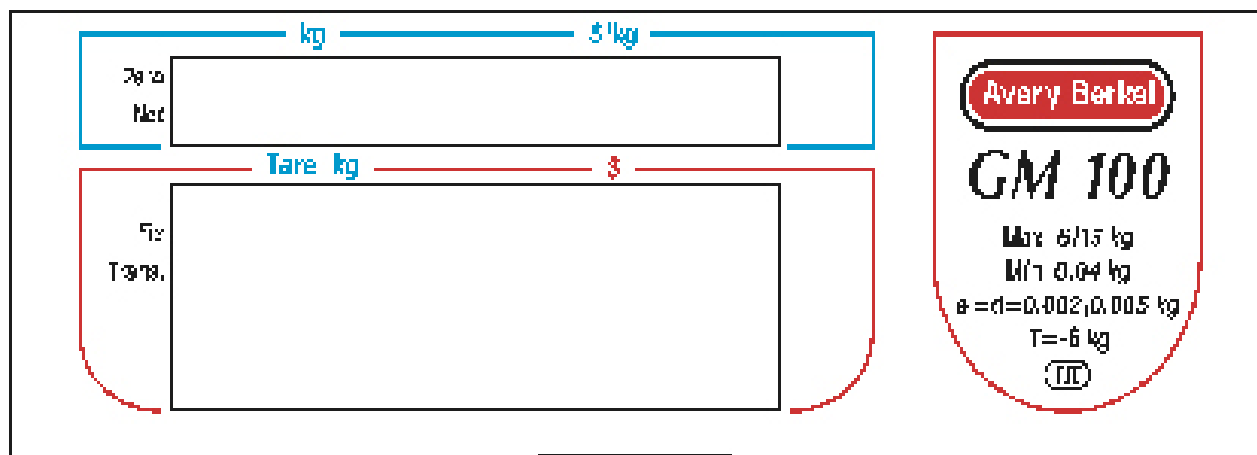




FIGURE 6/4D/313 – 3



Typical Facia Overlay – In this case, for a model GM 100 multi-interval instrument

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FIGURE 6/4D/313 – 4



Avery Berkel Model GM 200

FIGURE 6/4D/313 – 5



Avery Berkel Model GM 300

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FIGURE 6/4D/313 – 6



Avery Berkel Model GM 400