



Australian Government  
Department of Industry,  
Innovation and Science

## National Measurement Institute

### Certificate of Approval NMI 6/9C/280

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.

Bilanciali Model TRUDEK PRM 150.150 Weighing Instrument

submitted by National Weighing & Instruments Pty Ltd  
1/88 Magowar Road  
Girraween NSW 2145

**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 1/3/22, and then every 5 years thereafter.

#### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – interim certificate issued	30/3/04
1	Pattern & variants 1 to 3 approved – certificate issued	4/05/04
2	Pattern & variant 1 to 3 reviewed – notification of change issued	3/2/11

Document History (cont...)

Rev	Reason/Details	Date
3	Pattern & variant 1 to 3 reviewed – notification of change issued	9/2/17

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) 6/9C/280' 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 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 NMI-approved load cells and/or indicators, and in other capacities, or with different platform sizes, shall comply with General Certificate 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*.



**Mario Zamora**

## TECHNICAL SCHEDULE No 6/9C/280

### 1. Description of Pattern approved on 30/3/04

A Bilanciai model TRUDEC PRM 150.150 class  self-indicating weighing instrument of 1500 kg maximum capacity and approved for use with a verification scale interval of 0.5 kg.

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

#### 1.1 Basework

The model TRUDEC PRM 150.150 basework (Figures 1 and 2) has the load receptor directly supported by load cells fitted with self-aligning supporting feet.

This model basework has nominal dimensions of 1500 x 1500 mm.

If approach ramps are provided care shall be taken to ensure that these do not interfere with the platform.

#### 1.2 Load Cells


Four Eurocell model NTI-C3 load cells of 500 kg capacity are used mounted as shown in Figure 2. The load cells are described in the documentation of NSC approval No S380.

#### 1.3 Indicator

A Bilanciai model D70B digital indicator is used. The indicator is described in the documentation of NSC approval No S514.

#### 1.4 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	Societa Cooperativa Bilanciai Campogalliano a.r.l., Italy
Name or mark of manufacturer's agent	.....
Indication of accuracy class	
Maximum capacity (for each range)	<i>Max</i> ..... kg #1
Minimum capacity (for each range)	<i>Min</i> ..... kg #1
Verification scale interval (for each range)	<i>e</i> = ..... kg #1
Maximum subtractive tare	<i>T</i> = - .... kg #2
Serial number of the instrument	.....
Pattern approval mark for the instrument	NMI (or NSC) No 6/9C/280
Pattern approval mark for other components	..... #3

#1 These markings are also 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*.

#3 May be located separately from the other markings.

In addition, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

Note:

For multi-interval and multiple range instruments the markings shall be as above, with the exception of the following (examples are for instruments with two partial ranges):

(i) For multi-interval instruments;

Maximum capacity	<i>Max</i> ...../..... kg *
Verification scale interval	<i>e</i> = ...../..... kg *

(ii) For multiple range instruments, the maximum capacity, minimum capacity and verification scale interval for each range shall be marked, with an indication of the range to which they apply, e.g.

Range	1	2
<i>Max</i>	.... kg	.... kg
<i>Min</i>	.... kg	.... kg
<i>e</i> =	.... kg	.... kg

## 1.5 Verification Provision

Provision is made for the application of a verification mark.

## 1.6 Sealing Provision

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

## 1.7 Levelling

Where instruments are liable to be tilted (i.e. they are not installed in a permanently fixed location) they are provided with adjustable feet and a level indicator. Adjacent to the level indicator is a notice stating 'instrument must be level when in use', or similar wording.

## 2. Description of Variant 1 approved on 30/3/04

Various models of the Bilanciai TRUDEC PRM and LPS series in capacities as listed below, provided that instruments comply with General Certificate No 6B/0:

- from 100 kg up to 1499 kg;
- from 1500 kg up to 14 999 kg; and
- from 15 000 kg up to 149 999 kg.

A typical LPS series basework is shown in Figure 3.

## 3. Description of Variant 2 approved on 30/3/04

Certain models of the Bilanciai TRUDEC BPU series in capacities from 600 to 3000 kg.

A typical BPU series basework is shown in Figure 4.

#### **4. Description of Variant 3**

**approved on 30/3/04**

Other instruments in the Bilanciai TRUDEC series with the load receptor in the form of a hopper or bag suspended from the base frame (Figures 5 and 6) in capacities from 1500 to 149 999 kg.

Suitable provision must be made for the application of suitable verified masses to the instrument as required for verification and certification purposes. It may be necessary for such masses to be incorporated within the design of the instrument.

## TEST PROCEDURE

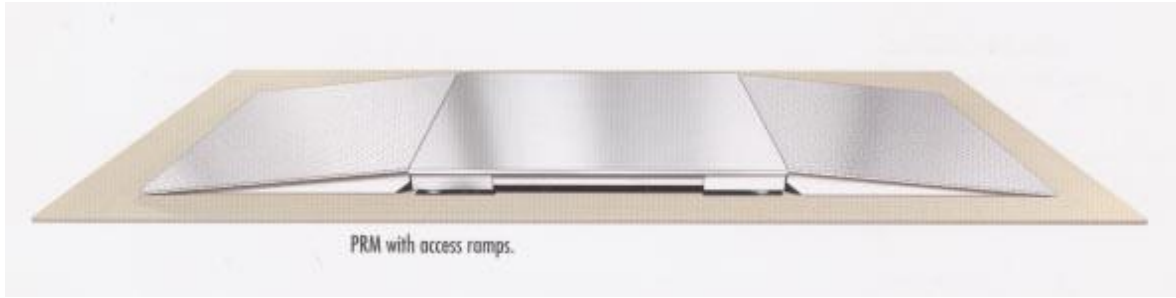
Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

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 the *National Trade Measurement Regulations 2009*.

FIGURE 6/9C/280 – 1



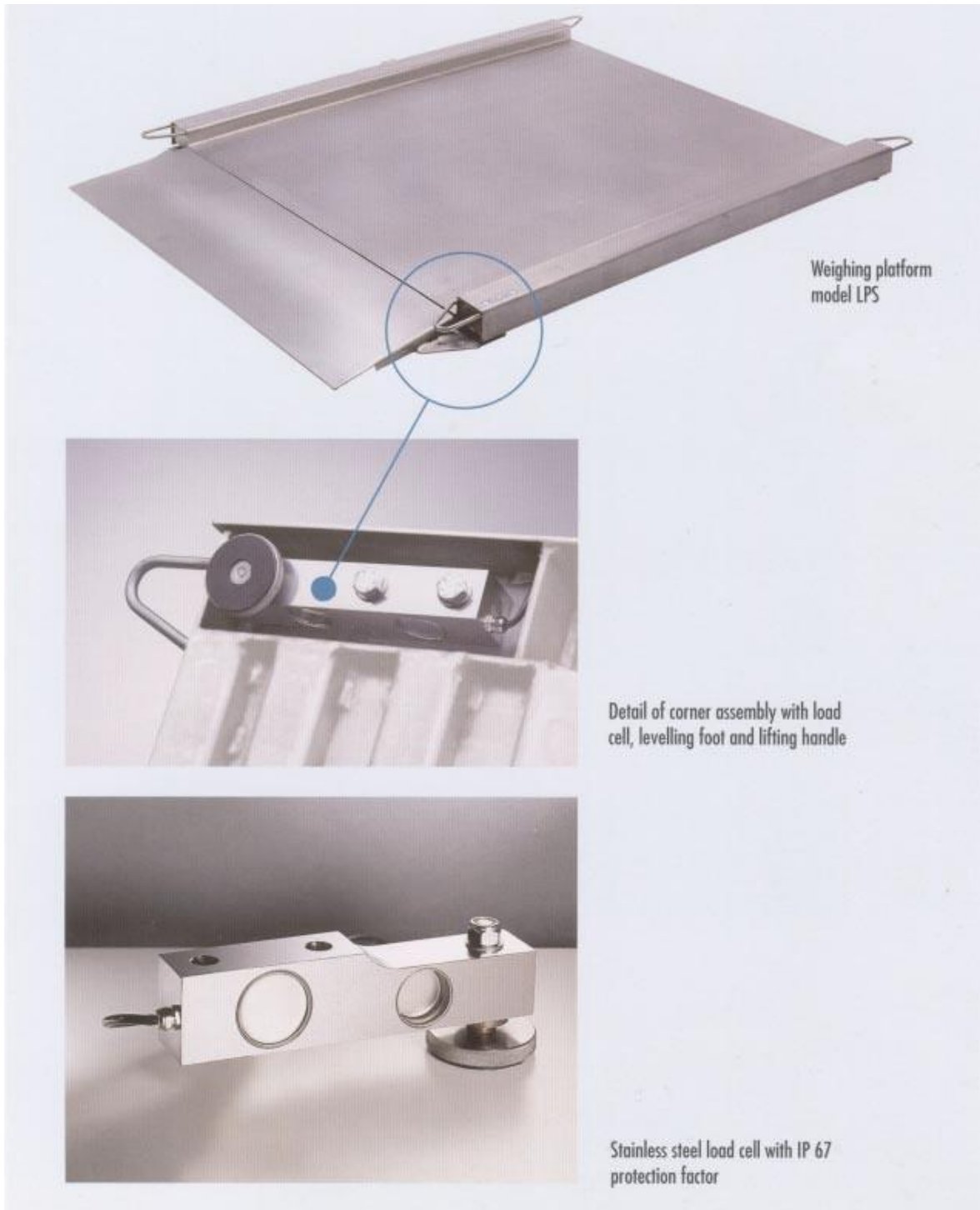
Typical TRUDEEC PRM Series Basework and Load Cell Mounting Details

FIGURE 6/9C/280 – 2



Typical TRUDEEC PRM Series Basework

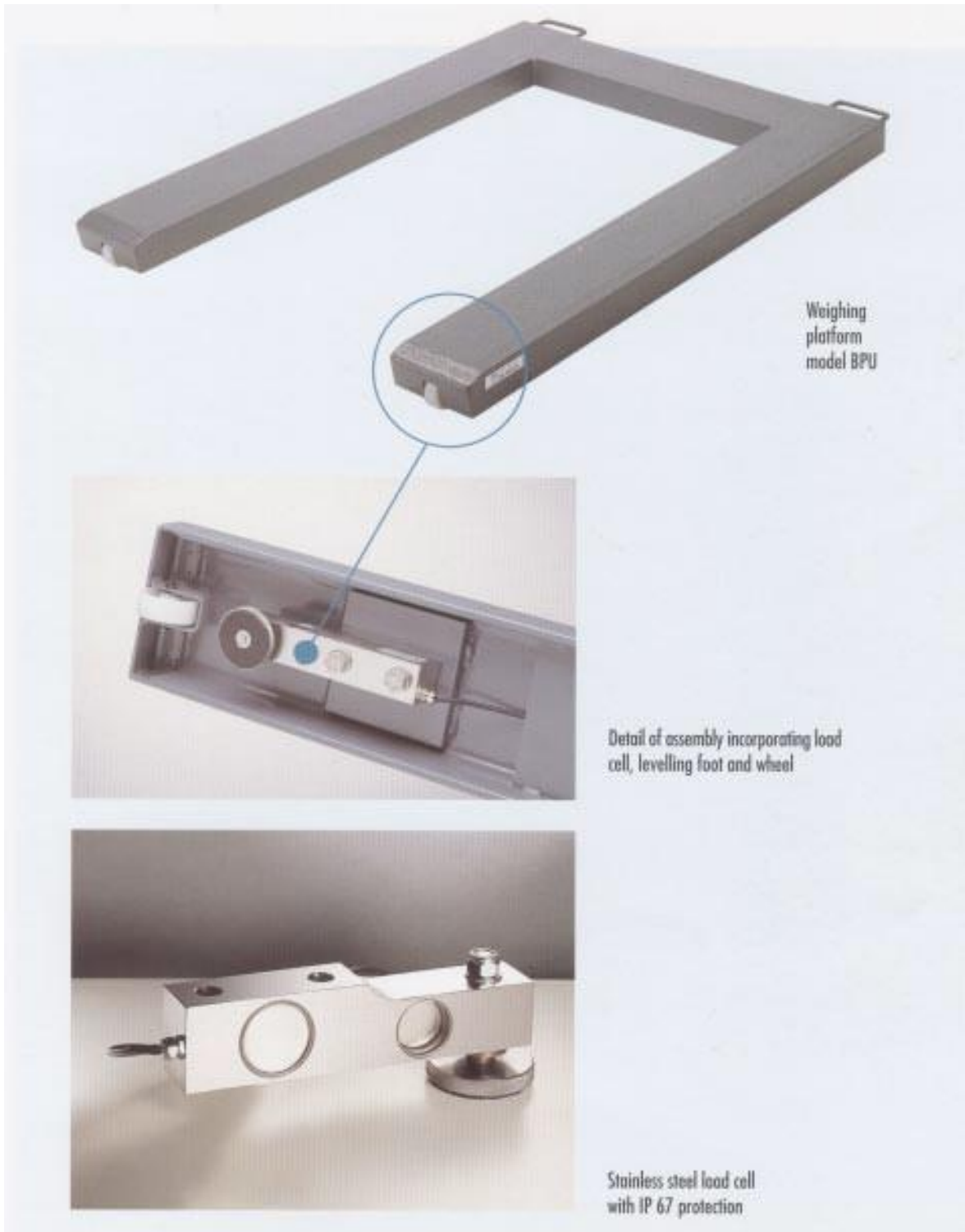
FIGURE 6/9C/280 – 3



Typical LPS Series Basework and Load Cell Mounting Details

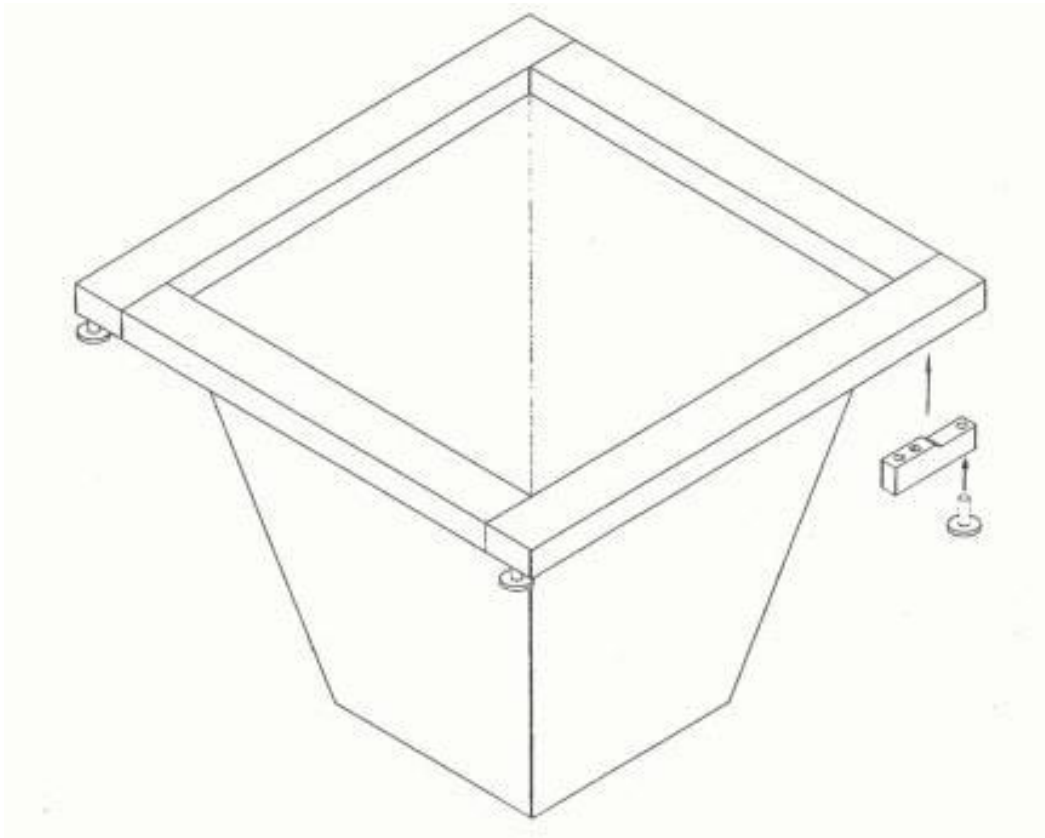


FIGURE 6/9C/280 – 4



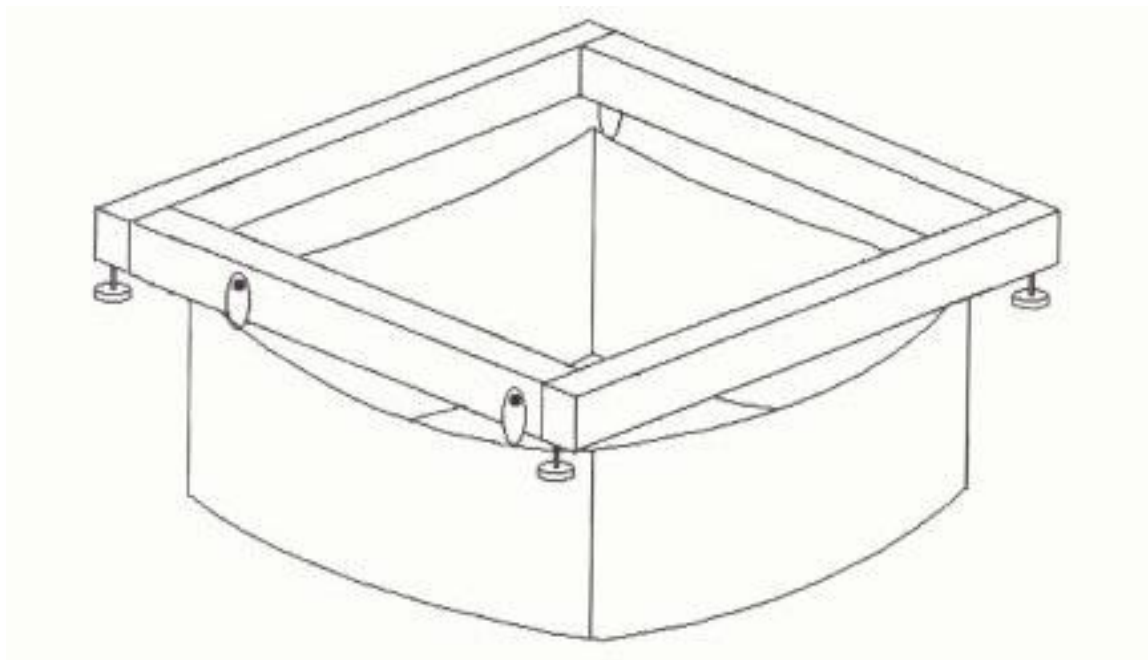
Typical BPU Series Basework and Load Cell Mounting Details

FIGURE 6/9C/280 – 5



Typical Hopper Load Receptor – Variant 3

FIGURE 6/9C/280 – 6



Typical Suspended-Bag Load Receptor – Variant 3

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