



**Australian Government**

**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

# **Notification of Change**

## **Certificate of Approval No 6/9C/261**

### **Change No 3**

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

The following changes are made to the approval documentation for the  
PCS Model B-3000 Weighing Instrument

submitted by            Precision Calibration Services Pty Ltd  
                                 Unit 11, 21-23 Daniel Street  
                                 Wetherill Park NSW 2164.

In Certificate of Approval 6/9C/261 dated 28 June 1999;

1. The Condition of Approval referring to the review of the approval should be amended to read:  
"This approval becomes subject to review on 1 April **2014**, and then every 5 years thereafter."  
Note: The review date was previously amended by Notification of Change No 1 dated 11 August 2004.
2. The following should be added before the final Condition of Approval:  
"Note: New instruments manufactured under this approval shall only use load cells and/or indicators with current Supplementary Certificates of Approval."
3. The FILING ADVICE should be amended by adding the following:  
"Notification of Change No 1 dated 11 August 2004  
Notification of Change No 2 dated 10 December 2004  
Notification of Change No 3 dated 20 August 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 a series of loops and flourishes, positioned at the end of the document.



# National Standards Commission

## Certificate of Approval

**No 6/9C/261**

Issued under Regulation 9  
of the  
National Measurement (Patterns of Measuring Instruments) Regulations

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

PCS Model B-3000 Weighing Instrument

submitted by Precision Calibration Services Pty Ltd  
21-23 Daniel Street  
Wetherill Park NSW 2164.

**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 April 2004, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/261 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 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.

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



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.

## DESCRIPTIVE ADVICE

**Pattern:** approved 18 March 1999

- A PCS model B-3000 weighing instrument of 3 000 kg maximum capacity. May also be known as a Scale Manufacturers model B-3000.



**Variant:** approved 18 March 1999

1. In other capacities between 1500 and 14 999 kg.

**Variants:** approved 18 June 1999

2. In capacities up to 1499 kg.
3. With the load receptor in the form of a hopper or bag.

Technical Schedule No 6/9C/261 describes the pattern and variants 1 to 3.

### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/261 dated 28 June 1999  
Technical Schedule No 6/9C/261 dated 28 June 1999 (incl. Test  
Procedure)  
Figures 1 to 5 dated 28 June 1999



Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to read 'J. Benh'.

## TECHNICAL SCHEDULE No 6/9C/261

**Pattern:** PCS Model B-3000 Weighing Instrument.

**Submittor:** Precision Calibration Services Pty Ltd  
21-23 Daniel Street  
Wetherill Park NSW 2164

### 1. Description of Pattern

A PCS model B-3000 self-indicating platform weighing instrument (Figure 1) of 3000 kg maximum capacity and approved for use with up to 3000 verification scale intervals. May also be known as a **Scale Manufacturers** model **B-3000**.



#### 1.1 Basework

The model B-3000 basework (Figure 1) has the four load cells directly bolted to the load receptor of 1200 x 1200 mm. The feet of the instrument are attached to the load cells (Figures 2 and 3).

If approach ramps are provided (as shown in Figure 2), care shall be taken to ensure that these do not interfere with the platform.

#### 1.2 Load Cells

Four Kelba model KA-1000-C3 load cells of 1000 kg capacity are used.

The load cells are also described in the approval documentation of NSC approval No S155B.

#### 1.3 Indicator

An A & D Mercury model AD-4323 digital indicator is used.

The indicator is also described in the approval documentation of NSC approval No S251A.

#### 1.4 Verification/Certification Provision

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

#### 1.5 Levelling

Instruments 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.

## 1.6 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.

## 1.7 Markings

Instruments are marked with the following, in the form shown at right:

Manufacturer's mark, or name written in full	.....
Indication of accuracy class	Ⓜ
Maximum capacity	<i>Max</i> ..... kg *
Minimum capacity	<i>Min</i> ..... kg *
Verification scale interval	<i>e</i> = ..... kg *
Serial number of the instrument	.....
Pattern approval mark for the instrument	NSC No 6/9C/261
Pattern approval mark for the indicator	NSC No S....
Pattern approval mark for the load cells	NSC No S....

- \* These markings shall also be repeated adjacent to each reading face, if they are not already located there.

## 2. Description of Variants

### 2.1 Variant 1

In capacities from 1500 to 14 999 kg.

### 2.2 Variant 2

In capacities up to 1499 kg.

### 2.3 Variant 3

With the load receptor in the form of a hopper or bag suspended from the base frame (Figures 4 and 5).

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 should be tested in conjunction with any tests specified in the approval documentation for the indicator used, and in accordance with any relevant tests specified in the Inspector's Handbook.

### **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:

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

6/9C/261  
11 August 2004



**Australian Government**  

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**National Measurement  
Institute**

12 Lyonpark Road, North Ryde NSW 2113

**Notification of Change**  
**Certificate of Approval No 6/9C/261**  
**Change No 1**

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

The following change is made to the approval documentation for the

PCS Model B-3000 Weighing Instrument

submitted by Precision Calibration Services Pty Ltd  
21-23 Daniel Street  
Wetherill Park NSW 2164.

In Certificate of Approval No 6/9C/261 dated 28 June 1999, the Condition of Approval referring to the review of the approval should be amended to read:

“This approval becomes subject to review on 1 April 2009, and then every 5 years thereafter.”

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, appearing to be 'J. G. T.', is located in the bottom right corner of the page.





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

12 Lyonpark Road, North Ryde NSW 2113

**Notification of Change**  
**Certificate of Approval No 6/9C/261**  
**Change No 2**

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

The following changes are made to the approval documentation for the

PCS Model B-3000 Weighing Instrument

submitted by Precision Calibration Services Pty Ltd  
21-23 Daniel Street  
Wetherill Park NSW 2164.

1. In Certificate of Approval No 6/9C/261 dated 28 June 1999, the second sentence of the description of the pattern in the DESCRIPTIVE ADVICE, which refers to an alternative make and model, should be replaced by:  
"May also be known as a **Kelba** model **KL-3000**."
2. In Technical Schedule No 6/9C/261 dated 28 June 1999, the second sentence of the description of the pattern in clause 1, which refers to an alternative make and model, should be replaced by:  
"May also be known as a **Kelba** model **KL-3000**."

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

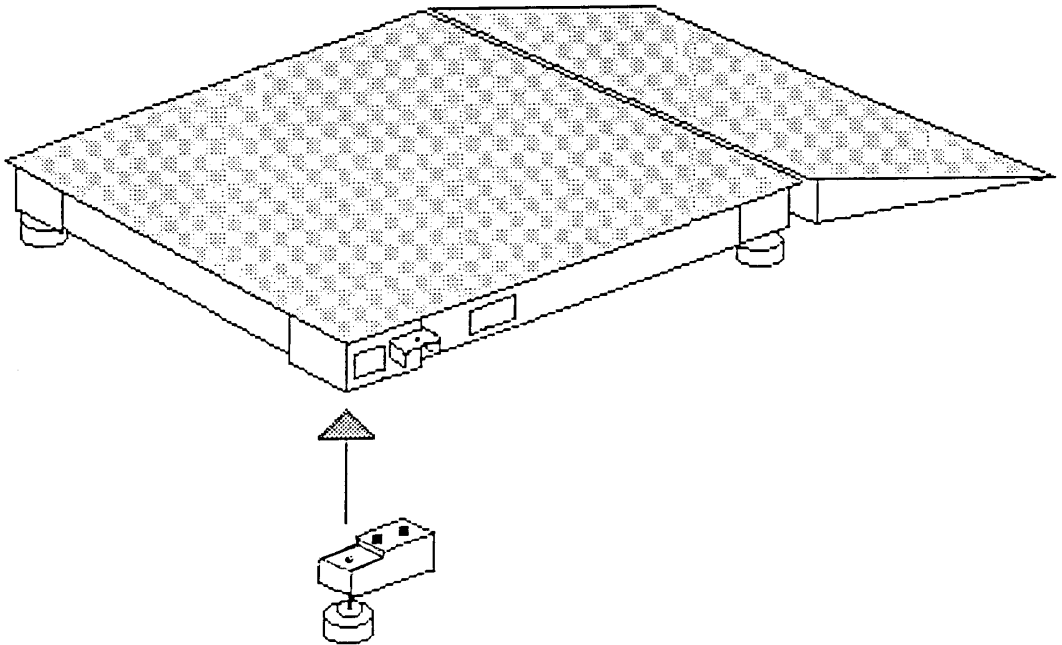
A handwritten signature in black ink, appearing to be 'J. G. T.', is located in the bottom right corner of the page.

FIGURE 6/9C/261 - 1



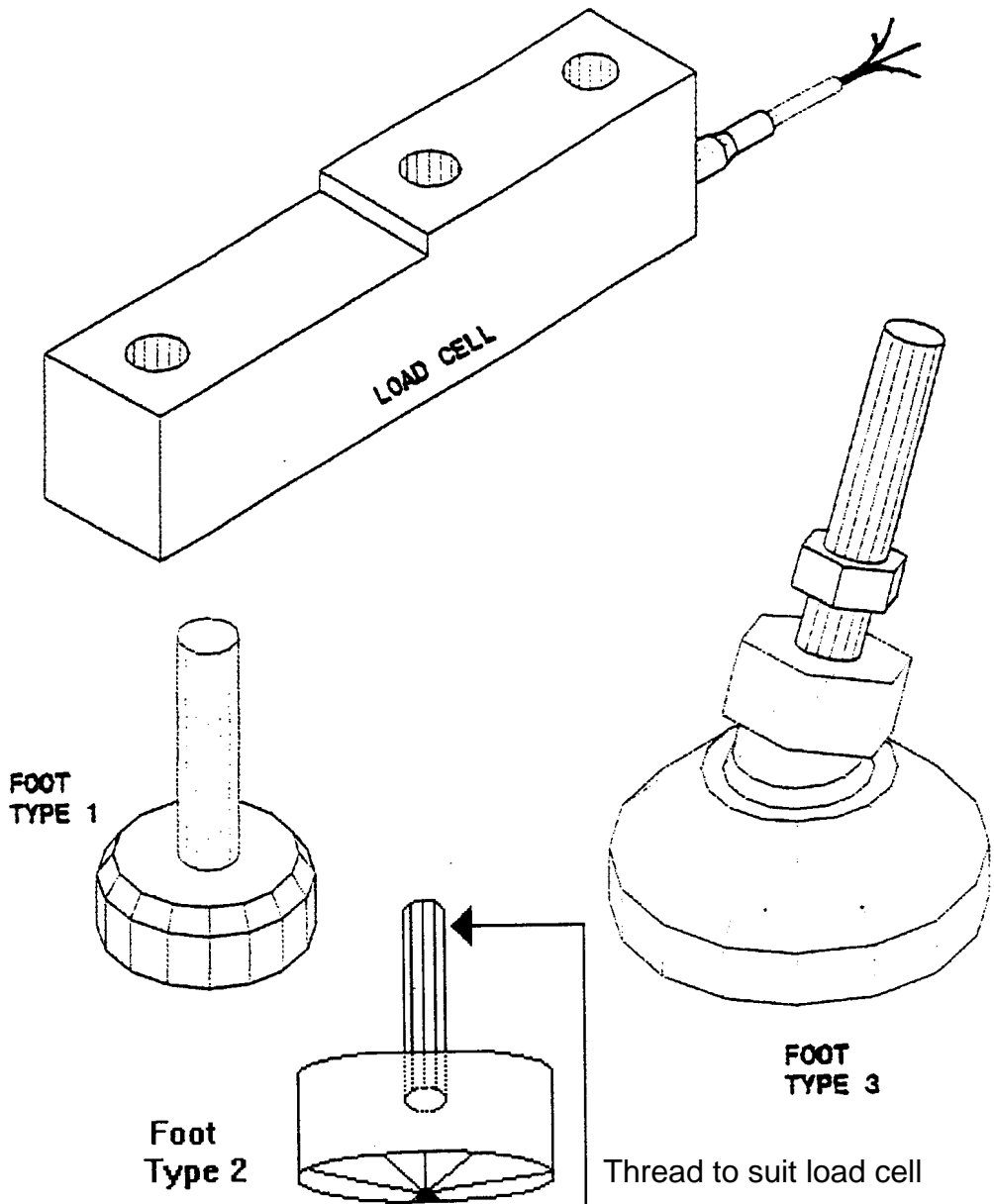
PCS Model B-3000 Basework

FIGURE 6/9C/261 - 2



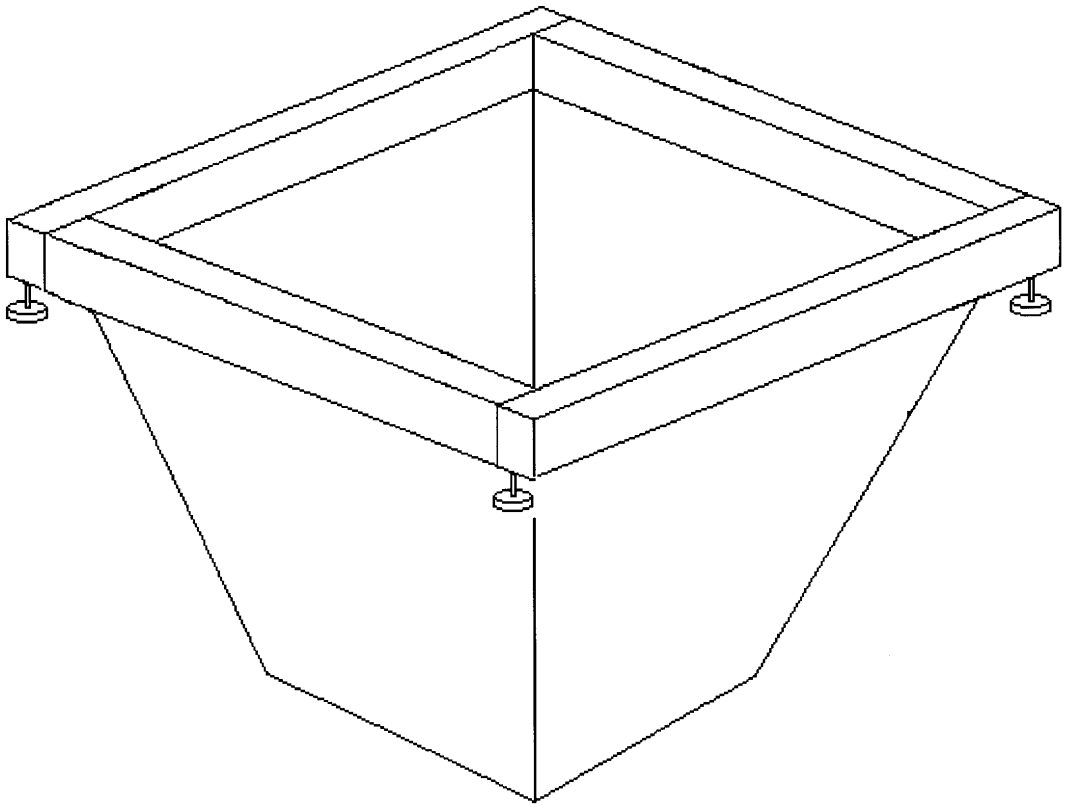
PCS Model B-3000 Basework

FIGURE 6/9C/261 - 3



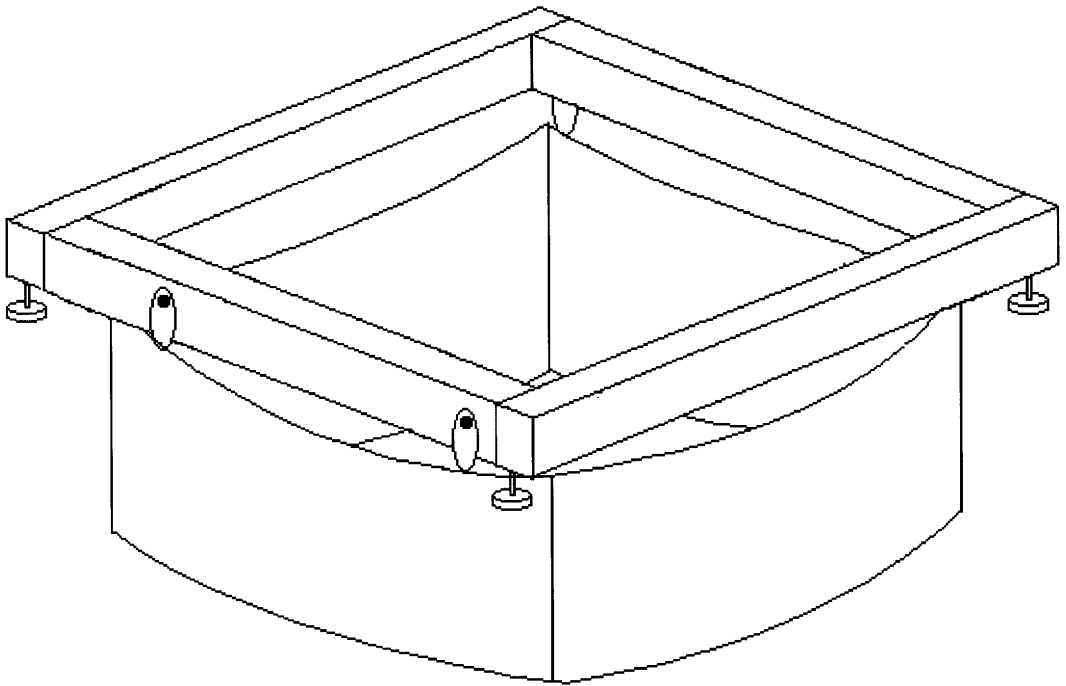
Alternative Feet Arrangements  
(Not to scale)

FIGURE 6/9C/261 - 4



Typical Hopper Arrangement - Variant 3

FIGURE 6/9C/261 - 5



Typical Suspended-bag Arrangement - Variant 3