



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/9C/292

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.

PT Model PS1212-1.5 Weighing Instrument

submitted by PT Limited
2/7 Marken Place
Glenfield Auckland 1330
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 **1/09/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – interim certificate issued	25/06/06
1	Pattern & variants 1 to 3 approved – certificate issued	16/10/06
2	Pattern & variants 1 to 3 reviewed & updated – certificate issued	10/05/12

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/9C/292' 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 pattern as approved herein or with substitute approved load cells and/or approved indicators and in other capacities, or with different platform sizes, shall comply with General Certificate of Approval No 6B/0.

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

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.

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 that appear to be 'M. J. ...'.

TECHNICAL SCHEDULE No 6/9C/292

1. Description of Pattern **approved on 25/06/06**

A PT model PS1212-1.5 self-indicating weighing instrument of 1500 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model PS basework (Figure 1) has the load receptor directly supported by load cells fitted with self-aligning supporting mechanisms (swivel foot, ball and cups). The basework may be free standing or contained within a support frame, with the load being transferred from the basework to the supporting frame via the self-aligning supporting mechanisms.

Construction of the basework consists of parallel structures containing a load cell within each end, the parallel structures being connected by one or more members of sufficient strength and rigidity to carry the required load. The parallel structures are generally of a box section formed either as a complete member or by integration of the scale top plate with other members to form a box section (Figure 2). The top plate may be removable in total or part for access.

This model basework has nominal dimensions of 1200 x 1200 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 Precision Transducers model PSB 1000-C3 load cells of 1000 kg capacity are used and are mounted as shown in Figures 1 and 2. The load cells are also described in the documentation of approval NSC S338.

1.3 Indicator

A PT model PT200M digital indicator is used. The indicator is described in the documentation of approval NSC S420.

1.4 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.

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 Descriptive Markings

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	PT Limited
Indication of accuracy class	Ⓜ
Maximum capacity	<i>Max</i> kg or t #1
Minimum capacity	<i>Min</i> kg or t #1
Verification scale interval	<i>e</i> = kg or t #1
Tare capacity	<i>T</i> = - kg or t #2
Serial number of the instrument
Pattern approval mark for the instrument	NMI 6/9C/292
Pattern approval mark for the load cells	S...
Pattern approval mark for the indicator	S...

#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*.

2. Description of Variant 1

approved on 25/06/06

Various models of the PS 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.
- (#) The full model numbers are in the form 'PSxxx-y' (e.g. the pattern, model PS1212-1.5), where 'xxx' represents the style of the load receptor, and 'y' represents the capacity in tonnes.

3. Description of Variant 2

approved on 25/06/06

Other instruments in the PS series with the load receptor in the form of a hopper, silo, vessel, platform or bag suspended from the base frame (Figure 3) in capacities from 100 kg up 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.

4. Description of Variant 3

approved on 25/06/06

An alternative construction of the PS series instruments, with pairs of load cells mounted in 'channels' (Figure 4) which are mounted under each end of a load receptor.

Notes:

1. The provision for self-aligning devices, levelling and level indication apply as for a complete basework.
2. The channels shall not be verified individually.
3. The channels shall not be verified without a load receptor, i.e. instruments shall only be verified as complete instruments.

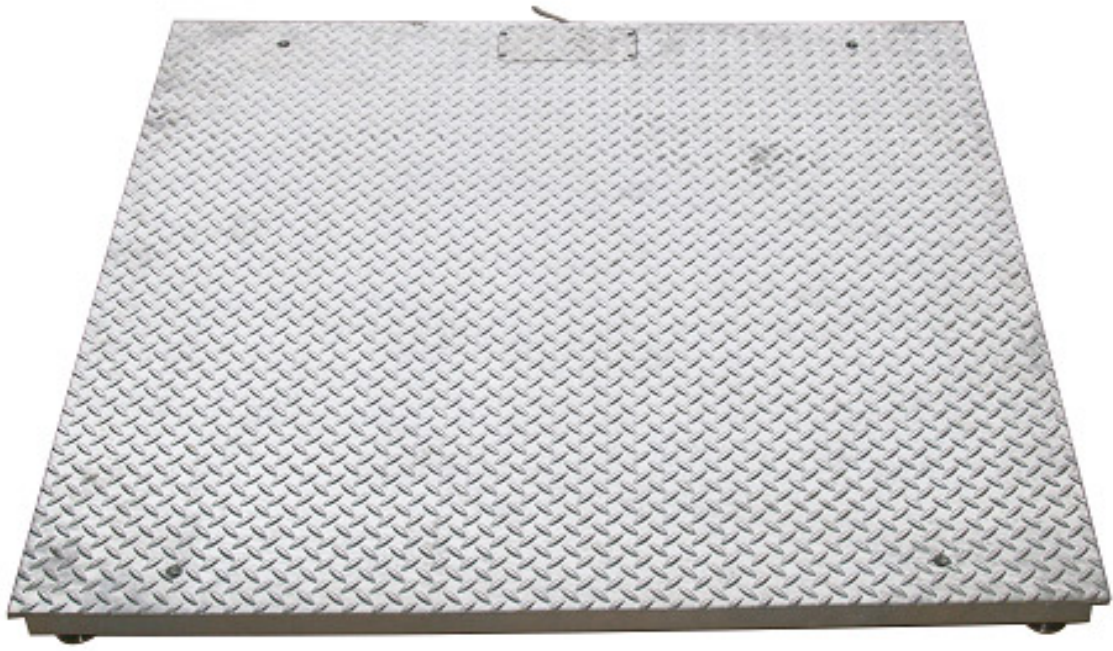
TEST PROCEDURE No 6/9C/292

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

Maximum Permissible Errors

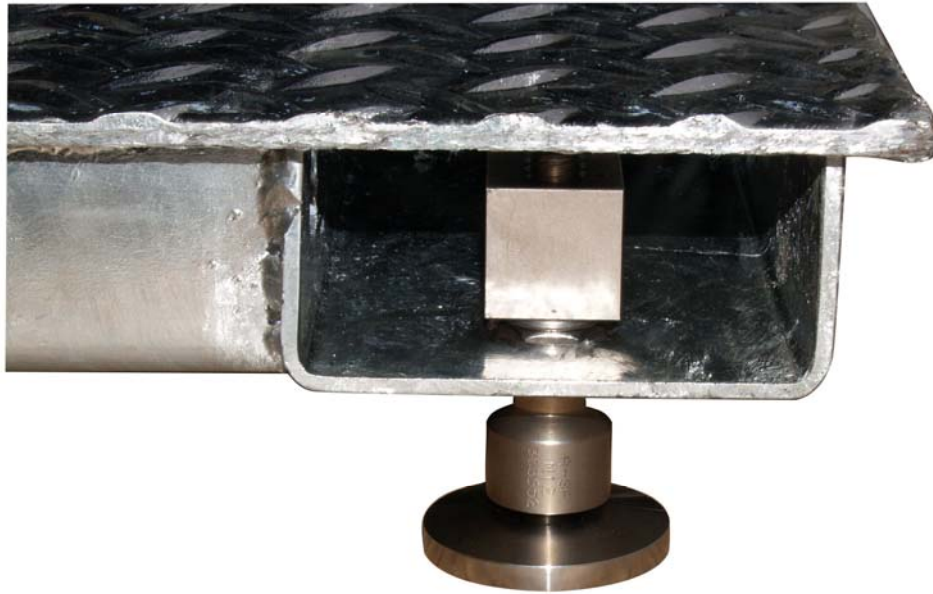
The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE 6/9C/292 – 1

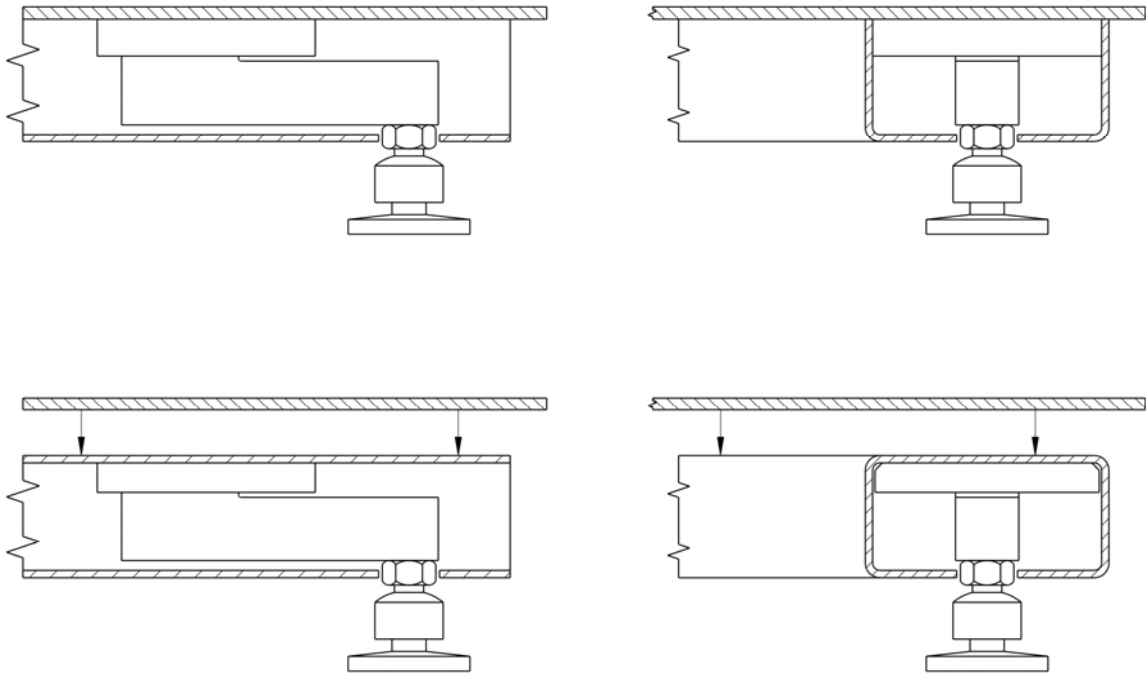


PT Model PS1212-1.5 Weighing Instrument

FIGURE 6/9C/292 – 2



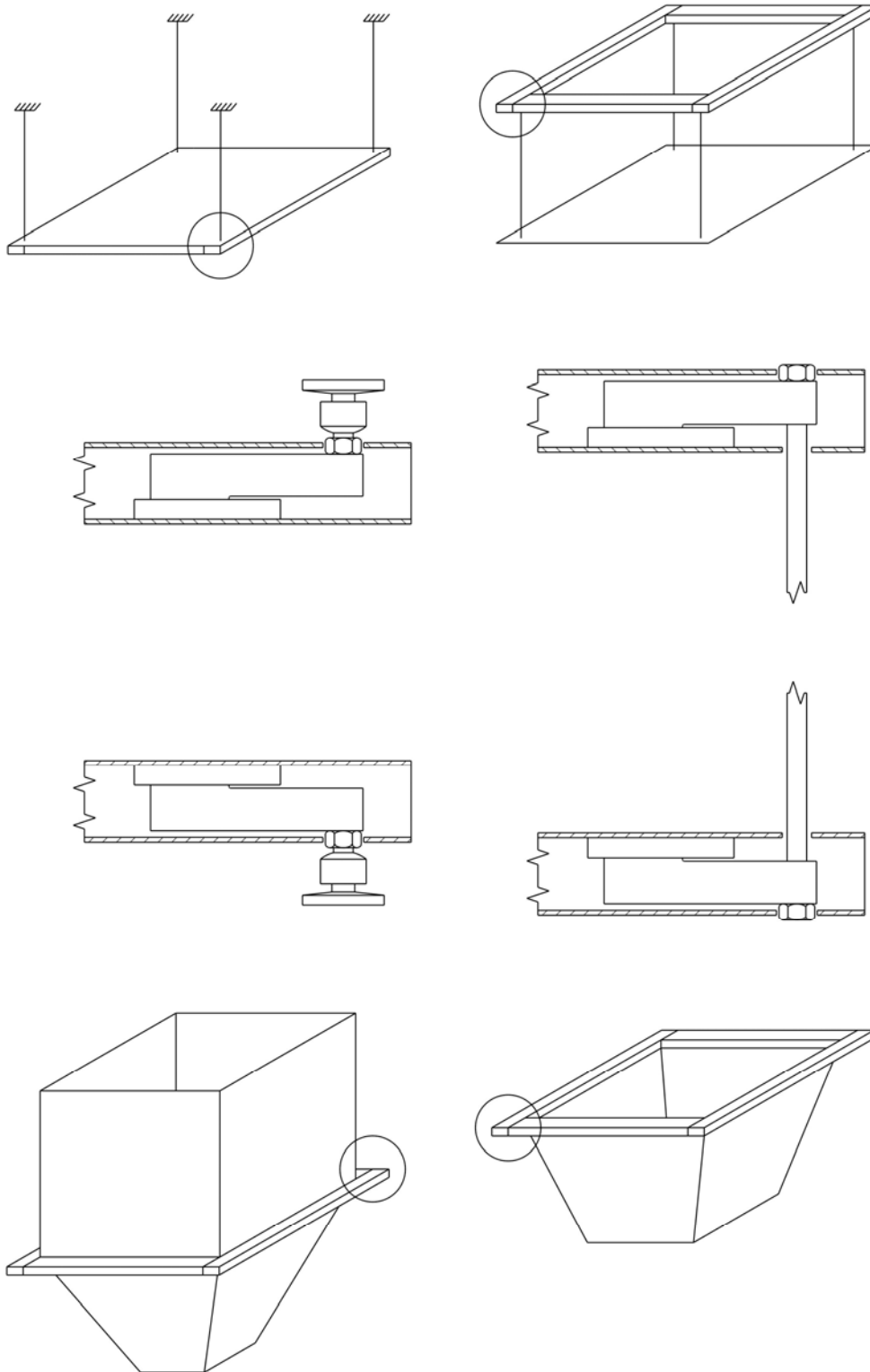
Top Plate Integral With Frame



Removable Top Plate To Be Attached To Frame

Typical Load Cell Mountings

FIGURE 6/9C/292 – 3



Alternative Load Receptors – Variant 2

FIGURE 6/9C/292 – 4



Alternative ('Channel') Construction – Variant 3

~ End of Document ~