



**Australian Government**

**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

## **Certificate of Approval**

### **No 6/18/36**

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

Mettler Toledo Model 0990 Overhead Weighing Instrument

submitted by           Mettler Toledo Limited  
                                  220 Turner Street  
                                  Port Melbourne   VIC   3207.

**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.

#### **CONDITIONS OF APPROVAL**

This approval becomes subject to review on 1 June 2015, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/18/36' and only by persons authorised by the submitter. Note: Instruments marked P6/18/36 may be remarked 6/18/36.

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.

The National Measurement Institute 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 approved indicators shall comply with General Certificate of Approval No 6B/0.

#### DESCRIPTIVE ADVICE

**Pattern:** provisionally approved 18 August 2009  
approved 5 May 2010

- A Mettler Toledo model 0990 class  $\text{\textcircled{III}}$  non-automatic overhead-track weighing instrument of up to 500 kg maximum capacity approved for use with up to 2500 verification scale intervals.

**Variants:** approved 5 May 2010

1. Of up to 1000 kg maximum capacity approved for use with up to 2500 verification scale intervals.
2. With the weigh-rail of up to 1200 mm in length.

Technical Schedule No 6/18/36 describes the pattern and variants 1 and 2.

#### FILING ADVICE

The provisional status and conditions of the pattern are hereby removed. The documentation for this approval comprises:

Certificate of Approval No 6/18/36 dated 6 May 2010  
Technical Schedule No 6/18/36 dated 6 May 2010 (incl. Test Procedure)  
Figures 1 and 2 dated 6 May 2010

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



TECHNICAL SCHEDULE No 6/18/36

**Pattern:** Mettler Toledo Model 0990 Overhead Weighing Instrument

**Submittor:** Mettler Toledo Limited  
220 Turner Street  
Port Melbourne VIC 3207

## 1. Description of Pattern

A Mettler Toledo model 0990 class Ⅲ non-automatic overhead-track weighing instrument (Figure 1) of up to 500 kg maximum capacity.

The pattern is approved for use with up to 2500 verification scale intervals, and with a verification scale interval of no less than 0.1 kg (typically the instrument will have a verification scale interval of 0.2 kg).

### 1.1 Trackwork

The Mettler Toledo model 0990 trackwork (Figures 1 and 2) uses two load cells mounted on a beam which is supported by the lead-in and lead-out rails. The 'live' section of rail (the weigh-rail) is nominally 588 mm long and is attached to the end of the load cells.

The instrument may also incorporate mechanical mechanisms to assist in loading and removing the load, however an operator is required to supervise the weighing operation (hence the instrument is considered to be a non-automatic weighing instrument).

Note: Satisfactory performance may be dependent on aspects of the lead-in and lead-out rails which support the instrument. Suitable installation conditions must be chosen to ensure satisfactory performance.

### 1.2 Load Cells

Two Mettler Toledo model 757 load cells of 550 kg maximum capacity are used and mounted as shown in Figures 1 and 2.

Note that only this make, model and capacity of load cell shall be used. The load cell carries a label with the make, model, capacity and serial number.

For the purposes of calculations required by General Certificate of Approval No 6B/0, if an alternative indicator is used, the following parameters may be used for the model 757 load cell of 550 kg maximum capacity:

Maximum capacity	550 kg
Accuracy Class	C
Maximum number of verification intervals	3000
Minimum value of verification scale interval	0.056 kg
Minimum dead load output return value (DR)	0.059 kg
Output rating (nominal)	1.94 mV/V
Input impedance (nominal)	385 ohm
Supply voltage (AC or DC)	5 – 15 V
Number of leads (plus shield)	4
Cable length (±0.1 m)	(#)

(#) Manufactured in various lengths between 1.5 and 22 metres; the cable length must not be altered after manufacturer.

### 1.3 Indicator

A Mettler Toledo model IND560 digital indicator is used. The indicator is also described in the documentation of approval NMI S483.


### 1.4 Sealing and Verification Provisions

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

Provision is made for a verification mark to be applied.

### 1.5 Descriptive Markings

Instruments are marked with the following:

Manufacturer's mark, or name written in full	Mettler Toledo
Indication of accuracy class	
Maximum capacity	<i>Max</i> ..... kg *
Minimum capacity	<i>Min</i> ..... kg *
Verification scale interval	<i>e</i> = ..... kg *
Maximum subtractive tare (if less than <i>Max</i> )	<i>T</i> = - ..... kg
Serial number of the instrument	.....
Pattern approval mark for the instrument	NMI 6/18/36
Pattern approval mark for the indicator	.....

\* 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

A Mettler Toledo model 0990 overhead-track weighing instrument of up to 1000 kg maximum capacity, approved for use with up to 2500 verification scale intervals, and with a verification scale interval of no less than 0.2 kg (typically the instrument will have a verification scale interval of 0.5 kg). The instrument uses two Mettler Toledo model 757 load cells of 1100 kg maximum capacity.

For the purposes of calculations required by General Certificate of Approval No 6B/0, if an alternative indicator is used, the following parameters may be used for the model 757 load cell of 1100 kg maximum capacity:

Maximum capacity	1100 kg
Accuracy Class	C
Maximum number of verification intervals	3000
Minimum value of verification scale interval	0.113 kg
Minimum dead load output return value (DR)	0.12 kg
Output rating (nominal)	1.94 mV/V
Input impedance (nominal)	385 ohm
Supply voltage (AC or DC)	5 – 15 V
Number of leads (plus shield)	4
Cable length ( $\pm 0.1$ m)	(#)

(#) Manufactured in various lengths between 1.5 and 22 metres; the cable length must not be altered after manufacturer.

## **2.2 Variant 2**

The pattern or variant having a weigh-rail ('live' section of rail) of from 300 mm to 1200 mm in length.

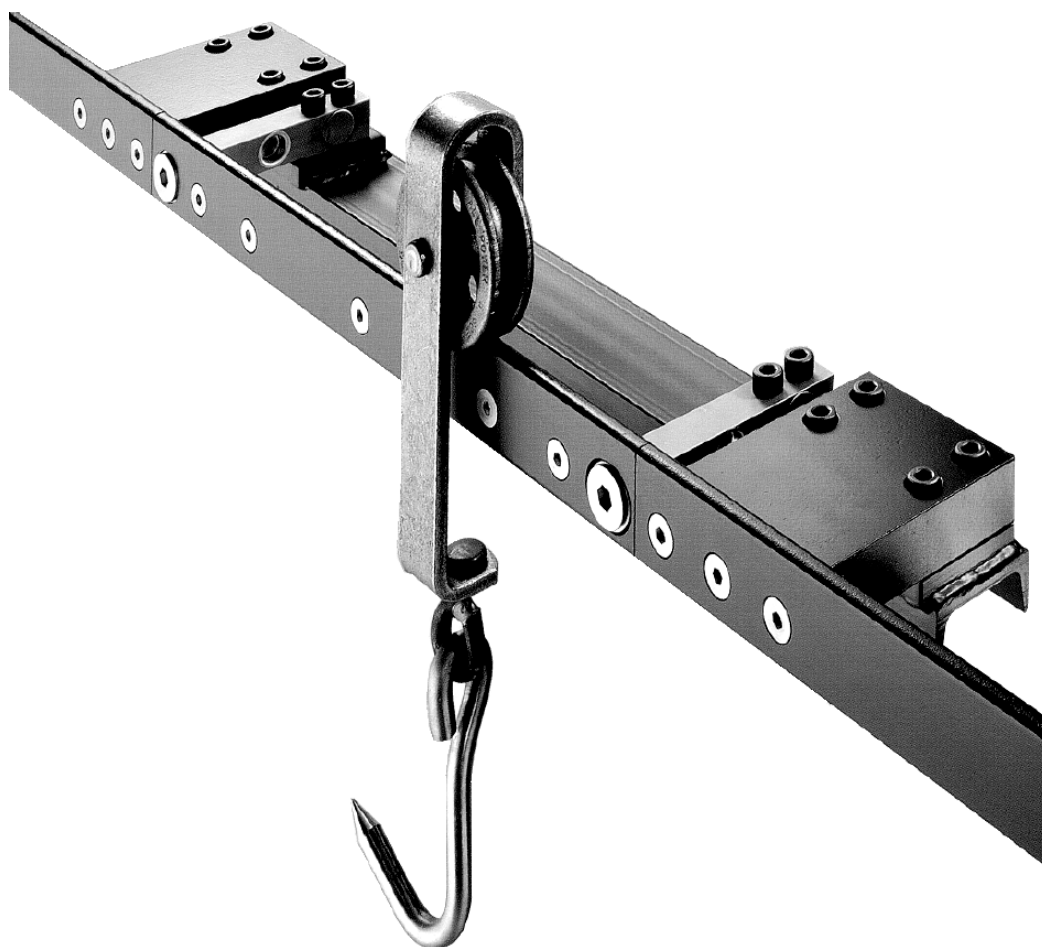
### **TEST PROCEDURE**

Instruments should be tested in accordance with any tests specified in the approval documentation for the indicator use, and in accordance with any relevant tests specified in the Uniform Test Procedures.

### **Maximum Permissible Errors**

The maximum permissible errors are specified in Schedule 12 of the *National Measurement Regulations 1999*.

FIGURE 6/18/36 – 1



Mettler Toledo Model 0990 Overhead Track

FIGURE 2



Load Cell Mounting Arrangement