



Australian Government
Department of Industry,
Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval NMI 6/14G/5

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.

Sastek Model CIMW4LT Automatic Catchweighing Instrument

submitted by Marel Cedar Creek Pty Ltd
(formerly Cedar Creek Company Pty Ltd)
Unit 3a, 50 Borthwick Avenue
Murarrie QLD 4172

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 51, *Automatic Catchweighing Instruments*, dated August 2009.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	16/12/99
1	Pattern & variant 1 approved – certificate issued	8/08/00
2	Variant 2 approved – interim certificate issued	20/10/03
3	Variant 2 approved – certificate issued	20/11/03
4	Pattern & variants 1 to 2 reviewed – notification of change issued	5/05/05
5	Pattern & variants 1 to 2 reviewed and amended (test procedure, MPE, name, address & descriptions) – notification of change issued	18/04/11

Document History (cont...)

Rev	Reason/Details	Date
6	Variant 3 approved and pattern and variants 1 to 2 reviewed & amended (address & test procedure) – certificate issued	16/06/17
7	Pattern amended (markings) & variant 4 approved & review date removed – certificate issued	29/08/23

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/14G/5' 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 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.

This approval shall NOT be used in conjunction 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*.



Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 6/14G/5

1. Description of Pattern

approved on 16/12/99
approved on 29/08/23

A Sastek model CIMW4LT class Y(a) automatic catchweighing instrument (Figures 1 and 2) which is approved for use to weigh objects while in motion. May also be known as Cedar Creek instruments of the same model.

Note: The instrument is only approved in situations where the weight value determined for each item is actually to be used as the basis of a transaction. This may for example be by the value being printed and affixed to the item, or by association of the weight value with identification from the particular item (e.g. by a barcode which individually identifies the item) for later billing – the latter may be appropriate for use in freight/postal situations.

1.1 Details

The pattern is a single interval class Y(a) automatic catchweighing instrument with a maximum capacity of 40 kg, a verification scale interval of 0.02 kg and a minimum capacity of 0.4 kg.

The instrument operates dynamically with the package continuously moving on the platform. The maximum belt speed of the weighing unit is 0.5 m/s while the maximum belt speed of the infeed and outfeed conveyors is 0.6 m/s.

Instruments are approved for use over a special temperature range of 3°C to +40°C and must be so marked.

1.2 Zero

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

The zero-tracking device automatically corrects zero to within $\pm 0.25e$ whenever the instrument comes to rest within $\pm 0.5e$ of zero.

1.3 Tare

A semi-automatic subtractive taring device of up to maximum capacity, may be fitted.

1.4 Operation

An object to be weighed is placed or rolled onto the infeed conveyor and is then pulled along onto the weighing receptor conveyor and weighed in motion. After weighing, the object is pulled onto the outfeed conveyor.

A computer, a printer and/or an automatic labelling unit (in accordance with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B) may be provided to produce labels to apply to the object being weighed.

1.5 Weighing System

The Sastek model CIMW4LT weighing system has a belt conveyor-type load receptor having maximum nominal dimensions of 640 x 1000 mm.

The pattern (Figures 1 and 2) comprises:

- (a) an indicator; and

(b) a weighing unit and conveyor system.

1.6 Indicator

An A & D Mercury model AD-4324 digital indicator in a Sastek enclosure is used (Figure 3). It displays the weight (in kg). This indicator is also described in the documentation of NMI approval No S251A. A printer may be connected to the indicator, e.g. the form feed printer shown in Figure 1.

1.7 Weighing Unit and Conveyor System

The weighing unit contains four A & D Mercury model LC-4102-K030 load cells of 30 kg maximum capacity, mounted as shown in Figure 4.

The conveyor system comprises separate infeed/indexing, weighing receptor and outfeed conveyors (Figures 1 and 2) and an associated electric motor and drive arrangement for each conveyor. An optical sensor is provided, located along the infeed/ indexing conveyor. The infeed/indexing conveyor separates and aligns the objects to be weighed.

1.8 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Marel Cedar Creek Pty Ltd#
Model designation
Serial number
Accuracy class	Y(a)
Pattern approval mark	NSC or NMI No 6/14G/5
Maximum capacity	<i>Max</i>
Minimum capacity	<i>Min</i>
Verification scale interval	<i>e</i> =
Maximum subtractive tare	<i>T</i> = - ...
Maximum conveyor speed m/s
Special temperature limits	3°C to 40°C

(#) 'Marel Cedar Creek Pty Ltd' may also be known as 'Cedar Creek Company Pty Ltd' or 'Sastek Pty Ltd'.

1.9 Verification Provision

Provision is made for the application of a verification mark.

1.10 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed as shown in Figure 5.

2. Description of Variant 1

approved on 16/12/99

A single-interval Class Y(a) automatic catchweighing instrument, with a verification scale interval of 0.05 kg and with a maximum capacity of 50 or 60 kg. Instruments have a minimum capacity of 1 kg and may be known as either model CIMW4LT or CIMW4LT1.

3. Description of Variant 2 **approved on 20/10/03**

A Sastek model CIMW4LT2 catchweigher which is approved for use to weigh objects while in motion.

The instrument is a single-interval Class Y(a) automatic catchweighing instrument, with a verification scale interval of 0.01 kg and with a maximum capacity of 20 kg.

Instruments have a minimum capacity of 0.2 kg.

The instrument operates dynamically with the package continuously moving on the platform. The maximum belt speed of the weighing unit is 0.5 m/s while the maximum belt speed of the infeed and outfeed conveyors is 0.6 m/s.

Instruments are approved for use over a temperature range of 3 °C to +40 °C, and are so marked.

The weighing unit contains four Mettler Toledo model 777 load cells of 20 kg maximum capacity. The load cells are also described in the documentation of NMI approval No S406

4. Description of Variant 3 **approved on 16/06/17**

The pattern and variants using an A & D Mercury model AD-4404 digital indicator (Figure 6).

5. Description of Variant 4 **approved on 29/08/23**

The pattern or variant 1 using a Marel model M2200-P02 digital indicator (Figure 7) in certain capacities as listed in Table 1.

TABLE 1

Marel Instrument Model	Maximum Capacity (Max) (kg)	Minimum Capacity (Min) (kg)	Verification Scale Interval (e) (kg)	A & D Mercury Load Cell
CIMW4LT CIMW4LT1	40	0.4	0.02	LC-4102-K030 30 kg
CIMW4LT CIMW4LT1	50	1	0.05	LC-4102-K030 30 kg
CIMW4LT CIMW4LT1	60	1	0.05	LC-4102-K030 30 kg

5.1 Software

The instrument software has two parts, application and firmware software.

The application software version is designated 6115.lua v1.11E MCC and the firmware version is designated 3.92-01.

The software versions are displayed during the power-up sequence of the instrument.

5.2 Sealing Provision

The instrument is sealed by recording the non-resettable event counters on verification.

Access to allow changing of set-up parameters including calibration parameters must be protected by a passcode.

The instrument automatically increments a configuration and/or calibration value each time the instrument is re-configured and/or calibrated.

The values of the event counters can be seen in the switch-on display sequence (when the power is first applied to the instrument), and the values at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (e.g. as CAL Events followed by a number, CON Events followed by a number).

Any subsequent alteration to the calibration or configuration will be evident as the recorded values and the current counter values will differ.

TEST PROCEDURE No 6/14G/5

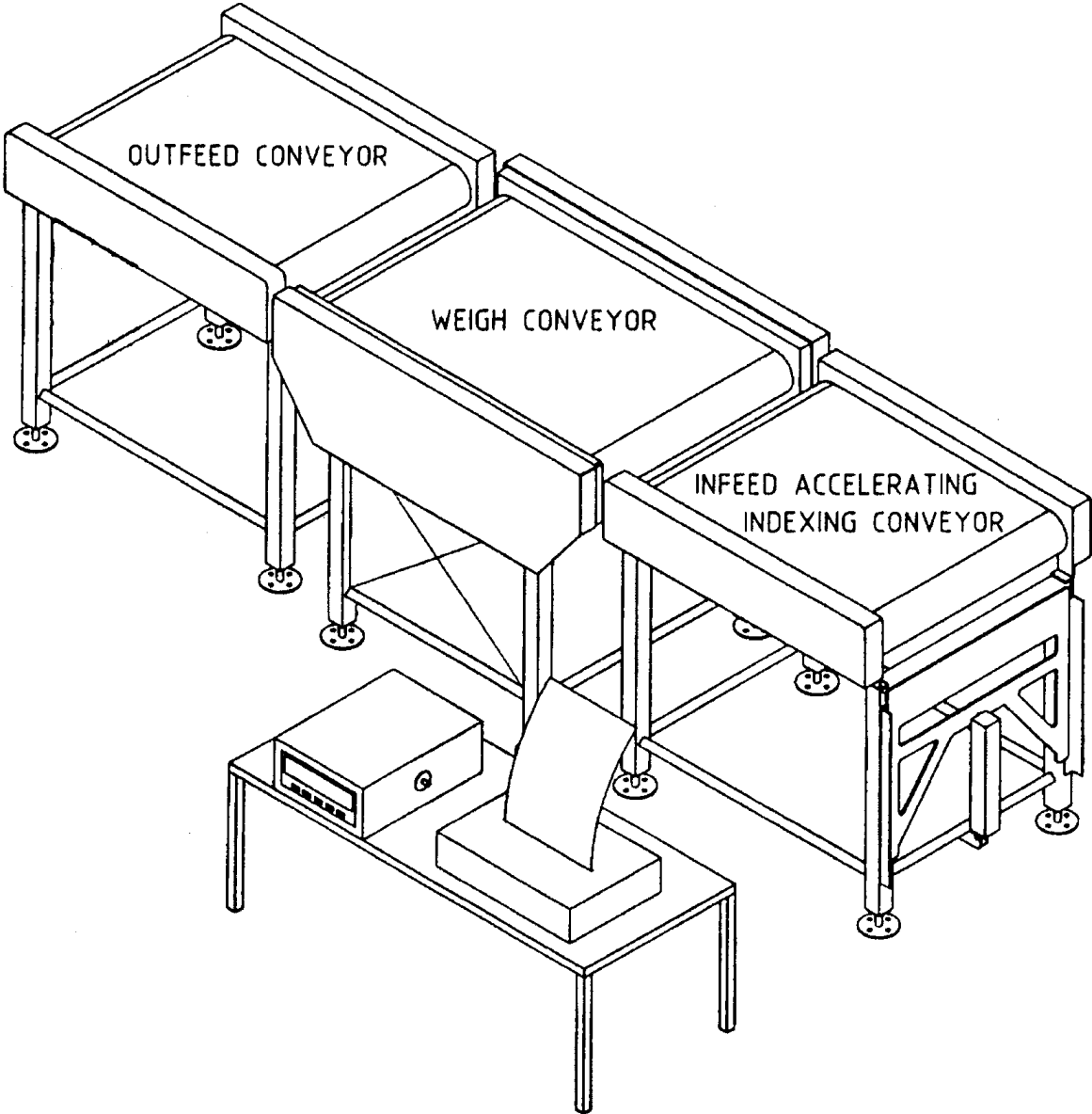
Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

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

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/14G/5 – 1



Sastek Model CIMW4LT Automatic Catchweighing Instrument

FIGURE 6/14G/5 – 2



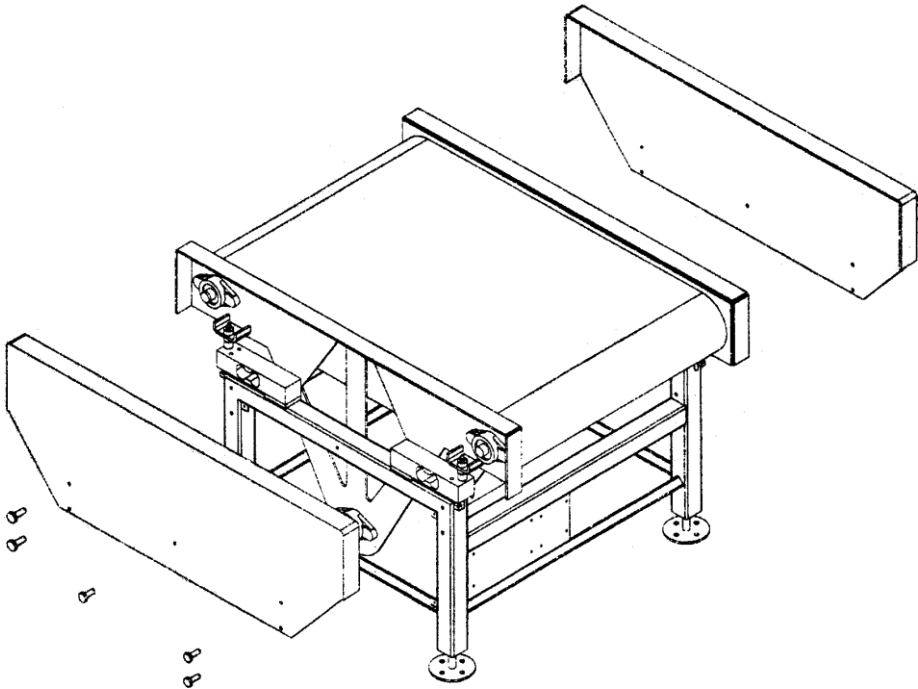
Sastek Model CIMW4LT Automatic Catchweighing Instrument

FIGURE 6/14G/5 – 3



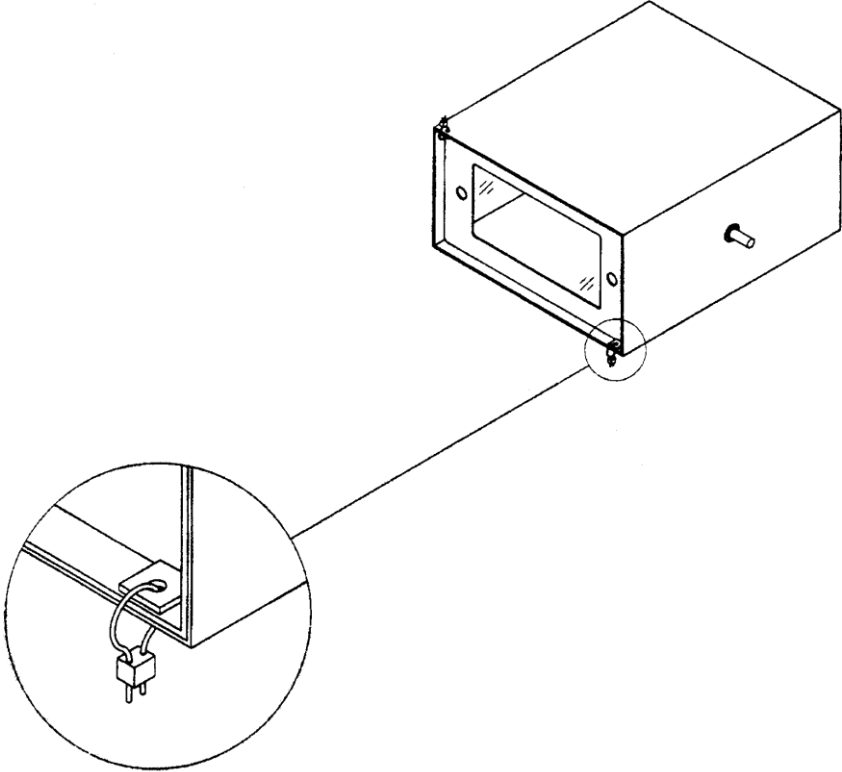
A & D Mercury Model AD-4324 Indicator in Sastek Enclosure

FIGURE 6/14G/5 – 4



Showing Load Cell Mounting

FIGURE 6/14G/5 – 5



Showing Sealing Method

FIGURE 6/14G/5 – 6



A & D Mercury Model AD-4404 Indicator (Variant 3)

FIGURE 6/14G/5 – 7



Marel Model M2200-P02 Indicator (Variant 4)

~ End of Document ~