OIML Member State Denmark		**OIML Certificate No.** **R51/2006-A-DK2-2024.01**

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority

Name: **FORCE Certification A/S**
Address: Park Allé 345, 2605 Brøndby, Denmark
Person responsible: Per Rafn Crety

Applicant

Name: **Marel Limited.**
Address: Several Industrial Park
Colchester, CO4 9HW
United Kingdom

Manufacturer **Marel Limited.**

Identification of the certified type *(the detailed characteristics will be defined in the additional pages)*

MCheck2

Designation of the module *(if applicable)*

Automatic check weighing / catch weighing instrument

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 51-1, Edition (year): 2006

For accuracy class (if applicable**): XIII(1) and Y(a)**

FORCE Certification A/S · Park Alle 345 2605 Brøndby Tel+45 43 25 01 77 info@forcecertification.com www.forcecertification.com
Task no.: 123-30116.90.10 and ID no.: FC-OIML-16488-1 forcecertification.com/en/weighing

OIML Certificate No.
R51/2006-A-DK2-2024.01

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML reports:

Type examination report: No. TR653, dated 25 June 2014, that includes 45 pages
Type examination report: No. TR656, dated 10 September 2014, that includes 12 pages
Type examination report: No. 123-30116.10, dated 12 December 2023, that includes 24 pages

Type evaluation report: No. PO01261, dated 24 April 2014, that includes 12 pages
Type evaluation report: No. PO01353, dated 09 May 2014, that includes 12 pages
Type evaluation report: No. 123-30116.90.10, dated 03 January 2024, that includes 18 pages

The technical documentation relating to the identified type is contained in documentation file:

118-33891.90.20

OIML Certificate History

Revision No.	Date	Description of the modification
Initial version	15 January 2024	-

Identification, signature and stamp
The OIML Issuing Authority
FORCE Certification A/S

Date: 15 January 2024

Jens Hovgård Jensen
2024-01-15
Digitally signed by Jens Hovgård Jensen
jhje@force.dk
Certification Manager

Jens Hovgård Jensen
Certification Manager

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

Descriptive annex

Description

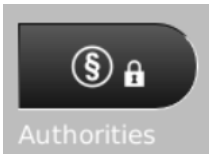
The automatic catch weighing instrument is an automatic weight labeller (category Y) designated MCheck2 and is intended for dynamically weighing. The instrument may also operate as an automatic checkweigher (Category X). It consists of a touch-screen application controller, Marel M3210 or Marel M3310 together with the digital weighing module MWS2 and a load receptor.
The load receptor may have transport conveyors before or after, a thermal label printer for printing labels with weighing information and other data and/or a variety of packing sorting mechanisms e.g., pusher arms, air blast rejectors.

Technical Data

- Accuracy class: XIII(1) and Y(a)
- Weighing mode: Dynamic
- Weighing range: Single-interval or multi-interval
- Maximum capacity (Max): ≤ 6 kg
- Verification scale interval (e): e ≥ 0.5g for Max ≤ 1 kg, and else e ≥ 1g
- Number of verification scale intervals: ≤ 3000
- Minimum capacity (Min): 40g
- Maximum preset tare PT: PT≤ 23 % of Gross Max (Single interval)
  PT≤ 23 % of Gross and PT≤Max_1 (multi-interval)
- Weighing speed: 40 g to 250 g: 0.3 to 1.33 m/s
  250 g to 1000 g: 0.3 to 1.2 m/s
  1000 g to 3000 g: 0.3 to 1.0 m/s
  3000 g to 6000 g: 0.3 to 0.8 m/s
- Temperature range: 0 ° to 35 °C
- Maximum time between automatic zero setting: 15 minutes
- Electromagnetic class: E2
- Humidity: Non-condensing
- Load cell excitation voltage: 14VDC
- Power supply: 220-240 VAC 50/60 Hz

Software

The legally relevant section of the software has its own version number and can be found by navigating to “Home” , “Authorities” (password “1”), and “Metrology”



Approved software version of the legally relevant software is: 1.1.0

The machine software version is also shown on above page and is in the form x.y.z. As this software doesn’t contain any legal relevant parts the version can be modified freely.

Devices

- Automatic zero setting device active during automatic operation (≤4% of Max).
  (Overdue zero message and package rejected at least every 15 min if no zero has occurred.)
- Initial zero setting device (max. 20 % of Max)
- Zero tracking device (≤4% of Max)
- Preset tare device (subtractive)
- Static calibration (service mode only)
- Extended indicating device (service mode only)
- Belt speed setting, accessible to the user
- Detection of significant fault
- Internal memory for storage of batch data (Category X)
- Program editing (access level higher than operator only)
- Screen check at power up
- Event counters

Interfaces

- Ethernet
- RS232
- CAN bus
- 2-wire for reject option

Load cells

The instrument uses one load cell type Flintec PC1 C3 (E_{max} = 30 kg) located in the centre of the weighing conveyor.

Alternately any analogue load cell(s) may be used for instruments under this certificate of type examination provided the following conditions are met:

1) 1) There is an OIML Certificate of Conformity (R60:2000 or R60:2017) issued for the load cell
2) The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (OIML R76:2006 Annex F), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to OIML R76:2006 has been conducted on this load cell.
3) The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, according to OIML R76:2006 Annex F.
4) The load cell transmission must be a standard, non-critical design.

Sealing Measures

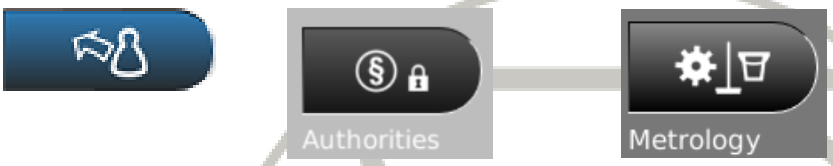
Mechanical sealing

The identification plate shall be secured against removal with a brittle sticker.

Indicator sealing

The legal relevant parameters are protected by two event counters.
One for the weight calibration and one for all other legal relevant parameters. The values stored in these counters are incremented each time a calibration is performed or any of the legal relevant parameters are altered.

The counters are designated “Calibration Changes” and “Configuration Changes” and can be viewed by navigating to “Home”, “Authorities” (password “1”), and “Metrology”



The values of the counters at initial verifications and any following re-verification shall be written on a brittle label next to the inscription plate.

Load cells and other relevant components

The load cell is bolted on a metal plate and sealed in place using a wire and seal. The plate is bolted to mounting bars that form the frame of the instrument and is sealed in place using a wire and seal.

The load cell cable is connected to the weighing module inside the electrical cabinet and is secured using brittle labels or wire and seal.

Pictures

Figure 1 MCheck2 weighing instrument.

Figure 2 Example of Display Menu, Running screen

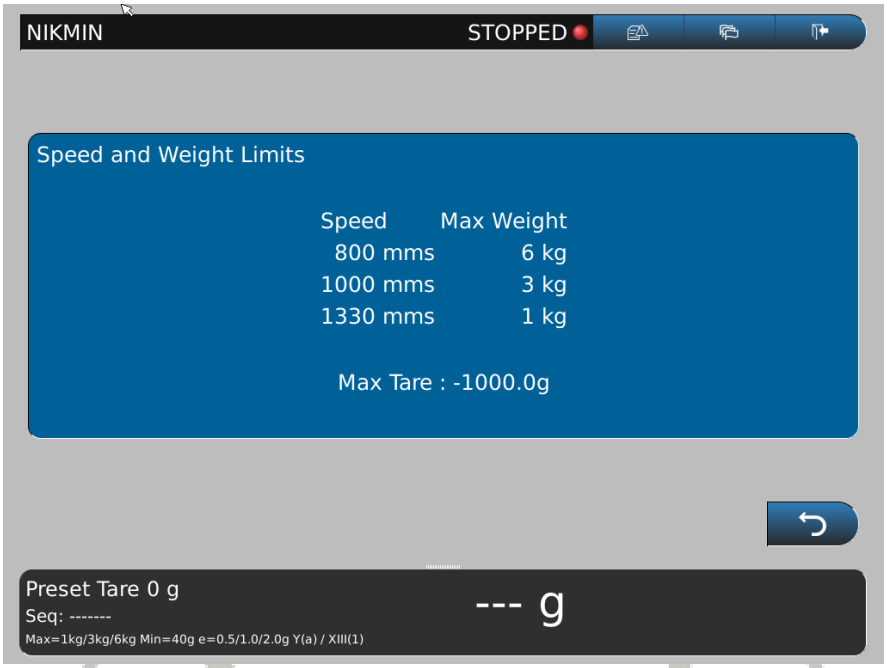


Figure 3: Example of Display Menu, Speed Weight limits.

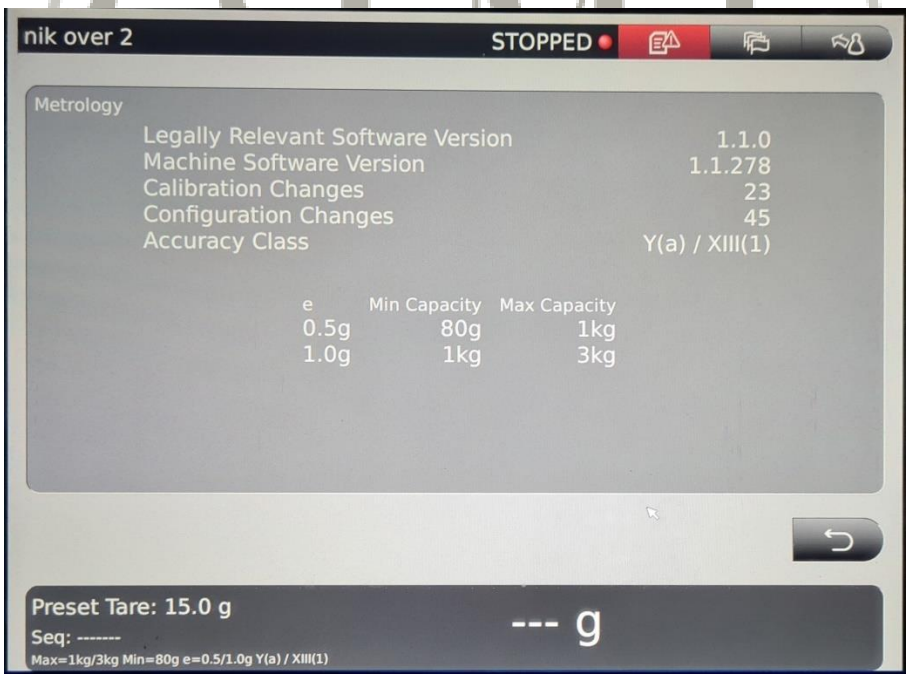
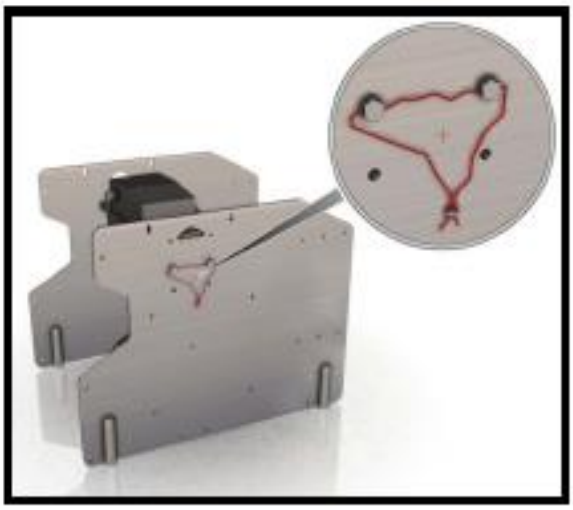
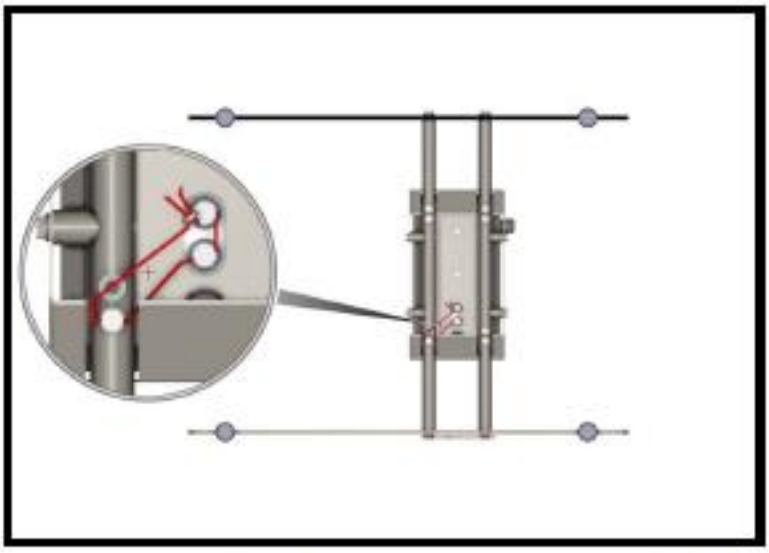


Figure 4 Example of Display Menu, Software identification and Counter values.



Two screws are drilled through the head so that metal wire can be threaded through the screw.
The wire is threaded through a slug and crimped.
Removal of the weigh head mounting bars cannot be achieved without breaking the seal
(View from base of machine)



The weighing beam is also secured to the mounting bars via a crimped slug.

Figure 5a Description of load cell sealing

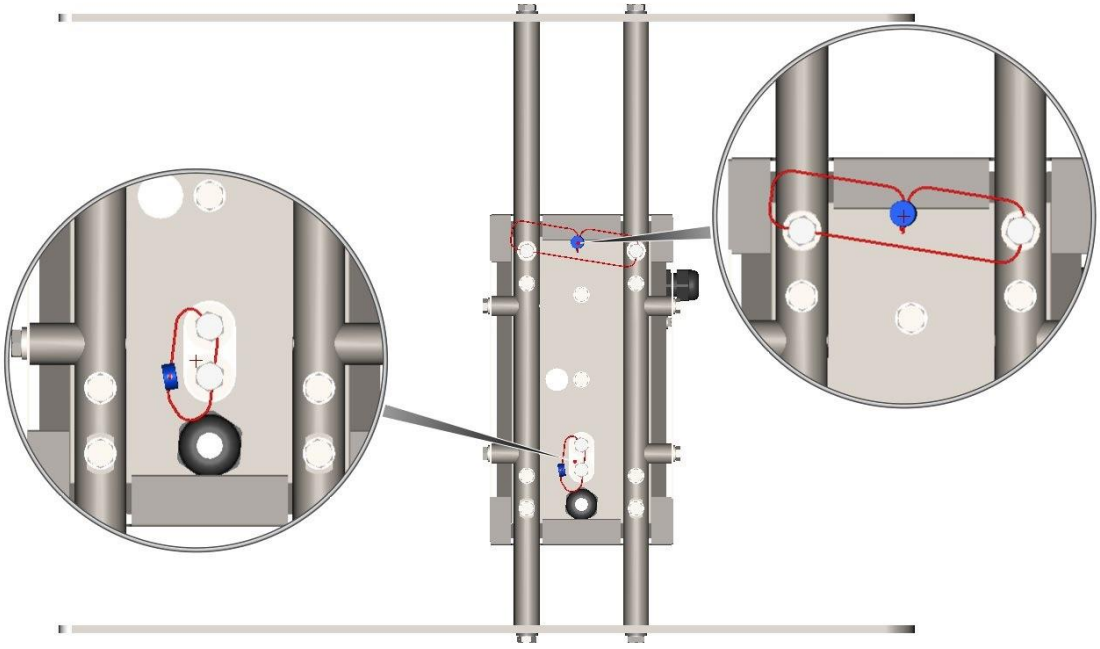


Figure 5b Alternate load cell sealing.

Figure 6 Remote Pod (option)