



National
Measurement &
Regulation Office



Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R51/2006-GB1-14.02
Revision 2

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **National Measurement and Regulation Office**

Person responsible: **Paul Dixon – Technical Services Director**

Applicant: **Marel Limited
Wyncolls Road
Severalls Industrial Park
Colchester
CO4 9HW
United Kingdom**

Manufacturer: **The applicant**

Identification of the
certified pattern: **MCheck2**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R 51 - Edition 2006(E) for accuracy classes XIII(1) and Y(a)

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

This revision replaces previous versions of the certificate.

Issue Date: **24 March 2016**
Reference No: **TS0101/0026**

P R Dixon
Technical Services Director
For and on behalf of the Chief Executive

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The NMRO is an Executive Agency of the Department for Business Innovation and Skills

The conformity was established by testing and examinations described in the associated Evaluation Report P01353 which includes 12 pages.

Characteristics of the instrument:

Mains-powered automatic checkweighing/catchweighing instrument designated the MCheck2.

Maximum capacity (Max)	≤ 1 kg	≤ 3 kg	≤ 6 kg
Scale interval (e =)	≥ 0.5 g	≥ 1 g	≥ 2 g
Minimum capacity (Min)	40 g		
Single or multi-interval	Any combination of the above		
Maximum Preset Tare (PT)	PT ≤ 23% Gross (single interval) PT ≤ 23% Gross and PT ≤ Max ₁ (multi interval)		
Operating 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		
Climatic environment	0°C to +35 °C		
	Non-condensing (closed)		
EM environments	E1 and E2		
Load cell excitation voltage	14 Vdc		
Power supply	220-240 Vac 50/60 Hz		
Accuracy classes	XIII(1) and Y(a)		

Load cell:

The weighing device comprises a single strain gauge load cell type PC1 C3 (E_{max} = 30 kg) manufactured by Flintec, and located below the centre of the weigh conveyor.

Alternatively, any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) issued for the load cell.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to R76 has been conducted on this load cell.
- It is not a load cell with digital output
- The characteristics of the replacement load cell such as nlc, Y, Z are the same or better than the load cell tested dynamically (Tedeo 1040 C3, capacity 15 kg)
- The design of the load cells and the material are the same
- No oil damper is used

The minimum voltage input per scale interval shall not be less than 0.46 µV/e (Min to 1 kg range) and 1.87 µV/e (1 kg to 6 kg range).

Interfaces:

- Ethernet
- 2 core for reject
- RS232
- CAN
- External stop (4 core)
- E-Stop switch loop

Devices:

- Automatic zero setting device active during automatic operation ($\leq 4\%$ max, overdue zero message and packs rejected, at least every 15 min if no zero tracking has occurred)
- Zero tracking ($\leq 4\%$ max)
- Initial zero-setting ($\leq 20\%$ max)
- Pre-set tare device (subtractive)
- Static calibration, not accessible to the user
- Belt speed setting, accessible to the user
- Internal memory for storage of batch data (category X)
- Device acting upon significant faults
- Screen check at power-up
- Program editing (restricted to access levels higher than operator)
- High resolution mode (0.1e) for testing purposes, not accessible to the user
- Operation under Category Y only or X and Y selection device, accessible to the user (restricted to access levels higher than operator, see note below)

Construction:

- Main frame work consisting of a stainless steel plates between which the electrical cabinet and control and display pod are mounted, with and adjustable screw feet for machine levelling
- Level-indicator on top of the weigh head conveyor
- In-feed, weigh head, and out-feed conveyors (driven by DC motors), fitted with a selection of photocells for pack detection
- Electrical cabinet located behind the conveyors housing the electrical hardware
- Control and display pod located on top of the cabinet, comprising a touchscreen display

Software:

The legally-relevant section of the software has its own version number, 1.0.0, which is displayed in the Info page of the Authorities login.

Sealings:

Legally relevant parameters are protected by two event counters, designated “Calibration Changes” and “Configuration Changes”, which can be displayed via the user menus. The weighing unit is physically sealed.

Alternatives:

Having a "remote pod" configuration, the control and display pod is connected to the electrical cabinet via a conduit.

Using the Marel M3310 Touch-screen controller in place of the original M3210.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R51/2006-GB1-14.02	24 April 2014	OIML certificate first issued.
R51/2006-GB1-14.02 revision 1	09 May 2014	Page 2: Reference to Evaluation report changed to P01353. Characteristics: Operating speed Maximum speed weight range (250 to 1000 g) changed to 1.2 m/s
R51/2006-GB1-14.02 revision 2	24 March 2016	Added Marel M3310 to Alternatives section.