RMCM

Robotic process of mass standard comparison in a compact design

- Readability of 0.1 ug
- Mass standard magazine with up to 120 positions
- Function of automatic mass standard dissemination

Automated comparison process

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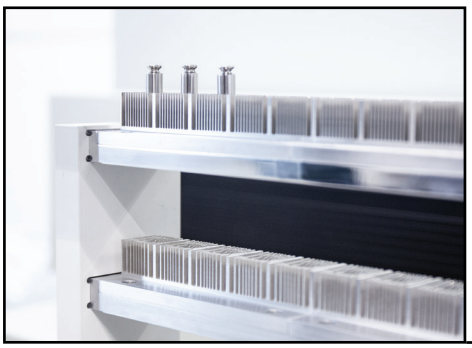
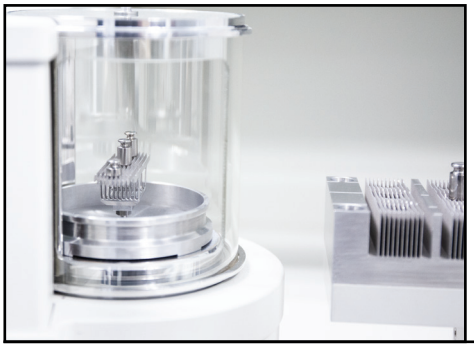
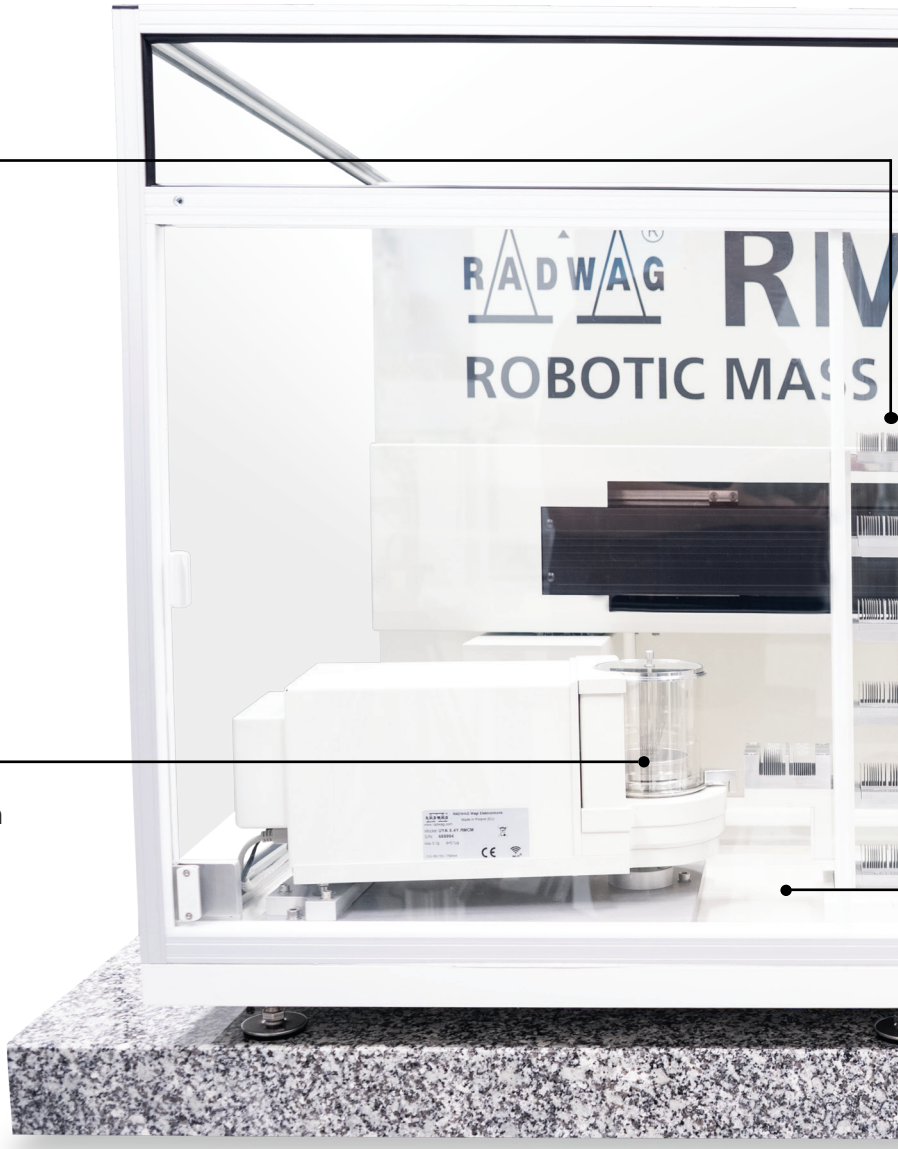
Robotic process of mass standard comparison in a compact design



The mass standard magazine offers up to 120 magazine positions,
this number is conditioned by a comparator model. The device enables comparison of weights of all shapes compliant with OIML recommendations, using just one universal insert.



The mass comparator facilitates a complete dissemination process.
This is possible thanks to use of the intermediate mass standard magazine, which significantly shortens comparison duration and reduces wear and tear of the transport robot.



Remote preview of comparison process in real time
is possible thanks to a video camera[1].

The mass comparator allows real-time monitoring of ambient conditions
in three different locations with a very high accuracy: pressure with the readability of 0.001 hPa, humidity of 0.01 %, and temperature of 0.001 °C.

The used photos serve demonstrative purposes.

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Robotic process of mass standard comparison in a compact design

Combination of the mass comparator and the robotic transport system
has resulted with development of a new RADWAG mass comparator, the RMCM. The device is unique due to its compact dimensions and aesthetic look.

This combination brings a number of advantages:
• reduction of air drafts and vibrations from a robotic system in the course of comparison,
• minimised human error risk,
• compact dimensions,
• easier maintaining of stable environmental conditions inside the weighing chamber.

Measurement of ambient conditions carried out in few locations of the device
The mass comparator comes standard with a top-class thermo-hygro-barometer enabling real-time control of ambient conditions in three locations. The characteristic feature of the device is high readability of pressure, 0.001 hPa, humidity, 0.01 %, and temperature, 0.001 °C. Reliability of ambient conditions measurement carried out using the thermo-hygro-barometer is confirmed by a calibration certificate.

Universal magazine insert shape
Mechanical design of the mass standard magazine insert allows measurement of extremely small mass with very high accuracy, and prevents weight jamming. The device enables comparison of weights of all shapes compliant with OIML recommendations, using just one universal insert.

Optional equipment:
• video camera enabling remote preview of comparison process in real time (Internet access required),
• RMCS software, enabling unrestricted monitoring of the comparison process.

	RMCM-5	RMCM-10	RMCM-100
OIML calibration range E1	1 mg ÷ 5 g	1 mg ÷ 10 g	1 g ÷ 100 g
OIML calibration range E2	1 mg ÷ 5 g	1 mg ÷ 10 g	1 g ÷ 100 g
OIML calibration range F1	1 mg ÷ 5 g	1 mg ÷ 10 g	1 g ÷ 100 g
OIML calibration range F2	1 mg ÷ 5 g	1 mg ÷ 10 g	1 g ÷ 100 g
Maximum capacity [Max]	6.1 g	10.1 g	106 g
Readability [d]	0.1 ug	0.1 ug	0.1 µg
Standard repeatability 5% [Max]	0.25 ug	0.25 ug	0.5 ug
Standard repeatability [Max][2]	0.4 ug	0.6 ug	0.8 ug
Standard repeatability permissible	0.6 ug	0.8 ug	1 ug
Stabilization time	30 s	30 s	30 s
ABBA cycle duration	520 s	520 s	520 s
Adjustment	automatic	automatic	automatic
Electric compensation range	0 ÷ +6.1 g	0 ÷ +6.1 g	-1 g ÷ +6 g
Mass standard magazine	120 positions	120 positions	100 positions
Communication interfaces	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot
Weighing pan dimensions	24 × 50 mm	24 × 50 mm	24 × 63 mm

[1] Optional equipment.
[2] Repeatability is expressed as a standard deviation determined for 6 ABBA cycles.