

RMC

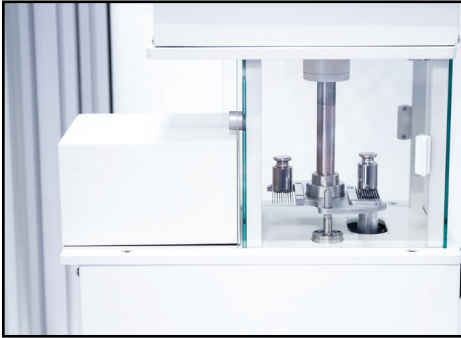
Robotic Mass Comparator

- The highest measurements accuracy
- 100-position mass standard magazine¹
- Function of automatic mass standard dissemination



Automated comparison process

RMC Fully automated process of robotic comparison of mass standards



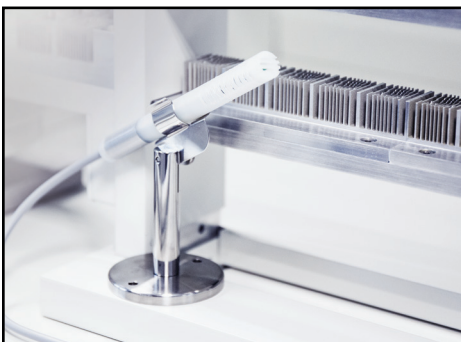
RADWAG as the worldwide pioneer

has adopted the possibilities of the automatic mass comparator into the robotic comparison system. This modern approach has improved comparison result repeatability by 100% in relation to standard solutions applied worldwide.



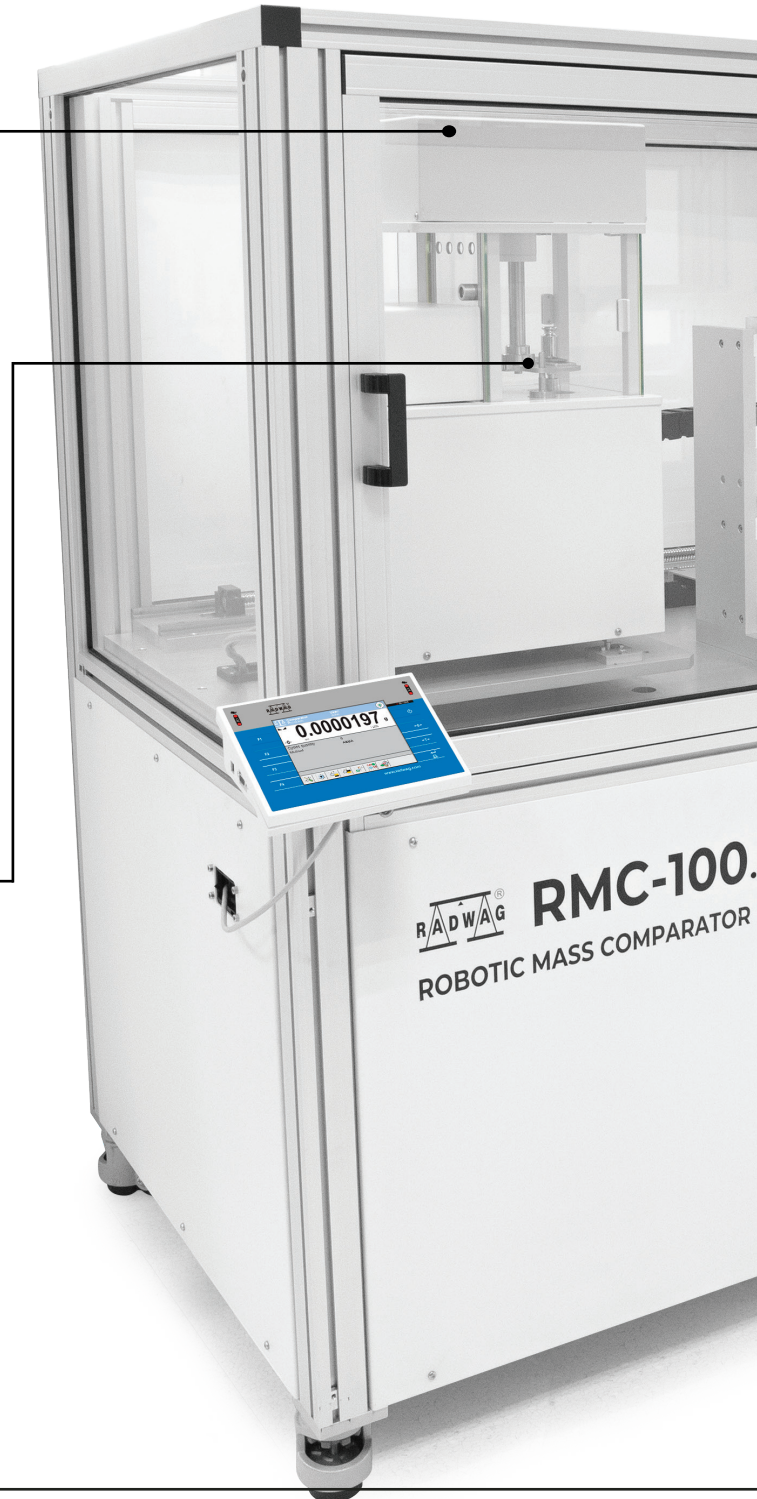
The mass comparator enables a complete dissemination process,

which is possible due to placing the intermediate mass standard magazine inside the mass comparator chamber. This significantly shortens comparison duration and reduces wear and tear of the transport robot.



The mass comparator allows real-time monitoring of ambient conditions

in four 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.

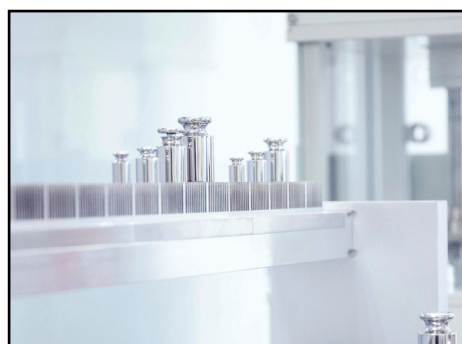




Remote preview of comparison process in real time
in real time is possible thanks to a video camera².



Transport arm in the mass comparator
is used only to transfer the mass standard, it does not operate within the comparison process. With use of the automatic mass comparator, the transport arm remains inactive in the course of comparison, this eliminates air drafts and vibrations, considerably shortens comparison, and reduces noise emission.



The mass standard magazine offers up to 100 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.

RMC Fully automated process of robotic comparison of mass standards

Innovative worldwide

combination of the automatic mass comparator and the robotic transport system has resulted with development of new models of RADWAG-manufactured robotic mass comparator, the RMC 100.1 and RMC 1000.1. This breakthrough improves the comparison result repeatability by 100% when compared to the standard solutions applied globally.

The cutting-edge combination implemented by RADWAG brings a number of advantages:

- elimination of air drafts and vibrations from a robotic system in the course of comparison,
- possibility to maintain stable environmental conditions inside the weighing chamber,
- longer robotic system life cycle,
- shorter comparison time,
- lower noise.

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 four locations (e.g., in the weighing chamber or mass standard magazine). 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.

	RMC 100.1	RMC 1000.1
OIML calibration range E1	1 g ÷ 100 g	10 g ÷ 1000 g
OIML calibration range E2	1 g ÷ 100 g	10 g ÷ 1000 g
OIML calibration range F1	1 g ÷ 100 g	10 g ÷ 1000 g
OIML calibration range F2	1 g ÷ 100 g	10 g ÷ 1000 g
Maximum capacity [Max]	110 g	1060 g
Readability [d]	0.1 µg	1 µg
Standard repeatability 5% [Max]	0.5 µg	1 µg
Standard repeatability [Max] ³	0.7 µg	1.5 µg
Standard repeatability permissible	1 µg	2 µg
Stabilization time	30 s	30 s
ABBA cycle duration	350 s	350 s
Adjustment	automatic	automatic
Electric compensation range	-1 g ÷ +10 g	-1 g ÷ +60 g
Mass standard magazine	100 positions	36 positions
Communication interfaces	2 × USB-A, Ethernet, 2 × RS 232 4 × IN, 4 × OUT, Wi-Fi®	2 × USB-A, Ethernet, 2 × RS 232 4 × IN, 4 × OUT, Wi-Fi®
Weighing pan dimensions	24 × 65 mm	50 × 125 mm



¹ Refers to RMC 100.1.

² Optional equipment.

³ Repeatability is expressed as a standard deviation determined for 6 ABBA cycles.
Wi-Fi® is a registered trademark of Wi-Fi Alliance.