



radwag.com

Robotic Mass Comparators



RMCM



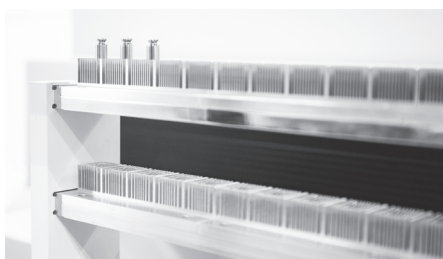
Combination of the mass comparator and the robotic transport system has resulted with development of a new RADWAG mass comparator, the RMCM. The device is unique due to its compact dimensions and aesthetic look.

This combination brings a number of advantages:

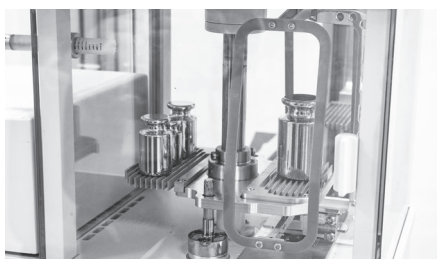
- reduction of air drafts and vibrations from a robotic system in the course of comparison,
- minimised human error risk,
- compact dimensions,
- easier maintaining of stable environmental conditions inside the weighing chamber.

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, 0.01 °C. Reliability of ambient conditions measurement carried out using the thermo-hygro-barometer is confirmed by a calibration certificate.

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.



The mass standard magazine offers up to 120 magazine positions.



The mass comparator enables a complete dissemination process, which is possible due to placing the intermediate mass standard magazine inside the mass comparator chamber.



The mass comparator allows real-time monitoring of ambient conditions.

RMC



The new line of RADWAG-manufactured RMC robotic mass comparator ensures repeatability of measurements ranging from 1 g to 1 kg with readability of 0.1 µg. The device is equipped with two magazines, 100-position one and additional 2-position magazine enabling dissemination of the mass standard into maximum 3 mass standards (e.g. 50 g mass standard can be disseminated into 3 mass standards of 20 g, 20 g and 10 g). Locating additional magazine near mass comparator weighing pan significantly shortens the calibration process.

RMC robotic mass comparator, due to the elimination of the human factor, temperature changes and air drafts, guarantees excellent measurement repeatability. Intermediate mass standard magazine enables storing mass standards near the weighing pan. With this the calibration time is reduced to minimum.

Insert design of the mass standard magazine allows measurement of weight of very small mass with high accuracy and prevents weight jamming. the device enables comparison of weight of various shapes using just one universal insert.



RADWAG as the worldwide pioneer has adopted the possibilities of the automatic mass comparator into the robotic comparison system.



Self centering hanging pan to elimination of the eccentricity error, which increases measurement accuracy.



The mass standard magazine offers up to 100 magazine positions, this number is conditioned by a comparator model.



		RMCM 5.5Y	RMCM 10.5Y	RMCM 100.5Y
Calibration range	E1	1 mg – 5 g	1 mg – 10 g	1 g – 100 g
	E2	1 mg – 5 g	1 mg – 10 g	1 g – 100 g
	F1	1 mg – 5 g	1 mg – 10 g	1 g – 100 g
	F2	1 mg – 5 g	1 mg – 10 g	1 g – 100 g
	M1	–	–	–
	M2	–	–	–
Max capacity [Max]		6.1 g	10.1 g	106 g
Readability [d]		0.1 µg	0.1 µg	0.1 µg
Repeatability at low load [S]*		0.25 µg	0.25 µg	0.5 µg
Repeatability at nominal load [S]*		0.4 µg	0.6 µg	0.8 µg
Electric compensation range		0 g – +6.1 g	0 g – +10.1 g	-1 g – +6 g
Internal supplementary weights		–	–	automatic
Stabilization time		30 s	30 s	30 s
Adjustment		internal	internal	automatic
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Weighing pan size		24 × 50 mm	24 × 50 mm	hanging 24 × 63 mm
Weights magazine		120 positions	120 positions	100 positions
Weighing unit size (L×W×H)		1200 × 790 × 760 mm	1200 × 790 × 760 mm	1200 × 790 × 760 mm
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.5 °C / 12 h	±0.5 °C / 12 h	±0.5 °C / 12 h
Relative humidity		40 % – 60 %	40 % – 60 %	40 % – 60 %
Relative humidity change		±2 % / 4 h	±2 % / 4 h	±2 % / 4 h



		RMC 1000.5Y	RMC 2000.5Y
Calibration range	E1	10 g – 1 kg	1 kg – 20 kg
	E2	10 g – 1 kg	1 kg – 20 kg
	F1	10 g – 1 kg	1 kg – 20 kg
	F2	10 g – 1 kg	1 kg – 20 kg
	M1	–	–
	M2	–	–
Max capacity [Max]		1020 g	20.2 kg
Readability [d]		1 µg	0.1 mg
Repeatability at low load [S]*		1.2 µg	0.15 mg
Repeatability at nominal load [S]*		2 µg	0.2 mg
Electric compensation range		-1 g – +20 g	-50 g – +200 g
Internal supplementary weights		automatic	automatic
Stabilization time		30 s	30 s
Adjustment		external	external
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Weighing pan size		hanging 45 × 100 mm	self-centering Ø 190 mm
Weights magazine		36	12
Weighing unit size (L×W×H)		2000 × 890 × 1600 mm	2700 × 1500 × 2000 mm
Operating temperature		+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.5 °C / 12 h	±0.5 °C / 12 h
Relative humidity		40 % – 60 %	40 % – 60 %
Relative humidity change		±2 % / 4 h	±2 % / 4 h