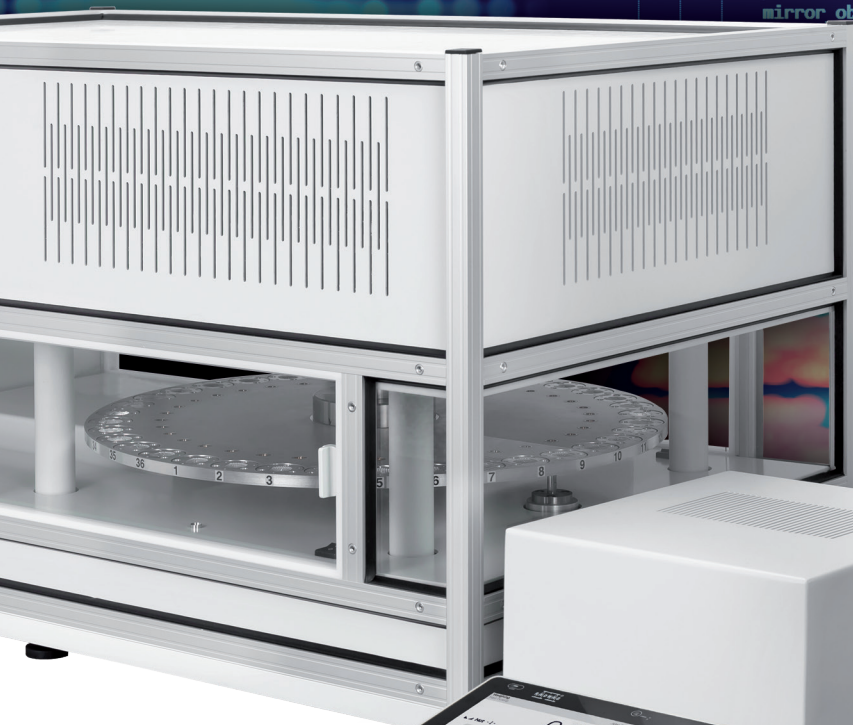
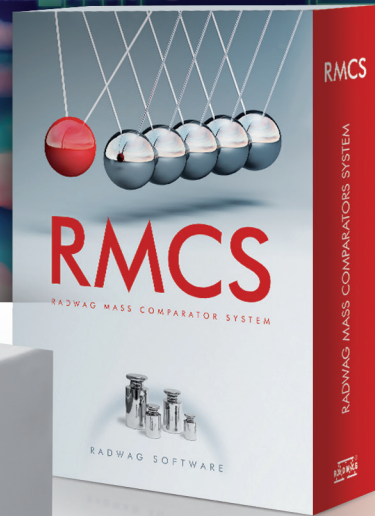


**Remote preview and online mass comparator operation**  
**Comprehensive support of calibration laboratory**  
**Management of the calibration orders execution**



```
elif operation == "MIRROR_Y":  
    mirror_mod.use_x = False  
    mirror_mod.use_y = True  
    mirror_mod.use_z = False  
elif operation == "MIRROR_Z":  
    mirror_mod.use_x = False  
    mirror_mod.use_y = False  
    mirror_mod.use_z = True  
  
#selection at the end -add back the deselected mirror modifier object  
mirror_ob.select= 1  
ob.select=1  
text.scene.objects.active = modifier_ob  
selected" + str(modifier_ob) # modifier ob is the active ob  
ob.select = 0  
context.select_objects([  
    selected])
```



# RMCS – RADWAG Mass Comparator System

COMPREHENSIVE MANAGEMENT OF THE CALIBRATION PROCESS

## Software supporting

# CALIBRATION LABORATORY

RMCS – RADWAG Mass Comparator System enables comprehensive realisation of mass standards and weights calibration in laboratory. The RMCS software is intended for integration with mass comparators manufactured by RADWAG.

The system manages the whole calibration process, starting from the moment the order is placed, through procedure performance, to the moment of issuing the calibration certificate. It facilitates performance of calibration process using ABBA and ABA methods.

The RMCS system can support multiple and various mass comparators operating in different laboratory rooms and connected via Ethernet or Wi-Fi®.

The system enables integration of RADWAG-designed mass comparators with THB sensors recording ambient conditions (temperature, humidity, pressure) during the entire calibration process. Measurement results are continuously displayed on the mass comparator screen and sent to RMCS system for process control and data archiving.

*Wi-Fi® is a registered trademark of Wi-Fi Alliance.*

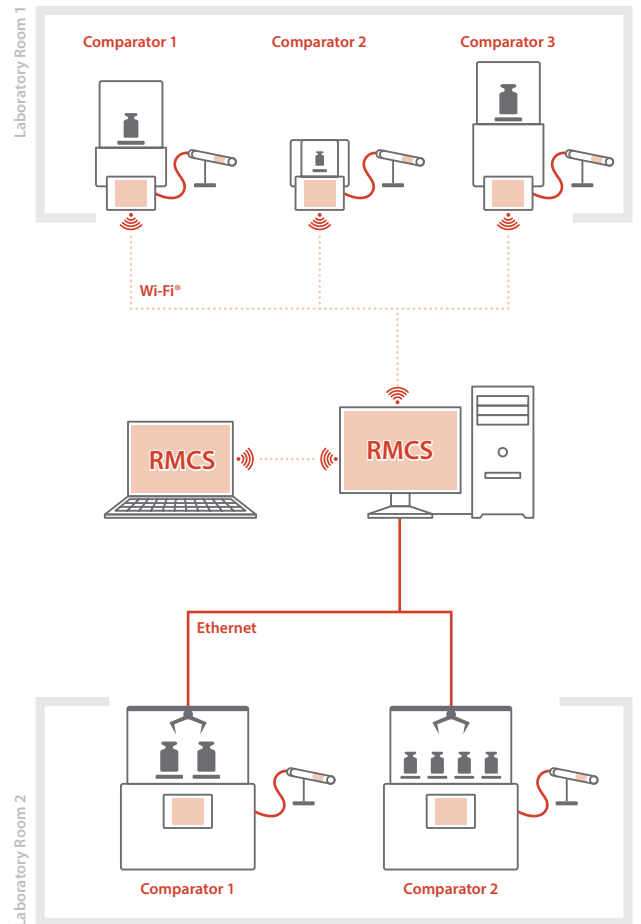


Diagram of RMCS system operation

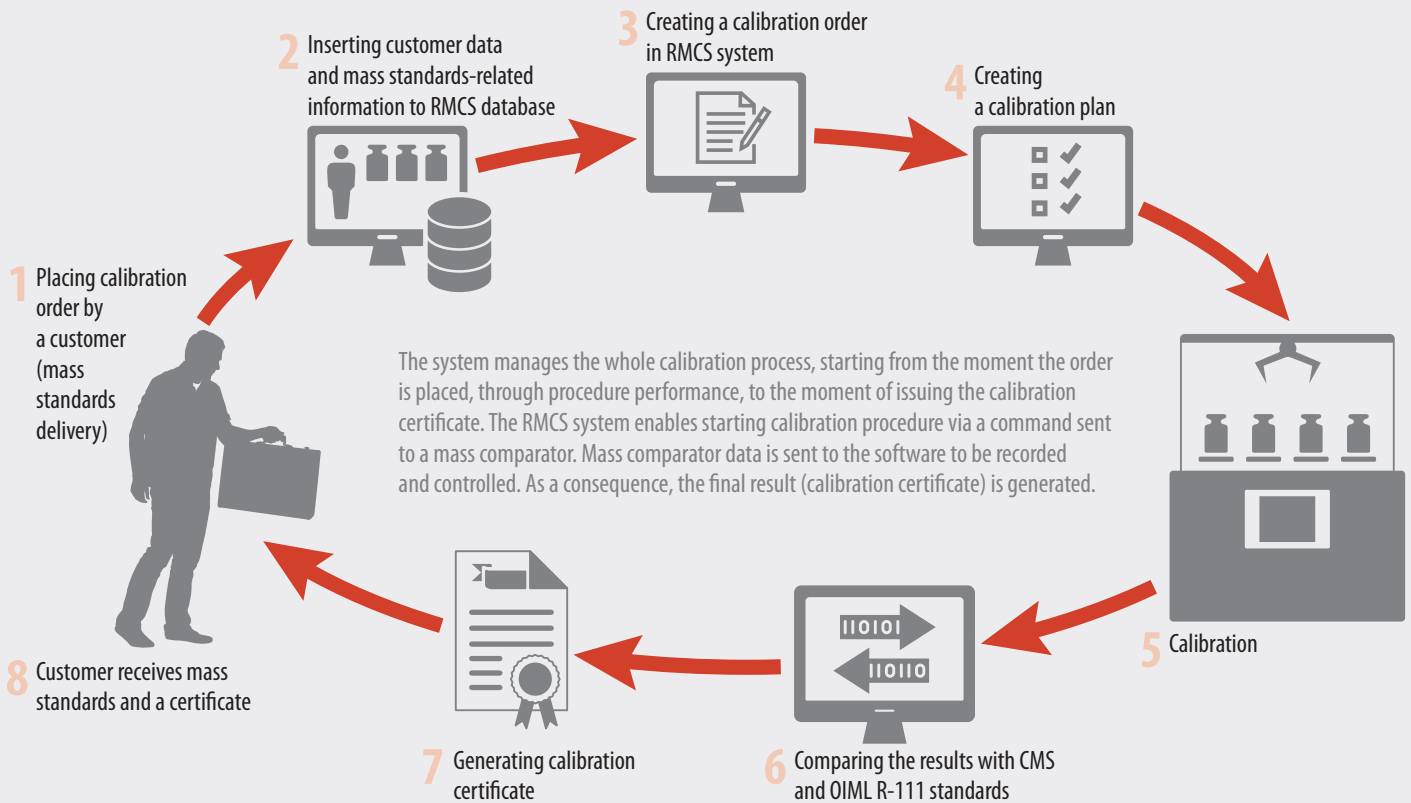


## Remote preview and ONLINE OPERATION

RMCS system enables preview of mass comparator status on the computer screen. It also allows for remote operation of the device and start of a calibration plan for automatic mass comparators via master computer.

Carrying out the calibration process with an aid of the computer software significantly improves productivity, guarantees reliable measurement results, offers complex documentation and reduces labour costs.

# Performance of CALIBRATION PROCESS



## Compliance with OIML R-111

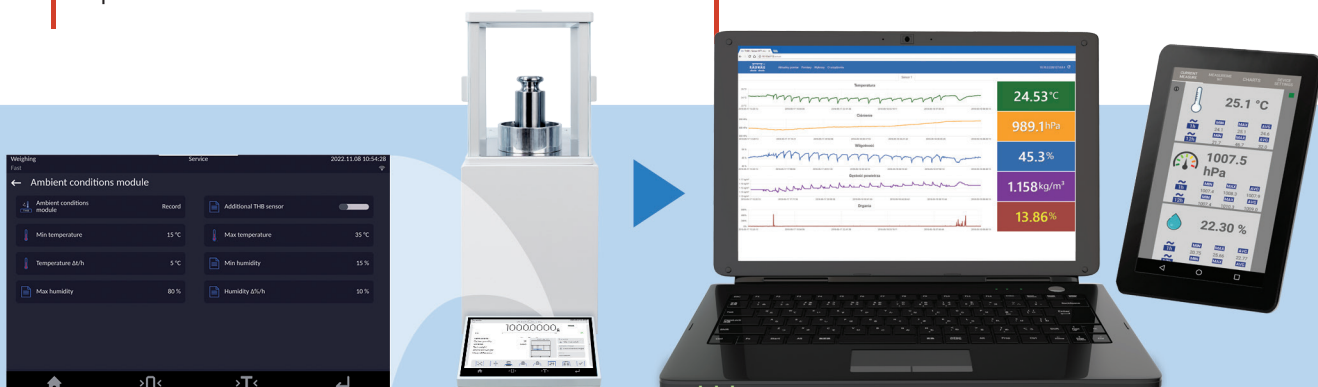
The system calculates the end result of calibration and estimates measurement uncertainty in accordance with OIML R-111-1.

The RMCS system contains database of maximum permissible errors for various masses and classes of mass standards in accordance with OIML R-111. It also allows to determine custom value of maximum permissible error for custom mass standards.

## Monitoring of AMBIENT CONDITIONS

Recorders and sensors of THBR 2.0 system enable constant record of temperature, humidity, atmospheric pressure and calculation of air density.

To each mass measurement carried out during calibration, current ambient conditions recorded in the vicinity of the mass comparator are assigned.



## File

# STORAGE

The function enables automatic copying of calibration data to another computer. The data that can be copied are calibration reports, orders forms, photographs attached as appendixes to orders, etc.



## Measurement capability of

# CMC

The system stores laboratory data concerning the measuring capability, and facilitates placing it on a calibration certificate. It enables determining CMC value, e.g. for custom mass standards.

## Templates of

# CALIBRATION CERTIFICATES

The software supports different templates of calibration certificates (e.g. various languages) and provides their intuitive editing.

## Supervision over

# MEASURING EQUIPMENT

The RMCS system collects and stores current metrological characteristics of measuring equipment such as reference weight data, standard deviation for mass comparators, corrections for thermo-hygro-barometers.

Information on the expiry date of measuring equipment calibration is presented to the operator via messages on the screen and an e-mail.

## Hardware

# RECOMMENDATIONS

### Client computer or server in a weighing system consisting of max 10 weighing instruments

#### PC computer

- operating system: Microsoft Windows 10 / 8 / 8.1 / 7 (excluding Starter version)
- 2 GHz dual-core processor or faster
- minimum 2 GB operating memory
- minimum 10 GB of free space on a hard drive
- 1280x1024 computer monitor
- MS SQL Server 2008 R2 or later version;
- server systems: Microsoft Windows Server 2016 / 2008 SP2 / 2008 R2
- printer operating in Microsoft Windows environment

### Server in a weighing system consisting of max 10 weighing instruments

#### PC computer

- operating system: Microsoft Windows 10 / 8 / 8.1 / 7 (excluding Starter version)
- 3 GHz quad-core processor or faster
- minimum 8 GB of operating memory
- minimum 50 GB of free space on a hard drive
- 1280x1024 computer monitor
- MS SQL Server 2008 R2 or later version;
- server systems: Microsoft Windows Server 2016 / 2008 SP2 / 2008 R2
- printer operating in Microsoft Windows environment

