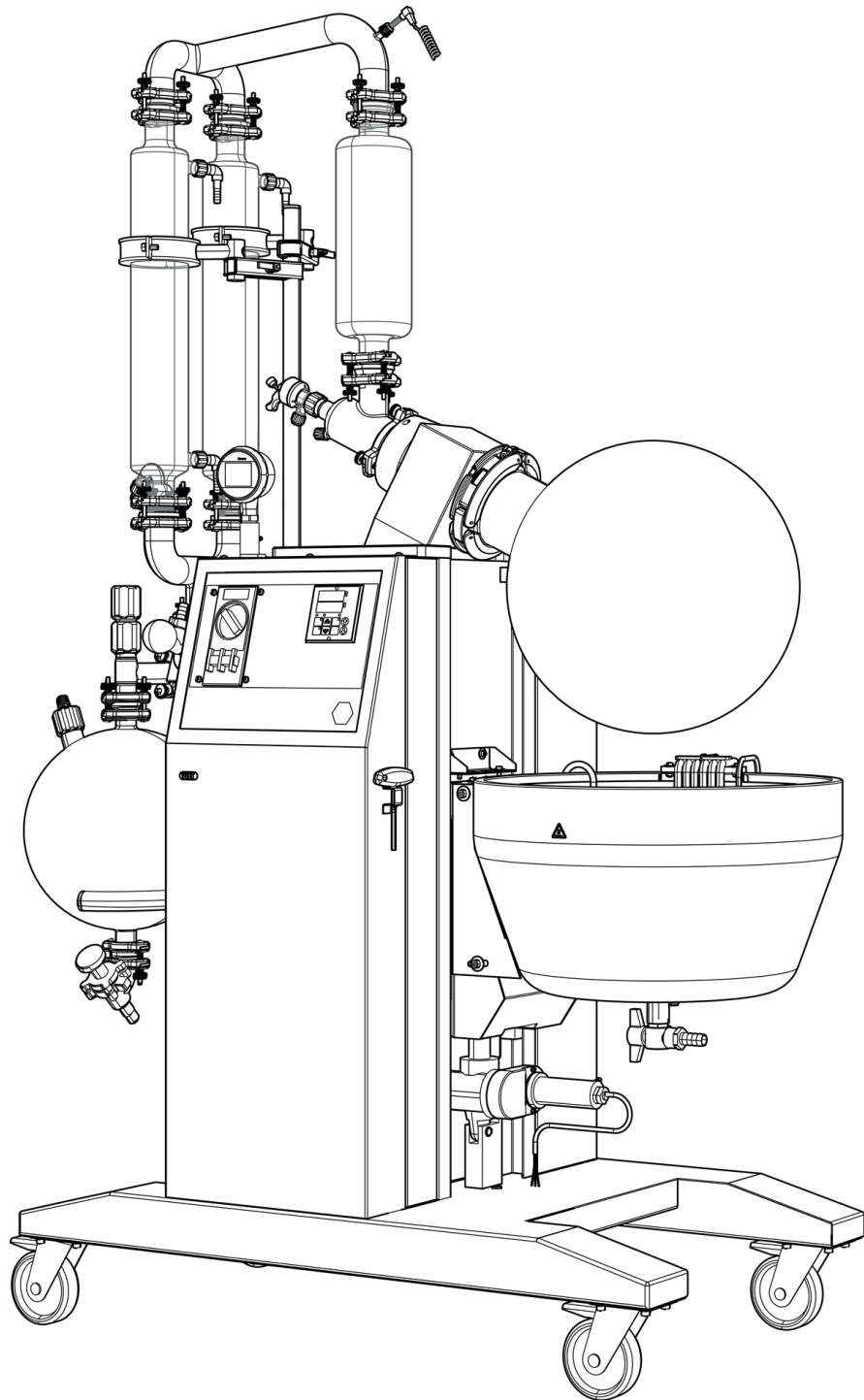




# Rotavapor® R-250 EX

## Technical data sheet

The Rotavapor R-250 EX is the EX rated version of the Rotavapor R-250. It fulfills the high requirements of the ATEX regulations and fits perfect to your Ex-proof production laboratory. It is designed for easy and safe operation combined with high performance.



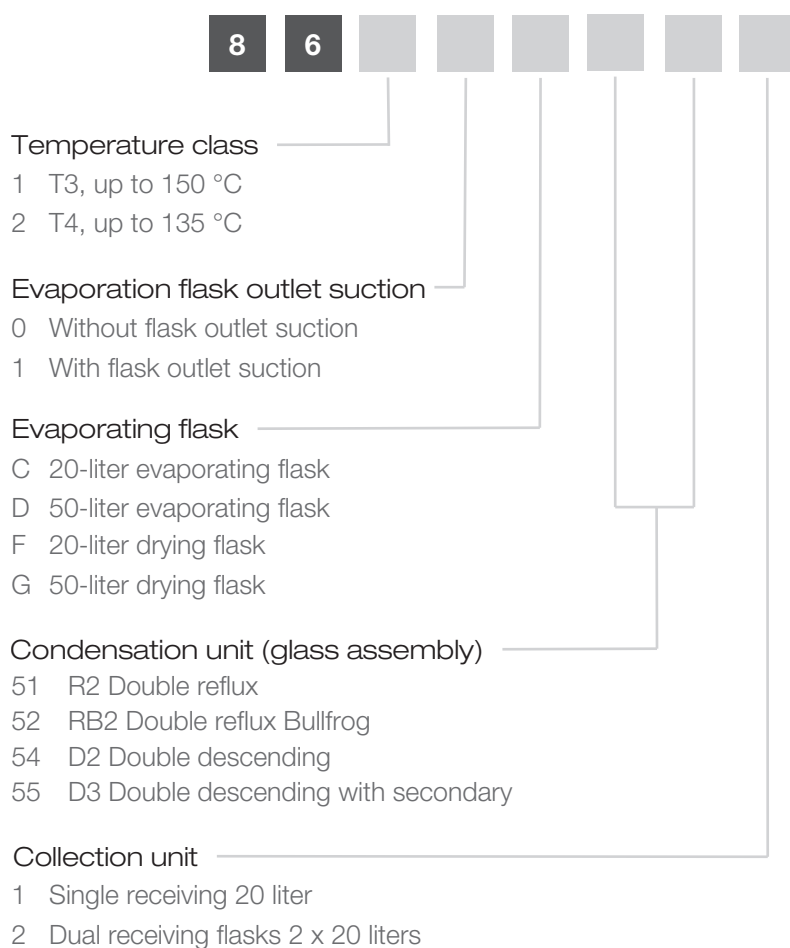
## Scope of delivery

All configurations are supplied ready to use.

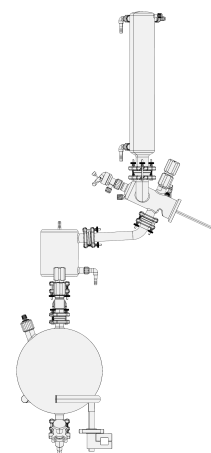
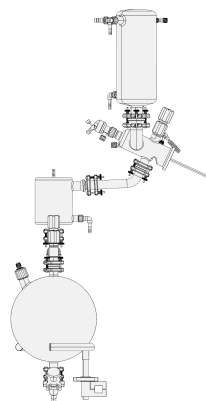
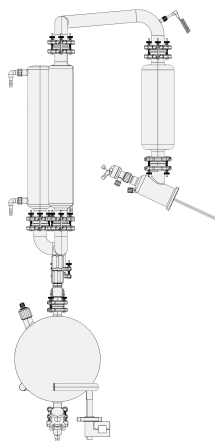
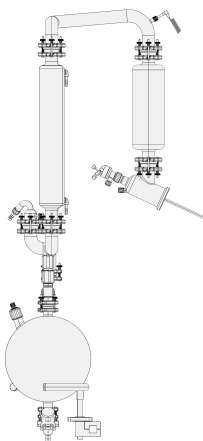
Components	R-250 EX
Vacuum controller UDS7 EX	1
Vacuum valve EX	1
Glass configuration according order	1
Evaporating flask according order	1
Vacuum hose to the vacuum source (PVC), 3.5 m	1
Vacuum hose to the vacuum controller (rubber), 3 m	1
Cooling water hose 19/26 (PVC), 2 m	1
Cooling water hose 14/18 (PVC), 3 m	1
Cooling water hose 10/14 (PVC), 2.2 m	1
Bath replenishment hose (PVC), 2 m	1
Feed hose (PTFE), 2 m	1
Seal removal tool	1
Operation manual	1

## Order code

Choose the configuration according to your needs:



## Glassware



**Assembly D2**

**Assembly D3**

**Assembly RB2**

**Assembly R2**

Low boiling points and/or foaming products

High boiling points

Minimum emissions

Reflux reactions

Reduced height

H = 2260 mm

H = 2260 mm

H = 2100 mm

H = 2300 mm

## Technical data

### Rotavapor® R-250 EX

Dimensions (W x D x H)  
(without glass)

1410 x 830 x 1550 mm

Dimensions (W x D x H)  
(with glass max.)

1450 x 830 x 2260 mm

Weight  
(with glass max.)

295 kg

Voltage

400 – 440 V (3Ph, N, G)

Frequency

50 - 60 Hz

Max. power consumption

7'500- 9'100 W

## Standards

Ex label

Ex de ia [ia] IIC T3 and T4

CE marking

Yes

## Safety

Safety coated glassware	No, due to the risc of electrostatic charges
Over temperature protection of the bath	Separate monitoring circuit with manual reset Error if temperature is 15 °C above set value
Rotation	Soft start
At any Error	Heater off, rotation off, bath lowers Indication of error

## Display

Bath temperature	Yes (1 °C steps)
Vapor temperature	Yes (1 °C steps)
Set rotation speed	Yes (1 rpm steps)
Set bath temperature	Yes (1 °C steps)
Actual vacuum	Yes (1 mbar steps)
Set vacuum	Yes (1 mbar steps)

## Cooling

Consumption	200 – 400 liter/hour (adjustable via integrated needle valve)
Restriction	max. 2,7 bar abs. without pulsation

## Heating (bath)

Medium	Water or oil
Temperature range	Ambient to 115 °C (T4) or 150 °C (T3)
Heating capacity	6600 W (3 W/cm <sup>2</sup> )
Accuracy	+/- 2 °C

## Rotation

Motor	400 V (3Ph; 2A at 50 Hz)
Controlling	Frequency inverter
Speed	0 – 100 rpm
Accuracy	+/- 1 rpm at 5 rpm up tp +/- 5 rpm at 100 rpm

## Materials

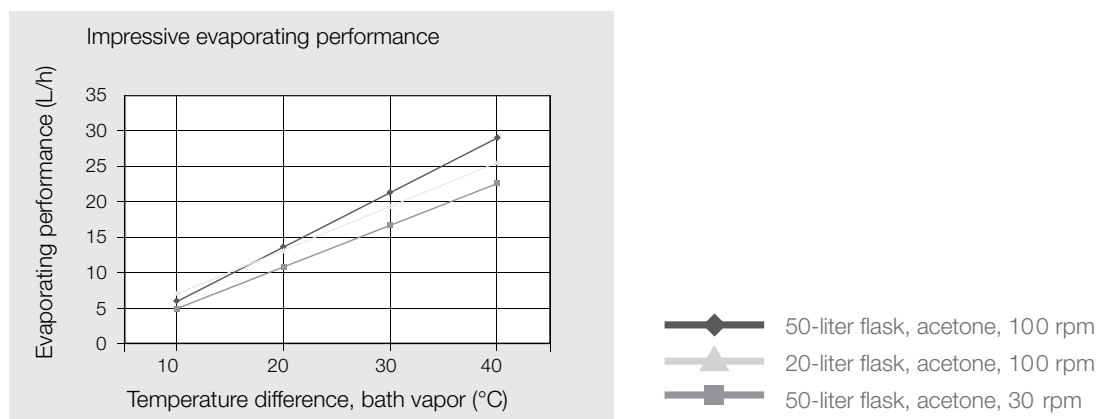
Housing	Stainless steel 1.4301 (AISI 304)
Gear head	Aluminum cast (3.2373)
Painting	Powder coated with Epoxy (EPX)
Bath pan	Stainless steel 1.4404 (AISI 316L)
Heating element	Stainless steel 1.4404 (AISI 316L)
Glass	Borosilicate 3.3
In contact with product	FDA approved materials
Leakage of the complete system	< 1 mbar/min

## Sensors

Vapor temperature	PT-1000, 2 wire
Bath temperature	PT-1000, 2 wire
Vacuum	Piezoresistive measuring cell; stainless steel 1.4435 (AISI 316L)

## Performance

The following chart shows the maximum distillation rate.



For other solvents the following maximum general figures apply:

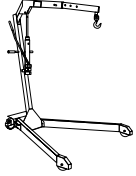
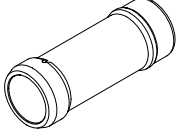
Water	Methanol	Ethanol	Toluene	Ethylacetate	Hexane	Trichlorethane
5.8 L/h	14.0 L/h	19.5 L/h	36.5 L/h	38.0 L/h	55.0 L/h	40.5 L/h

The maximum achievable distillation rate is not just related to the heating capacity, but also on rotation speed, flask size and temperature difference between bath and cooling. To get a high distillation rate:

- set a high rotation speed
- choose a large evaporating flask (50 L) and fill it at least half
- set a high temperature difference between bath and cooling

## Accessories

	Order no.	Image
Vacuum pump MD4C EX PTFE membrane pump with a capacity of 3.7m <sup>3</sup> /h and a final vacuum of 3mbar. 230 V / 50 Hz.	040197	
Manual flask handler for 50 L flask For easy mounting and removal of the flasks along with safe transport	041414	
Manual flask handler for 20 L flask For easy mounting and removal of the flasks along with safe transport.	041410	

	Order no.	Image
<p>Flask crane (EX version)</p> <p>For the safely secured transport of a 50 liter flask. Incl. the 50 liter manual flask handler.</p>	041493	
<p>Vapor duct with integrated sinter plate</p> <p>The integrated sinter plate P3 protects the condenser assembly against powder and dust during the drying process.</p>	041100	
IQ / OQ	040786	