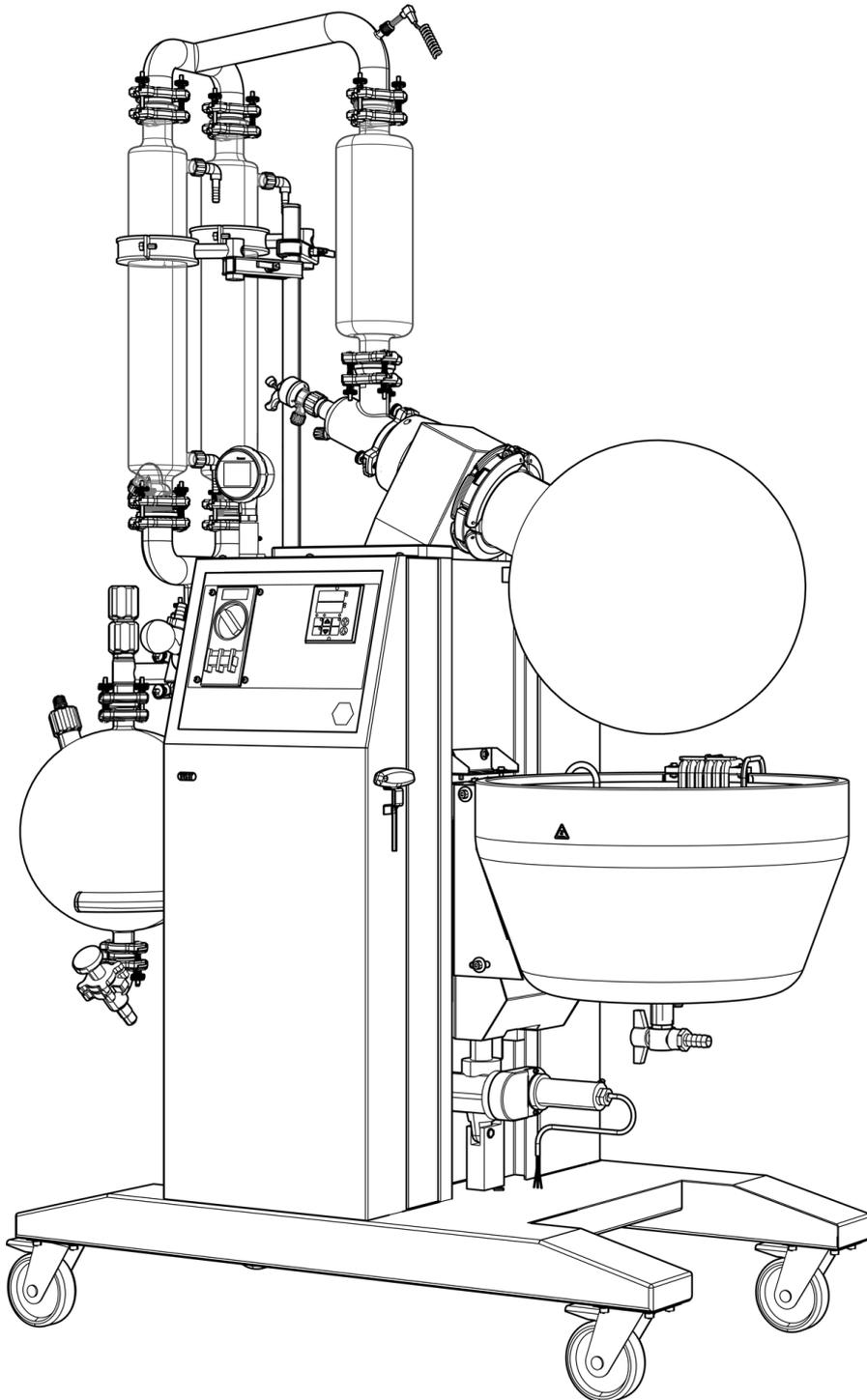![BÜCHI SWITZERLAND logo]

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.
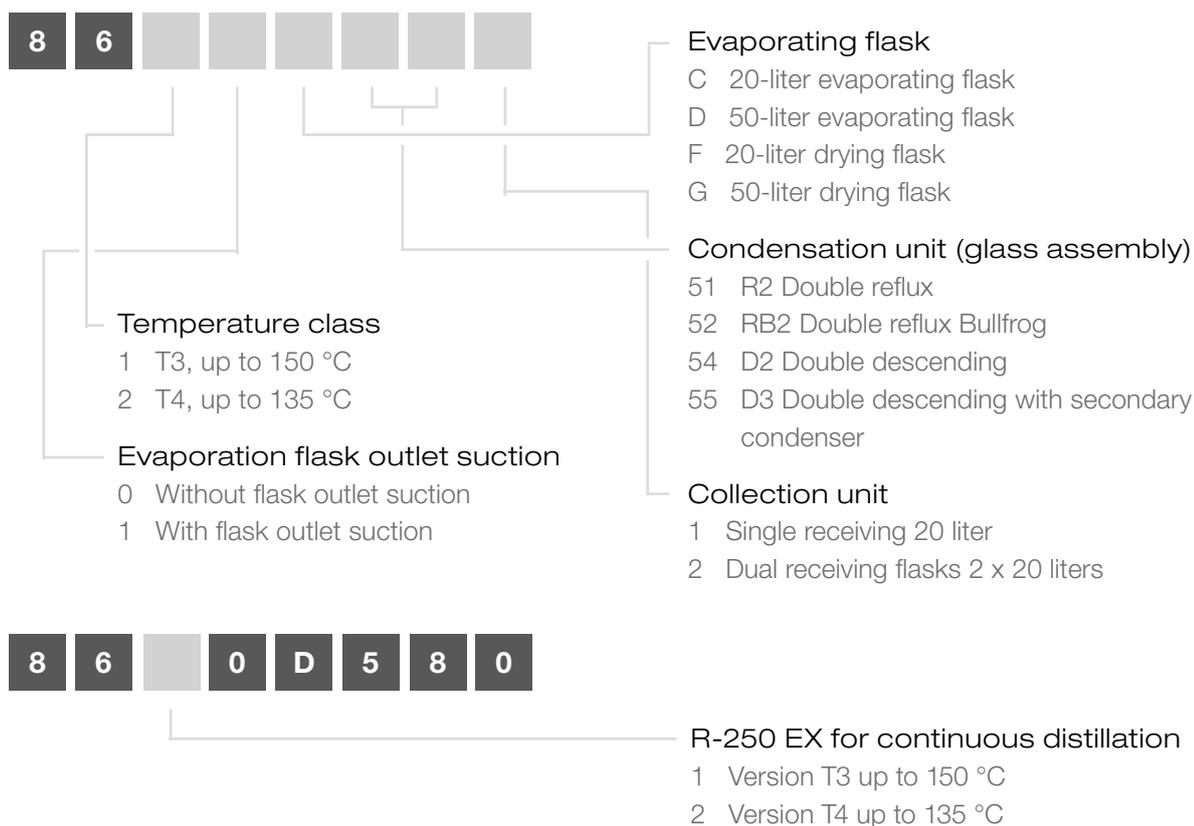
Scope of delivery

All Rotavapor R-250 EX models are delivered ready to use, including all needed tools and are complete of:
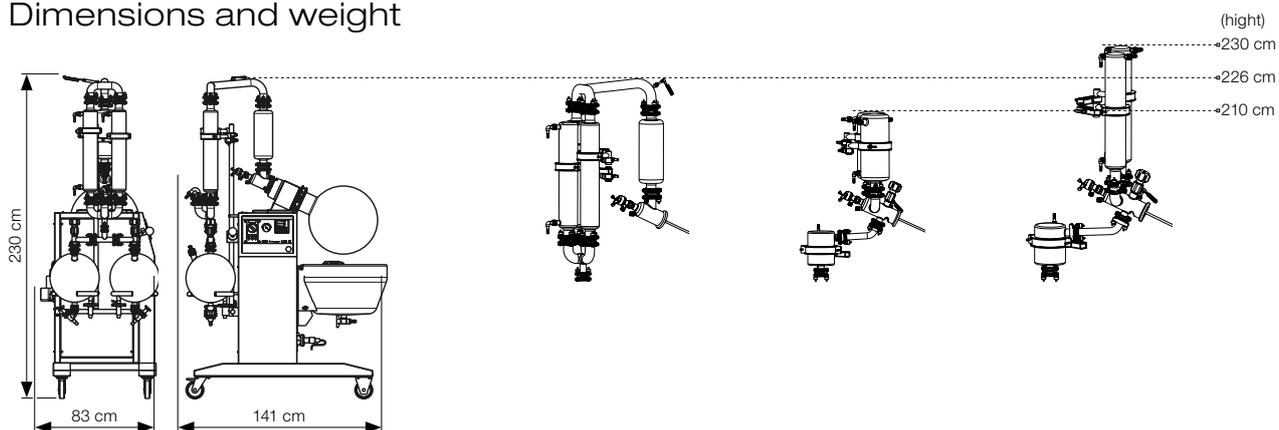
Components	R-250 EX
Vacuum controller UDS7 EX	1
Vacuum valve EX	1
Glass configuration according order	1
Evaporating flask according order	1
Vacuum hose to the vacuum source (PVC), 3.5 m	1
Vacuum hose to the vacuum controller (rubber), 3 m	1
Cooling water hose 19/26 (PVC), 2 m	1
Cooling water hose 14/18 (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:

8	6						

Evaporating flask
C   20-liter evaporating flask
D   50-liter evaporating flask
F   20-liter drying flask
G   50-liter drying flask

Condensation unit (glass assembly)
51   R2 Double reflux
52   RB2 Double reflux Bullfrog
54   D2 Double descending
55   D3 Double descending with secondary condenser

Temperature class
1   T3, up to 150 °C
2   T4, up to 135 °C

Evaporation flask outlet suction
0   Without flask outlet suction
1   With flask outlet suction

Collection unit
1   Single receiving 20 liter
2   Dual receiving flasks 2 x 20 liters

8	6		0	D	5	8	0

R-250 EX for continuous distillation
1   Version T3 up to 150 °C
2   Version T4 up to 135 °C

Dimensions and weight

(hight)
230 cm
226 cm
210 cm

230 cm
83 cm   141 cm

D2	D3	RB2	R2
Low boiling points and/or foaming products		High boiling points	
	Minimum emissions	Reflux reactions	
		Reduced height	

	Dimensions (W x H x D)	Weight
Assembly R2	1410 x 2300 x 830 mm	285 kg
Assembly RB2	1410 x 2100 x 830 mm	285 kg
Assembly D2	1410 x 2260 x 830 mm	290 kg
Assembly D3	1410 x 2260 x 830 mm	295 kg

Technical data

Electrical

Voltage	400 – 440 V (3Ph, N, G)
Frequency	50 – 60 Hz
Max. power consumption	7500 – 9100 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^2)
Accuracy	+/- 2 °C

Rotation

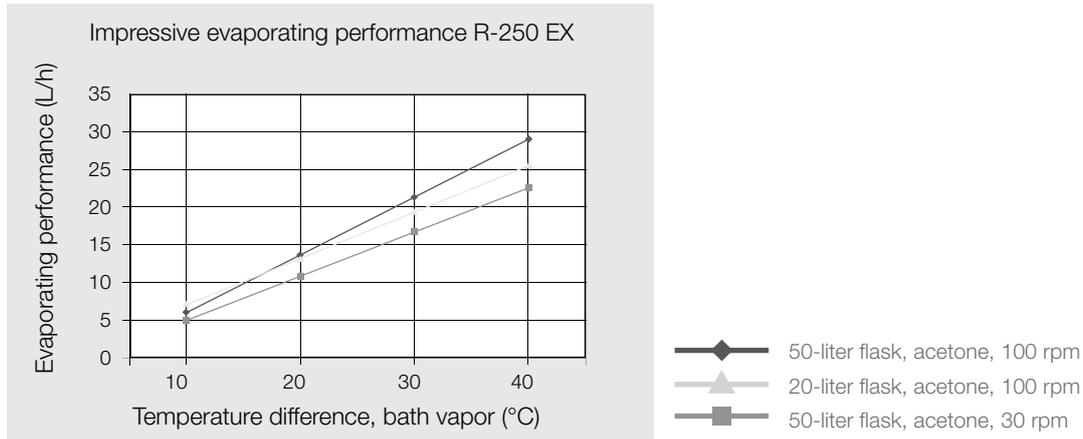|	
Motor	400 V (3Ph; 2A at 50 Hz)
Controlling	Frequency inverter
Speed	0 – 100 rpm
Accuracy	+/- 1 rpm at 5 rpm up tp +/- 5 rpm at 100 rpm

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 compliant 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

Impressive evaporating performance R-250 EX

- ◆ 50-liter flask, acetone, 100 rpm
- ▲ 20-liter flask, acetone, 100 rpm
- ■ 50-liter flask, acetone, 30 rpm

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

Accessories

	Order number
Vacuum pump MD4C EX PTFE membrane pump with a capacity of 3.7m3/h and a final vacuum of 3mbar. 230 V / 50 Hz	040197
Manual flask handler 50 liter For easy mounting and removal of the 50 liter evaporating flasks along with safe transport.	041414
Manual flask handler 20 liter For easy mounting and removal of the 20 liter evaporating flasks along with safe transport.	041410
Flask crane (EX version) For the safely secured transport of a 50 liter flask. Incl. the 50 liter manual flask handler	041493
Vapor duct with sinter plate With frit P3 protects the condenser assembly against powder and dust during the drying process.	041100
IQ / OQ	40786

www.buchi.com/industrial-evaporation

Quality in your hands