

# **EQUITRON<sup>®</sup>** **Roteva**

Rotary Vacuum Evaporator

*truly*  
**The Unbeatable Choice**



Medica Instrument Manufacturing Company takes pride in launching the newly designed Equitron-ROTEVA Rotary Vacuum Evaporator. A no-compromise performance coupled with a diligent customer support team has enabled Medica in establishing an enviable and discerning user base consisting of a few hundred, in a short period.

The new Roteva is the outcome of years of manufacturing experience as well as critical feedback from valuable customers. In fact it is the feedback that propels us to constantly work on improving our products as well as adding to its family of accessories.

Along with Rotary Vacuum Evaporator, Medica also manufactures the full range of accessories like PTFE diaphragm type Vacuum Pump, Vacuum Controller, Chilled Water Circulator and glass accessories. This whole family of product enhances the user-friendliness and enables a seamless operation in the lab. The biggest benefit to the user is in terms of unambiguous customer support when the whole family is sourced from a single manufacturer.

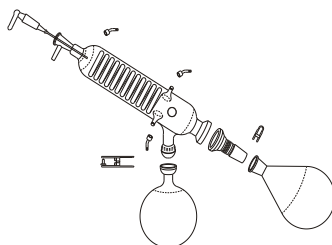
The new curved, smooth, compact and flawless design is the result of relentless work of our R&D Team consisting of experts from application, instrumentation, fabrication, glass blowing and design. The distinct advantages being as follows:

- Its low profile design gives confidence and ease in operation.
- Its electronics is advanced and user friendly with better control with feedback.
- Its fabrication encompasses hydraulic pressed items, to deliver a compact footprint in all stainless steel and non corrosive material.
- Glass blowing technology at its best with flawless & interchangeability of parts.
- Smooth flowing design enables a compact footprint and a welcome addition to the laboratory.

## CHOICES OF GLASS SETS:

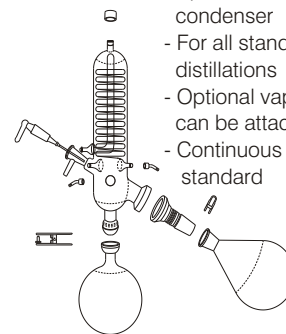
### (D) Diagonal

- Traditional Diagonal Condenser
- For all standard & routine distillations
- Optional vapour sensor can be attached
- Continuous feed as standard



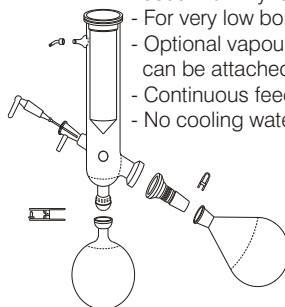
### (V) Vertical

- Space saving vertical condenser
- For all standard & routine distillations
- Optional vapour sensor can be attached
- Continuous feed as standard



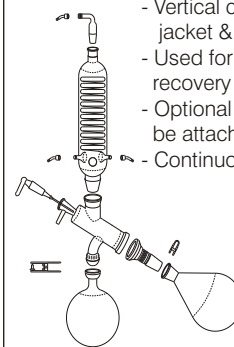
### (C) Cold trap

- Cold trap condenser to be used with Dry Ice
- For very low boiling solvents
- Optional vapour sensor can be attached
- Continuous feed as standard
- No cooling water required



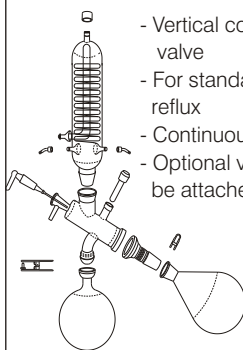
### (E) Extra Cooling

- Vertical condenser with jacket & coil
- Used for efficient cooling & recovery
- Optional vapour sensor can be attached
- Continuous feed as standard



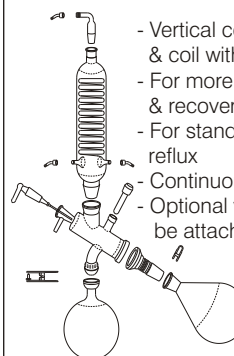
### (VR) Vertical with Reflux

- Vertical condenser with reflux valve
- For standard distillations & reflux
- Continuous feed as standard
- Optional vapour sensor can be attached



### (ER) Extra Cooling with Reflux

- Vertical condenser with jacket & coil with reflux valve
- For more efficient cooling & recovery
- For standard distillations & reflux
- Continuous feed as standard
- Optional vapour sensor can be attached



## ORDERING INFORMATION

Model	Item
8763.RD0.000	Roteva-Digital with Diagonal Glass Set (D)
8763.RV0.000	Roteva-Digital with Vertical Glass Set (V)
8763.RC0.000	Roteva-Digital with Cold Trap Glass Set (C)
8763.RE0.000	Roteva-Digital with Extra Cooling Glass Set (E)
8763.RVR.000	Roteva-Digital with Vertical with Reflux Set (VR)
8763.RER.000	Roteva-Digital with Extra Cooling with Reflux Set (ER)

All electrical appliances work on 230V AC, 50Hz, single phase. Other Voltages available on request. Due to continuous improvement in design, the product supplied may have modified features.



ROTEVA - TECHNICAL SPECIFICATIONS			
Item	Specification	Item	Specification
Heating bath dimensions	Ø 230 x 130 mm	Power supply	230 V, AC, 50 Hz
Volume of heating bath	4 lit. Approx.	Rotation speed	30 to 270 rpm
Bath heater capacity	1200 Watts	Rotation speed display	Yes
Heating bath controller	PID with display for set & actual temp.	Lift	Motorised
Bath temperature range	Ambient + 5 to 180°C	Manual lift (When power fails)	Yes
Temperature accuracy	± 2°C	Height adjustment	170 mm Approx.
Independent safety cutout	@ 190°C	Flask ejector	Yes
Heating bath material	SS 304	Condenser support	Yes
Min / Max flask size	50 ml / 3000 ml	Foot print	220 cm <sup>2</sup>
Cond. cooling area: D, V, VR	1200 cm <sup>2</sup>	Glass sets available	D, V, C, E, VR, ER
Cond. cooling area: C	580 cm <sup>2</sup> approx.	Threaded connectors for utilities	Yes
Cond. cooling area E, ER	2000 cm <sup>2</sup> approx.	Feed stopcock & tube made of	PTFE
Environmental conditions (Temp.)	10 to 40°C	Environmental Conditions (% RH)	Max 80% NC

**Note:** All the evaporators are supplied with one litre evaporating and receiving flasks as standard.

## VAPOUR TEMPERATURE INDICATOR - OPTIONAL

- ❖ Add on accessory to standard Roteva.
- ❖ Display range 0 to 99°C, LED display.
- ❖ Readability 0.1°C.
- ❖ Self powered from Roteva main unit.
- ❖ Supplied with glass embedded PT-100 sensor with screw cap & PTFE Ferrule.



ROTEVA Optional Accessories Ordering Information			
Model	Item	App. Shipping Details Net / Gr. / Volume	
#8911.DVS.199	Digital Vapour Temperature indicator with Sensor	- -	
#8920.DVC.MBX	Digital Vacuum Controller	4.2 kg / 5.0 kg / 0.02 m <sup>3</sup>	
#8930.X00.000	Manual Chiller	6 kg / 14 kg / 0.12 m <sup>3</sup>	
#8502.ROT.000	Refrigerated Chiller	41kg / 65 kg / 0.345 m <sup>3</sup>	
#9075.CVT.V02	EQUIVAC PTFE diaphragm variable drive vacuum pump (with German technology)	13.6 kg / 16 kg / 0.115 m <sup>3</sup>	
#9075.CRP.020	EQUIVAC PTFE diaphragm vacuum pump (with German technology),020 mbar	5 kg / 7 kg / 0.053 m <sup>3</sup>	
#6990.X35.050	Float Balls Pack (for Water Bath)	- -	
#S1002-10	Flask Stand for RB Flask Ø160mm	- -	
#8841.CT0.000	Vacuum Trap (Cold trap type) w/SS support rod, clamp & base	6 kg / 8 kg / 0.059 m <sup>3</sup>	
#8841.CT0.202	Vacuum Trap (Cold trap type) w/SS support rod & clamp for V02 / 020 models	4 kg / 6 kg / 0.059 m <sup>3</sup>	

Spare Flasks / Glassware Ordering Information			
Flask Adapter	B-29: #S1313-10	-	B-24: #S1313-05
CAPACITY / ITEM	EVAPORATING 'B-29'	RECEIVING FLASK 'S-35'	EVAPORATING 'B-24'
50 ml	#S1315-05	#S1316-05	#S1315-04
100 ml	#S1315-10	#S1316-10	#S1315-09
250 ml	#S1315-15	#S1316-15	#S1315-14
500 ml	#S1315-20	#S1316-20	#S1315-19
1,000 ml	#S1315-25	#S1316-25	#S1315-24
2,000 ml	#S1315-30	#S1316-30	#S1315-29
3,000 ml	#S1315-35	#S1316-35	#S1315-34

**ESSENTIAL UTILITIES REQUIRED:** • Vacuum Source - preferably with Controller. • Chilled Water Circulation - less than 20°C.  
• Power Source - 230 VAC, 50Hz. Single phase-15A - 2nos.



# **EQUIVAC** OIL-FREE PTFE DIAPHRAGM PUMP VARIABLE DRIVE - V02

No wish remains unfulfilled with **EQUIVAC - V02** Oil-Free PTFE Diaphragm Variable Drive Vacuum Pump.

- ❖ Ideal partner for Rotary Vacuum Evaporator.
- ❖ Variable drive for smooth control of vacuum.
- ❖ Built-in PID controller for excellent regulation.
- ❖ Valveless control, oil less vacuum pump (with German technology), mercury less sensor, noise less operation.
- ❖ Built-in glass separator supplied as standard, glass vacuum trap (cold trap type) available as option with necessary rod & clamps.
- ❖ Slow & steady control of vacuum with control accuracy of  $\pm 3$  mbar.
- ❖ Absolute vacuum sensor.
- ❖ PTFE coated diaphragm, head and valve made of inert plastics.
- ❖ Simultaneous display of set and actual vacuum.
- ❖ Ultimate Vacuum of 2 mbar, Air displacement 21 lit/min.
- ❖ In/out nozzles of  $\varnothing 9.5$ mm.
- ❖ Power supply 230V , 50Hz, single phase.

**Notes:**

- ❖ Now with vapour trap as standard part of supply.



# **EQUIVAC** OIL - FREE PTFE COATED DIAPHRAGM PUMP 020

- ❖ Portable and handy with carrying handle.
- ❖ Wetted parts of inert plastics.
- ❖ PTFE coated diaphragm (with German technology).
- ❖ Supplied with glass separator.
- ❖ Equipped with retro-mounting of vapours / vacuum trap.
- ❖ Continuous rated motor.
- ❖ Ultimate Vacuum of 20 mbar, Air displacement 22 lit/min.
- ❖ In / out nozzles of  $\varnothing 9.5$ mm.

**Notes:**

- ❖ Use of vapours / vacuum trap (optional) is highly recommended.



## CHILLED WATER CIRCULATOR - 4L

- ❖ **EQUITRON** Chilled Water Circulator is ideal for chilling and condensing operations in Rotary Vacuum Evaporation.
- ❖ Sturdy fabrication with SS top & SS angle structure. Panels in oven baked epoxy coated mild steel.
- ❖ Four sturdy castors for easy manouverability.
- ❖ Hermetically sealed environment friendly CFC free compressor.
- ❖ Built-in coolant reservoir of approximately 4 litres.
- ❖ Built-in pump with capacity of 15 lit/min - at zero head for water.
- ❖ Temperature range upto 0°C.
- ❖ Built in Digital Temperature Controller - 1°C resolution.
- ❖ Supplied with two insulated silicone hose (1 met each) for external circulation.
- ❖ Gross Dimensions : 56 x 41 x 65 cm.



## VACUUM TRAP

**Highlights:**

- ❖ Used for trapping uncondensed solvent vapours prior to vacuum source, or controller.
- ❖ Built-in high surface area cooling coils for circulation of chilled water.
- ❖ Highly recommended for all kinds of vacuum source & controllers.
- ❖ Made of Borosilicate glass.
- ❖ Supplied with mounting stand.

