



PILOT-SCALE ROTARY EVAPORATOR EV-1002 / EV-2002 / EV-3002 / EV- 5003

Rotary Evaporator is primarily used for concentration, crystallization, drying, separation, and solvent recovery in pharmaceutical, chemical, and biopharmaceutical industries. It operates by heating the rotating flask at a constant temperature under vacuum conditions, forming a thin film on the flask's surface for efficient evaporation. Solvent vapors are condensed using a glass condenser and collected in a separate bottle, significantly enhancing evaporation performance.

APPLICATIONS

The Torontech Rotary Evaporator is an indispensable instrument for the gentle and efficient removal of volatile solvents from liquid samples. Its primary application is to concentrate solutions by using a vacuum to lower the solvent's boiling point while rotating the flask to create a thin film, dramatically increasing the evaporation rate. This technique is essential for protecting thermally sensitive compounds from degradation, making it a cornerstone of modern laboratory workflows.

This critical evaporation and concentration capability is fundamental to daily operations in:

- **Pharmaceutical & Chemical Synthesis:** For the purification and isolation of synthesized compounds and Active Pharmaceutical Ingredients (APIs) by efficiently stripping away reaction solvents without degrading the valuable target molecule.
- **Food, Flavor & Botanical Extraction:** To create high-quality concentrates, essential oils, and botanical extracts by gently removing solvents like ethanol, perfectly preserving the flavor, aroma, and potency of the final product.
- **Academia & Research:** As a foundational instrument in organic chemistry and research laboratories for the routine concentration and purification of reaction mixtures, making it an essential part of nearly every experimental workup.
- **Analytical Sample Preparation:** For preparing samples prior to analysis by concentrating dilute solutions to bring the analyte within the detection limits of instruments like HPLC or GC, or for performing critical solvent exchange procedures.

FEATURES

- PTFE and fluororubber double seal for reliable high-vacuum performance.
- High-strength borosilicate glass 3.3 with excellent temperature and corrosion resistance.
- Dual-protection system for rotation and heating, ensuring safety.
- Electric lift mechanism for convenience.
- Main and auxiliary condensers with triple-coil design for superior recovery rates.
- Vacuum switching valve enabling continuous collection and discharge.
- Over-temperature protection and anti-dry features for added safety.

THEORY & METHOD

Pilot-Scale Rotary Evaporator

EV-1002 / EV-2002 / EV-3002 / EV-5003

Pilot-Scale Rotary Evaporator

ExEV-1002 / ExEV-2002 / ExEV-3002 / ExEV-5003

TECHNICAL SPECIFICATIONS

Model	EV-1002 (ExEV-1002)	EV-2002 (ExEV-2002)	EV-3002 (ExEV-3002)	EV-5003 (ExEV-5003)
Voltage	220-240V/50Hz		Rotary motor 220-240V/50Hz, heating bath 380V/50Hz	
Overall power	3120W	5120W	8180W	

Model	EV-1002 (ExEV-1002)	EV-2002 (ExEV-2002)	EV-3002 (ExEV-3002)	EV-5003 (ExEV-5003)
Rotating motor power	120W (Ex120W)		180W (Ex180W)	
Heating power	3000W	5000W	8000W	
Vacuum degree	0.098MPa			
Evaporating flask	10L	20L	30L	50L
Receiving bottle	5L (With discharge valve)	10L (With discharge valve)	20L (With discharge valve)	20L (With discharge valve)
Rotation speed	0-120rpm			
Temperature range	RT~180°C			
Temperature control accuracy	+/-1°C			
Lifting distance	180mm			
Bath volume	21L	41L	76L	76L
Dimensions	930W*560D*1910H mm	1000W*600D*2130H mm	1330W*730D*2340H mm	
Weight	74kg (49+25kg)	88.5kg (57+31.5kg)	119.5kg (82+37.5kg)	119.5kg (82+37.5kg)



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