



TORONTECH



PILOT-SCALE ROTARY EVAPORATOR EV-1005 / EV-1010 / EV-1020 / EV- 1050

Rotary Evaporator is commonly utilized in the pharmaceutical, chemical, and biopharmaceutical industries for concentration, crystallization, drying, separation, and solvent recovery. It operates by heating a rotating flask at a controlled temperature under vacuum conditions, allowing for efficient evaporation by creating a large surface area on the flask wall. The vaporized solvent is condensed through a glass condenser and collected in a receiving flask, optimizing the evaporation process.

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.

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Water Bath Cover

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Vacuum Seal

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Evaporating Flask Carrier

FEATURES

- PTFE and fluororubber dual-seal design for superior vacuum performance.
- High-strength borosilicate glass 3.3, offering excellent heat and corrosion resistance.
- Dual fuses for rotation and heating to ensure robust safety protection.
- Electric lift mechanism for user convenience.
- Dual condensers with triple-coil design for high recovery rates.
- Vacuum switch valve for uninterrupted collection and discharge.
- Over-temperature protection and anti-dry functionality for added safety.

TECHNICAL SPECIFICATIONS

Model	EV-1005	EV-1010	EV-1020	EV-1050
Voltage	220-240V/50Hz			380V/50Hz
Overall power	2100W	3100W	5100W	6640W
Rotating motor power	60W/1/5			100W1/5
Lifting motor power	40W/1:12.5			
Heating power	2000W	3000W	5000W	6500W
Vacuum degree	0.098MPa			
Evaporating flask	5L	10L	20L	50L
Receiving bottle	3L (With discharge valve)	5L (With discharge valve)	10L (With discharge valve)	20L (With discharge valve)
Rotation speed	0-120rpm			
Temperature range	RT~180℃			
Temperature control accuracy	+/- 1℃			
Lifting distance	140mm	190mm	150mm	215mm
Condenser	Vertical, main triple + auxiliary double coil			
Bath volume	12L	21L	41L	76L
Dimensions	980W*480D*1260H mm	1130W*470D*1940H mm	1210W*610D*2170H mm	1390W*700D*2300H mm
Weight	46kg	64kg	78kg	97kg

Model	ExEV-1005	ExEV-1010	ExEV-1020	ExEV-1050
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Voltage	220-240V/50Hz			380V/50Hz
Overall power	2100W	3180W	5180W	8280W
Rotating motor power	60W/1/5			100W1/5
Lifting motor power	40W/1:12.5			
Heating power	2000W	3000W	5000W	8000W
Vacuum degree	0.098MPa			
Evaporating flask	5L	10L	20L	50L
Receiving bottle	3L (With discharge valve)	5L (With discharge valve)	10L (With discharge valve)	20L (With discharge valve)
Rotation speed	0-120rpm			
Temperature range	RT~180℃ (Oil bath)			
Temperature control accuracy	+/- 1℃			
Lifting distance	140mm	190mm	150mm	215mm
Condenser	Vertical, main triple + auxiliary double coil			
Bath volume	12L	21L	41L	76L
Dimensions	980W*480D*1260H mm	1130W*470D*1940H mm	1210W*610D*2170H mm	1390W*700D*2300H mm
Weight	52kg	70kg	84kg	103kg



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