

ROTARY EVAPORATOR 100L



Rotary Evaporator is primarily used for concentration, crystallization, drying, separation, and solvent recovery in the pharmaceutical, chemical, and biopharmaceutical industries. It operates by heating a rotating flask at a constant temperature under vacuum conditions, allowing the material to form a large film on the flask's inner surface, enabling efficient evaporation. The solvent vapor is condensed using a glass condenser and collected in a recovery 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 dual seal for maintaining a high vacuum.
- High borosilicate glass (GG-17) for excellent heat and corrosion resistance.
- Safety fuse for added protection.
- Electric lift mechanism.
- Main and auxiliary condensers with triple-coil design for superior recovery rates.
- Vacuum switching valve for uninterrupted collection and discharge.
- Corrosion-resistant 304 stainless steel bath for long-lasting durability.

THEORY & METHOD

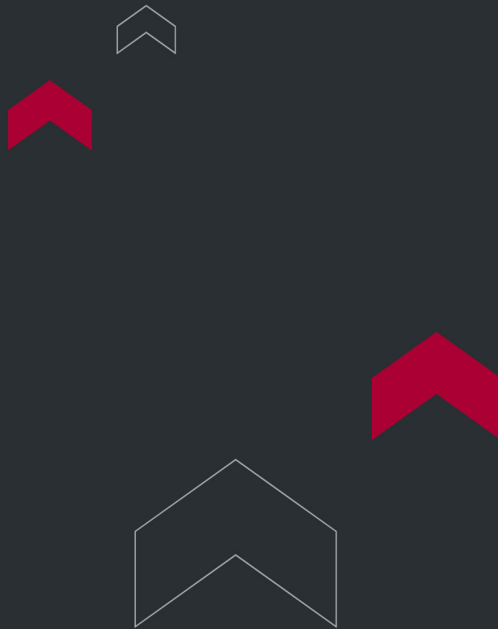
Rotary Evaporator 100L

ExEV-100L

TECHNICAL SPECIFICATIONS

Model	EV-100L (ExEV-100L)
Voltage	Rotary motor 220-240V/50Hz, heating bath 380V/50Hz
Rotating motor power	370W (Ex370W)
Heating power	15kW
Vacuum degree	0.098MPa

Evaporating flask	100L ϕ 610mm*180mm flange
Receiving bottle	50L ϕ 470mm*60mm flange
Rotation speed	20-90rpm
Temperature range	RT~180°C
Temperature control accuracy	+/-1°C
Glass temperature range	-80~250°C
Lifting distance	0-180mm
Condenser size	Main condenser: ϕ 230mm*800H mm Auxiliary condenser: ϕ 230mm*620H mm
Feeding valve	ϕ 45 flange
Air release valve	ϕ 45 flange*2
Discharge valve	ϕ 45 flange, PTFE discharge valve
Bath size & volume	ϕ 700*400H mm, 154L
Bath shell size	710L*620W*700H (mm)
Bottom plate size	804L*574W (mm)
Dimensions	1520W*520D*2470H mm
Packing size	1495L*840W*725H mm, 780L*850*910H mm
Packing weight	191KG (105+86)



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