

rotary evaporator with optional electric lifting for lab use

Rotary evaporator is a kind of precision experimental equipment specially used for evaporation, concentration, separation and recovery of volatile solvents under low-pressure conditions, which is commonly used in chemistry, pharmacy, biology, material science and other experimental places.

Rotary Evaporator

Main Features

1. Premium glass material: All glass components are high-strength 3.3 borosilicate—resistant to heat and chemicals, compatible with a wide range of solvents and acid/base systems.
2. Intelligent temperature control: PID algorithm for precise and stable bath temperature—ideal for delicate sample concentration.
3. High-efficiency condensation & recovery: Dual vertical condenser provides large condensation area—excellent for low-boiling solvents like ether and ethanol.
4. Precision rotary mechanism: Concentric structure ensures smooth operation.



5. Lifting options: R-101VN & R-101LN—sliding/manual assist; R-301—electric lift.
6. Bath safety cover: Prevents scalds and splash hazards.
7. Split heater/main body design: Flexible maintenance.
8. Excellent sealing: PTFE & Viton dual seals—ensures airtight vacuum and resists chemicals.
9. Bottom heating bath: Easy to clean, dry-burn protection included.
10. Adjustable bottle angle: Knob for angle adjustment—adapts to different protocols.
11. Quick-release flask button: Remove flasks easily and safely—no tools required.

Working Principle

- Lower boiling point: Vacuum system reduces pressure—solvents boil at lower temperatures, protecting heat-sensitive compounds.
- Rotary evaporation: Tilted rotating flask forms a thin film—expands evaporation area, increases rate.
- Constant temperature bath: PID-controlled heating—stable, responsive.
- Efficient condensation: Vapors condense rapidly in the condenser—minimizes solvent loss.
- Leak prevention: PTFE sealing maintains vacuum integrity, prevents air/solvent leaks.

Application Areas

1. Organic synthesis: Solvent recovery/concentration post reaction.
2. Natural product extraction: Gentle evaporation for plant actives, essential oils.
3. Pharmaceutical R&D: Distillation/desolvation of intermediates and APIs.
4. Sample pretreatment: Solvent concentration for analytical chemistry.
5. Materials science: Solvent removal in functional materials/polymers.
6. Environmental testing: VOC concentration in sample prep.

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Model	R-101VN	R-101LN	R-301
External dimensions	640Wx400Dx670mm, 920mm	800Wx400Dx560mm, 820mm	620Wx400Dx700mm, 850mm
Weight includes glass	13kg		13.5kg
Power supply	110Vac, 60Hz 或 220-240Vac, 50Hz, 60Hz		
Rotary motor power	25W		40W

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Model	R-101VN	R-101LN	R-301
Overall power	1080W		1390W
protection class	IP20		
contamination level	2		
Speed range	20rpm to 180rpm		10rpm to 180rpm
Bath temperature control range	ambient+5°C to 95°C		
Nominal accuracy adjustment	±1.5°C		
Bath liquid	deionized water		
System seal leakage	≤0.33kPa per minute		
rotary control	Electronic		

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Model	R-101VN	R-101LN	R-301
Heating rated power	1050W		1300W
Bath Temperature Sensors	PT100, two lines		
Maximum evaporation capacity, water	0.9L per hour		1.38L per hour
Rotary bottle tilt angle	15 degree to 45 degree		
Condensing area	about 0.126 square meters		
Rotary Bottle Volume	500ml, 1000ml		
Rotary Bottle diameter	24mm, 40mm, Standard Frosted Mouth		
Collection bottle volume	1000ml		
Collection bottle diameter	S35 ball-peen mouth		
Rotation speed display	LED		LCD

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Model	R-101VN	R-101LN	R-301
method			
Temperature display mode	LED		LCD
environmental temperature	5°C to 35°C		
Environmental relative humidity	≤ 70%		
Bath size	diameter 254mmx130mm		
glass	3.3 Borosilicate Glass		
contact with material	3.3 Borosilicate glass, PTFE		
bath cover	Optional		