

Simple, Reliable, Vacuum-Free, Sample-Safe

- **Vacuum-Free** - no bumping or splashing to risk sample purity and yield
- **Centrifugal Evaporation** - sample securely pressed in spinning containers
- **Versatile** - ideal for LC fractions, synthesis reactions, harsh inorganic chemistry, cold room operations, toxic compounds, radioisotopes
- **Low Maintenance** - no vacuum pump; no noise; simple unattended operation
- **Temperature** - programmable ambient to 55°C
- **Off-Timer** - programmable from minutes to hours
- **Green Solvent Recovery** - captured gas recirculates in a closed system; toxic materials are contained
- **Easy-to-Use** - close the lid to start
- **Flexible** - concentrate samples or evaporate to complete dryness
- **Compact** - portable, minimal bench space
- **Containers** - use 20/40 mL scintillation vials, 1.6 mL Eppendorf tubes, 4 mL (1 dram) vials, 15 mL Falcon tubes
- **Low Cost** - \$4,900



The Centrifan PE uses self-generating blow-down technology to evaporate samples without a vacuum pump within a closed system. Centrifugal force protects samples from loss and cross-contamination, freeing operators for other tasks. If you are using a rotary evaporator, see how the Centrifan PE can save 1-operator-hour per sample.

Eliminate Sample Drying Risk while Freeing Operator Time

The Centrifan PE employs a novel, recirculating evaporation technique that reuses a captured volume of gas and generates its own gas flow to efficiently evaporate samples in standard 20 mL scintillation vials. The technique eliminates the need for a vacuum pump or a large supply of blow down gas, significantly reducing cost, complexity, noise, and maintenance compared to rotary evaporators, vacuum centrifuges, and conventional blow-down equipment. Because it operates without vacuum, the Centrifan PE eliminates the potential for cross contamination and sample loss caused by solvent bumping.

Vacuum-Free, Closed System Drying

The Centrifan PE has a spinning rotor with fan blades that generate a high flow rate of drying gas which is directed onto the surface of the solvent in the scintillation vials. The rotor generates centrifugal force to keep 100% of the solute pressed in the scintillation vials, thus preventing compound loss and cross contamination. Solvent vapors from the trapped volume of gas are continuously flowed through a secondary loop with a dry ice cold trap to prevent release of toxic fumes. The unit may be purged of air with a nitrogen bleed to perform oxygen-free drying.

Rotors

- 6 x 20 mL scintillation vials
- 4 x 40 mL scintillation vials
- 8 x 16 mm x 100 mm tubes
- 16 x 1.6 mL Eppendorf tubes
- 6 x 15 mL Falcon tubes
- 8 x 4 mL (1 dram) sample vials

Rotors for proprietary sample containers have been produced.

Compact, Portable

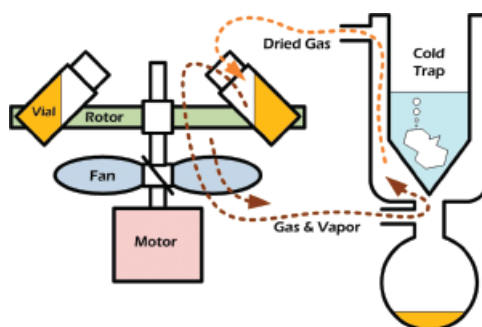
With a small 8 in. x 12 in. footprint and only 18 in. high, the Centrifan PE is self-contained, requires little bench or hood space, and will even fit in a hotcell.

Configurations

Centrifan PE-L (Lite) has no cold trap; vent to a hood or use with aqueous solutions.

Centrifan PE includes a cold trap for recovering all evaporated solvents.

Centrifan PE-T (Timer) includes the cold trap and an Off-Timer for stopping evaporation before samples reach complete dryness.



Performance Specs

Rotor Capacities	6 x 20 mL Scintillation Vials 4 x 40 mL Scintillation Vials 8 x 16 mm x 100 mm Test Tubes 16 x 1.6 mL Eppendorf Tubes 6 x 15 Falcon tubes 8 x 4 mL (1 Dram) Sample Vials
Temp Controller Range	Ambient to 55°C
Ambient Temperature	2°C to 40°C
Cold Finger Capacity	1 L non-freezing liquid plus dry ice nuggets
Power Requirements	115/230 VAC 50-60 Hz 200 watts
Fuse Ratings	3 A (115 V) or 1.6 A (230 V) both fast acting, 5 mm x 20 mm
Dimensions	12" (30.5 cm) w x 8" (20.3 cm) d x 18" (45.7 cm) h
Weight	12 lbs (5.5 kg)

Drying Rates for Typical Solvents in 20 mL Vials*

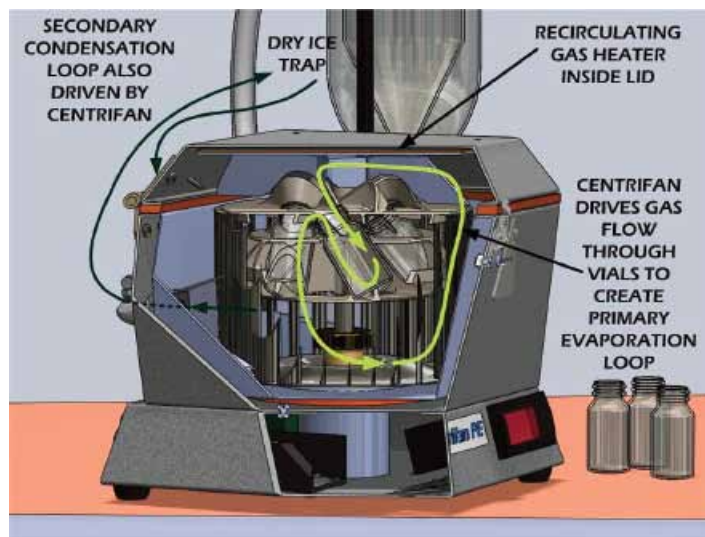
Solvent	Total Volume	Temp. in Rotor	Time to Dry °C
Methanol	6 X 10 mL	40	60 min
Water	6 X 5 mL	40	3 hrs
Hexane	6 X 10 mL	40	15 min
Acetone	6 X 10 mL	40	35 min
Isopropyl Alcohol	6 X 10 mL	40	70 min
DMSO	6 X 1 mL	40	12 hrs
Methylene Chloride	6 X 10 mL	40	25 min
AcN/H ₂ O (70/30)	6 X 10 mL	40	3 hrs

*Evaporation rates were obtained with ethanol and dry ice in the trap.

Reduces Operator Time for Rotary Evaporation

The Centrifan PE can be used to efficiently dry the last 10 mL of product solution in a 20 mL scintillation vial with confidence and unattended operation. After transferring the 10 mL aliquot from the rotorvap round-bottom flask to the scintillation vial, the operator simply places the sample in the rotor of the Centrifan PE and closes the lid to start the unit. The solution in the scintillation vial dries securely in the Centrifan PE without further monitoring and frees lab workers for other tasks.

- Speeds compound finishing into 20mL vials from a rotorvap
- Allows risk-free drying and storage of final solution in convenient scintillation vials
- Enables completely unattended operation
- Frees lab associates for other tasks
- Utilizes rotorvap for intended large volume processing
- Increases overall evaporation process productivity



4 Month ROI

The Centrifan PE will return 1 man-hour for every rotorvap job where a 20 mL scintillation vial is specified as the final collection container. At common FTE costs and processing a sample with the rotorvap only 2 to 3 times per week, the \$4,900 cost of the Centrifan PE will be recovered in 3 to 5 months.

"The Centrifan PE has streamlined and simplified our workflow through unattended, convenient, and safe processing of the final dry-down step of purified material before returning to the client."

Paul Lefebvre, Laboratory Director
Averca Discovery Services, Inc., Worcester, MA USA

Sample Safe Drying of Radioactive and Other Toxic Compounds

Because it is vacuum free and produces its own drying gas flow within a closed system, the Centrifan PE eliminates the potential for sample loss and contamination, making it particularly advantageous for chemists working with radioactive and other highly toxic compounds. The system is ideal for preparing radiolabeled compounds for mechanism of action studies in drug discovery and diagnostic isotope preparation of injectable solutions.



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