

# Evaporation the Easy, Environmental Way

*Reliable Results for  
Small Samples*



*Small  
Volume  
Evaporator*



CENTRIFAN<sup>TM</sup> PE

MEDICINAL CHEMISTRY  
RNA PURIFICATION  
SYNTHESIS  
FLASH CHROMATOGRAPHY  
HPLC  
ISOTOPIC MARKERS  
PROTEIN CONCENTRATION  
DNA PREPARATION

**kdScientific**

[www.kdscientific.com](http://www.kdscientific.com)



# CENTRIFAN™ PE

## Simplifies Small Volume Evaporation

The new Centrifan™ PE simplifies small volume evaporation tasks for synthetic and medicinal chemists, as well as pharmaceutical, biotech, and university researchers. Proprietary self-generated blow-down technology eliminates the potential problems with common evaporation systems such as vacuum centrifuges, rotary evaporators, nitrogen blow-down, and freeze dryers. Experience reliable results, lower costs, greater safety, and increased productivity by choosing the Centrifan™ PE for your laboratory!

### Easy Operation Frees Your Time

- Just close the cover and walk away – no monitoring required.
- Dry samples directly in 20mL scintillation and other common vials.
- No need to maintain a vacuum pump or use a large supply of blow-down gas.
- Move the portable unit near your experiment – it even operates on a lab cart.
- Set the required temperature (ambient to 55°C) and off-timer (minutes to hours).

### Efficient Technology Delivers Reliable Results

- The low price **Centrifan™ PE** withstands years of lab work with virtually no maintenance.
- The self-generating blow-down technology protects samples from loss.
- Centrifugal force allows secure drying directly in convenient scintillation vials.
- High vapor recovery permits collection of the condensate as the final product.

### Effective Process Eliminates Cross Contamination

- No vacuum pump means no cross contamination from solvent bumping.
- Radiolabeled compounds dry safely.
- Residual solvent content in the sample can be reduced with inert dry gas.
- Compact unit fits in a hot cell to contain radioisotopes.

### Environmental Design Saves Energy, Protects Your Health

- The unit captures toxic vapors and materials in a closed system.
- Quiet operation reduces noise pollution in the laboratory.
- Low power consumption saves energy.



Easy

Efficient

Effective

Environmental

The **Centrifan™ PE** is a convenient, compact evaporator/concentrator for research, pharmaceutical, and biotech labs working with samples such as DNA, RNA, and protein. Synthetic and medicinal chemists will save time because the **Centrifan™ PE** dries samples without the monitoring required by a rotorvap. The system also works well for processing fractions collected from flash liquid chromatography. Pharmaceutical and university labs working with radioactive and other highly toxic compounds will appreciate the advantage of the green chemistry design.

Completely self contained, no vacuum pump!

Solvent vaporproof powder coat lid and fan

Efficient recirculating sealed Kapton heater

Epoxy encapsulates PTC temperature sensor

Solvent proof stainless steel liner

Splitter creates air flow to dry solvent

Powder coat finish

Small footprint

Automatic timer or manual on/off control (optional)

Adjustable temperature setpoint up to 55°C

**SMALL FOOTPRINT**

12" (30.5 cm) w x 8" (20.3 cm) d x 18" (45.7 cm) h

Flexible cold trap interfaces external chiller, dry ice or water ice

Oxygen free drying with nitrogen (fittings included)

Optimize solvent recovery with cold trap models  
Green recovery

Quick stopping electronic brake for motor  
Low power, low noise, 1200 RPM, 72G

## Rotors for Centrifan™ PE

The versatile **Centrifan™ PE** has a rotor to fit your needs. Choose from one of seven different standard rotors, or we can make a custom rotor for your application.



4 x 40 mL Scintillation Vials



6 x 30 mL Scintillation Vials



6 x 20 mL Scintillation Vials



10 x 1.5 mL HPLC Vials



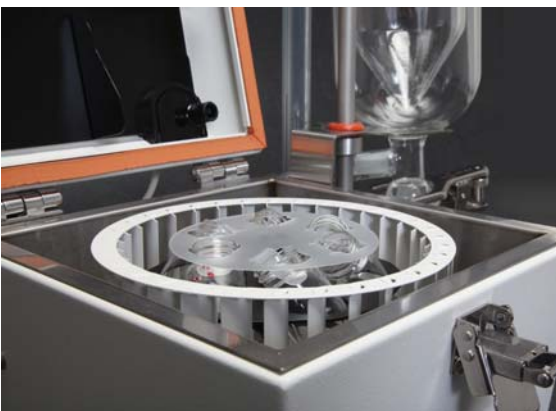
6 x 16 mm x 100 mm Test Tubes



8 x 1.6 mL Micro Centrifuge Vials



8 x 4 mL Vials



# Specifications

## New Proprietary Evaporation Technology you should know about

Possible Problems with Common Evaporation Systems	Vacuum Centrifuge	Rotary Evaporator	Nitrogen Blowdown	Freeze Dryer	Centrifan™ PE Advantages
Sample loss from bumping caused by vacuum	X	X		X	No vacuum pump eliminates bumping
Cross-contamination from splashing	X		X		Centrifugal force prevents splashing
Dry sample blown from vial; lost and contaminated			X		Centrifugal force ensures material retention
Sample lost from bumping when vacuum slow and sample melts				X	No vacuum pump eliminates bumping
Must freeze sample before loading				X	No pre-freeze required
Safety issues concerning glassware under vacuum		X		X	No vacuum, eliminates safety concern
No recovery of volatile extract compounds	X	X	X	X	Condenses all recirculating vapor
Solvent vapor lost through vacuum pump or vent	X	X	X	X	Closed green system condenses all vapor
Vacuum pump noise degrades lab work environment	X	X		X	Makes no noise
System complexity requires maintenance vigilance	X	X		X	One moving part 3-year warranty
Evaporator down because of vacuum pump rebuild	X	X		X	No vacuum pump minimizes maintenance
Consumes large quantities of electricity or drying gas	X	X	X	X	Low power and minimal inert gas usage
Relative speed of evaporation (MeOH, AcN, Ether)	3	1	3	4	4
Relative speed of evaporation (Water, DMF, DMSO)	3	3	1	3	2

## Specifications

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	3A (115 VAC and 230 VAC) 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

## Specify a Centrifan™ PE Model

Item No.	Model	Description
78-0070	Centrifan PE-T	Includes cold trap and timer, 115 VAC
78-0001	Centrifan PE	Includes cold trap 115 VAC
78-0072	Centrifan Lite	No cold trap 115 VAC, vent to a hood or use with aqueous solutions
78-1070	Centrifan PE-T	Includes cold trap and timer 230 VAC
78-1001	Centrifan PE	Includes cold trap 230 VAC
78-1072	Centrifan Lite	No cold trap 230 VAC, vent to a hood or use with aqueous solutions

## Specify a Rotor

78-8400	Rotor 6 x 20 mL Scintillation Vials
78-8401	Rotor 8 x 1.6 mL Micro Centrifuge Tubes
78-8402	Rotor 6 x 16 mm x 100 mm Test Tubes
78-8403	Rotor 8 x 4 mL vials (1 dram)
78-8404	Rotor 6 x 30 mL Scintillation Vials
78-8405	Rotor 4 x 40 mL Scintillation Vials
78-8406	Rotor 10 x 1.5 HPLC Vials

## 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 <sub>2</sub> O (70/30)	6 x 10 mL	40	3 hrs

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

## Spare Splitters

78-8408	5 pack splitters 6 x 20 mL Scintillation Vials
78-8409	100 pack splitters 6 x 20 mL Scintillation Vials
78-8410	1 splitter 8 x 1.6 mL Micro Centrifuge Vials
78-8411	1 splitter 6 x 16 mm x 100 mm Test Tubes
78-8412	1 splitter 8 x 4 mL Vials (1 dram)
78-8414	1 splitter 6 x 30 mL Scintillation Vials
78-8415	1 splitter 4 x 40 mL Scintillation Vials
78-8416	1 splitter 10 HPLC 1.5 mL Vials

## Accessories

788417	Conversion Kit, Add Cold Trap to Centrifan™ Lite
788418	Cold Trap replacement
788419	Circulator Coil and Tubing (provides extended concentraton time with chilled Concentrator, water bath must be supplied)
788420	Immersion cooler for cold trap, fixed at -60 deg C , 1.5" rigid coil, 120 VAC, 60 Hz
788426	Immersion cooler for cold trap, fixed at -60 deg C , 1.5" rigid coil, 240 VAC, 50 Hz
788421	Flask, round 500 mL, 35/20 socket joint
788422	Flask, round 100 mL, 35/20 socket joint
788423	Adapter Kit, Cold Trap Socket to 20 mL Scintillation Vial (low loss distillate collection)
788424	Clamp pinch, locking, 35/20 Socket Joint

# **kdScientific**

KD Scientific offers different configurations of the **Centrifan™ PE**.  
We can assist you with selecting the right **Centrifan™ PE**.  
We can also customize the **Centrifan™ PE** for specific applications.

**Simply fill out the questionnaire below and fax it to 1-508-893-0160 or email to [info@kdscientific.com](mailto:info@kdscientific.com)**

1. **What is the volume of the sample to evaporate?** \_\_\_\_\_

2. **What type of container is currently used?**

Microcentrifuge tube \_\_\_\_\_

Scintillation vial \_\_\_\_\_

HPLC Vial \_\_\_\_\_

Other \_\_\_\_\_

3. **How many samples are run/processed at the same time?** \_\_\_\_\_

4. **What are the solvent(s)?** \_\_\_\_\_

5. **Would you like to condense the vapors in a cold trap?**  Yes  No

6. **Do you need oxygen free drying?**  Yes  No

7. **Do you need a timer to stop the drying process?**  Yes  No

8. **Do you want auto shut off?**  Yes  No

9. **Next Step**

Send quote

Contact me via email

Contact me via phone

**Name** \_\_\_\_\_

**Title** \_\_\_\_\_

**Company/Organization** \_\_\_\_\_

**Address** \_\_\_\_\_

**City** \_\_\_\_\_

**State** \_\_\_\_\_

**Zip** \_\_\_\_\_

**Country** \_\_\_\_\_

**Email** \_\_\_\_\_

**Phone** \_\_\_\_\_

CENTRIFAN™ PE



KD Scientific is recognized world-wide for their technical expertise and high performance products with unmatched reliability.

KD Scientific is committed to delivering the highest level of customer satisfaction, as well as technical support for all their products.

## WORLDWIDE SALES AND SUPPORT

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*Specification subject to change at any time.*

5622-001-REV-A

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