Air Science®

PurairROTOVAP®

Rotary Evaporator Enclosure

- Provides Laboratory Safety While Using a Rotary Evaporator

P5-24-ROTO

Operator Particulate Vapor

ENERGY STAR PARTNER

CERTIFIED
ISO 9001:2015
ISO 14001:2015

INTRODUCTION

In the laboratory, a rotary evaporator (rotovap) is employed to remove volatile solvents or isolate components of reaction mixtures by evaporation. This may be done following a separation or extraction process. During rotary evaporation, the solvent is removed under vacuum and is subsequently trapped by the condenser and collected.

Although a rotovap is designed to condense and collect evaporated solvents, the possibility exists for small amounts of volatiles to escape the apparatus, posing potential risks of chemical fume exposure, explosion or implosion. These applications warrant additional protection for laboratory personnel by placing the unit in a fume hood or enclosure, minimizing potential risks associated with inhalation of noxious fumes and guarding against injury from exploding or imploding glassware. Since safety is critical to a successful laboratory outcome, ensuring the correct equipment is in use is vital to that success.

These units provide containment for the rotovap while permitting operator access and visibility of the enclosed operation. From customizable Rotovap Enclosures to affordable ductless fume hoods, Air Science protects your personnel during rotary evaporation procedures.

SAFETY CONSIDERATIONS

Use of a rotovap in a fume hood or enclosure minimizes the risk associated with hazardous fume inhalation and protects from injury resulting from exploding or imploding glassware. Necessary personal protective equipment includes lab coats, eye protection, close-toed shoes and appropriate gloves.

- Processes using solvents generating noxious vapors that may escape the unit should be conducted in a fume hood or enclosure.
- Explosion may occur when using chemicals or mixtures that can be explosive under certain conditions, creating the risk of the operator or others in the area being injured by projectile glass or chemical exposure. A fume hood with the sash lowered serves to reduce the risk of injuries.
- Implosion can occur if glassware being utilized carries an undetected deformity, causing failure once it is placed under vacuum pressure, resulting in the potential for injury. Operation in a fume hood provides operator protection, particularly when maintaining a lowered sash during applications.
- When performing a high temperature evaporation process requiring the use of a heated oil bath, setting up under a fume hood makes the process less likely to be disturbed or pose a burn injury risk to others in the area.
- In order to facilitate operation of a rotary evaporator under a fume hood, a diagonal set up is preferred since a vertical condenser may be too tall to fit in the fume hood.

KEY BENEFITS

- The ductless Rotovap Custom Enclosure offers increased internal height.
- Features a spacious interior, customizable for a larger rotovap apparatus with a taller condenser column.
- Horizontal sliding or hinged door(s) provide greater access to the interior.
- Built-in air slots allow bypass when doors are closed, maximizing operator safety and process accessibility.

P5-24-ROTO-DUCT shown with 4" duct collar for connecting to in-house ventilation system

Get a Quote.

MODEL	VOLTAGE	DIMENSIONS			WEIGHT (LBS/KG)	
		Internal Height	External (W × D × H)	Shipping (W × D × H)	Net	Ship
P5-24-ROTO	120V, 60Hz	39" / 990.6 mm	38" × 24" × 50" / 965.2 × 609.6 × 1270 mm	50" × 40" × 48" / 1270 × 1016 × 1219.2 mm	250 / 113.4	300 / 136.1
P5-24-ROTO-DUCT	230V, 50Hz	39" / 990.6 mm	38" × 24" × 44" / 965.2 × 609.6 × 1117.6 mm	50" × 40" × 48" / 1270 × 1016 × 1219.2 mm	180 / 81.6	230 / 104.3

PRODUCT SPECIFICATIONS

Construction	
Finish	White epoxy coated steel frame and head unit. Clear sides and back panel.
Blower	EC blower.
Controls	Main On/Off.
Monitoring	Filter blockage alarm, standard.
Spill Tray	Black Polypropylene
Efficiency	
Power Consumption* 120V, 60Hz	30 watt
Power Consumption* 230V, 50Hz	30 watt
Lighting	LED

** Watts at calibrated airflow setpoint with GP Filter(s) and prefilter installed.*

OPTIONS & ACCESSORIES

Safety Filter*	An additional carbon, HEPA or ULPA safety filter exceeding ANSI/AIHA Z9.5 requirements can be installed after the main filter.	Safety filters for vapor or particulate protection are available for all models Contact Air Science for ordering information.
Dwyer Airflow Meter	Continuous display of face velocity.	DWYER
Base Stand, Mobile, With Casters	Mobile base stand, fixed height, with locking casters.	CART-40
Bottom Shelf	Provides a lower storage shelf for mobile base stand.	CART-40-SHELF
Filter Saturation Alarm*	Electronic gas sensor that alerts the user when the filter becomes saturated and airflow is compromised.	FSA

**Factory installed; specify when ordering.*

FILTER SUMMARY*

Formula	Description
GP Plus!	The most widely used filter in the range, primarily for solvent, organic and alcohol removal.

** Other formulas may be available.*

MULTIPLEX FILTRATION SYSTEM, SUMMARY

Application	Chemical	Powder/ Biological	Chemical & Powder	Chemical within Cleanroom
Secondary/ Stacked Filter, Optional	C	H	C	H
Primary Filter	C	H	H	C
Pre-Filter	P	P	P	P

The system can be configured for the capture of acids, bases and particulates, such as biological aerosols, when paired with HEPA or ULPA filters.

FILTER SPECIFICATIONS

Primary Filter*	(1)
Pre-Filter*	(1)

** For specific examples refer to Multiplex filtration system summary.*

Through our partner company Filtco Filters, Air Science is a single source supplier of all pre-filters, carbon filters and HEPA/ULPA filters used in our products.

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1) *Energy consumption disclosure is based on internal testing with primary filters during normal operation. Power consumption published is nominal and dependent on cabinet size.*

WARRANTY

This product is protected by the Air Science Legacy Limited Lifetime Warranty™.

For details visit the Warranty section of our website.

STANDARDS & COMPLIANCE

Quality Management Systems	ISO 9001: 2015
Electrical Safety	UL-C-61010-1 CAN/CSA C22.2 61010-1-12 EN 61010-1:2010 CE Mark
OSHA, Occupational Safety and Health Administration	OSHA Standard -29 CFR, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood. This product may assist you with compliance or as part of your chemical hygiene plan. Please consult your Safety Officer and/or Industrial Hygienist.
Environment	ISO 14001: 2015 ENERGY STAR® Partner

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