

# VACU-GUARD™

## vacuum protection filters

A family of VACU-GUARD devices to meet your specific needs

Protecting your employees, equipment and work area from harmful contaminants is more important than ever. For maximum safety, choose the Whatman VACU-GUARD family of products. These easy-to-use in-line filter devices help to confine and isolate infectious materials in vacuum systems and protect your laboratory.

### VACU-GUARD

#### Features and benefits

- **Excellent performance:** prevents fluid and aerosol contamination of vacuum pumps or aspiration suction systems while eliminating hazardous exhaust.
- **Flexible:** designed for use with 6–10 or 10–12 mm ID tubing.
- **Biosafe:** all materials pass USP Class VI Test for Plastics.



**Fig 1.** In-line disk filters protect vacuum systems and work areas from aqueous aerosols.

### Applications-VACU-GUARD

- Protects vacuum systems from pathogen contamination.
- Protection of work area from airborne pathogens and hazardous vacuum pump exhaust.
- Protects vacuum pumps from aerosol corrosion.

### VACU-GUARD 150

#### Features and benefits

- **Choice of media:** VACU-GUARD 150 capsule filters include all the features and benefits of standard VACU-GUARD disk filters, plus a range of media for specific applications.
- **Added back-up protection:** use as a backup between a cold trap and pump to protect against moisture and organic vapors if cold trap fails.



**Fig 2.** In-line capsule filters trap chemicals in addition to aqueous aerosols.

### Applications-VACU-GUARD 150

- Activated carbon removes organic vapors from air.
- Molecular sieve for removal of water and small organic and alkaline molecules from air streams.
- Desiccant for use with high velocity acidic air.



**Table 1. Typical data VACU-GUARD In-Line Disk Filter — 50 and 60 mm**

Filtration area	50 mm: 16 cm <sup>2</sup> 60 mm: 25 cm <sup>2</sup>		
Maximum operating pressure	50 and 60 mm: 1 bar (15 psi)		
Biosafety	All materials pass USP Class VI test for plastics		
Rated retention in air	99.99% particle retention for particles ≥ 0.1 mm		
Pore size (in liquid)	50 and 60 mm: 0.45 mm		
Materials of construction	Housing: Polypropylene	Filtration media: PTFE membrane	
Connectors	50 mm: 1/4 – 3/8" (6 – 10 mm) SB (stepped barb) inlet and outlet 60 mm: 3/8 – 1/2" (10 – 12 mm) SB inlet and outlet		
Flow rates (SLPM)		50 mm (SLPM)	60 mm (SLPM)
	2 psi (0.14 bar)*	15	27
	4 psi (0.28 bar)*	27	57
	6 psi (0.41 bar)*	38	83
	10 psi (0.69 bar)*	53	139
Flow direction	Inlet to outlet		

**Table 2. Typical data VACU-GUARD 150 In-Line Capsule Filter**

Product	VACU-GUARD 150 activated carbon	VACU-GUARD 150 desiccant	VACU-GUARD 150 molecular sieve
Chemical trap media	Activated carbon	Anhydrous calcium sulphate	Silico aluminato zeolite
Filter media	PTFE	PTFE	PTFE
Surface area or weight (nominal)	82000 m <sup>2</sup> (carbon)	318 g (desiccant)	363 g (zeolite)
Flow rates (SLPM) (nominal)			
0.1 bar (1.45 psi)*	210	280	250
0.5 bar (7.25 psi)*	450	600	570
Maximum operating pressure			
Dry gas	4 bar (60 psi)	4 bar (60 psi)	4 bar (60 psi)
Wet gas	1 bar (14 psi)	1 bar (14 psi)	1 bar (14 psi)
Connectors	Inlet: Hose barb for 1/2" (12.7 mm) tube Outlet: 3/8 – 1/2" (10 – 12 mm) step barb		

**\*Differential pressure**

Note: As with any chemical reaction, care should be used to determine the safety and usefulness of VACU-GUARD 150 products prior to routine use. For example, the molecular sieve rapidly heats up when exposed to water.

[www.gelifesciences.com/whatman](http://www.gelifesciences.com/whatman)

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**Table 3. Ordering information-VACU-GUARD**

Catalog number	Media	Diameter (mm)	Quantity/pack
6722-5000	PTFE	50	10
6722-5001	PTFE	60	10
6722-1001	Activated carbon/PTFE	—	1
6722-1002	Desiccant/PTFE	—	1
6722-1003	Molecular sieve/PTFE	—	1

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