VACU-GUARD vacuum protection filters

FILTRATION

Protecting your equipment from harmful contaminants is more important than ever. For maximum protection of equipment, choose the Whatman™ VACU-GUARD family of products. These easy-to-use in-line filter devices help to remove particulate contamination from vacuum lines and protect equipment.

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

Applications

- Protects vacuum pumps and systems from aerosols and particulate contamination

VACU-GUARD 150

Features and benefits

- **Choice of media:** VACU-GUARD 150 capsule filters include all the features and benefits of standard VACU-GUARD disc 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

Applications

- 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

Fig 1. In-line disc filters protect vacuum systems from aqueous aerosols.

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

	50 mm	**60 mm**
Filtration area	16 cm²	25 cm²
Maximum operating pressure	1 bar (15 psi)	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 µm	
Pore size (in liquid)	0.45 mm	0.45 mm
Housing	Polypropylene	Polypropylene
Filtration media	PTFE membrane	PTFE membrane
Connectors	1/4–3/8" (6–10 mm) SB (stepped barb) inlet and outlet	3/8–1/2" (10–12 mm) SB inlet and outlet
Flow rates (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	Inlet to outlet

* Differential pressure

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

	Activated carbon	Desiccant	Molecular sieve
Chemical trap media	Activated carbon	Anhydrous calcium sulphate	Silico aluminate zeolite
Filter media	PTFE	PTFE	PTFE
Surface area or weight (nominal)	82 000 m² (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.

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

Ordering information

Product	Quantity	Product code
VACU-GUARD, 50 mm disc	10	6722-5000
VACU-GUARD, 60 mm disc	10	6722-5001
VACU-GUARD 150, activated carbon	1	6722-1001
VACU-GUARD 150, desiccant	1	6722-1002
VACU-GUARD 150, molecular sieve	1	6722-1003

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CY17819-18Dec20-DF