

FILTER SELECTION DATA SHEET

SERVA-CELL® Gas Turbine Rigid Box Filter for Turbulent Conditions

Purolator Filtration Systems

Introduction

The SERVA-CELL Gas Turbine rigid box filter is designed for use in high-velocity or turbulent air flow conditions. Construction features offered by this durable filter include permanently mounted face grids upstream and downstream. This sturdy design allows for air flow up to 2500 CFM.

Purolator's SERVA-CELL Gas Turbine Filter is engineered to provide medium and high efficiency filtration combined with a prolonged life cycle. The rugged design and construction materials make the SERVA-CELL Gas Turbine Filter effective in challenging applications where high humidity, turbulent airflow, intermittent water exposure, and elevated operating temperatures are present.

A high surface area-to-depth ratio provides the maximum amount of effective filter media in areas of minimum in-line duct space. The result: A rigid, stable filter with consistent performance in a variety of operating conditions.

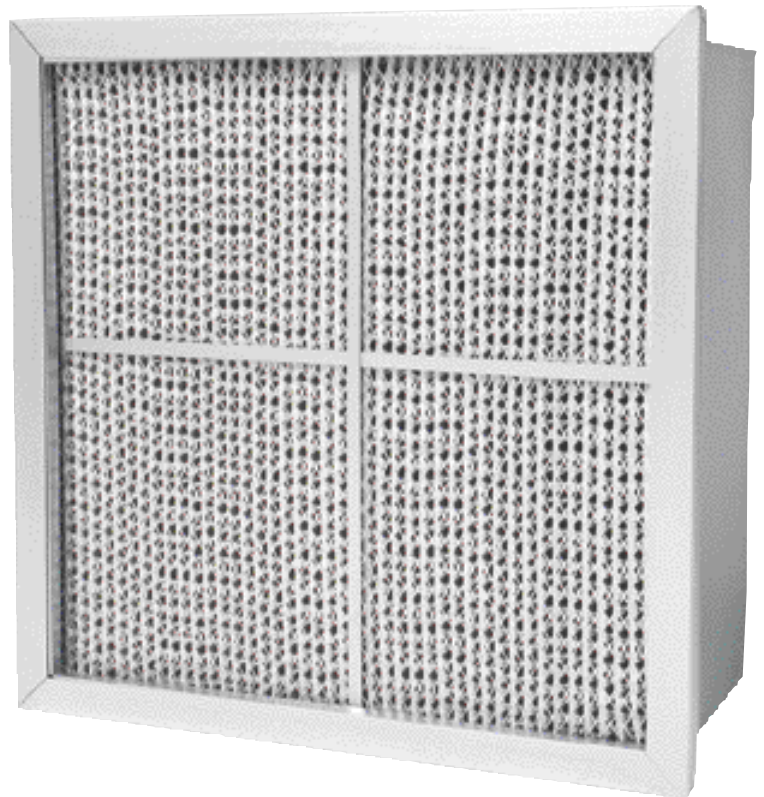
Media and Pleat Configurations

Each SERVA-CELL Gas Turbine Filter is constructed around a filter pack consisting of a continuous sheet of non-combustible, waterproof, microfiberglass media. The Gas Turbine filters utilize radi-edge, corrugated aluminum separators, which fully support the media while exposing its maximum surface area to airflow. The radi-edge configuration prevents the separators from puncturing the media.

Applications

SERVA-CELL Gas Turbine Filters are offered in two efficiencies, and in four standard sizes. They offer rugged construction, high performance, and economy of operation. Each unit has face guards, front and rear, to ensure the media pack's integrity in the event of severe surging or reverse air flow through the media. In addition, the face guards protect the media element during transportation, handling, and from airborne projectiles which may occur in the air stream.

SERVA-CELL Gas Turbine Filters are capable of withstanding 10" w.g. pressure drop without noticeable media-pack



deterioration and will operate to a final resistance of 2.5" w.g. They are especially suited for Variable-Air-Volume (VAV) or cycled HVAC systems because they are not prone to media rupture, collapse, or dirt unloading.

Frame Construction

Metal-framed SERVA-CELL Gas Turbine Filters are constructed from corrosion-resistant, galvanized steel. The media pack bonds to the four inner surfaces of the metal frame, thus preventing air bypass. For additional integrity, cross members are added to air entry and air exit sides. Depending on the intended application, both single header and double header options are available.

Suggested Product Specifications

1. The filter shall be the SERVA-CELL Gas Turbine as manufactured by Purolator Air Filtration.
2. Air filters shall be the rigid-cell air filter type engineered to provide medium and high efficiency filtration combined with a prolonged life cycle.
3. The filter media shall consist of a continuous sheet of non-combustible, waterproof, microfiberglass media pleated around radi-edge, corrugated aluminum separators. These separators shall fully support the media while exposing its maximum surface area to airflow.
4. The radial configuration shall keep the separators from puncturing the media.
5. The filter pack shall be enclosed in an all-metal, corrosion-resistant, galvanized steel casing protecting the filter from shipping damage and allowing it to withstand demanding service conditions.
6. The pack shall be bonded to four inner surfaces of the metal frame to secure it firmly in place and prevent air bypass.
7. The enclosure frame shall be constructed of corrosion resistant galvanized steel in such a manner as to produce a rigid durable filter.
8. The SERVA-CELL Gas Turbine Filter is constructed to withstand continuous operating temperatures of 250°F (121°C) and intermittent temperatures up to 300°F (149°C).

Performance data: SERVA-CELL Gas Turbine

Series	Nominal size W x H x D	Actual Size W x H x D*	SERVA-CELL GT Model number	Rated capacity CFM		Resistance in " w.g." inches			Media area/ Sq. ft.	Filter weight lbs.
				med.	high	med.	high	rec, final		
65	24x24x12	23 3/8 x 23 3/8 x 11 1/2	SLGT65 4412	2000	2500	0.46	0.7	2.5	114	22
	24x24x6	23 3/8 x 23 3/8 x 5 1/2	SLGT65 4406	2000	2500	0.28	0.35	2.5	53	12
95	24x24x12	23 3/8 x 23 3/8 x 11 1/2	SLGT95 4412	2000	2500	0.68	0.89	2.5	114	22
	24x24x6	23 3/8 x 23 3/8 x 5 1/2	SLGT95 4406	2000	2500	0.45	0.59	2.5	53	12

*GT=model tested at 2500 CFM @ 2.5" final pressure drop.

The following additional sizes are available: 20 x 20 x 5", 24 x 12 x 12"

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