Unidad Filtrante para Purificador de Vapor Sanitario P-GS

MAIN FEATURES & BENEFITS:



- **Excellent material resistance towards steam and aggressive media**
- **Regenerable by Back-flushing or ultrasonication**
- **High dirt holding capacity at low differential pressure and high flow rate**
- **Down to 1 µm for culinary steam**
- **For the filtration of air and steam**
- **Approved for Food Contact Use acc. to CFR Title 21 & 1935/2004/EC**

INDUSTRIES:



- **Dairy**



- **Food & Beverage**



- **Fermentation**



- **Pharmaceutical**



- **Chemical**

PRODUCT DESCRIPTION

The (P)-GS VE filter consists of a regenerable weldless filter pipe made from sintered stainless steel. The retention rate extends from 1 µm to 25 µm.

The (P)-GS VE filter retains contaminants, such as particles, abrasion of valves and sealings as well as rust. An improved steam quality ensures longer service life of the filters to be sterilized and increases the efficiency of the entire process. The (P)-GS VE filter element offers the possibility of a particularly economic filtration since the filter medium can be regenerated by ultrasonic bath or by back-flushing. This is especially essential at high particle loads. The porosity level is more than 50 % which ensures high particle and dirt holding as well as a good flow rate at a low differential pressure.

The heavy-duty construction of the (P)-GS VE filter is designed to withstand a maximum differential pressure up to 5 bar. The filter may also be used in a temperature range of –20 °C up to 210 °C.

Typical applications for (P)-GS VE filter elements include:

Steam Filtration

- Breweries
- Chemical industry
- Pharmaceutical industry
- Food and beverage
- Aseptic packaging
- Electronic industry
- Dairy industry
- Plastic industry

Liquid Filtration

- Water filtration
- Chemicals
- Solvents
- Pharmaceutical industry
- Food and beverage
- Syrup
- Cosmetics
- Paints
- Salt- and Seawater
- Coolants

Gas Filtration

- Compressed air
- Carbon dioxide
- Nitrogen
- Tank ventilation
- Highly aggressive gases

PRODUCT SPECIFICATIONS

Product Specifications	
Filtration Surface*	• **0.05 m² per 250 mm element (10/30)**
Temperature Range	• -50 °C (-60 °F) to 200 °C (400 °F) • Temperature Resistance of the O-Rings required
Maximum Differential Pressure (Flow Direction: Outside to Inside)	• 5 bar (75 psid), independent of the system pressure or temperature

Recommended Surface Loads relating to Filtration Surface:

Pore Size [µm]	Gases / Air	Liquids up to 3 cp viscosity	Saturated Steam [l/h] per 1 cm²		
	[l/h] per 1 cm²	[l/h] per 1 cm²	2 bar	4 bar	6 bar
1	60 - 200	1.5 - 5	120	80	55
5	60 - 200	1.5 - 5	140	90	65
25	60 - 200	1.5 - 5	180	110	80

* For other element sizes see correction factor CF in section “Available end cap configurations”

RETENTION RATES

Retention Rates (Air, 20 °C, 90 Nm3/h,10/30 Element)

Pore Size [µm]	98 % [µm]	100 % [µm]	Minimum Thickness
1	0.5	1.0	1.5 mm
5	1	5	2.0 mm
25	5	22	3.0 mm

Retention Rates (Steam, 121 °C, 90 kg/h, 10/30 Element)

Pore Size [µm]	98 % [µm]	100 % [µm]	Minimum Thickness
1	2	12	1.5 mm
5	6	15	2.0 mm
25	12	35	3.0 mm

Retention Rates (Water, 20 °C, 10/30 Element)

Pore Size [µm]	98 % [µm]	100 % [µm]	Minimum Thickness
1	2	12	1.5 mm
5	7	15	2.0 mm
25	12	35	3.0 mm

MATERIAL COMPLIANCE USA

All components of the (P)-GS VE filter element are FDA listed for food contact use in the **Code of Federal Regulations (CFR), Title 21**.

Filter Materials		CFR Title
Filter Matrix:	**Stainless Steel 1.4404**	**211.65**
End Caps:	Stainless Steel 1.4301	211.65
O-Rings:	EPDM	177.2600
Alternatively:	Silicone	177.2600
	PTFE over silicone	177.1550
	PTFE over viton	177.1550

All products have been inspected and released by Quality Assurance as having met the following requirements:

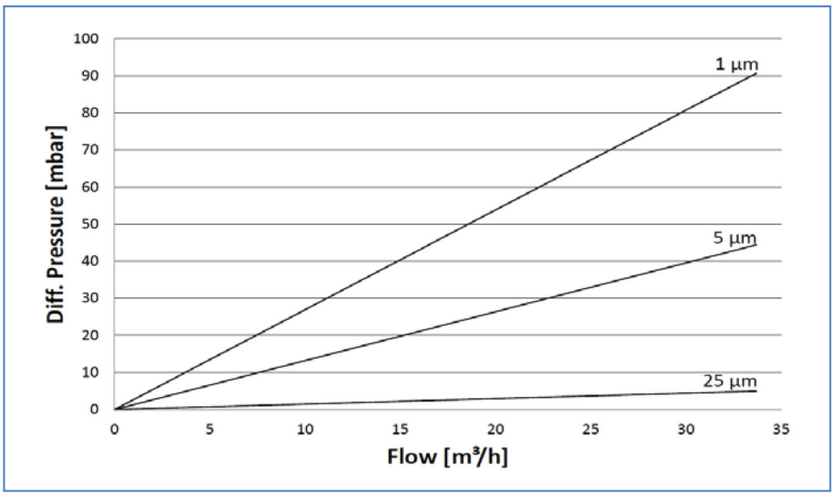
- All filters are fabricated without the use of binders, adhesives, additives or surface-active agents.
- All filter components based on plastics are non-toxic and are certified bio-safe in accordance with current USP Class VI Tests for Plastic.

MATERIAL COMPLIANCE EU

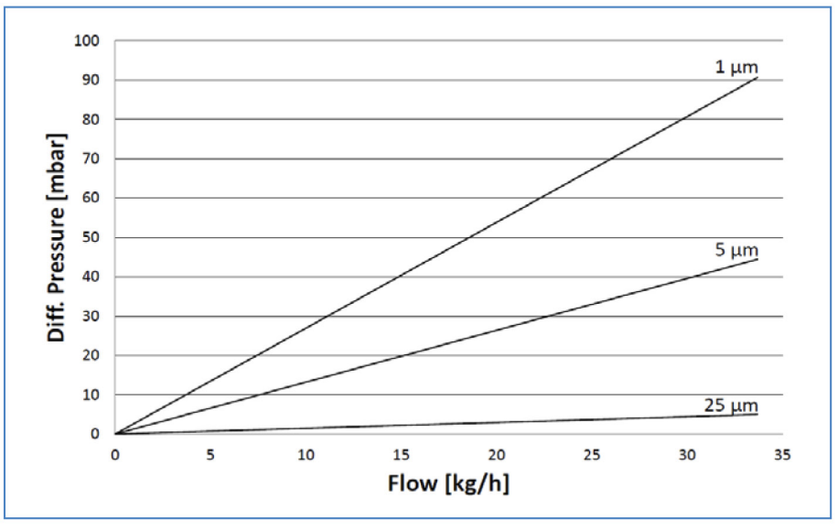
The Donaldson (P)-GS VE filter element meets the guideline for Food Contact Use as given in **European Regulation (EC) Number 1935/2004**. This specific element is suited for Food Contact Use since all components meet the requirements of the 1935/2004/EC for materials and products intended to come in contact with food stuff.

For specific details on the O-rings, please contact your Donaldson Sales Engineer.

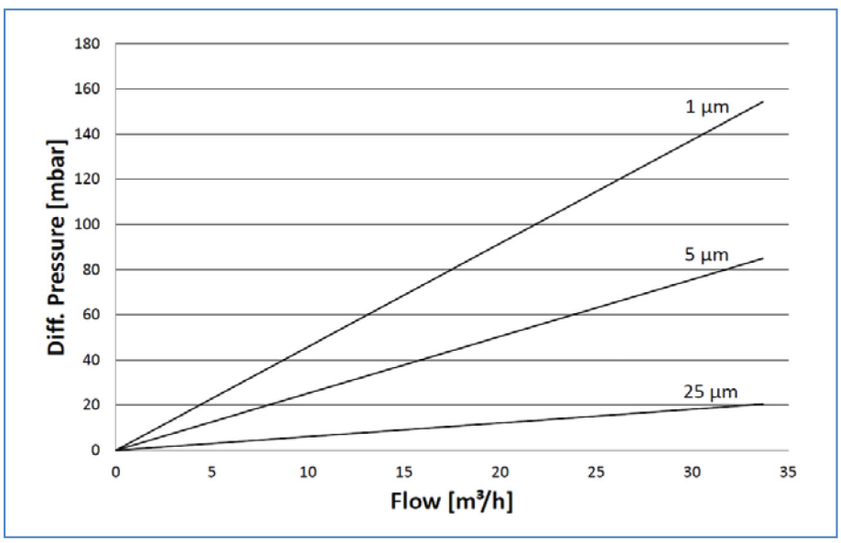
FLOW CHARACTERISTICS



(P)-GS VE, 10/30, air, 20 °C, 1 bar absolute



(P)-GS VE, 10/30, saturated steam, 121 °C, 2 bar absolute

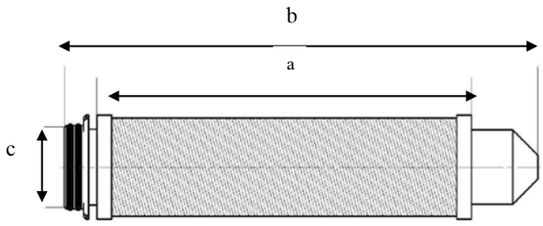


(P)-GS VE, 10/30, air, 20°C, 8 bar absolute

AVAILABLE END CAP CONFIGURATIONS

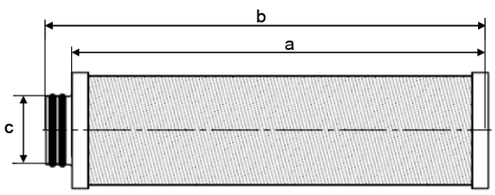
Dimensions (CODE 7 connection) :

CODE 7						
Size	a		b		c	
	mm	inch	mm	inch	mm	inch
10”	254	10.00	318	12.52	56.5	2.22
20”	498	19.61	562	22.13	56.5	2.22
30”	744	29.29	808	31.81	56.5	2.22



Dimensions (uf plug connection) :

uf – plug Connection							
Size	a		b		c*		CF**
	mm	inch	mm	inch	mm	inch	
03/10	76	2.99	87	3.42	30	1.18	0.12
04/10	104	4.09	118	4.64	30	1.18	0.17
04/20	104	4.09	118	4.64	37	1.46	0.19
05/20	128	5.04	142	5.59	37	1.46	0.25
05/25	128	5.04	142	5.59	37	1.46	0.32
07/25	180	7.08	194	7.64	37	1.46	0.47
05/30	128	5.04	144	5.67	61	2.40	0.46
07/30	180	7.08	196	7.71	61	2.40	0.68
10/30	254	10	270	10.63	61	2.40	1.00
15/30	381	15	397	15.63	61	2.40	1.55
20/30	510	20	526	20.63	61	2.40	2.10
30/30	764	30	780	30.63	61	2.40	3.28
30/50	764	30	780	30.63	89	3.50	5.89



* Plug-type connection with double o-ring

** Correction factor Filtration surface & Flow rate