

PROCESS FILTRATION

From Pure to Sterile

(P)- SRF



PRODUCT DESCRIPTION

The (P)-SRF filter is a wrapped depth filter with inner and outer guard and end caps made from stainless steel. The retention rate is $\geq 99.99998\%$ related to $\leq 0.2\mu\text{m}$.

The three-dimensional borosilicate depth media has a large void volume of 95 %.

This ensures a high dirt containment capacity at a low differential pressure and a high flow rate. The filter media is inherently hydrophobic.

The (P)-SRF was developed for the safe sterile filtration of compressed air and other process gases. The filter element fulfils the high requirements in food (breweries, dairies, soft drinks) and pharmaceutical industries and works reliably even under extreme operating conditions. Based on the micro fibre medium made of borosilicate, this depth type filter realizes high particle holding capacity and long service life.

The depth filter medium complies with the FDA requirements (Food and Drug Administration 21 CFR 211.72 latest edition) and EC/1935/2004 for indirect food contact use. The sturdy stainless-steel construction permits more than 100 possible sterilization cycles at specified conditions and withstands high differential pressures in both flow directions. (P)-SRF sterile filter elements ensure a safe and reproducible production.

MAIN FEATURES & BENEFITS

- Highly robust and mechanically stable
- Very durable design
- Integrity testable according to HIMA
- Thermal stability up to 200 °C
- Approved for food contact use acc. to CFR Title 21 & EC/1935/2004

INDUSTRIES



- Dairy



- Brewery



- Food Processing



- Pharmaceutical



- Chemical



- Packaging

QUALITY ASSURANCE

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

All sterile filters are integrity tested according to ASTM D 2986-91 and DIN EN 1822, to verify compliance with established quality and design specifications and to assure consistent and reliable performance.

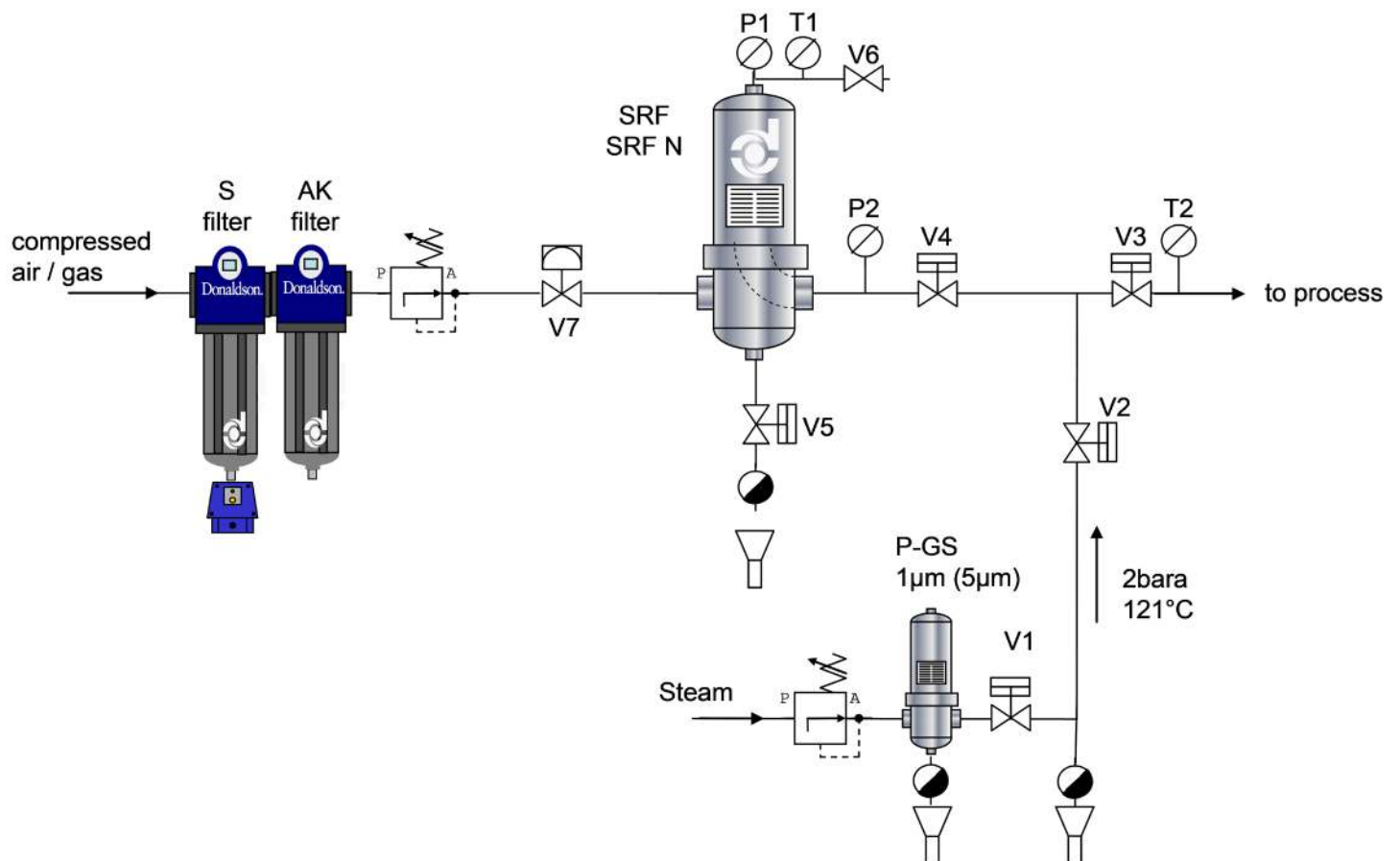
On request a Factory Test Certificate according to DIN EN 10204 is available.

PRODUCT SPECIFICATIONS

Features	Spezifikationen
Retention Rate:	$\geq 99.99998\%$ at $\leq 0.2\mu\text{m}$
Filtration Surface:	0.05 m ² per 250 mm element (10")
Temperature Range:	-20 °C (-4 °F) to 200 °C (400 °F) > 150 °C (300 °F) only for dry air
Maximum Differential Pressure:	5 bar (75 psid), independent of the system pressure or the flow direction
Typical Continuous Air Service Life time:	12 months
Typical Vent Service Life Time:	6 months
Cumulative Steaming Time*:	121 °C (250 °F), Saturated Steam: > 100 cycles (30 minutes)

* Figures are based on lab tests to evaluate steaming resistance. Filter elements need to be checked in actual use. Contact Donaldson for recommended Autoclaving/Steaming procedures.

SAMPLE INSTALLATION (REVERSE FLOW STERILISATION)



MATERIAL COMPLIANCE

All components of the (P)-SRF filter element are FDA listed for indirect food contact use in the Code of Federal Regulations (CFR), Title 21:

Filter Materials		CFR Title
Filter Matrix:	Borosilicate	177.2260
Upstream Support:	PTFE	177.1550
Downstream Support:	PTFE	177.1550
Outer Guard:	Stainless Steel 1.4301	211.65
Inner Guard:	Stainless Steel 1.4301	211.65
End Caps:	Stainless Steel 1.4301	211.65
Bonding Materials:	Silicone	177.2600
O-Rings:	Silicone	177.2600
Alternatively:	EPDM	177.2600
	PTFE over silicone	177.1550
	PTFE over viton	177.1550

APPLICATIONS

The wrapped sterile depth filter (P)-SRF is designed and developed for the following applications:

Filtration of air and gases

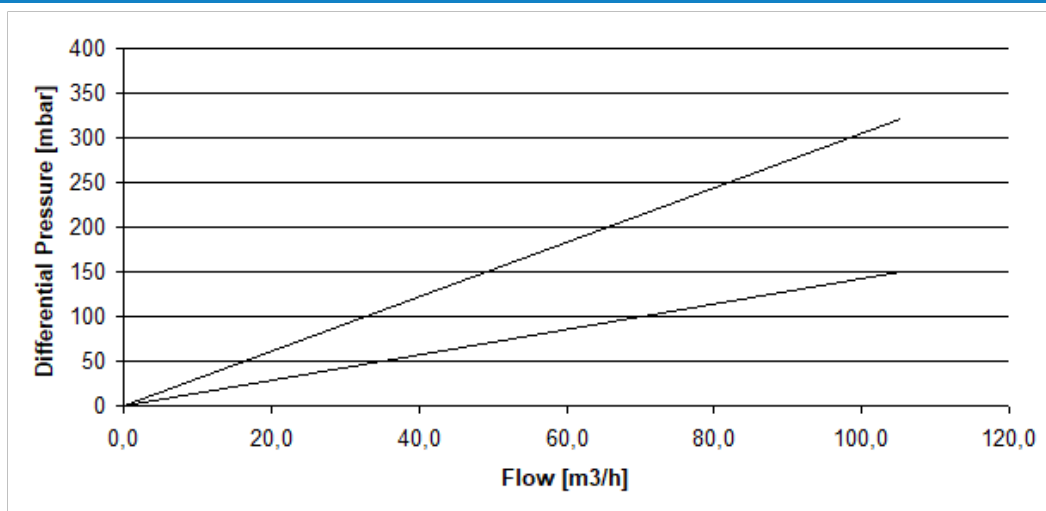
- Compressed Air
- Carbon Dioxide
- Fermentation Air
- Tank Ventilation
- Technical Gases

Application areas

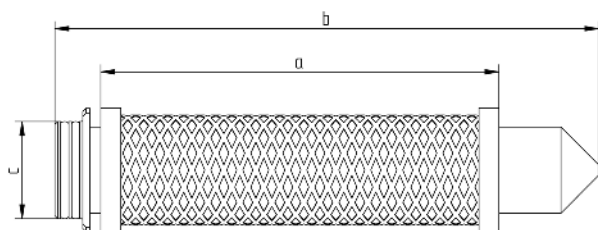
- Chemical industry
- Pharmaceutical industry
- Biotechnology
- Breweries
- Dairies
- Aseptic packaging
- Food industry
- Hospitals

FLOW CHARACTERISTICS

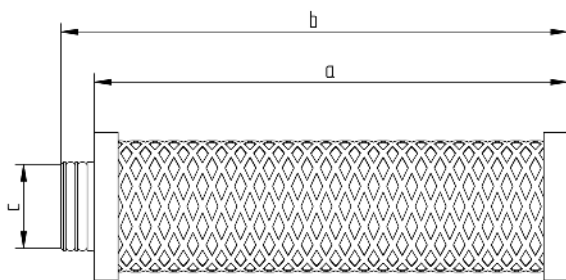
(P)-SRF, 10/30, air, 25 °C, 1 bar absolute & 8 bar absolute



AVAILABLE END CAP CONFIGURATIONS



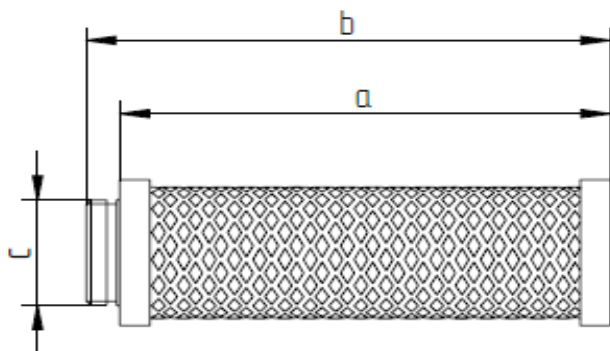
Dimensions (Code 7)						
Size	a		b		c	
	mm	inch	mm	inch	mm	inch
5"	125	4,92	190	7,48	56,5	2,22
10"	250	9,84	315	12,40	56,5	2,22
20"	500	19,68	585	22,24	56,5	2,22
30"	750	29,53	815	32,08	56,5	2,22



Dimensions (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



Size	Dimensions (thread connection)				
	a		b		c
	mm	inch	mm	inch	
2/1,5	66	2,598	76	2,992	1 1/2x1 1/16" m
3/1,5	76	2,992	86	3,386	1 1/2x1 1/16" m
4/14/2,5,5	103	4,055	127	5,000	G1"
5/2,5	127	5	151	5,945	G1"
5/3	127	5	149	5,866	G1"
10/3	254	10	276	10,866	G1"
15/3	381	15	407	16,024	G2"
20/3	508	20	537	21,142	G2"
30/3	762	30	788	31,024	G2"
30/5	762	30	782	30,787	G3"

OTHER END CAP CONFIGURATIONS ON REQUEST.

Integrity test of this element to be done by DOP Test.

For information on test equipment or test services, please contact your Donaldson Sales Engineer and visit our website at www.donaldson.com!



donaldson.com/process

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Minneapolis, MN

Contact us



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