ULTRAFILTER
THE FILTRATION MANUFACTURER

Largest
Scandinavia's Online Filtration Solutions

WATER TREATMENT
LIQUID
GAS
STERILE AIR & STEAM
AIR

ULTRAFILTER STERILE CATALOGUE

WWW.ULTRA-FILTER.COM

STERILE AIR & STEAM

Icon Guide

Material(s)
For filter elements this is describing the filter media.

Certificate(s)
FDA or PED? You find any certificate here.

Flow
Recommended max. flow unless otherwise described.

Surface Roughness
The roughness of the filter housing surface. Described in µm.

Dimensions
For filter elements this describes the length.

Filtration Rate
The micron rating of the filter element.

Inlet/Outlet Connection
Refer to the table if the filterhousing has various connection sizes.

Diameter
The cartridge diameter of filter elements.

Effectivity
Describes the retention of particles equal to the micron rating.

End Cap
See guides for overview of end caps.

Pressure
Recommended max. pressure unless otherwise described.

Differential Pressure
Recommended max. diff. pressure unless otherwise described.

O-ring Material
Describes the standard o-ring. We can supply different materials.

Temperature
Recommended max. temperature unless otherwise described.

Dew Point
Describes the achievable dew points.

ULTRAFILTER
THE FILTRATION MANUFACTURER

THE SCANDINAVIAN FILTRATION PARTNER

Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids, water and gas. We have stock in Denmark and from here we distribute all of our products to Scandinavia and the Baltic countries.

Ultrafilter Scandinavia is a part of the Ultrafilter Group. Production is in Germany and we have several subsidiaries in Europe.

From all locations, you can buy our products on local websites. Information about our products as well as brochures and manuals, can be found on our website. We can adapt all of our filtration products to your needs, and we offer visits from our consultants in order to find the right solution for you.

We have a huge selection of compressed air filters, that are compatible with compressed air systems of all brands. We also offer compressed air dryers, adsorption and membrane dryers in addition to auto drain compressors, compressed air tanks and oil-water separators. Additionally, we have sterile compressed air filters for the food and beverage applications.

We offer all kinds of filters for liquids such as bag filters, cartridge filters and membrane filters, with industrial applications, such as coolant. We have a great deal of experience with filter solutions for the food and beverage industry, and our products are approved by EC 1935/2004 as well as FDA. We also carry a selection of filters for drinking water.

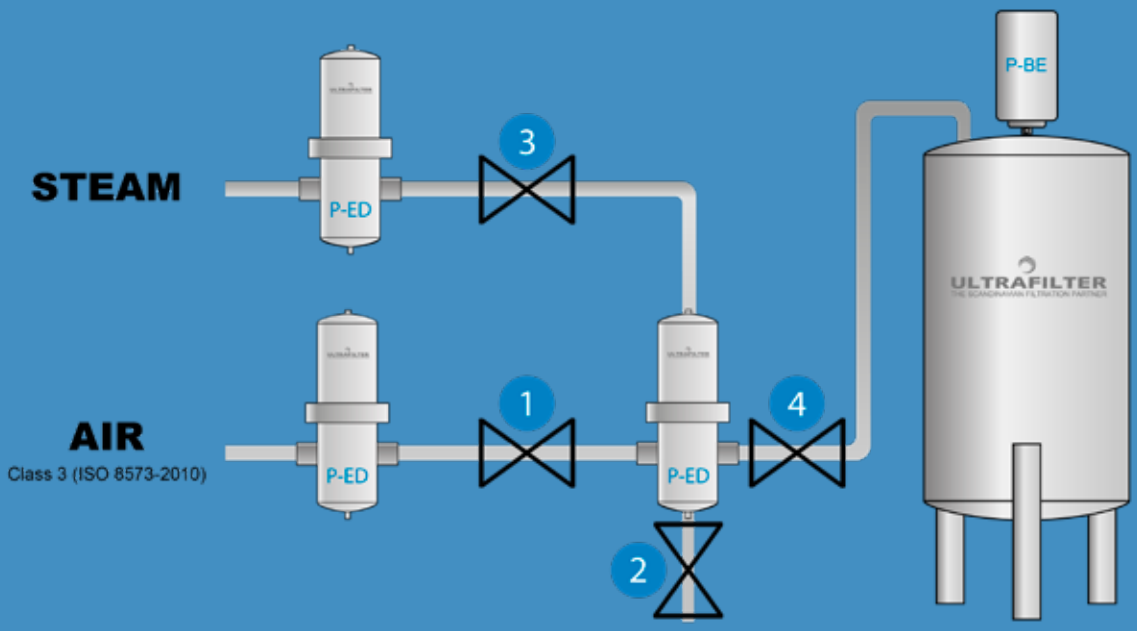
We have one of the best generators for manufacturing nitrogen and oxygen and for filtering all kinds of gas like methane and bio gas.

Ultrafilter Scandinavia has a wide selection of reverse osmosis-systems. Sizes that fits all types of companies.

Ultrafilter designs and manufactures components and systems for the purification of compressed air, technical gases water and liquids.

ISO 9001:2015

STERILE AIR & STEAM



PROCES AIR

Our sterile filters are all FDA CFR article 21 / EC 1935/2004 validated and approved. The word sterile means “Free of microorganisms that are capable of reproducing itself”.

A more scientific definition of sterile is that a filter is defined as “sterilizing filter”, when exposed to a concentration of 107 microorganisms (Brevundimonas diminuta) per. cm² filter area and the filtrate is 100% sterile and therefore not containing microorganisms, such as bacteria.

Coli and streptococci typically have a size between 0,3 microns and 9 microns, resulting in that the sterile filter has a filtration efficiency of 0,2 microns or better.

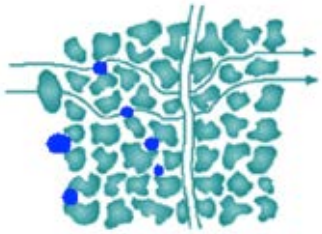
In sterile filtration of compressed air, there are differentiated between two types of filter: the depth filter (P-SRF) and membrane filter (PF-PT and PF-PP).

For the food industry, the recommended standard is a depth filter, and for use in the pharmaceutical, fine chemical or biotech industries, we recommend membrane filters. Both filters are optimally placed close to the point of use.

It is recommended to install a central desiccant dryer as well as a coalescing micro filter and activated carbon filter, to secure dry and oil-free compressed air at the sterile filters, thereby extending the life of the filter.

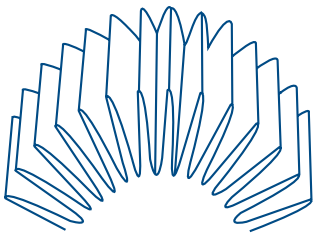
Depth Filter

A depth filter typically consists of multiple layers of metallic, polymeric or inorganic material - typically used a variety of silicon, called borosilicate. This type of filter is distinguished by a high filtration capacity and high degree of stability during use and sterilization. This type of filter is about 99.9999% effective compared to a give micron size.



Membrane Filter

A membrane filter is made of polymeric plastic film - typically polypropylene. These filters have less particle retention capacity, which is solved by pre-filtration. The membranes have a 100% retention rate and is available in several filtration degrees.



PROCESS FILTER HOUSING
P-EG

Technical Data

- SS304 or SS316L
- 200°C (250°C as option)
- EPDM seal (others on request)
- 0006-0192: 16 bar
  0288: 12 bar
  0432-1920: 10 bar
  25 bar on request
- PED

P-EG filter housings in stainless steel, designed for purification of compressed air and other technical gases.

With this filter you can achieve low differential pressure at high flow rates. P-EG Filter housings are available in 18 different sizes from 60 to 19200 Nm3/ hour.

The P-EG is our first-choice housing for most process air applications. Such as pre-filtration, sterile filtration and steam filtration.

BSP

ASA (weld)

DIN / ANSI

NPT

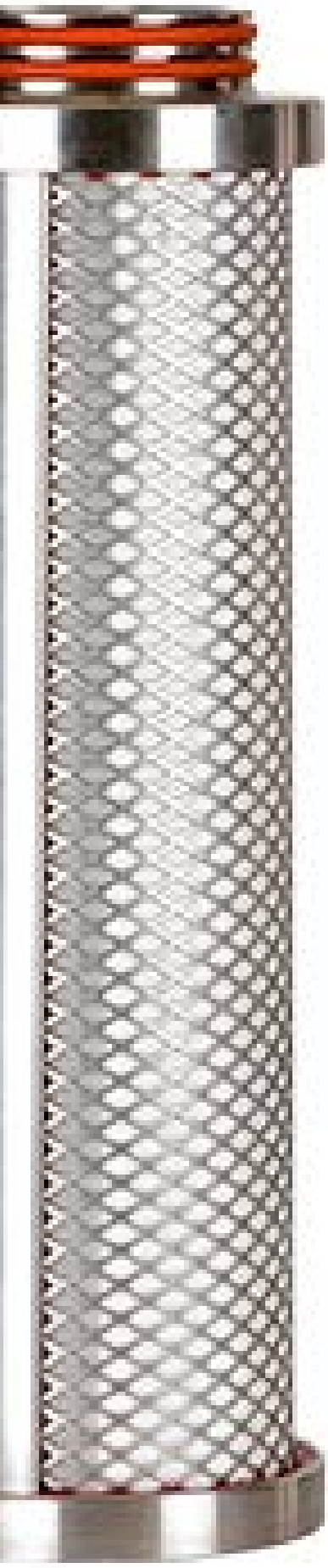
Model	Flow m³/h	Connection in/out			Filter Element	
		BSP	ASA	DIN	Size	Qty
P-EG 0006	60	R ¼"	DN10	DN10	03/10	1
P-EG 0009	90	R ⅜"	DN10	DN10	04/10	1
P-EG 0012	120	R ½"	DN15	DN15	04/20	1
P-EG 0018	180	R ¾"	DN20	DN20	05/20	1
P-EG 0027	270	R 1"	DN25	DN25	05/25	1
P-EG 0036	360	R 1¼"	DN32	DN32	07/25	1
P-EG 0048	480	R 1½"	DN40	DN40	07/30	1
P-EG 0072	720	R 2"	DN50	DN50	10/30	1
P-EG 0108	1080	R 2"	DN50	DN50	15/30	1
P-EG 0144	1440	R 2½"	DN65	DN65	20/30	1
P-EG 0192	1920	R 3"	DN80	DN80	30/30	1
P-EG 0288	2880	R 3"	DN80	DN80	30/50	1
P-EG 0432	4320	N/A	N/A	DN100	20/30	3
P-EG 0576	5760	N/A	N/A	DN100	30/30	3
P-EG 0768	7680	N/A	N/A	DN150	30/30	4
P-EG 1152	11520	N/A	N/A	DN150	30/30	6
P-EG 1536	15360	N/A	N/A	DN200	30/30	8
P-EG 1920	19200	N/A	N/A	DN200	30/30	10

Correction factor:

Operating pressure	bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	K1	0,25	0,36	0,5	0,6	0,75	0,9	1	1,1	1,2	1,4	1,5	1,6	1,75	1,9	2	2,1

STERILE DEPTH FILTER ELEMENT

P-SRF



Technical Data

- Borosilicate
- 0,2 µm
- 99,99998%
- -20°C to 200°C
- Stainless steel SS304 end caps
- Silicone (others available)

Bacterial retention: LRV > 7/cm² for T1 Coliphagen

Regeneration: 100 times

The P-SRF is a pleated depth filter with inner and outer guard end caps made of stainless steel. Consisting of a three-dimensional borosilicate depth media, the P-SRF achieves a void volume of 95%, ensuring a high containment capacity at high flow rates and low differential pressure. A retention rate of >99.99998% related to 0.2 µm is achieved during operation.

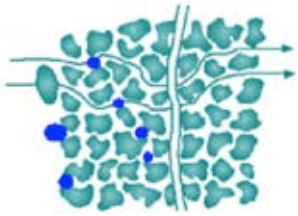
All components meet the FDA requirements for the contact with food in accordance with the CFR requirements (code of federal regulations) tilte 21.

Corresponds to cGMP requirements (current Good Manufacture Practice) and is manufactured according to DIN EN ISO 9001.

P-SRF has passed the toxicological test according to USP XX Class VU for plastics.

Depth Filter

A depth filter typically consists of multiple layers of metallic, polymeric or inorganic material - typically used a variety of silicon, called borosilicate. This type of filter is distinguished by a high filtration capacity and high degree of stability during use and sterilization. This type of filter is about 99.9999% effective compared to a give micron size.



PROCESS AIR PREFILTER ELEMENT

P-FF / P-MF / P-SMF / P-AK

Technical Data

- Binderfree nanofibres, Pleated cerex
- 0,01 µm
- 99,999% - 99,99999%
- -20°C to 80°C
- Max. 5 bar @ 20°C
- Stainless steel SS304 end caps
- Perbunan Gasket (others available)

All our standard coalescing, particulate and activated carbon filters are available as pre-filters for our stainless steel filter housings for critical installations.

Thanks to the unique combination of binder free, non-woven nanofiber filter media and our special pleating techniques, we can achieve a reduction of energy costs up to 70%, at a higher than regular efficiency.

The new nanofiber material from Ultrafilter is oleo phobic, which means that the oil and water particles are actively rejected in order to keep a low differential pressure drop, and consequently the operating costs are reduced to a minimum compared with a conventional filter element.

All metal components on the prefilter elements are made of stainless steel.

Type	Filtration rate	Effectivity	Residual oil content	Max. differential pressure
P-FF	0,01 µm	99,999%	0,1 mg/m³	5 bar at 20°C
P-MF	0,01 µm	99,99998%	0,03 mg/m³	5 bar at 20°C
P-SMF	0,01 µm	99,99999%	<0,01 mg/m³	5 bar at 20°C
P-AK	Activated Carbon	N/A	0,003 mg/m³	2 bar at 20°C

SANITARY AIR FILTER HOUSING

PS-AIR

PS-AIR stainless steels have been developed for the purification of compressed air and other technical gases in pharmaceutical, biotechnology and chemical industries.

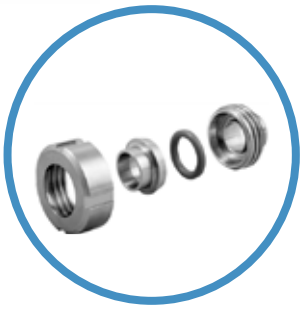
PS-AIR houses are “first choice” in critical applications in sterile filtration.

All PS-AIR filter housings to a certain size, have been etched and passivated on the inner surface to a quality of Ra 0,8. The outer surface has the same quality or better.

Technical Data

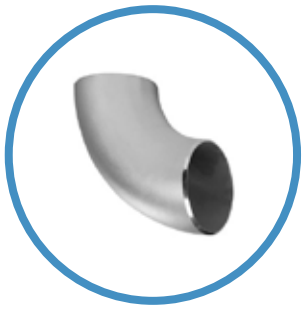
- 304 or 316L
- Ra 0,8 (0,4 optional)
- 200°C
- 0006-0192: 16 bar
  0432-1920: 10 bar
- Code Y (UF) or Code 7
- EPDM (others available)
- PED

Tri-clamp ASME



Dairy Union
DIN 11851

Flange EN1092-1



Weld End

Model	Flow m³/h	Connection (clamp)	Filter Element	
			Size	Qty
PS-AIR 0032	45	DN25	05/30	1
PS-AIR 0072	90	DN40	10/30	1
PS-AIR 0108	135	DN50	15/30	1
PS-AIR 0144	180	DN65	20/30	1
PS-AIR 0192	270	DN80	30/30	1
PS-AIR 0432	540	DN100	20/30	3
PS-AIR 0576	810	DN100	30/30	3
PS-AIR 0768	1080	DN150	30/30	4
PS-AIR 1152	1620	DN150	30/30	6
PS-AIR 1536	2160	DN200	30/30	8
PS-AIR 1920	2700	DN200	30/30	10

Correction factor:

Operating pressure	bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	K1	0,25	0,36	0,5	0,6	0,75	0,9	1	1,1	1,2	1,4	1,5	1,6	1,75	1,9	2	2,1

STERILE MEMBRANE FILTER

Ultra-Mem PTFE

Technical Data

- ePTFE and Polypropylene
- 0,02 µm, 0,1 µm, 0,2 µm or 0,45 µm
- 99,999999%
- -20°C to 80°C
- Max. 6 bar @ 20°C
- Code 7 (others available)
- Silicone (others available)

FDA CFR article 21/EC 1935/2004
Validated and Approved

For critical applications in sterile filtration, use of a hydrophobic PTFE membrane is recommended. Especially in applications such as pharmaceutical industry and biotechnology. PTFE membranes are also well suited for sterile steam applications.

For certain chemicals and applications, polypropylene membranes are available.

Membrane Filter

A membrane filter is made of polymeric plastic film - typically polypropylene, these filters have less particle retention capacity, which is solved by pre-filtration. The membranes have a 99,999999% retention rate and is available in several filtration degrees.

Maximum Differential Pressure

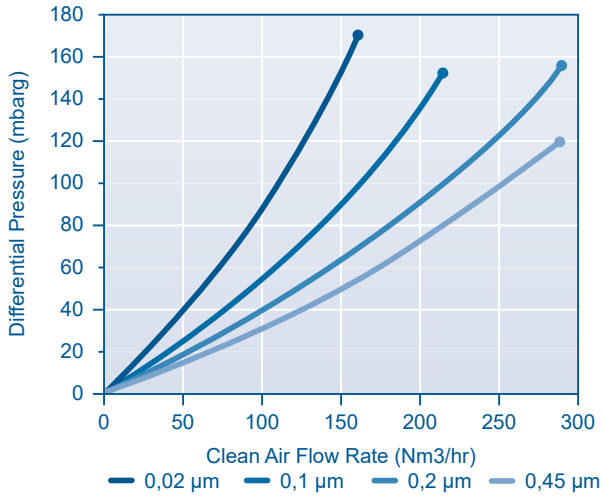
Normal flow direction at:

20°C (68°F):	6.0bar (87lb/in2)
80°C (176°F):	4.0bar (58lb/in2)
100°C (212°F):	3.0bar (43lb/in2)
120°C (248°F):	2.0bar (29lb/in2)
125°C (257°F):	1.5bar (22lb/in2)

Reverse flow direction at:

20°C (68°F):	2.1bar (30lb/in2)
80°C (176°F):	1.0bar (15lb/in2)
100°C (212°F):	0.5bar (7lb/in2)

Model	PTFE
Filtrationrates	0,02 to 0,45 µm
Material	ePTFE
Applications	
Sterile process gases	•
Fine chemicals and solvents	
Photoresists and developers	
Biotechnology	•
Powder handling and tabletting	•



FILTER HOUSING FOR STEAM

P-EG

Technical Data

- SS304 or SS316L
- Ra 1,2
- 200°C
- 0006-0192: 16 bar
  0288: 12 bar
  0432-1920: 10 bar
  25 bar on request
- EPDM seal (others available)
- PED

For our steam filters we use our P-ED filter housing with flange connections.

With this filter you can achieve low differential pressure at high flow rates. The Filter housings are available in 12 different sizes, in either 304 or 316 stainless steel.

For particularly high quality demands, we offer our sanitary filter housing PS-AIR for steam filtration.

Model	Flow (kg/h)			Connection DIN	Filter Housing	Element Size
	1 µm	5 µm	25 µm			
P-EG 0006	6	19	30	DN10	P-EG 0006	03/10
P-ED 0009	8	25	40	DN10	P-EG 0009	04/10
P-ED 0012	12	37	59	DN15	P-EG 0012	04/20
P-ED 0018	18	58	93	DN20	P-EG 0018	05/20
P-ED 0027	23	75	120	DN25	P-EG 0027	05/25
P-ED 0036	28	88	141	DN32	P-EG 0036	07/25
P-ED 0048	31	100	160	DN40	P-EG 0048	07/30
P-ED 0072	42	135	216	DN50	P-EG 0072	10/30
P-ED 0108	77	245	392	DN50	P-EG 0108	15/30
P-ED 0144	103	330	528	DN65	P-EG 0144	20/30
P-ED 0192	163	520	832	DN80	P-EG 0192	30/30
P-ED 0288	250	800	1280	DN80	P-EG 0288	30/50

Flow rate at 121°C saturated steam

Correction factor:

Operating pressure	bar	1	2	4	6	10
Saturated steam temp.	°C	100	121	140	160	180
Correction factor	K1	0,5	1	2	3	5

STEAM FILTER
P-GS

CODE7

UF

Technical Data

- Sintered steel SS316L
- 1 µm, 5 µm or 25 µm
- 98 (steam) / 100% (gasses)
- -20°C to 210°C
- Max. 5 bar
- Stainless steel SS304 end caps
  Code Y (UF), DOE or Code 7
- EPDM (others available)

The Ultrafilter P-GS filter is designed for removal of particles from gases, liquids and particularly steam.

The P-GS consists of a restorable weldless filter pipe made from sintered stainless steel. The filter is well suited for culinary steam – where contact with production machines and end product is needed.

The P-GS is suited for use in temperatures ranging from -20°C to 210°C and has a maximal differential pressure tolerance of 5 bar.

OPTIONS

Viton Seal

Fluoraz Seal

Silicone Seal

Welded End Caps

Applications	1 µm	5 µm	25 µm
Food Contact	•		
General use of steam		•	
Pre-filtration of steam			•

MESH FILTER CARTRIDGE

P-SM

Technical Data

- Stainless steel mesh 1.4301
- 5 - 250 µm
- Max. 5 bar.
- -20°C to 200°C
- 10" 20" 25" 30" 40"
- SS 1.4301
- EPDM (others available)

Pre and final filter with absolute retention rate for particle removal from ageous solutions, water and other liquids, as well as gases.

P-SM consists of a regenerable stainless steel mesh, with stainless steel outer guard and endcaps. The retention rate extends from 5 µm up to 250 µm.

Application

- Water filtration • Chemicals
- Solvents • Biological liquids
- Pharmaceutics • Cosmetics
- Oils • Coolants
- Food and Beverages
- Syrup
- Compressed

Dimensions

Element size	A (mm)	B (mm)	Ø C*	Ø D (mm)	CF
03/10	76	12	¾"	42	0,12
04/10	104	12	¾"	42	0,17
05/20	104	14	1"	52	0,19
05/25	128	14	1"	62	0,32
07/25	180	14	1"	62	0,47
05/30	128	16	2"	86	0,46
07/30	180	16	2"	86	0,68
10/30	254	16	2"	86	1,00
15/30	381	16	2"	86	1,55
20/30	508	16	2"	86	2,10
30/30	762	16	2"	86	3,28
30/50	762	16	2"	140	5,89

Specifications

Materials	
Filter media	SS Mesh 1.4301
Endcaps	SS 1.4301
Bonding material	Plastic Steel*
O-Rings	EPDM**

* > 150°C welded endcaps
** Silicone, Buna N, Viton, Aflas or Kalrez on request

Additional Data

Filtration surface	494 cm² per 10" element (10/30) (250mm)
Absolute retention rate	5µm, 25µm, 50µm, 100µm, 250µm
Max. diff. pressure	5 bar
Regeneration	Ultrasonic bath
Temperature range	-20°C to 200°C*

* > 150°C welded endcaps
> 200°C on request

STERILE TANK FILTER

P-BE

Technical Data

- Borosilicate, stainless steel housing
- 0,2 µm
- 99,999%
- -20°C to 200°C
- Stainless steel SS304 end caps
- Silicone (others available)

Regeneration: 100 times

P-BE filter are used to ensure 100% sterility in the storage vessels of pharmaceutical products, chemicals, food or of fermenters. The filter acts as sterile breather for the content of the airvessel. The P-BE is a depth filter and works both ways, and protects the surrounding area from exposure to the contents of the vessel.

The two-part housing is user-friendly designed and has a splash protection to prevent liquids coming in contact with the filter media.

The filter element can be sterilized for continuous use up to 100 times. Regeneration is done by in-line steam or externally in autoclave.

Model	Flow (m^3/h)		Connection*	Filter Element	
	Δp = 20 mbar	Δp = 40 mbar		Size	Qty
P-BE 0006	5	9	DN32	03/10	1
P-BE 0027	12	24	DN40	05/25	1
P-BE 0032	17	35	DN50	05/30	1
P-BE 0072	35	70	DN50	10/30	1
P-BE 0144	70	140	DN80	20/30	1
P-BE 0192	105	210	DN80	30/30	1
P-BE 0432	210	420	DN100	20/30	3
P-BE 0576	315	630	DN100	30/30	3
P-BE 0768	420	840	DN150	30/30	4
P-BE 1152	630	1260	DN150	30/30	6
P-BE 1536	840	1680	DN200	30/30	8
P-BE 1920	1050	2010	DN200	30/30	10

*Milk Pipe fitting acc. DIN 11851 or flange acc. DIN 2633

VENT FILTER PTFE

Ultra-Vent

Technical Data

- ePTFE and Polypropylene
- 0,1 µm or 0,2 µm
- 99,99998%
- 80°C
- Max. 6 bar @ 20°C
- ½" BSP male thread
- Silicone Gasket (others available)
- 2,5" or 5"

Our PTFE vent filter cartridges are manufactured using a highly hydrophobic ePTFE membrane and are designed for autoclave venting and small vessel venting. The enhanced ePTFE membrane offers exceptionally high gas flow rates at low pressure differentials.

The vent filter cartridges are designed with a ½" BSP male thread for autoclave and small vessel venting applications, and the hydrophobic characteristics of the ePTFE membrane makes the Vent filter cartridge particularly suitable for rapid vacuum breaks in autoclaves.

Model	Filtration Rate	Connection	Dimensions (mm)	
			Length	Diameter
Ultra-Vent 2,5"	0,2 µm	1/2"	64	70
Ultra-Vent 5,0"	0,2 µm	1/2"	127	70

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www.ultra-filter.com

Scan to visit our website

ABOUT US

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Ultrafilter Scandinavia is a part of the Ultrafilter group. Our production facility is in Germany and we have several subsidiaries in Europe.

You can buy our products on local websites. Information about our products as well as brochures and manuals can be found on our website (www.ultra-filter.com).

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