



Filtration | CLEARPOINT® STERILE- & VAPOUR FILTER

One housing for two filters: An impressive system for pure compressed air according to food standards

Sterile compressed air

More and more industrial applications require germ-free compressed air. Alongside the higher retention efficiency for bacteria, viruses and micro-organisms, the other most important factor is to achieve high flow rate with lower pressure differences.

The CLEARPOINT® sterile filters fulfil these requirements and are internationally approved for indirect contact with food according to FDA CFR Title 21 and 1935/2004/EC. The high-grade, flow-optimised stainless steel housing, combined with hydrophobic depth medium ensures the highest possible process safety.

In order to ensure that the sterile filter remains sterile, it must be sterilised at regular intervals with saturated steam.

BEKO TECHNOLOGIES therefore provides the CLEARPOINT® vapour filter as a solution.

Cleaning and sterilising with steam

Applying saturated steam is a common method for sterilising the filter elements. Even resistant bacteria such as *Bacillus Thermophilus* can be killed off at temperatures above 141°C. The vapour filter thereby extends the service life of the sterile filter elements. It reliably retains contamination and impurities from the steam system (rust from pipes or abrasion from valves) upstream of the sterile filter. The vapour filters in the 1µm version are also suitable for culinary steam and therefore applicable for direct food contact e.g. in the ultra-high heating of milk. The welded filter element end caps enable the user to decide whether the regeneration / cleaning of the vapour filter elements will be executed by means of backwashing or ultrasonic bath.

- › **Suitable for indirect food contact: All components comply with FDA CFR Title 21 & EC/1935/2004**
- › **Hygienic, high-grade stainless steel**
- › **Polished external surface area**
- › **Lower pressure difference, also with higher through flow rates**
- › **Plug-in connector for secure seating for the filter element**
- › **Variable connections: by using flange, thread and welded on**
- › **Connection for condensate drain and venting valve**
- › **12 different installation sizes**

Sterile filter

› Robust design for harsh working conditions

› Complies with cGMP requirements

› High dirt collection capacities with lower pressure differences

› Can be utilised up to 180 °C (356 °F)

› Support cylinders and end caps made of stainless steel 1.4301

› Maximum separation performance, also with minimum work load

› Germ-free hygiene at the highest level

› For indirect food contact according to FDA CFR Title 21 and EC/1935/2004

› Separation percentage $\geq 99.99998\%$ in relation to $\leq 0.2\mu\text{m}$

› Suitable for constant through flow and counter flow sterilisation and VPHP

› Integrity test according to HIMA

› Up to 100 sterilisation cycles are possible

Food processing



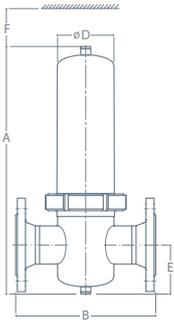
Beverages production



Dairies



CLEARPOINT®-PIF

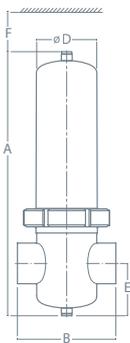


Model:	PIF60	PIF90	PIF120	PIF180	PIF270	PIF360
Connection	DN 10	DN 10	DN 20	DN 20	DN 25	DN 32
max. pressure (bar)	16	16	16	16	16	16
Dimensions in mm						
A	215	243	243	267	293	345
B ± 3	180	180	180	202	212	220
ØD	70	70	70	70	85	85
E	52	52	52	52	71	71
F	90	120	120	150	150	200
Filter element optional						
Sterile filter element	FE60SR	FE90SR	FE120SR	FE180SR	FE270SR	FE360SR
Vapour filter element	FE60STX1 FE60STX5 FE60STX25	FE90STX1 FE90STX5 FE90STX25	FE120STX1 FE120STX5 FE120STX25	FE180STX1 FE180STX5 FE180STX25	FE270STX1 FE270STX5 FE270STX25	FE360STX1 FE360STX5 FE360STX25

Housing and attachments made of stainless steel 1.4301; external surface texture pickled, passivated and polished Ra <1.6

* without filter element

CLEARPOINT®-PIT | PIW



Model:	PIT60	PIT90	PIT120	PIT180	PIT270	PIT360
Connection	G 1/4	G 3/8	G 1/2	G 3/4	G 1	G 1 1/4
max. pressure (bar)	16	16	16	16	16	16
Dimensions in mm						
A	215	243	243	267	293	345
B ± 3	105 / 108	105 / 108	108	125	125 / 135	140
ØD	70	70	70	70	85	85
E	52	52	52	52	71	71
F	90	120	120	150	150	200
Filter element optional						
Sterile filter element	FE60SR	FE90SR	FE120SR	FE180SR	FE270SR	FE360SR
Vapour filter element	FE60STX1 FE60STX5 FE60STX25	FE90STX1 FE90STX5 FE90STX25	FE120STX1 FE120STX5 FE120STX25	FE180STX1 FE180STX5 FE180STX25	FE270STX1 FE270STX5 FE270STX25	FE360STX1 FE360STX5 FE360STX25

Housing and attachments made of stainless steel 1.4301; external surface texture pickled, passivated and polished Ra <1.6

* without filter element

CLEARPOINT®-FE ... SR



Model:	FE60SR	FE90SR	FE120SR	FE180SR	FE270SR	FE360SR
Max. Volume flow 8 bar [abs.] (m³/h)**	60	90	120	180	270	360
Dimensions in mm						
A	76	104	104	128	128	180
B	12	12	14	14	14	14
ØC	3/4"	3/4"	1"	1"	1"	1"
ØD	42	42	52	52	62	62

Borosilicate filter medium, support cylinders and end caps made of stainless steel 1.4301

** at +20 °C and 1 bar [abs.]

CLEARPOINT®-FE ... ST



Model:	FE60ST			FE90ST			FE120ST			FE180ST			FE270ST			FE360ST		
	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25
Filter fineness in µm	1	5	25	1	5	25	1	5	25	1	5	25	1	5	25	1	5	25
Maximum steam flow 2 bar [abs.] (kg/h)	≤6	≤15	≤15	≤9	≤18	≤18	≤11	≤27	≤27	≤15	≤45	≤45	≤15	≤45	≤45	≤27	≤87	≤128
Dimensions in mm																		
A	76			104			104			128			128			180		
B	12			12			14			14			14			14		
ØC	3/4"			3/4"			1"			1"			1"			1"		
ØD	42			42			52			52			62			62		

Filter medium sintered stainless-steel filter tube 1.4404 and end caps made of stainless steel 1.4301

Filter housing* with flange connection

Model:	PIF480	PIF720	PIF1080	PIF1440	PIF1920	PIF2880
Connection	DN 40	DN 50	DN 50	DN 65	DN 80	DN 80
max. pressure (bar)	16	16	16	16	16	12
Dimensions in mm						
A	387	461	588	734	996	1025
B ± 3	254	260	260	290	300	340
D	104	104	104	129	129	154
E	94	94	94	104	108	115
F	200	280	450	580	850	850
Filter element optional						
Sterile filter element	FE480SR	FE720SR	FE1080SR	FE1440SR	FE1920SR	FE2880SR
Vapour filter element	FE480STX1 FE480STX5 FE480STX25	FE720STX1 FE720STX5 FE720STX25	FE1080STX1 FE1080STX5 FE1080STX25	FE1440STX1 FE1440STX5 FE1440STX25	FE1920STX1 FE1920STX5 FE1920STX25	FE2880STX1 FE2880STX5 FE2880STX25

Filter housing* with thread | welded on

Model:	PIT480	PIT720	PIT1080	PIT1440	PIT1920	PIT2880
Connection	G 1 1/2	G 2	G 2	G 2 1/2	G 3	G 3
Model:	PIW480	PIW720	PIW1080	PIW1440	PIW1920	PIW2880
Connection	48.3 / DN 40	60.3 / DN 50	60.3 / DN 50	76.1 / DN 65	88.9 / DN 80	88.9 / DN 80
max. pressure (bar)	16	16	16	16	16	12
Dimensions in mm						
A	387	461	588	734	996	1025
B ± 3	170	170	170	216 / 200	216 / 200	240
∅D	104	104	104	129	129	154
E	94	94	94	104	108	115
F	200	280	450	580	850	850
Filter element optional						
Sterile filter element	FE480SR	FE720SR	FE1080SR	FE1440SR	FE1920SR	FE2880SR
Vapour filter element	FE480STX1 FE480STX5 FE480STX25	FE720STX1 FE720STX5 FE720STX25	FE1080STX1 FE1080STX5 FE1080STX25	FE1440STX1 FE1440STX5 FE1440STX25	FE1920STX1 FE1920STX5 FE1920STX25	FE2880STX1 FE2880STX5 FE2880STX25

Sterile filter element

Model:	FE480SR	FE720SR	FE1080SR	FE1440SR	FE1920SR	FE2880SR										
Maximum volume flow 8 bar [abs.] (m³/h)**	480	720	1080	1440	1920	2880										
Dimensions in mm																
A	180	254	381	508	762	762										
B	16	16	16	16	16	16										
∅C	2"	2"	2"	2"	2"	3"										
∅D	86	86	86	86	86	140										
bar [abs.]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	0.13	0.25	0.36	0.5	0.6	0.75	0.9	1	1.12	1.25	1.37	1.5	1.62	1.75	1.87	2

Steam filter element

Model:	FE480ST			FE720ST			FE1080ST			FE1440ST			FE1920ST			FE2880ST		
	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25	X1	X5	X25
Filter fineness in µm	1	5	25	1	5	25	1	5	25	1	5	25	1	5	25	1	5	25
Max. steam flow 2 bar [abs.] (kg/h)	26	87	175	26	87	175	88	260	272	119	365	450	119	365	450	320	640	640
Dimensions in mm																		
A	180			254			381			508			762			762		
B	16			16			16			16			16			16		
∅C	2"			2"			2"			2"			2"			2"		
∅D	86			86			86			86			86			140		
bar [abs.]	1	2	3	4	5	6	7	8										
Correction factor	0.5	1	1.5	2	2.5	3	3.5	4										

Vapour filter

› Porosity degree > 50%

› Double O-ring made of EPDM

› Welded on stainless steel end caps for highest possible stability

› Can be utilised up to 180 °C (356 °F)

› Bursting pressure 10 bar (at 20 °C)

› Seamless filter pipe made of sintered stainless steel

› Increased vapour quality extends the service life duration for the filter to be sterilised

› Safely retains contamination and impurities such as rust, particles and abrasion

› For indirect food contact according to FDA CFR Title 21 and EC/1935/2004

› Higher through-flow percentages with lower pressure difference

› Can be regenerated with back flushing and ultrasound

› Also suitable for culinary vapour or steam (1 µm)

Chemical industry

Pharmaceutical industry



A safe system for your compressed air's purity

› Filter housing

- › All components comply with FDA CFR Title 21 & EC/1935/2004
- › Hygienic, high-grade stainless steel
- › Connection for condensate drain and venting valve
- › Polished external surface area



Even lower pressure loss by utilising optimal flow guidance



Filter housing also available with threaded or welded on fittings

› Sterile filter element

- › Robust design for harsh working conditions
- › Complies with cGMP requirements
- › High dirt collection capacities with lower pressure differences
- › Can be utilised up to 180 °C (356 °F)
- › Support cylinders and end caps made of stainless steel 1.4301
- › Maximum separation performance, also with minimum work load

› Vapour filter element

- › Porosity degree > 50%
- › Double O-ring made of EPDM
- › Welded on stainless steel end caps for highest possible stability
- › Can be utilised up to 180 °C (356 °F)
- › Bursting pressure 10 bar (at 20 °C)
- › Seamless filter pipe made of sintered stainless steel

Do you have questions about the best way of processing your compressed air?

We have the answers! We offer efficient solutions for any type of processing chain. Please contact us with your queries. We would be delighted to tell you more about our condensate

treatment, filtration, drying, measuring and process technology, and our comprehensive services.

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