ULTRAFILTER
THE FILTRATION MANUFACTURER

THE SCANDINAVIAN FILTRATION PARTNER

TOTAL FILTRATION MANAGEMENT 2018

WWW.ULTRA-FILTER.COM

AIR

LIQUID

GAS

DRINKING WATER

GUIDES

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
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Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids 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 and the United States.

In all countries, 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 also offer on going service on our products once they are installed.

We have many different kinds 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 a sterile compressed air filter for food and beverage applications.

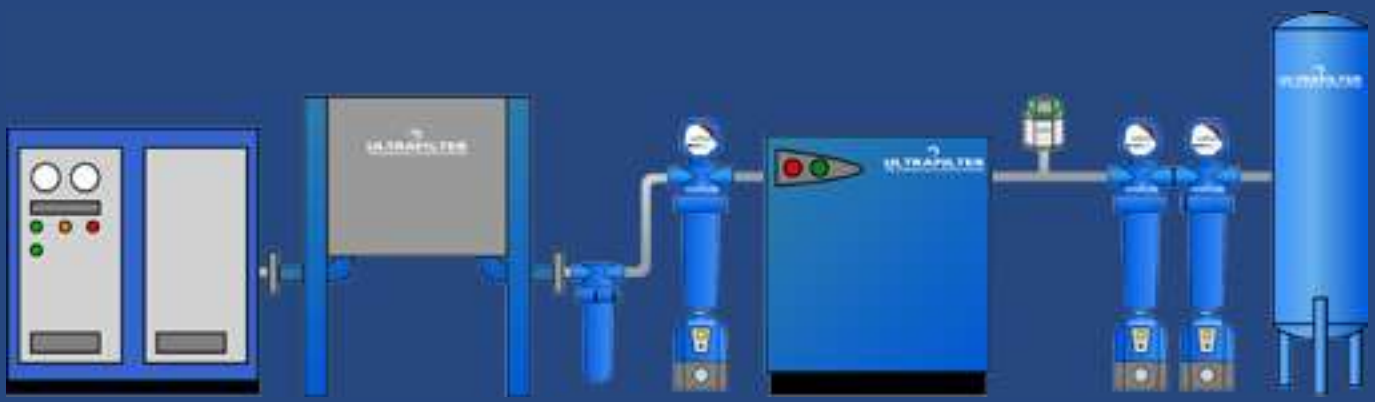
We offer all kinds of filters for liquids such as bag filters, absolute filters and membrane filters, with industrial applications, such as coolant. We have a great deal of experience with filter solutions for the food and beverage industry, and our products are approved by EC 1935/2004 as well as FDA. We also have 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 design and manufacture components and systems for the purification of compressed air, technical gases and liquids.

ISO 9001:2015

AIR

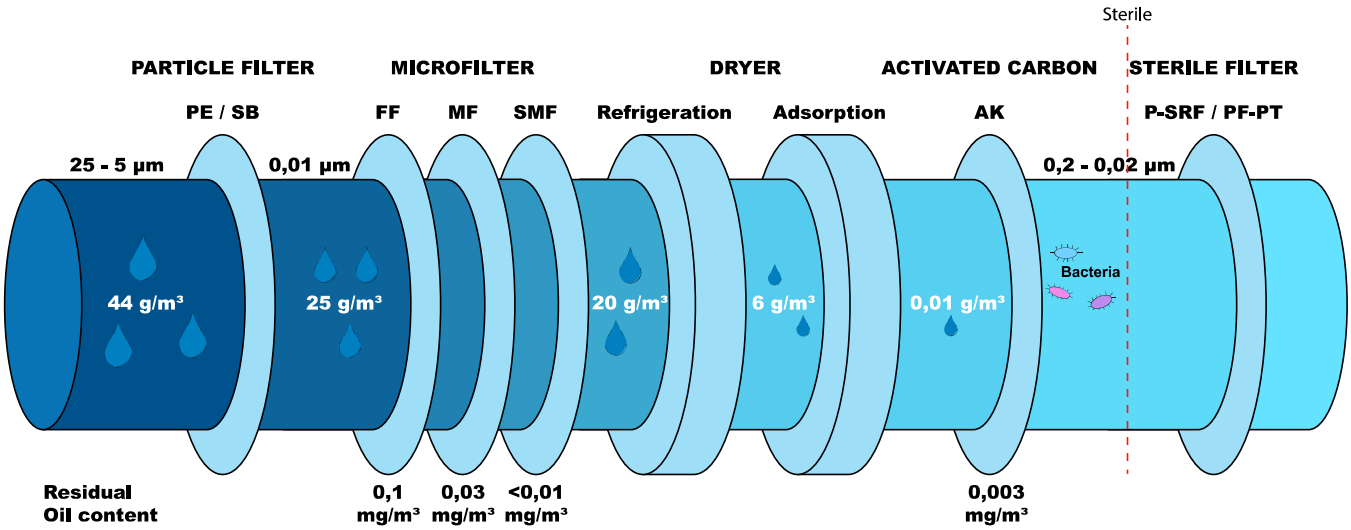


COMPRESSED AIR

Compressed air contains water, oil and particles, therefore it is a good idea to filter your compressed air before it is used in production, the quality of the compressed air depends on how and where you need to use it. Ultrafilter offers all types of compressed air and technical gas filtration.

At Ultrafilter we have extensive experience with compressed air and compressed air filters. We stand ready to draw on this experience, if you need advice and guidance in connection with compressed air. We help you find the air filter to suit your compressed air system, and which comply with industry and customer requirements.

To achieve compressed air of high quality we need to remove the oil, water and particles from the air. On the illustration below you can see how the different filters affects the compressed air.



ISO 8573-2010

We use ISO 8573-2010 as a reference when choosing compressed air filters, and to find out to which level it is necessary to clean the air. ISO 8563-2010 contains particles class, water class and oil class. When refering to an ISO class, the classes are written in that order.

As an example: ISO class 2.4.1

Class	Particles pr. m³			Dew Point	Residual Oil Content
	0,1 - 0,5 µm	0,5 - 1 µm	1 - 5 µm		
1	≤ 20.000	≤ 400	≤ 10	-70°C	≤ 0,01 mg/m³
2	≤ 400.000	≤ 6.000	≤ 100	-40°C	≤ 0,1 mg/m³
3		≤ 90.000	≤ 1.000	-20°C	≤ 1 mg/m³
4			≤ 10.000	+3°C	≤ 5 mg/m³
5			≤ 100.000	+7°C	
6				+10°C	

Application	Particle Class	Water Class	Oil Class
General automatic	2-5	3-4	2
Blown air	5	5	2
Laser cutting	1	1-2	1
Paints	1	2-3	1
Machines with automation	2-3	2-3	1-2
Surface	1-3	3-4	1
Sandblasting	3-5	3-5	4
Breathing air	1	3	1
Process Industry			
Automatic (cylinders, solenoid valves)	1-5	3-4	1-3
General compressed air	3-5	4-5	2
Measurement & control engineering	1	2-4	1
Process air	1-3	2-3	1
Blasting / powder transport	1-3	2-4	1
Food Industry			
Automatic (cylinders, solenoid valves)	1-3	3-4	1-2
Wrappers	1-3	3-4	1-2
Tapping columns	1-3	3-4	1-2
Air tools in the production room	1-3	3-4	1-2
Ait tools in workshop	4-5	4-5	4

AIR-COOLED AFTERCOOLER

UA-AIR

Technical Data

- Max. 16 bar (2400 & 3000 12 bar)
- Max. 200°C
- Steel and aluminium
- 72 - 3000 m³/h
- 400V / 3Ph / 50 Hz
  230V / 1Ph / 50 Hz (0072)

The aftercoolers in the UA-AIR series use ambient air to cool the output compressed air at the compressor at an output temperature of only 10°C higher than the ambient temperature. This cooling causes condensation of up to 80% of the moisture in the compressed air. The condensate is then gathered and discharged in the cyclone, installed at the aftercooler outlet.

The aftercoolers are made up from a heat exchanger a with finned coil, cooled by a high-efficiency axial fan mounted on a galvanized and painted sheet structure.

Level Controlled Drain

Zero Loss Drain

Model	Flow @ 7 bar m³/h	Connection	
		In	Out
UA-AIR 0072	72	¾"	½"
UA-AIR 0216	216	1¼"	1¼"
UA-AIR 0510	510	2"	2"
UA-AIR 1200	1200	2½"	2½"
UA-AIR 2500	2500	3"	3"
UA-AIR 3000	3000	DN100	DN100

Based on specific operation conditions. For accurate dimensioning contact Ultrafilter.

WATER-COOLED AFTERCOOLER

UA-WATER

Technical Data

- 10 or 16 bar
- Max. 200°C
- Steel
- 90 - 7500 m³/h
- PED

Aftercoolers from the UA-water series allow the efficient purification of compressed air by cooling the air at the outlet of the compressor at an outlet temperature of only 10°C higher than that of the inlet process water. This cooling causes condensation of up to 80% of the moisture present in the compressed air, which can be separated out of the air by the cyclone installed at the outlet of the cooler.

UA-Water has a robust design suited to the extreme conditions of typically industrial tasks;

Carbon steel vessel with copper tubes, which can also be used for seawater.

Level Controlled Drain

Zero Loss Drain

Model	Flow m³/h	Connection	
		In	Out
UA-WATER 0090	90	1”	½”
UA-WATER 0162	162	1½”	1”
UA-WATER 0445	445	2”	2”
UA-WATER 0630	630	2”	2”
UA-WATER 0990	990	2½”	2½”
UA-WATER 1620	1620	DN80	DN80
UA-WATER 2700	2700	DN125	DN125
UA-WATER 3420	3420	DN150	DN150
UA-WATER 4800	4800	DN200	DN150
UA-WATER 6180	6180	DN200	DN200
UA-WATER 7500	7500	DN250	DN200

Based on specific operation conditions. For accurate dimensioning contact Ultrafilter.

COMPRESSED AIR FILTER
AG

AG standard filter housings are designed for the purification of compressed air and gases in an industrial operation. This product series offers 14 different housings ranging from a volume flow of 20 m³/h to 2880 m³/h (related to 1 bar and 20°C). We offer you 10 years working guarantee.

The housings are made out of three parts and due to an optimised construction, offer low differential pressures at high flow rates and as a standard equipped with a manometer and a float type drain. Other drains and accesories available.

Technical Data

- Aluminium
- 16 bar
- 65°C
- Perbunan Gasket
- PED

Features & Benefits

BSP or NPT Connection

Low differential pressure (>50mbar)

Element compatibility:

SB, PE, FF, MF, SMF, AK & AKK

ACCESORIES FOR AG FILTER

Manometer

Float Drain

Level Controlled Drain

Timer Drain

Model	Flow m³/h	Connection in/out	Filter Element
AG 0002	20	¼”	02/05
AG 0004	40	⅜”	03/05
AG 0006	60	⅜”	03/10
AG 0009	90	½”	04/10
AG 0012	120	½”	04/20
AG 0018	180	¾”	05/20
AG 0027	270	1”	05/25
AG 0036	360	1 ¼”	07/25
AG 0048	480	1 ½”	07/30
AG 0072	720	2”	10/30
AG 0108	1080	2”	15/30
AG 0144	1440	2 ½”	20/30
AG 0192	1920	3”	30/30
AG 0288	2880	3”	30/50

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

FILTER HOUSING WITH FLANGES

SG

SG filter housing series with bottom opening for easy maintenance and exchange of filter elements. For higher filtration efficiency with Ultrafilter “High Performance” filter elements.

The SG filter housing offer minimal pressure loss due to improved flow technology and we guarantee the filter a long life thanks to the resin coating and the automatically controlled, level sensing float drain.

The SG filter housing comes with flange connections from DN50 to DN300.

Max. operating pressure: 16 bar.

Technical Data

- Steel
- 16 bar (25 bar option)
- 120°C
- Perbunan Gasket
- PED

Features & Benefits

Flange DN / ANSI Connection

Low differential pressure (>50mbar)

Element compatibility:

SB, PE, FF, MF, SMF, AK & AKK

ACCESORIES FOR SG FILTER

Manometer

Zero Loss Drain

Level Controlled Drain

Timer Drain

Model	Flow m³/h	Connection in/out	Filter Element	
			Size	Qty
SG 0108	1080	DN 50	15/30	1
SG 0144	1440	DN 65	20/30	1
SG 0192	1920	DN 80	30/30	1
SG 0288	2880	DN 80	30/50	1
SG 0432	4320	DN 100	20/30	3
SG 0576	5760	DN 100	30/30	3
SG 0768	7680	DN 150	30/30	4
SG 1152	11520	DN 150	30/30	6
SG 1536	15360	DN 200	30/30	8
SG 1920	19200	DN 200	30/30	10
SG 2304	23040	DN 250	30/30	12
SG 3072	30720	DN 250	30/30	16
SG 3840	38400	DN 300	30/30	20

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

HIGH PRESSURE FILTER HOUSING

HD

Technical Data

- Aluminium or carbon steel
- 25, 40, 64, 100, 250 or 400 bar
- -10 to +80°C
- Perbunan Gasket
- PED

Element compatibility:
SB, PE, FF, MF, SMF, AK & AKK

The Ultrafilter HD high pressure filter housings are designed for the purification of compressed air and gases.

Due to the modular design of the housings different filter elements can be used.

A multitude of housings with different connections, allow to match the requirements of the application, e. g. the compressor size. This product series offers 8 different housings ranging from a volume flow of 30 m3/h to 720 m3/h, in the pressure stages PN 25 to PN 400 (related to 7 bar (ü) and 20°C).

Timer Drain Optional

Model	Flow @ 7 bar m³/h	Connection in/out	Pressure PN	Filter Element
HD 0003	30	¼"	25-400	03/05
HD 0006	60	⅜"	25-400	03/10
HD 0012	120	½"	25-400	04/20
HD 0018	180	¾"	25-400	05/20
HD 0027	270	1"	25-400	05/25
HD 0036	360	1¼"	25-400	07/25
HD 0048	480	1½"	25-400	07/30
HD 0072	720	2"	25-400	10/30

Correction factor:

Operating pressure	bar	7	25	40	64	100	250	400
Correction factor	K1	1	3	5	8	12	12	12

PREFILTER ELEMENTS

SB / PE

Technical Data
PE: Polyethylene. SB: Stainless Steel
PE: 25 µm. SB: 1, 5 or 25 µm
99%
-20°C to +80°C (PE) or +120°C (SB)
Max. 2 bar @ 20°C
Aluminium end caps
Perbunan Gaskets

Ultrafilter offers filter elements for most compressed air applications. These high quality filter elements are made with the finest pleating technology and aluminum endcaps. Unique to the industry with their extremely low differential pressure.

PE elements are made of a sintered polyethylene filter media and guarantee absolute retention rates. By using various filtration mechanisms – such as direct impact and sieve effect – contaminants down to the size of 25 µm are being retained.

The SB is a prefilter, developed for retention of particles and liquids out of compressed air. The sintered stainless steel filtration material assures high thermal durability.

Ultrafilter offers filter elements for most compressed air applications. These high quality filter elements are made with the finest pleating technology and aluminum endcaps. Unique to the industry with their extremely low differential pressure.

RECOMMENDED FILTER HOUSINGS

Aluminium Housing
AG

Steel Housing
SG

High Pressure Housing
HD

MICROFILTER ELEMENTS

FF / MF / SMF

Ultrafilter offers filter elements for most compressed air applications. These high quality filter elements are made with the finest pleating technology and aluminum endcaps. Unique to the industry with their extremely low differential pressure.

The FF/MF/SMF filter elements are made with a pleated oleophobic filter media that rejects oil and water.

Advanced pleating techniques mixed with nano technology, makes our “High Performance” filters much more effective than a standard filter, as the pleating provides a 450% larger filtration surface per square inch. The special pleating also secures a much larger particle retention capacity.

The benefits of using this type of filter is low differential pressure, up to 70% lower energy costs and improved efficiency of filtration.

Technical Data

- Borosilicate, cerex and polyurethane
- 0,01 µm
- 99%
- 80°C (available up to 180°C)
- Max. 5 bar @ 20°C
- Aluminium end caps
- Perbunan Gaskets

Features & Benefits

Low differential pressure entire lifetime

RECOMMENDED FILTER HOUSINGS

Aluminium Housing AG

Steel Housing SG

High Pressure Housing HD

Type	Filtration rate	Effectivity	Residual oil content	Start-up differential pressure
FF	0,01 µm	99,999%	0,1 mg/m³	0,04 bar
MF	0,01 µm	99,99998%	0,03 mg/m³	0,08 bar
SMF	0,01 µm	99,99999%	<0,01 mg/m³	0,09 bar

ACTIVATED CARBON ELEMENTS

AK / AKK

AKK

AK

Technical Data

- Activated Carbon and Borosilicate
- 10 - 40°C
- Max. 2 bar @ 20°C
- Aluminium end caps
- Perbunan Gaskets

Residual oil content: < 0,003 mg/m³

Lifetime: 1000-2000 hours (AK)
2000-4000 hours (AKK)

Ultrafilter offers filter elements for most compressed air applications. These high quality filter elements are made with the finest pleating technology and aluminum endcaps. Unique to the industry with their extremely low differential pressure.

The AK filter elements consist of a two-stage filtration. All particles are kept in a nanofiber depth filter media, while the activated carbon adsorbs all oil vapors and gaseous hydrocarbons.

Ultrafilter offers filter elements for most compressed air applications. These high quality filter elements are made with the finest pleating technology and aluminum endcaps. Unique to the industry with their extremely low differential pressure.

RECOMMENDED FILTER HOUSINGS

Aluminium Housing
AG

Steel Housing
SG

High Pressure Housing
HD

ALTERNATIVE ELEMENTS

Our series of cross over elements makes it possible to use our high quality filters in filter housings from different manufactures. We are mostly using the same pleating mixed with nano technology in all the cross over elements we offer.

Domnick Hunter Evolution

Domnick Hunter Oil-X

Hiross

Atlas Copco

Zander

Hankison

Deltech

Walker

Donaldson

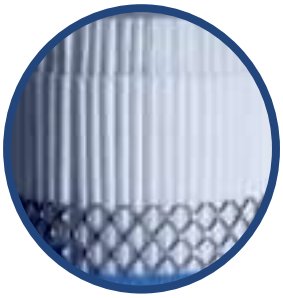
Kaeser

Stenhøj

BEKO

BY REQUEST ALSO

Compair
Ceccato
Ingersoll Rand
ALUP
ALMiG
Pneumatech
Chicago Pneumatic
MARK
BOGE



PLEATED MEDIA TECHNOLOGY

ALTERNATIVE ELEMENTS

	Prefilter	Prefilter	Microfilter	Submicrofilter	Activated Carbon
ISO Class (8573-2010)	6	3	2	1	1*
Ultrafilter	PE	FF	MF	SMF	AK
Domnick Hunter Evolution	-	AR, AO	AAR	AA	ACS
Domnick Hunter Oil-X	-	AO	AA	AX	AC, ACS
Hiross	Q	P	S	-	C
Atlas Copco	-	DD	PD	-	QD
Zander	V	Z	Y	X	A
Hankison	E9	E7	E5	E3	E1
Donaldson	PE	FF	MF	SMF	AK
Deltech	-	DFD	PFD	HFD	CFD
Walker	X25, X5	X1	XA	-	AC
CompAir	-	B+E	C+F	-	D
Ceccato	-	P	G	C	V
Kaeser	E-B	E-C	E-E	E-F	E-G
Stenhøj	PE	FF	MF	SMF	AK
ALUP	-	P	G	C	V
ALMiG	AFP	AFM	AFS	-	AFC
Pneumatech	-	P	G	C	V
Chicago Pneumatic	-	P	G	C	V
BEKO	G	F	S	-	A
MARK	-	P	G	C	V
BOGE	V	-	FP	-	A

Type	Particle Filtration rate	Efficiency	Residual oil content	Max. differential pressure
PE	25 µm	99%	N/A	2 bar at 20°C
SB	25 µm	99%	N/A	2 bar at 20°C
FF	0,01 µm	99,999%	0,1 mg/m³	5 bar at 20°C
MF	0,01 µm	99,99998%	0,03 mg/m³	5 bar at 20°C
SMF	0,01 µm	99,99999%	<0,01 mg/m³	5 bar at 20°C
AK	Activated Carbon	N/A	0,003 mg/m³	2 bar at 20°C

ACTIVATED CARBON TOWER

Ultra-Sorp AKC

The activated carbon adsorber is designed to ensure oil- and odourfree compressed air.

Compressed air is lead through an activated carbon bed and ensures a residual oil content of < 0,003 ppm.

The residual oil ontent depends on the inlet conditions. A residual oil content of < 0,003 ppm is related to an operating pressure of 7 bar (g), 35°C inlet temperature, and pre-dried compressed air with a dewpoint of -40°C, as well as a prefiltration of particles < 0,03 mg/m3.

Technical Data

- 4 to 16 bar
- Max. 50°C
- 50 - 9500 m³/h

Features & Benefits

Operating lifetime: 8000 hours

Residual oil content: < 0,003 ppm

Model	Flow m³/h	Connection in/out	Dimensions (mm)		
			Height	Width	Depth
AKC 0050	50	¾“	320	350	1200
AKC 0080	80	¾”	320	350	1550
AKC 0100	100	1”	320	350	1500
AKC 0150	150	1”	440	450	1850
AKC 0175	175	1”	440	450	1760
AKC 0225	225	1½”	440	450	1760
AKC 0300	300	1½”	440	450	1750
AKC 0375	375	1½”	550	600	2050
AKC 0550	550	2”	550	600	2000
AKC 0650	650	2”	550	600	2010
AKC 0850	850	2”	750	600	2020
AKC 1000	1000	2”	750	600	2060

Correction factor:

Operating pressure	bar	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	K1	0,63	0,75	0,88	1,00	1,10	1,20	1,35	1,44	1,50	1,60	1,75	1,86	2,00

Inlet temperature	°C	35	40	45	50
Correction factor	K2	0,80	1,00	1,25	1,50

MEASURING INSTRUMENTS

Ultrafilter has a wide range of measuring equipment for compressed air. The range includes dew point sensors, flow sensors, leakage detectors as well as oil vapour sensors and laser particle counters.

DEW POINT SENSORS

UF220
-100°C to 0°C

UF201
-60°C to +20°C

UF212
-50°C to +20°C

UF215
-20°C to +50°C

FLOW SENSORS

UF400
Insertion Type

UF420
Inline Type

AIR QUALITY

Oil Vapour
Sensor

Laser Particle
Counter

OIL / WATER SEPARATOR

Ultra-Sep

Technical Data

ABS or PE

LGA 5361301-01

Features & Benefits

Up to 12 m³/min compressor capacity

3-stage filtersystem

Compact design

The production of compressed air always generates condensate water too. The amount of condensate depends of the size and the number of operating hours of the compressor and can easily range from 10 to 10.000-liter condensate per month. Such condensate water from oil-lubricated compressors may contain up to 2.000 mg oil per liter.

Environmental protection legislation already requires, or will soon require condensate water to be cleaned from oil before it is discharged into the public sewage system. In countries with such legislation for Water Resources Conservation, the limit-value is set at 20 mg oil per liter of condensate water.

If the condensate is not discharged oil-free, it must be collected and treated by an approved waste oil treatment company.

The Ultra-Sep removes the oil from condensate water on efficiently and reliably - by calming the water and utilising a series of coalescence- and activated carbon filters.

The condensate water is now so clean, that it can be discharged into the public sewage system. The oil is being collected in an oil-container and can be handled and disposed separately and safely.

Model	Compressor capacity		Connection	
	m³/min	kW	In	Out
Ultra-Sep 1	1,8	13,0	½" x3	1"
Ultra-Sep 2	2,5	15,0	½" x3	1"
Ultra-Sep 3	3,5	22,0	½" x3	1"
Ultra-Sep 6	6,0	37,0	½" x4	1"
Ultra-Sep 8	10,0	65,0	½" x4	1"
Ultra-Sep 10	12,0	75,0	½" x4	1"

ACTIVATED CARBON BAGS

Ultrafilter offers a complete range of oil/water separator maintenance kits for competitor oil/water separators.

Producer	Suitable for			
BEKO (BOGE)	Atlas Copco	Kaeser	Ecoair	Schneider
Öwamat 1/2	OSW 5/11	Aquamat 1/2	-	Owatec 10/40
Öwamat 3	-	Aquamat 3	TS 3	-
Öwamat 4	OSW 30	Aquamat 4	TS 4	Owatec 130
Öwamat 5	-	Aquamat 5	TS 15	-
Öwamat 5R	OSW 55	Aquamat 5R	-	Owatec 175
Öwamat 6	OSW 110	Aquamat 6	TS 16	Owatec 250
Öwamat 8	OSW 315	Aquamat 8	-	-
Öwamat 10	-	-	-	-
Öwamat 11	-	-	-	-
Öwamat 20	-	Aquamat 20	TS 60	-

Producer		Suitable for			
Wortmann	Zander	Wortmann/ Kaeser	Hankison		Zander
Drukomat 1/MINI	Ekolog 1/Mini		HS1	HS 60, 70, 120	Ecosep S1/MINI
Drokumat 2	Ekolog 2	WOI-II	HS2	HS 140-480	Ecosep S2
Drukomat 4	Ekolog 4	WOI-II	HS3	HS 140-900	Ecosep S4
Drukomat 8	Ekolog 8	WOI-II	HS4	HS 140-900	Ecosep S8
Drukomat 15	Ekolog 15	WOI-II*	HS5*	HS 140-900*	Ecosep S15
Drukomat 30	Ekolog 30	WOIII	HS6	HS 1800	Ecosep S30
Drukomat 61	Ekolog 61	WOIV	HS7	HS 3600	Ecosep S61

REFRIGERATION DRYER 50Hz

Ultra-Pulse UD

Technical Data

- Standard: 16 bar
- Max. Ambient: 50°C
  Max. Inlet: 70°C
- 25 - 1650 m³/h
- Dewpoint: 3-9°C
- 230/1/50 or 400/3/50

Refrigerant fluids: R134a or R404A

With the introduction of ultra.dry, the new generation of energy-saving refrigeration dryers has arrived.

The new ultra.pulse technology offers important advantages in terms of energy saving, reliability and operating costs as the ultra.dry dryer is able to adapt itself to the real needs of the compressed air system.

The regulation system of the dryer controls the dryer operation granting the most energetically effective method of compressed air drying, achieving high energy saving and ensuring at the same time an excellent dew point stability also in dynamic condition.

High maximum inlet temperature up to +70°C (ultra.dry UD 0025 - 0600) +60°C (ultra.dry UD 0850 - 1650) and maximum ambient temperature (+50°C) ensure a fail-safe operation at all times. The standard ultra.dry refrigeration dryer has a high operational pressure limit of 16 bar.

Model	Flow m³/h	Connection in/out	Power V/ph/Hz
UD 0025	25	⅜”	230/1/50
UD 0035	35	⅜”	230/1/50
UD 0054	54	⅜”	230/1/50
UD 0075	75	½”	230/1/50
UD 0110	110	½”	230/1/50
UD 0150	150	1”	230/1/50
UD 0190	190	1”	230/1/50
UD 0230	230	1”	230/1/50
UD 0300	300	1”	230/1/50
UD 0350	350	1 ½”	230/1/50
UD 0450	450	1 ½”	230/1/50
UD 0500	500	1 ½”	230/1/50
UD 0600	600	1 ½”	230/1/50
UD 0850	850	2”	230/1/50
UD 1050	1050	2”	230/1/50
UD 1175	1175	2 ½”	230/1/50
UD 1350	1350	2 ½”	400/3/50
UD 1650	1650	2 ½”	400/3/50

Based on specific operation conditions. For accurate dimensioning see our guide page 92.

REFRIGERATION DRYER 60Hz

Ultra-Dry UD

Technical Data

- Standard: 16 bar
- Max. Ambient: 50°C
  Max. Inlet: 70°C
- 25 - 552 m³/h
- Dewpoint: 3-9°C
- 115/1/60 or 230/1/60

Refrigerant fluids: R134a or R410A

Some industries and countries use higher frequency power as their standard – 60 Hz instead of the European standard, 50 Hz. Some equipment can function on either frequency, and a range of voltage, however for most critical industrial machinery, a set frequency and voltage on the equipment are required to guarantee the stability of the production with the equipment.

Such industries count many marine and off-shore installations, and projects in or from North America, and we have a complete range of refrigeration dryers for 60 Hz installations.

These refrigeration dryers come with the usual benefits of our normal range of refrigeration dryers.

Model	Flow m³/h	Connection in/out	Power V/ph/Hz
UD-60Hz 0015	25	½”	115/1/60
UD-60Hz 0025	42	½”	115/1/60
UD-60Hz 0050	85	½”	115/1/60
UD-60Hz 0075	127	1”	115/1/60
UD-60Hz 0100	170	1”	115/1/60 or 230/1/60
UD-60Hz 0125	212	1”	115/1/60
UD-60Hz 0160	270	1”	115/1/60
UD-60Hz 0250	425	1”	230/1/60
UD-60Hz 0325	552	1”	230/1/60

Based on specific operation conditions. For accurate dimensioning see our guide page 92.

HIGH PRESSURE REFRIGERATION DRYER

Ultra-Dry HP

Technical Data

- Standard: 50 bar
- Max. Ambient: 45°C
  Max. Inlet: 70°C
- 45 - 7300 m³/h
- Dewpoint: 3-9°C
- 230/1/50 or 400/3/50

Refrigerant fluids: R134a or R407C

UD-HP has been specifically designed for the needs of the high pressure dryer User, offering working pressures of up to 50 barg. The extremely reliable design concept ensures that UD-HP operates perfectly at all times and in all conditions. UD-HP automatically adopts its operation to the air flow and ambient conditions, offering energy savings of up to 80% compared with traditional dryers. UD-HP forms part of a complete range of Ultrafilter products for higher pressures, ensuring all User needs are perfectly satisfied.

Model	Flow m³/h	Connection in/out	Nominal absorbed power (kW)
UD0045HP	45	½”	0,17
UD0090HP	90	½”	0,25
UD0240HP	240	½”	0,46
UD0370HP	370	1”	0,71
UD0480HP	480	1”	0,76
UD0600HP	600	1”	0,97
UD1100HP	1100	1½”	1,78
UD1450HP	1422	2”	2,20
UD1530HP	1530	1½”	3,09
UD1960HP	1960	1½”	4,29
UD2700HP	2700	2”	4,44
UD3700HP	3700	2”	5,39
UD4500HP	4500	2”	8,72
UD6100HP	6100	3”	10,42
UD7300HP	7300	3”	13,16

Based on specific operation conditions. For accurate dimensioning see our guide page 92.

MEMBRANE DRYER

Ultra-Dry UFM

UFM membrane dryer are well suited for point of use applications and for small volume flows.

Designed with ease-of-installation and operation in mind, the inlet and outlet are provided as easy-to-install BSP thread connections.

The compressed air flows through a bundle of hollow fibers. As the humid compressed air flows down the bore of the fiber, water vapor diffuses through the walls of the fibers.

At the outlet of the unit, a small volume of the dry compressed air is expanded and released into the space surrounding the outside of the fibers. The dry air sweeps the moisture away from the outside of the fibers and exhausts to the atmosphere as a humid air stream.

Technical Data

- Max. 12,5 barg
- Max. 60°C
- 1 - 180 m³/h
- Reduces dewpoint: 15-40°C

Each membrane dryer is equipped with a calibrated purge air blend. No further adjustments are necessary.

The UFM membrane dryer doesn't release any fibers and is suitable for medical air applications.

Our membrane dryers are extremely efficient due to their new, improved hollow fiber technology. Even with low pressure dewpoints, only a relatively small purge air requirement is necessary.

Model	Purge air (m³/h)	Connection in/out	Flow @ 15°C DP (m³/h)		Flow @ 3°C DP (m³/h)		Flow @ -20°C DP (m³/h)		Flow @ -40°C DP (m³/h)	
			In	Out	In	Out	In	Out	In	Out
UFM 0003	0,3	¼"	3,0	2,7	2,2	1,9	1,4	1,1	1,0	0,7
UFM 0006	0,6	¼"	6,0	5,4	4,3	3,7	2,8	2,2	2,0	1,4
UFM 0009	0,96	¼"	9,0	8,04	6,4	5,44	4,3	3,34	3,1	2,14
UFM 0012	1,14	¼"	12,0	10,86	8,5	7,36	5,7	4,56	4,1	2,96
UFM 0018	1,74	½"	18,0	16,26	12,8	11,06	8,5	6,76	6,2	4,46
UFM 0024	2,28	½"	24,0	21,72	17,1	14,82	11,3	9,02	8,2	5,92
UFM 0036	3,42	½"	36,0	32,58	25,6	22,18	17,1	13,68	12,4	8,98
UFM 0048	4,56	½"	48,0	43,44	34,1	29,54	22,7	18,14	16,4	11,84
UFM 0064	6,18	½"	64,0	57,82	44,8	38,62	29,8	23,62	21,6	15,42
UFM 0090	9	½"	90,0	81	67,2	58,2	43,8	34,8	31,5	22,5
UFM 0125	12,5	½"	125,0	112,5	91,8	79,3	58,8	46,3	42,6	30,1
UFM 0180	18	1"	180,0	162	128,1	110,1	85,5	67,5	61,5	43,5

Based on specific operation conditions. For accurate dimensioning see our guide page 93.

HEATLESS ADSORPTION DRYER

HeatLess HL

Technical Data

- Standard: 16 bar (25 bar optional)
- Max. Inlet: 50°C
- 50 - 9500 m³/h
- Dewpoint: -40°C up to -70°C
- 230V 50Hz (115V 60Hz optional)

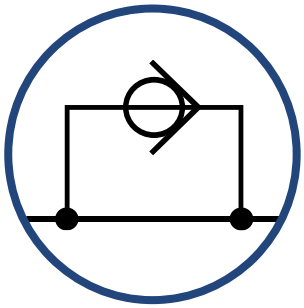
Features & Benefits

Pre- and after filter included

Galvanised in- and outlet

DRYER OPTIONS

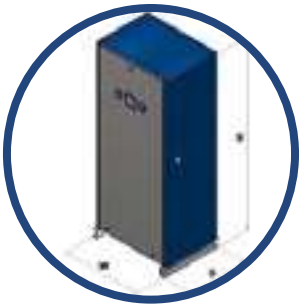
Dewpoint Measurer



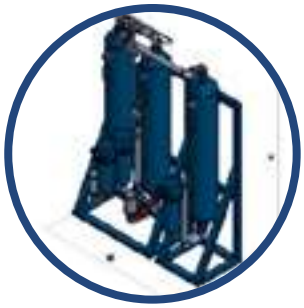
Bypass

ATEX

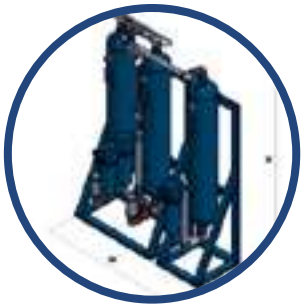
Anti Freezing Trace Heating



Cabinet Version



Oil Free Version



Breathing Air Version

Siemens PLC

HEATLESS ADSORPTION DRYER

HeatLess HL

As a complete system the HeatLess HL adsorption dryer has a prefilter (with automatic condensate drain), silencers and an integrated dust filter onboard providing maximum efficiency and operational safety.

HeatLess HL adsorption dryer are produced for a wide range of applications and are delivered ready to connect and easy to install. Standard pressure 16 bar, up to 25 bar optional.

Model	Flow m³/h	Connection in/out	Dimensions (mm)		
			Width	Depth	Height
HL 0050	50	G¾	580	380	1200
HL 0080	80	G¾	580	380	1550
HL 0100	100	G1	580	380	1480
HL 0150	150	G1	800	450	1850
HL 0175	175	G1	800	450	1700
HL 0225	225	G1 ½	800	480	1760
HL 0300	300	G1 ½	800	480	1720
HL 0375	375	G1 ½	1000	600	2020
HL 0550	550	G2	1000	600	1960
HL 0650	650	G2	1000	600	2000
HL 0850	850	G2	1300	800	2200
HL 1000	1000	G2 ½	1300	800	2300
HL 1400	1400	DN80	1200	900	2200
HL 1700	1700	DN80	1300	950	2300
HL 2000	2000	DN80	1400	1000	2300
HL 2500	2500	DN100	1600	1100	2400
HL 3000	3000	DN100	1700	1200	2400
HL 3500	3500	DN100	1800	1250	2450
HL 4000	4000	DN150	1900	1400	2700
HL 5000	5000	DN150	2100	1400	2800
HL 6000	6000	DN150	2300	1500	2900
HL 7000	7000	DN150	2500	1600	2900
HL 8200	8200	DN150	2700	1700	2900
HL 9500	9500	DN200	2900	1900	3100

Based on specific operation conditions. For accurate dimensioning see our guide page 93.

COMPACT ADSORPTION DRYER

Ultra-Dry Compact UDC

Technical Data

- 4-16 bar
- Max. 50°C
- 7 - 620 m³/h
- Dewpoint: -40°C up to -70°C
- 12-24 VDC, 100-240 VAC

The UDC is our most compact dryer. The integrated prefilter retains particles and oil. Condensate is drained securely and efficiently by an integrated condensate drain.

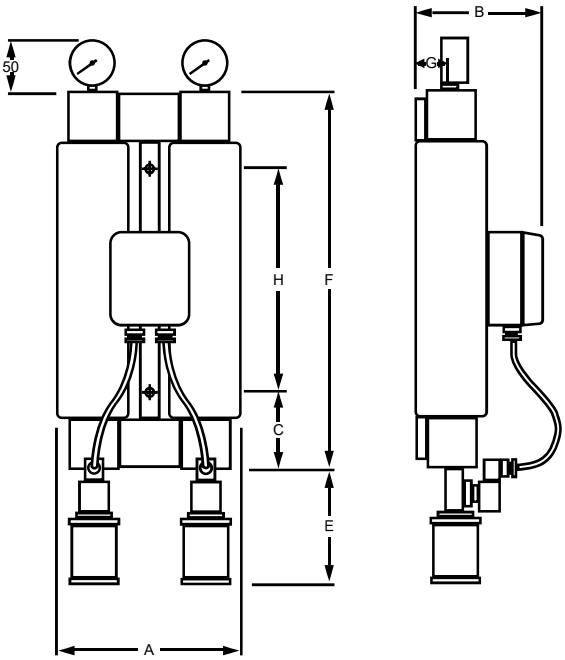
The subsequent adsorption dryer removes moisture from the compressed air up to a pressure dewpoint of -40°C (optionally -70°C). Regeneration and drying is made in two parallel installed vessels. Dust particles out of the desiccant are retained in the included afterfilter.

Model	Flow m³/h	Connection in/out	Dimensions (mm)			Prefilter MF Size
			Height	Width	Depth	
UDC 007	7	⅜“	445	281	92	03/05
UDC 010	10	⅜”	504	281	92	03/05
UDC 014	14	⅜”	565	281	92	03/05
UDC 017	17	⅜”	635	281	92	03/05
UDC 026	26	⅜”	815	281	92	03/05
UDC 038	38	⅜”	1065	281	92	03/05
UDC 056	56	⅜”	1460	281	92	03/05
UDC 076	76	¾”	700	520	164	05/20
UDC 093	93	¾”	800	520	164	05/20
UDC 110	110	½”	900	520	164	05/20
UDC 144	144	1”	1100	520	164	05/20
UDC 178	178	1”	1410	520	164	05/20
UDC 229	229	1¼”	1610	520	164	07/25
UDC 297	297	1¼”	2010	520	164	07/25
UDC 365	365	1½”	1410	520	328	07/30
UDC 467	467	1½”	1610	520	328	07/30
UDC 620	620	2”	3010	520	328	10/30

Based on specific operation conditions. For accurate dimensioning see our guide page 93.

HIGH PRESSURE AIR DRYER 40 BAR

EM AIR



Technical Data

- 16 or 40 bar
- Max. 50°C
- 14,4 - 78,6 m³/h
- Dewpoint: -20°C up to -60°C
- 230 V, 50 or 60Hz

We offer 6 different heatless adsorption dryers for compressed air up to 40 bar. For these dryers we recommend our HD high pressure filter housings as pre and after filter.

HD Filter Housing

Prefilter MF

Afterfilter PE

Siemens PLC 230RC

Model	Flow m³/h	Connection in/out	Dimensions (mm)						
			A	B	C	D	E	F	G
EM 10	14,4	⅜"	190	135	95	200	428	40	235
EM 15	18,0	⅜"	190	135	305	200	578	40	175
EM 25	23,4	⅜"	190	135	305	200	778	40	375
EM 40	35,4	⅜"	203	155	305	200	778	50	375
EM 60	58,8	¾"	292	165	328	260	873	65	385
EM 90	78,6	¾"	310	177	320	260	1000	70	520

Based on specific operation conditions. For accurate dimensioning contact Ultrafilter.

HEAT REGENERATED DRYER

VarioBlo

Technical Data

- 4-10 bar (25bar option)
- Max. 43°C
- 400 - 9500 m³/h
- Dewpoint: -20°C up to -70°C
- 380 V - 440 V / 50 Hz - 60 Hz
- PED

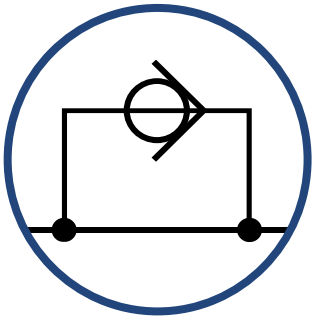
Features & Benefits

Siemens PLC S7

Zero purge

DRYER OPTIONS

Dewpoint Measurer



Bypass

ATEX

Anti Freezing Trace Heating

HEAT REGENERATED DRYER

VarioBlo

The VarioBlo adsorption dryer is a heat regenerated dryer and manage regeneration without any compressed air consumption. The VarioBlo dryer uses a frequency controlled blower to regenerate the dryer by heat.

The dryer is equipped with a Siemens PLC and is highly customisable.

Standard working pressure is 8 bar and up to 25 bar as an option.

3 standard versions:

- HRE
- VarioBlo
- Compheat

Model	Flow m³/h	Connection in/out	Dimensions (mm)			Installed Power kW
			Width	Depth	Height	
VarioBlo 0400	400	DN50	1750	1030	2260	8
VarioBlo 0700	700	DN50	1800	1150	2310	11
VarioBlo 1000	1000	DN80	1920	1280	2390	14
VarioBlo 1400	1400	DN80	1920	1320	2420	20
VarioBlo 1700	1700	DN80	2120	1450	2480	23
VarioBlo 2000	2000	DN80	2160	1470	2550	30
VarioBlo 2500	2500	DN100	2260	1600	2630	36
VarioBlo 3000	3000	DN100	2320	1740	2630	42
VarioBlo 3500	3500	DN100	2750	1810	2790	55
VarioBlo 4000	4000	DN150	2800	1890	2890	55
VarioBlo 5000	5000	DN150	2910	2010	2870	70
VarioBlo 6000	6000	DN150	3400	2380	2910	87
VarioBlo 7000	7000	DN150	3500	2400	2990	96
VarioBlo 8200	8200	DN150	3600	2500	3100	118
VarioBlo 9500	9500	DN200	3700	2600	3300	131

Based on specific operation conditions. For accurate dimensioning see our guide page 93.

COMPRESSED AIR RECEIVER

Technical Data

Painted, Galvanised or SS304

11 or 16 bar (23 and 41 optional)

Available Certificates

SPVD 2009/105/EC
PED 97/23/EC
ASME Sect. VIII Div. 1 / Div. 2
ISO 9001:2008
Dir. 2014/68/EU (CE 003)
AD 2000 Merkblaetter

Our compressed air receivers are designed to store compressed air. The vessels are manufactured in Germany to the highest quality standards. On request we can also deliver vessels designed for any other technical gas.

The vessels are availed in three materials: Galvanised, painted and stainless steel. We offer receivers for pressure: 11, 16, 23 or 41 bar.

RECEIVER ACCESORIES

Safety Valves

Complete Receiver Kit

Manometer

Vent Filter

COMPRESSED AIR RECEIVER

Finding the right receiver, based on airflow

Airflow Capacity	m³/h	170	340	510	680	850	1275	1700	2550	3400
Recommended receiver voume	liters	500	900	1500	1500	2000	3000	4000	6000	8000

Compressed Air Vessel Volumes													
Liters	**5**	**10**	**15**	**24**	**50**	**90**	**100**	**150**	**200**	**250**	**270**	**350**	**500**
Painted 11 bar H	•	•	•	•	•		•	•	•		•		•
Painted 11 bar V					•	•	•	•	•		•		•
Painted 16 bar H				•			•		•		•		•
Painted 16 bar V							•	•			•		•
Galvanised 11 bar H					•			•		•		•	•
Galvanised 11 bar V					•			•		•		•	•
Galvanised 16 bar H					•	•		•		•		•	•
Galvanised 16 bar V					•	•		•		•		•	•
SS304 11 bar V					•		•		•				•

H = Horizontal. V = Vertical

Compressed Air Vessel Volumes														
Liters	**720**	**750**	**900**	**1000**	**1500**	**2000**	**3000**	**4000**	**5000**	**6000**	**7000**	**8000**	**9000**	**10000**
Painted 11 bar H	•		•											
Painted 11 bar V	•		•											
Painted 16 bar H				•		•								
Painted 16 bar V				•	•	•	•	•	•	•				•
Galvanized 11 bar H		•		•	•	•	•	•	•	•	•	•	•	•
Galvanized 11 bar V		•		•	•	•	•	•	•	•	•	•	•	•
Galvanized 16 bar H		•		•	•	•	•	•	•	•	•	•	•	•
Galvanized 16 bar V		•		•	•	•	•	•	•	•	•	•	•	•
SS304 11 bar V				•	•									

H = Horizontal. V = Vertical

BREATHING AIR FILTER SYSTEM

Technical Data

Users: 1-4 (based on 250 l/min pr. user)

Inlet: ⅜”

Outlet: ¼”

Elements: MF 03/10 and AK 03/10

Mounting: Wall brackets or floor stand

Made to the standards of the Danish working enviroment authority regulation D.5.1 and EN 12021.

Filtered compressor air from a compressor can be used where there is a low oxygen concentration (less than 17% vol.) Or the ambient air is not suitable for breathing air.

Ultrafilters new breathing air panel with SMF & AK filter (oil and particle filter and carbon filter) is used for filtration of compressed air from the compressor and compressed air dryer, this product is available in two versions: Floor stand or wall mounting, both available for 1 to 4 users.

Ultrafilter compressed air breathing system is made to the standards of the Danish working environment authority (arbejdstilsynet) regulation D.5.1 by July 2000 or EN 12021.

It is a must to have your breathing air quality checked at least one time per year.

OPTIONS FOR BREATHING AIR

Ultrafilter offers air heaters for compressed air and gas filtration with or without integrated temperature measurement. Our product allows a precise temperature control from 20°C to 120°C and are suitable for industrial or breathing air applications.

Additionally, we offer pressure regulators and mounting solutions for floor or wall for our breathing air filters.

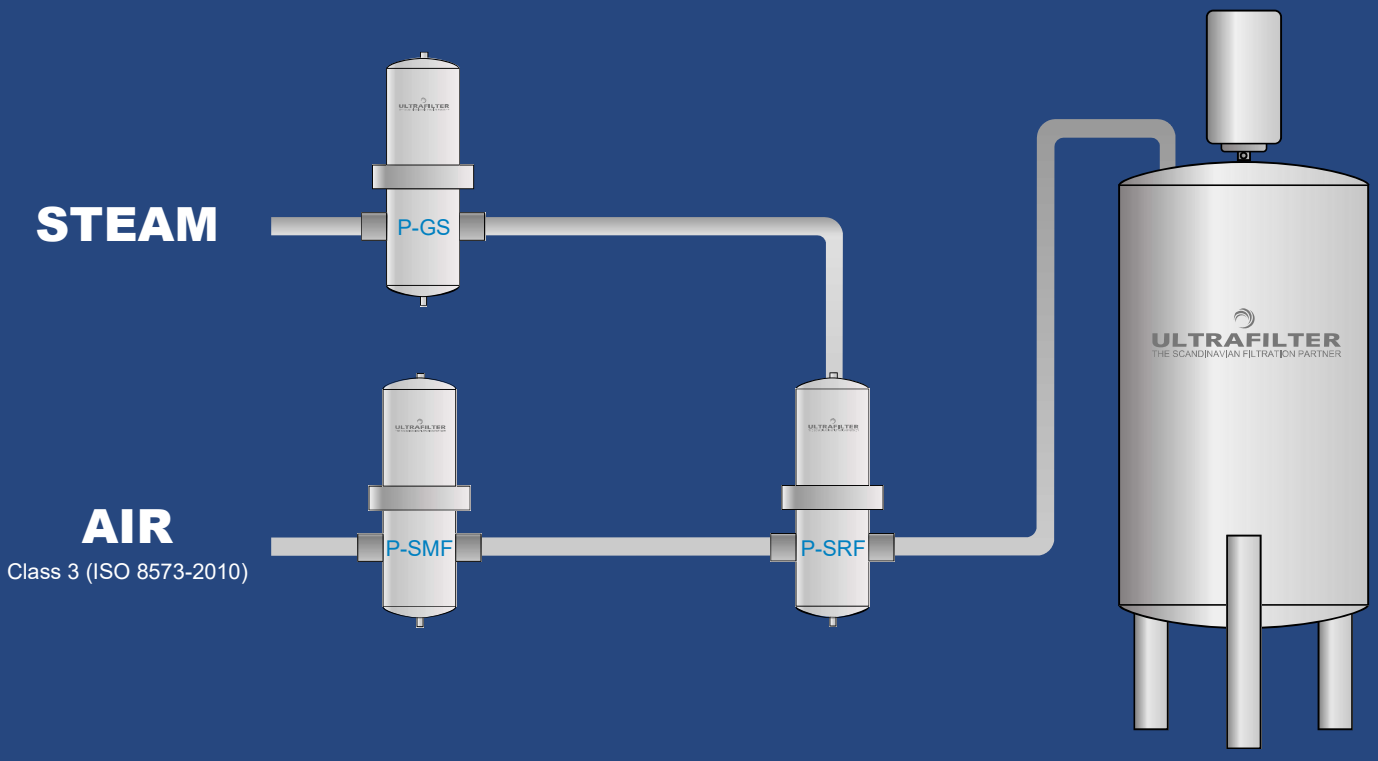
Air Heater

Manometer

Floor Mount

Wall Mount

PROCESS AIR


STEAM
AIR
Class 3 (ISO 8573-2010)
P-GS
P-SMF
P-SRF
ULTRAFILTER
THE SCANDINAVIAN FILTRATION PARTNER

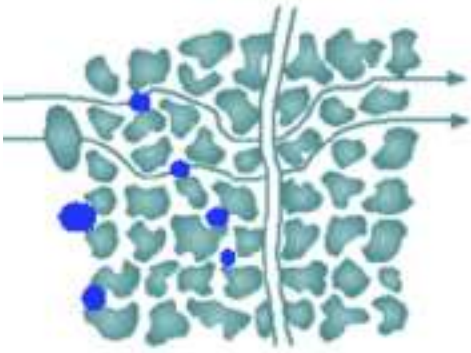
PROCESS AIR

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

A more scientific definition of sterile is that a filter is defined as “sterilising 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.

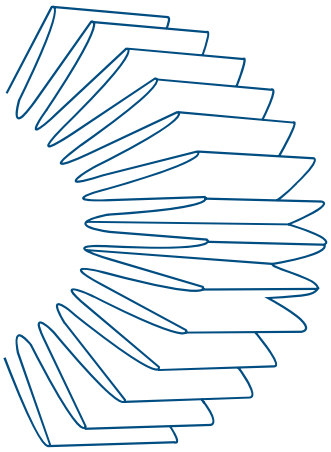
Coli and streptococci typically have a size between 0,3 microns and 9 microns, resulting in that the sterile filter has a Filtration of 0,2 microns or better.

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).



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 sterilisation. This type of filter is about 99,99998% effective compared to a given 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 99,999999% retention rate and is available in several filtration degrees.

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 that installed 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.

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.

DIFF

Type	Filtration rate	Efficiency	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

STERILE DEPTH FILTER ELEMENT

P-SRF

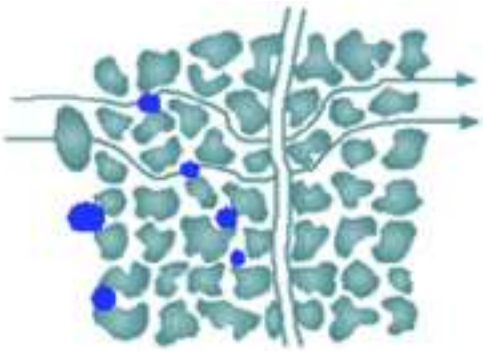
This element is **STERILIZABLE**

See page 44

The P-SRF is a wounded 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.

Technical Data

- Borosilicate
- 0,2 µm
- 99,99998%
- -20°C to 200°C
- Max. 5 bar
- Stainless steel SS304 end caps
- Silicone (others available)



Depth Filter

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PROCESS FILTER HOUSING
P-EG

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.

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

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 MEMBRANE FILTER

Ultra-Mem PF-PT / PF-PP

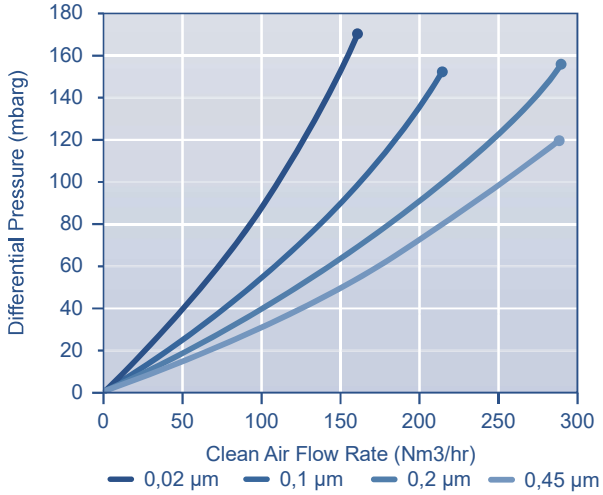
This element is STERILIZABLE See page 44

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)

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.



Model	PF-PT	PF-PT PLUS	PF-PP
Filtrationrates	0,02 to 0,45 µm	0,2 µm	0,1 to 0,2 µm
Material	ePTFE	ePTFE	Polypropylene
Applications			
Sterile process gases	•	•	•
Fine chemicals and solvents			•
Photoresists and developers			•
Biotechnology	•	•	
Powder handling and tabletting	•	•	•

SANITARY AIR FILTER HOUSING

PG-EG

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

PG-EG houses are “first choice” in critical applications in sterile filtration.

All PG-EG 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 this quality or better for every PG-EG sanitary filter housing.

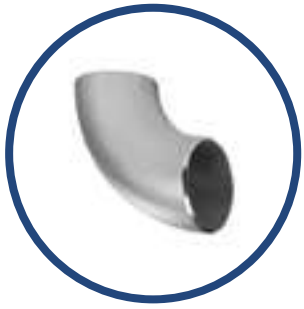
Technical Data

- 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
PG-EG 0032	45	DN25	05/30	1
PG-EG 0072	90	DN40	10/30	1
PG-EG 0108	135	DN50	15/30	1
PG-EG 0144	180	DN65	20/30	1
PG-EG 0192	270	DN80	30/30	1
PG-EG 0432	540	DN100	20/30	3
PG-EG 0576	810	DN100	30/30	3
PG-EG 0768	1080	DN150	30/30	4
PG-EG 1152	1620	DN150	30/30	6
PG-EG 1536	2160	DN200	30/30	8
PG-EG 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

STEAM FILTER
P-GS

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.

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)

OPTIONS

Viton Seal
-15 / +200°C

PTFE Seal
-200 / +260°C

Silicone Seal
-55 / +200°C

Welded End Caps

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

FILTER HOUSING FOR STEAM

P-EG

For our PG-S steam filters we use our P-EG filter housing with flange connections.

With this filter you can achieve low differential pressure at high flow rates. P-EG 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 PG-EG for steam filtration.

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

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

Flow rate at 121°C saturated steam

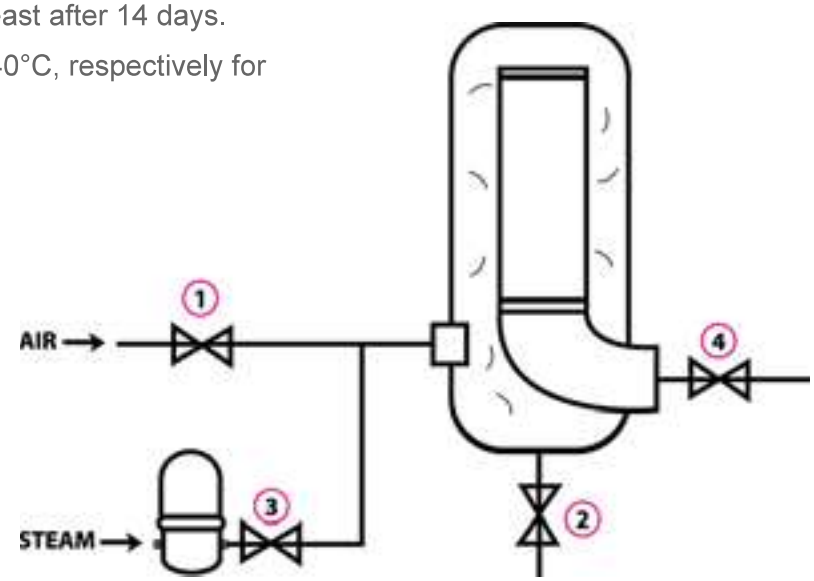
Correction factor:

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

STERILISATION PROCEDURE

Both depth and membrane sterile filters can be sterilised in-line with steam or externally by autoclave. It is recommended to sterilise a sterile filter after every production batch or at least after 14 days.

Sterilisation temperature is between 110°C - 140°C, respectively for 30 and 10 min.



1. Valve (1) and valve (4) closes.

2. Drain valve (2) opens.

3. Valve (3) opens and steam flow into the filter housing.

4. After reaching a temperature of 100 ° C, the steam begins to condense at the same time that there is only opened to the valve (2), the pressure being built up to the desired steriliation temperature.

5. After reaching the steam temperature starts the actual sterilisation within the ages:

- Saturated steam 121 ° C - 30 minutes
- Saturated steam 131 ° C - 20 minutes
- Saturated steam 141 ° C - 10 minutes

When sterilisation rounded cast of valve (2), after which valve (3) & (1) open slowly and valve (4) closes slowly - and then start the process over again.

STERILE TANK FILTER

P-BE

This element is STERILIZABLE

See page 44

Technical Data

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

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 vessel. 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 sterilised 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

ULTRAFILTER
THE FILTRATION MANUFACTURER

THE SCANDINAVIAN FILTRATION PARTNER

SHOP ONLINE

At www.ultra-filter.com you will find a wide selection of filtration products ready for you to order.

www.ultra-filter.com

ABOUT US

Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids 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. Our production facility is in Germany and we have several subsidiaries in Europe and the United States.

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).

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 also offer on going service on our products once they are installed.

FILTRATION OF

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