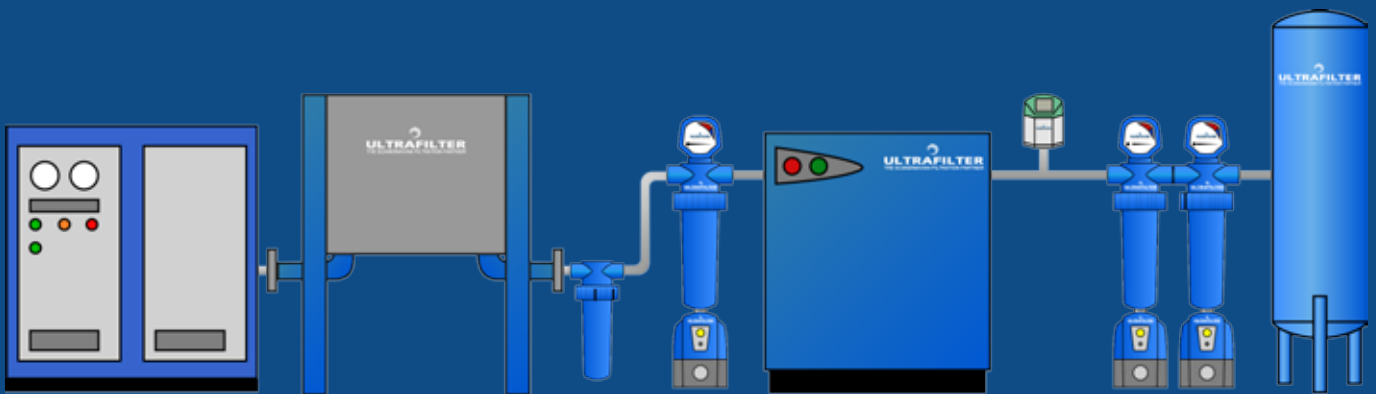


# COMPRESSED AIR



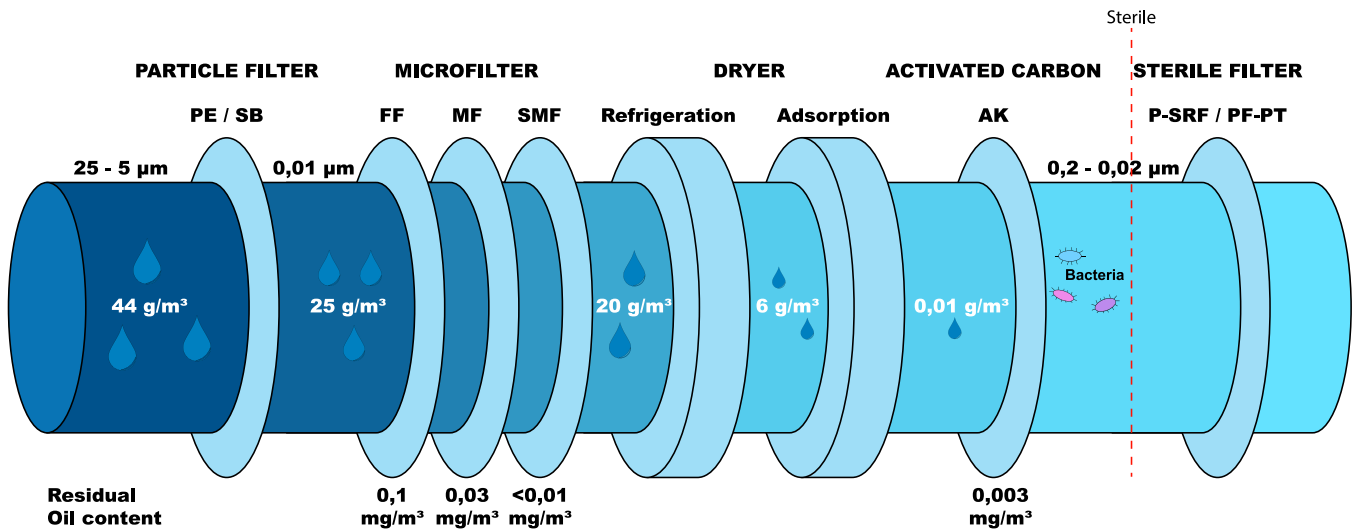
# COMPRESSED AIR



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.





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 referring to an ISO class, the classes are written in that order.

As an example: ISO class 2.4.1

Class	Particles pr. m <sup>3</sup>			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/m <sup>3</sup>
2	≤ 400.000	≤ 6.000	≤ 100	-40°C	≤ 0,1 mg/m <sup>3</sup>
3		≤ 90.000	≤ 1.000	-20°C	≤ 1 mg/m <sup>3</sup>
4			≤ 10.000	+3°C	≤ 5 mg/m <sup>3</sup>
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
Air 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

Materials: Steel and aluminium

Flow: 72 - 3000 m³/h

Power: 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 with a finned coil, cooled by a high-efficiency axial fan mounted on a galvanised 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

Material: Steel

Flow: 90 - 7500 m<sup>3</sup>/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 m <sup>3</sup> /h	Connection	
		In	Out
UA-WATER 0090	90	1"	1/2"
UA-WATER 0162	162	1 1/2"	1"
UA-WATER 0445	445	2"	2"
UA-WATER 0630	630	2"	2"
UA-WATER 0990	990	2 1/2"	2 1/2"
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 m<sup>3</sup>/h to 2880 m<sup>3</sup>/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 accessories available.

## Technical Data

Material: Aluminium  
 Pressure: maxx. 16 bar  
 Temperature: 65°C  
 Perbunan Gasket



## 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 m <sup>3</sup> /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

Material: Steel

Pressure: 16 bar (25 bar option)

Temperature: 120°C

Perbunan Gasket



## 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

Materials: Aluminium or carbon steel  
 Pressure: 25, 40, 64, 100, 250 or 400 bar  
 Temperature: -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 m<sup>3</sup>/h to 720 m<sup>3</sup>/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 m <sup>3</sup> /h	Connection in/out	Pressure PN	Filter Element
HD 0003	30	1/4"	25-400	03/05
HD 0006	60	3/8"	25-400	03/10
HD 0012	120	1/2"	25-400	04/20
HD 0018	180	3/4"	25-400	05/20
HD 0027	270	1"	25-400	05/25
HD 0036	360	1 1/4"	25-400	07/25
HD 0048	480	1 1/2"	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

Efficiency: 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

Retention Rate: 0,01 µm

Efficiency: 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/m <sup>3</sup>	0,04 bar
MF	0,01 µm	99,99998%	0,03 mg/m <sup>3</sup>	0,08 bar
SMF	0,01 µm	99,99999%	<0,01 mg/m <sup>3</sup>	0,09 bar

# ACTIVATED CARBON ELEMENTS

AK / AKK



AKK



AK

## Technical Data

Activated Carbon and Borosilicate

Temperature: 10 - 40°C

Max. 2 bar @ 20°C

Aluminium end caps

Perbunan Gaskets

Residual oil content: < 0,003 mg/m<sup>3</sup>

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 nanofibre depth filter media, while the activated carbon adsorbs all oil vapours 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



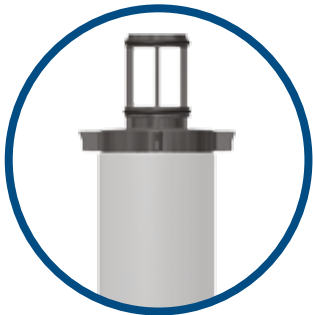
Steel Housing  
SG



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/m <sup>3</sup>	5 bar at 20°C
MF	0,01 µm	99,99998%	0,03 mg/m <sup>3</sup>	5 bar at 20°C
SMF	0,01 µm	99,99999%	<0,01 mg/m <sup>3</sup>	5 bar at 20°C
AK	Activated Carbon	N/A	0,003 mg/m <sup>3</sup>	2 bar at 20°C

# ACTIVATED CARBON TOWER

Ultra-Sorp AKC



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

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

The residual oil content 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/m<sup>3</sup>.

## Technical Data

Pressure: 4 to 16 bar

Temperature: Max. 50°C

Flow: 50 - 9500 m<sup>3</sup>/h

## Features & Benefits

Operating lifetime: 8000 hours

Residual oil content: < 0,003 ppm

Model	Flow m <sup>3</sup> /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



Oil Vapour  
Sensor



Laser Particle  
Counter

## AIR QUALITY



# OIL / WATER SEPARATOR

Ultra-Sep



## Technical Data

Material: ABS or PE

Certificate: LGA 5361301-01

## Features & Benefits

Up to 12 m<sup>3</sup>/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-litre condensate per month. Such condensate water from oil-lubricated compressors may contain up to 2.000 mg oil per litre.

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 litre 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	
	m <sup>3</sup> /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



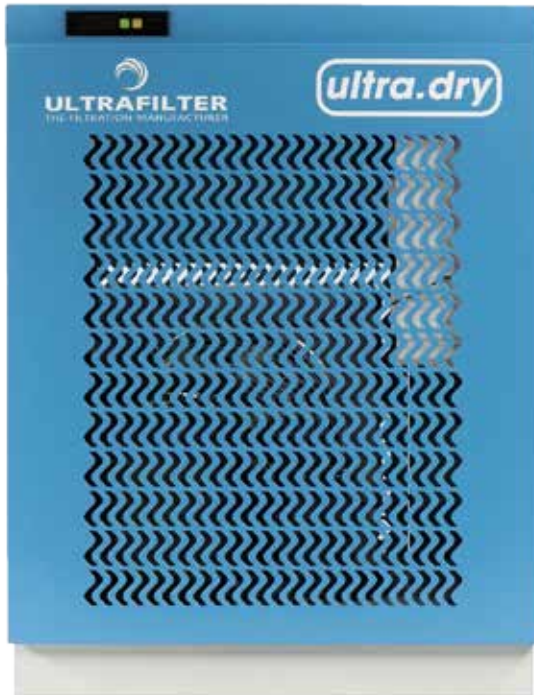
Ultrafilter offers a complete range of oil/water separator maintenance kits for competitor oil/water separators.

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
Drukomat 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

Pressure: 16 bar

Max. Ambient Temperature: 50°C

Max. Inlet Temperature: 70°C

Flow: 25 - 1650 m<sup>3</sup>/h

Dewpoint: 3-9°C

Power: 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 m <sup>3</sup> /h	Connection in/out	Power V/ph/Hz
UD 0025	25	3/8"	230/1/50
UD 0035	35	3/8"	230/1/50
UD 0054	54	3/8"	230/1/50
UD 0075	75	1/2"	230/1/50
UD 0110	110	1/2"	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 1/2"	230/1/50
UD 0450	450	1 1/2"	230/1/50
UD 0500	500	1 1/2"	230/1/50
UD 0600	600	1 1/2"	230/1/50
UD 0850	850	2"	230/1/50
UD 1050	1050	2"	230/1/50
UD 1175	1175	2 1/2"	230/1/50
UD 1350	1350	2 1/2"	400/3/50
UD 1650	1650	2 1/2"	400/3/50

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

# REFRIGERATION DRYER 60Hz

Ultra-Dry UD



## Technical Data

Pressure: 16 bar

Max. Ambient Temperature: 50°C

Max. Inlet Temperature: 70°C

Flow: 25 - 552 m<sup>3</sup>/h

Dewpoint: 3-9°C

Power: 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 m <sup>3</sup> /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

Pressure: 50 bar

Max. Ambient Temperature: 45°C

Max. Inlet Temperature: 70°C

Flow: 45 - 7300 m<sup>3</sup>/h

Dewpoint: 3-9°C

Power: 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 m <sup>3</sup> /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 fibres. As the humid compressed air flows down the bore of the fibre, water vapour diffuses through the walls of the fibres.

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 fibres. The dry air sweeps the moisture away from the outside of the fibres and exhausts to the atmosphere as a humid air stream.

## Technical Data

Max. 12,5 barg  
 Max. 60°C  
 Flow: 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 fibres and is suitable for medical air applications.

Our membrane dryers are extremely efficient due to their new, improved hollow fibre 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

Pressure: 16 bar (25 bar optional)

Max. Inlet Temperature: 50°C

Flow: 50 - 9500 m<sup>3</sup>/h

Dewpoint: -40°C up to -70°C

Power: 230V 50Hz (115V 60Hz optional)

## Features & Benefits

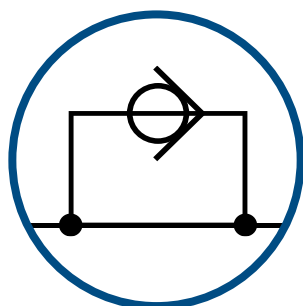
Pre- and after filter included

Galvanised in- and outlet

## DRYER OPTIONS



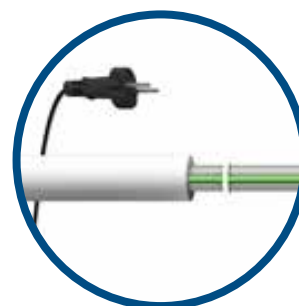
Dewpoint  
Measurer



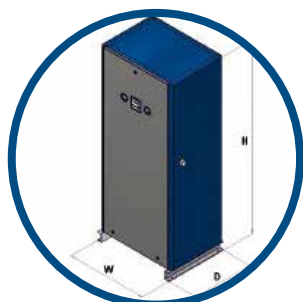
Bypass



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 m <sup>3</sup> /h	Connection in/out	Dimensions (mm)		
			Width	Depth	Height
HL 0050	50	G <sup>3</sup> / <sub>4</sub>	580	380	1200
HL 0080	80	G <sup>3</sup> / <sub>4</sub>	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

Pressure: 4-16 bar

Max. 50°C

Flow: 7 - 620 m<sup>3</sup>/h

Dewpoint: -40°C up to -70°C

Power: 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 m <sup>3</sup> /h	Connection in/out	Dimensions (mm)			Prefilter MF Size
			Height	Width	Depth	
UDC 007	7	3/8"	445	281	92	03/05
UDC 010	10	3/8"	504	281	92	03/05
UDC 014	14	3/8"	565	281	92	03/05
UDC 017	17	3/8"	635	281	92	03/05
UDC 026	26	3/8"	815	281	92	03/05
UDC 038	38	3/8"	1065	281	92	03/05
UDC 056	56	3/8"	1460	281	92	03/05
UDC 076	76	3/4"	700	520	164	05/20
UDC 093	93	3/4"	800	520	164	05/20
UDC 110	110	1/2"	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	1 1/4"	1610	520	164	07/25
UDC 297	297	1 1/4"	2010	520	164	07/25
UDC 365	365	1 1/2"	1410	520	328	07/30
UDC 467	467	1 1/2"	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.



# HEAT REGENERATED DRYER

VarioBlo



## Technical Data

Pressure: 4-10 bar (25 bar option)

Max. 43°C

Flow: 400 - 9500 m<sup>3</sup>/h

Dewpoint: -20°C up to -70°C

Power: 380 V - 440 V / 50 Hz - 60 Hz

PED

## Features & Benefits

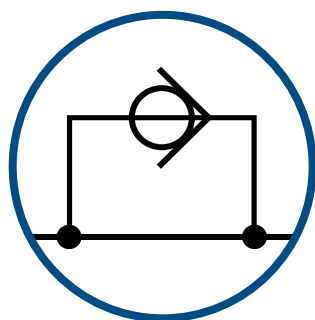
Siemens PLC S7

Zero purge

## DRYER OPTIONS



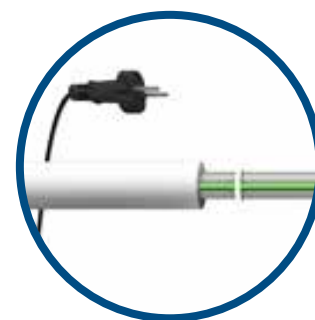
Dewpoint  
Measurer



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
- Compeat



Model	Flow m <sup>3</sup> /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 available in three materials: Galvanised, painted and stainless steel. We offer receivers for pressure: 11, 16, 23 or 41 bar.

## RECEIVER ACCESSORIES



Safety Valves



Complete Receiver Kit



Manometer

# COMPRESSED AIR RECEIVER



Finding the right receiver, based on airflow

Airflow Capacity	m <sup>3</sup> /h	170	340	510	680	850	1275	1700	2550	3400
Recommended receiver volume	litres	500	900	1500	1500	2000	3000	4000	6000	8000

Litres	Compressed Air						Vessel Volumes						
	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

Litres	Compressed Air						Vessel Volumes							
	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				•	•	•	•	•	•	•				•
Galvanised 11 bar H		•		•	•	•	•	•	•	•	•	•	•	•
Galvanised 11 bar V		•		•	•	•	•	•	•	•	•	•	•	•
Galvanised 16 bar H		•		•	•	•	•	•	•	•	•	•	•	•
Galvanised 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: 3/8"  
Outlet: 1/4"  
Elements: MF 03/10 and AK 03/10  
Mounting: Wall brackets or floor stand  
Made to the standards of the Danish working environment 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.

Ultrafilter's 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