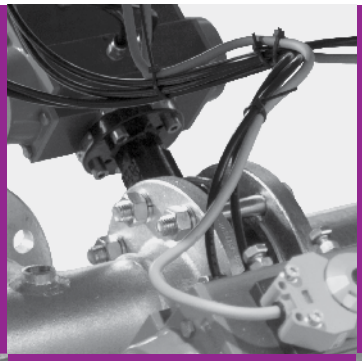
COMPRESSED AIR AND GAS TREATMENT

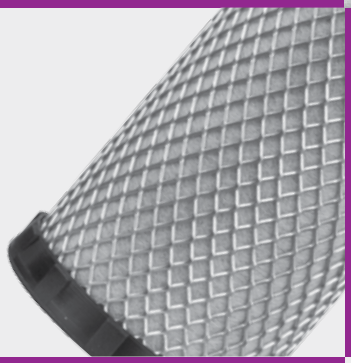
Standard product catalogue 2017-2019

compression

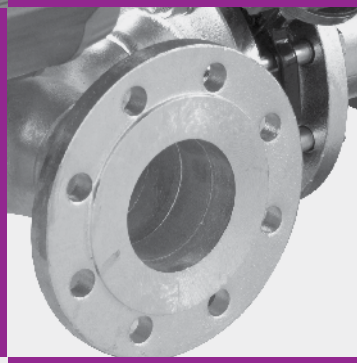


filtration

separation



drying



cooling

Better air

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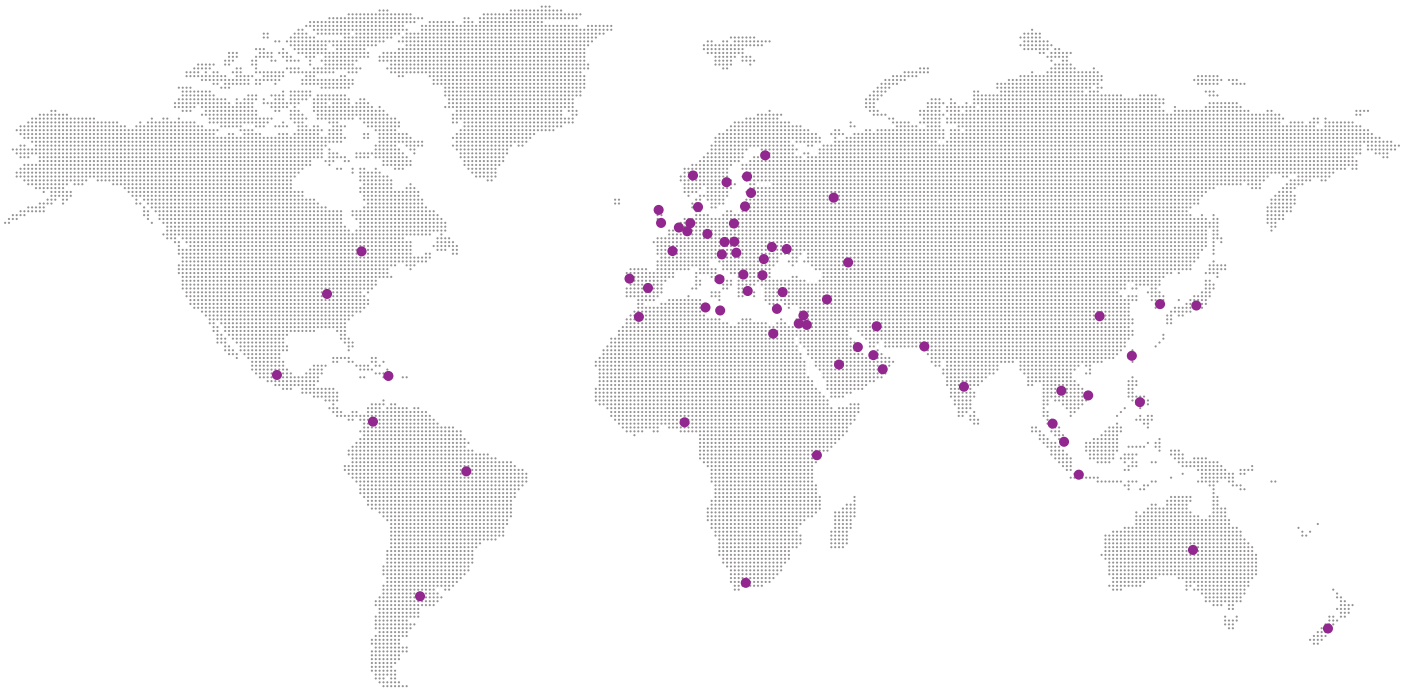
Air and Gas Treatment



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DRYERS, COOLERS, OIL REMOVERS		Pressure	Capacity	Dew point	Page
A-DRY	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	6 - 600 Nm³/h	-40°C(-25°C/-70°C)	126
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B-DRY	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	110 - 1.000 Nm³/h	-40°C(-25°C/-70°C)	132
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R-DRY BVA	Adsorption dryers - Vacuum regeneration with ambient air	4 to 11 bar	390 - 20.200 Nm³/h	-40°C	138
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MEASURING EQUIPMENT		Pressure	Capacity	Dew point	Page
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COMPRESSED AIR EQUIPMENT		Pressure	Capacity	Dew point	Page
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B-AIR plus	Portable breathing air filtration system	16 bar	120 Nm³/h		202
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BS 12-3,5	Petrol station equipment	12 bar	350 Nl/h		206
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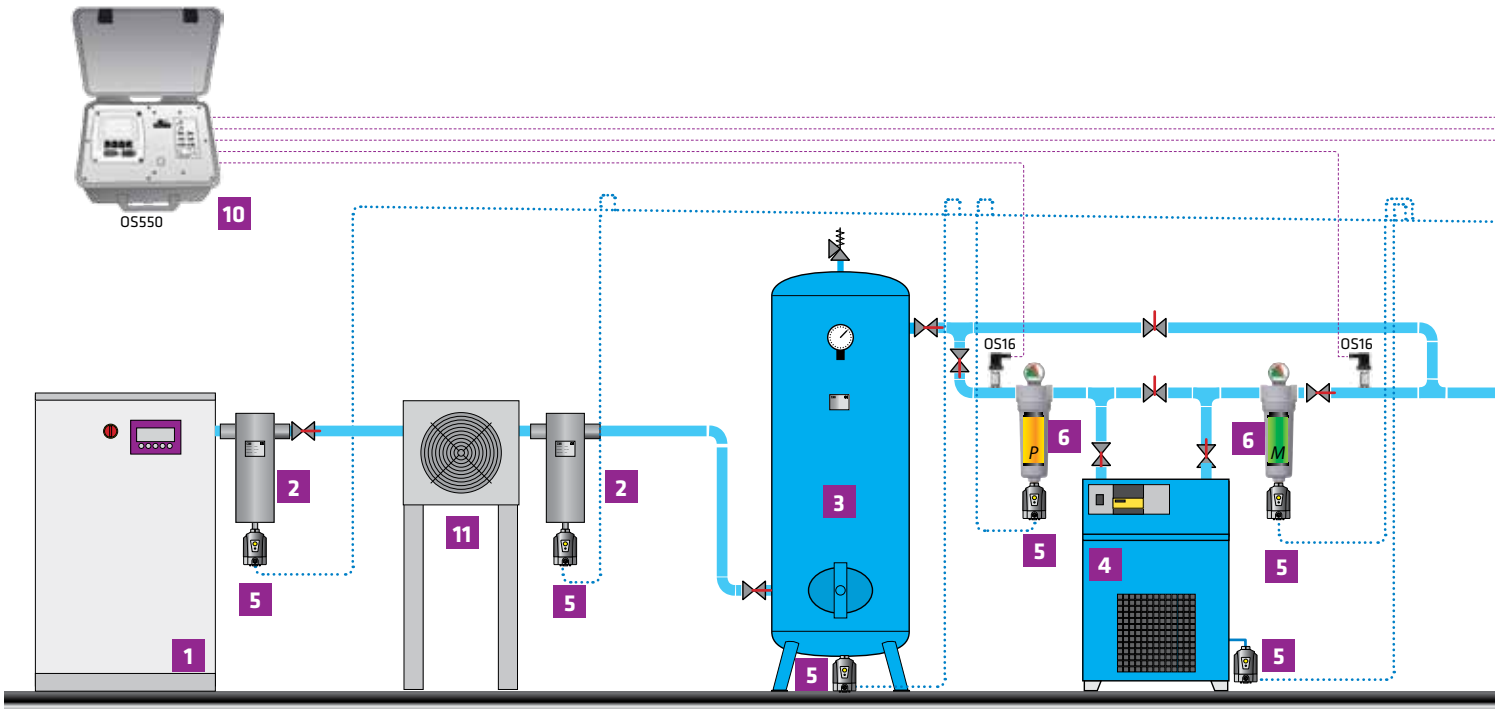
Compressed air and gas treatment

BASIC PRINCIPLES OF MOST TYPICAL COMPRESSED AIR APPLICATION



1 COMPRESSOR

The basic working principle of an air compressor is to compress atmospheric air, which is then used as per the requirements. In the process, atmospheric air is drawn in through an intake valve; more and more air is pulled inside a limited space mechanically by means of piston, impeller, or vane.
Since the amount of pulled atmospheric air is increased in the receiver or storage tank, volume is reduced and pressure is raised automatically. In simpler terms, free or atmospheric air is compressed after reducing its volume and at the same time, increasing its pressure.
There are three major types, namely, reciprocating, rotary, and centrifugal compressor.

2 CYCLONE CONDENSATE SEPARATOR

Cyclone condensate separators use centrifugal motion to force liquid water out of compressed air. The spinning causes the condensate to join together on the centrifugal separators walls. When the condensate gains enough mass it falls to the bottom of the separators bowl where it pools in the sump until it is flushed out of the system by the automatic float drain valve.

They are installed following aftercoolers to remove the condensed moisture.

3 PRESSURE VESSEL

Pressure vessel plays very important role in compressed air system:

- damping pulsations caused by reciprocating compressors,
- providing a location for free water and lubricant to settle from the compressed air stream,
- supplying peak demands from stored air without needing to run an extra compressor,
- reducing load/unload or start/stop cycle frequencies to help screw compressors run more efficiently and reduce motor starts,
- slowing system pressure changes to allow better compressor control and more stable system pressures.

4 COMPRESSED AIR DRYER

Compressed air leaving the compressor aftercooler and moisture separator is normally warmer than the ambient air and fully saturated with moisture. As the air cools, the moisture will condense in the compressed air lines. Excessive entrained moisture can result in undesired pipe corrosion and contamination at point of end use.
For this reason some sort of air dryer is normally required. Some end use applications require very dry air, such as compressed air distribution systems where pipes are exposed to winter conditions. Drying the air to dew points below ambient conditions is necessary to prevent ice buildup.

5 CONDENSATE DRAIN

Drains are needed at all separators, filters, dryers and receivers in order to remove the liquid condensate from the compressed air system.

Failed drains can allow slugs of moisture to flow downstream, that can overload the air dryer and foul end use equipment.

6 FILTER

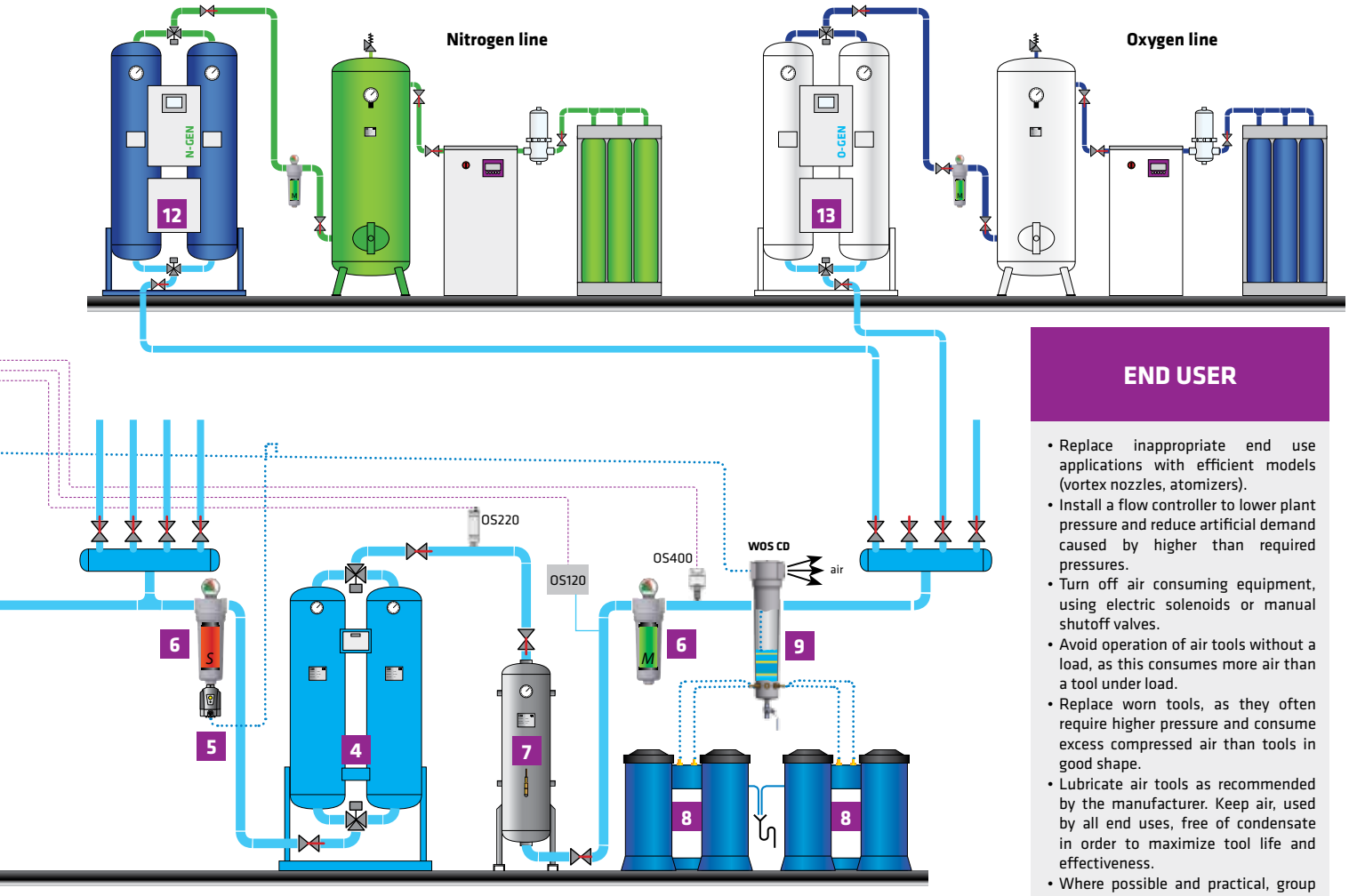
Compressed air filters are used for high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems.
To meet the required compressed air quality, appropriate filter element must be installed into filter housing.

7 ACTIVATED CARBON TOWER

Activated carbon tower eliminates hydrocarbon vapours and odours from compressed air. Towers are filled with activated carbon adsorbent that adsorbs contaminants onto the surface of its internal pores. Activated carbon towers are used at applications where content of oil vapours needs to be reduced to minimum. Activated carbon towers can be incorporated in existing compressed air systems, significantly minimising the risks of contamination.

8 OIL/WATER SEPARATOR

Local environmental laws and regulations state that condensate drained from compressed air systems cannot be returned to the sewage system due to the content of compressor lubricating oil.
Water/oil separators are one of the most effective and economical solution. Multistage separation process using oleophilic filters and activated carbon, ensures exceptional performance and trouble free operation.



END USER

- Replace inappropriate end use applications with efficient models (vortex nozzles, atomizers).
- Install a flow controller to lower plant pressure and reduce artificial demand caused by higher than required pressures.
- Turn off air consuming equipment, using electric solenoids or manual shutoff valves.
- Avoid operation of air tools without a load, as this consumes more air than a tool under load.
- Replace worn tools, as they often require higher pressure and consume excess compressed air than tools in good shape.
- Lubricate air tools as recommended by the manufacturer. Keep air, used by all end uses, free of condensate in order to maximize tool life and effectiveness.
- Where possible and practical, group end use air equipment that has similar air requirements of pressure and air quality.

9 CONDENSATE DISTRIBUTOR

WOS CD is intended for systems, where amount of generated condensate exceeds capacity of single largest available WOS water oil separator. WOS CD can evenly distribute collected condensate between up to three WOS-35 water oil separators.

WOS CD is equipped with flow distributor on the inlet port and up to 8 hose tail connections mounted.

10 CENTRAL MONITORING SYSTEM

Stable product quality, process optimization and energy savings are just some of the reasons why measuring equipment is becoming essential part of todays compressed air/gas systems. Type and number of sensors depend on specific application but the most common are pressure, flow and dew point sensors.

11 AFTERCOOLERS

Air cooled aftercoolers series ACA have been designed to reduce compressed air temperature and water vapour dew point in compressed air system. High efficiency axial fan forces ambient air over the heat exchangers copper tubes supported by aluminium fins, which provides the necessary cooling effect. The compressed air is cooled down to approximately 10°C above ambient temperature.

ACA aftercoolers ensures the maximum performance and protection of all equipment, such as refrigeration dryers, adsorption dryers and filters, positioned downstream of this unit.

12 NITROGEN GENERATORS

The nitrogen generators extract the available nitrogen in the ambient air from the other gases by applying the Pressure Swing Adsorption (PSA) technology. During the PSA process compressed, cleaned ambient air is led to a molecular sieve bed, which allows the nitrogen to pass through as a product gas, but adsorbs other gases.

The sieve releases the adsorbed gases to the atmosphere, when the outlet valve is closed and the bed pressure returns to ambient pressure. Subsequently the bed will be purged with nitrogen before fresh compressed air will enter for a new production cycle.

In order to guarantee a constant product flow, the nitrogen generators use modules of two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

Under normal operating conditions and with correct maintenance the molecular sieve beds will have an almost indefinite lifetime.

13 OXYGEN GENERATORS

The oxygen generators extract the available oxygen in the ambient air from the other gases by applying the Pressure Swing Adsorption (PSA) technology. During the PSA process compressed, cleaned ambient air is led to a molecular sieve bed, which allows the oxygen to pass through as a product gas, but adsorbs other gases.

The sieve releases the adsorbed gases to the atmosphere, when the outlet valve is closed and the bed pressure returns to ambient pressure. Subsequently the bed will be purged with oxygen before fresh compressed air will enter for a new production cycle.

In order to guarantee a constant product flow, oxygen generators use modules of two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

Under normal operating conditions and with correct maintenance the molecular sieve beds will have an almost indefinite lifetime.

COMPRESSED AIR QUALITY CLASSES ACCORDING TO ISO 8573-1

CLASS	SOLID PARTICLES			HUMIDITY AND LIQUID WATER		OIL	
	Maximum number of particles per cubic meter as a function of particle size, d[2]			Pressure dew point		Concentration of total oil[2] (liquid, aerosol and vapour)	
	0,1 µm < d ≤ 0,5 µm	0,5 µm < d ≤ 1,0 µm	1,0 µm < d ≤ 5,0 µm	°C	°F	mg/m³	ppm/w/w
0	As specified by the equipment user or supplier and more stringent than class 1						
1	≤ 20.000	≤ 400	≤ 10	≤ -70	-94	≤ 0,01	≤ 0,008
2	≤ 400.000	≤ 6.000	≤ 100	≤ -40	-40	≤ 0,1	≤ 0,08
3	Not specified	≤ 90.000	≤ 1.000	≤ -20	-4	≤ 1	≤ 0,8
4	Not specified	Not specified	≤ 10.000	≤ +3	38	≤ 5	≤ 4
5	Not specified	Not specified	≤ 100.000	≤ +7	45	Not specified	Not specified
6				≤ ±10	50		
	Mass concentration[2]-C_p			LIQUID WATER CONTENT[2] - C_w			
	mg/m³			g/m³			
6	$0 < C_p \leq 5$					Not specified	Not specified
7	$5 < C_p \leq 10$			$C_w \leq 0,5$		Not specified	Not specified
8	Not specified			$0,5 \leq C_w \leq 5$		Not specified	Not specified
9	Not specified					Not specified	Not specified
X	$C_p > 10$					> 5	> 4

[1] To qualify for a class designation, each size range and particle number within a class shall be met.
[2] At reference conditions: air temperature of 20° C, absolute air pressure of 100 kPa (1 bar), 0 relative water vapour pressure.

Certificates

Fairs

TYPICAL APPLICATION REQUIREMENTS

Table shows typical compressed air applications and the classification classes needed to suit the duty. Care should be taken when using this information, as it is for guidance only since individual uses can vary.

APPLICATION	TYPICAL QUALITY CLASSES ISO 8573-1			Cyclone separator	Prefilter	Microfilter	Activated carbon filter	Refrigerated dryer	Adsorption dryer	Sterile filter
	Solids	Water	Oil							
FOOD AND BEVERAGE INDUSTRY										
Control air / drive air	2	4	2	✓	✓	✓		✓		
Sterile air overlay	1	4	1	✓	✓	✓	✓	✓		✓
Conveying air / process air	1	3-4	1	✓	✓	✓	✓		✓	✓
Packaging production and processes, moulding	1	4	2-4	✓	✓	✓		✓		✓
PAPER/TEXTILE/CHEMICAL INDUSTRY										
Control air / drive air	2	4	2	✓	✓	✓		✓		
Conveying air / process air	2	4	1	✓	✓	✓	✓	✓		
Breathing air	1	1	1-3	✓	✓	✓	✓		✓	✓
METAL WORKING/FOUNDRY/GLASS/PLASTICS INDUSTRY										
Control air / drive air	2	4	2	✓	✓	✓		✓		
Blowing air / process air	2	4	1-2	✓	✓	✓	✓	✓		
SURFACE TREATMENT										
Control air	2	4	2	✓	✓	✓		✓		
Powder coating	2	3-4	1	✓	✓	✓	✓	✓	✓	
Blasting	-	4	2	✓	✓	✓		✓	✓	
Coating	2	3-4	1	✓	✓	✓	✓	✓	✓	
Breathing air	1	1	1-3	✓	✓	✓	✓		✓	✓
MECHANICAL / PLANT ENGINEERING										
Control air	2	4	2	✓	✓	✓		✓		
Blowing air	2-3	4	2	✓	✓	✓		✓		
Drive air	2-3	4	3-4	✓	✓	✓		✓		
Process air	2	4	1	✓	✓	✓	✓	✓		
MEASUREMENT AND MONITORING SYSTEMS										
3D measurement systems	1-2	3-4	1	✓	✓	✓	✓	✓	✓	
Measurement and monitoring systems	1-2	3-4	1	✓	✓	✓	✓	✓	✓	
GENERAL PURPOSE AIR										
General workshop air / Cleaning	4	5	4	✓	✓			✓		
Machine tools	3	5	4	✓	✓			✓		
Pneumatic tools	4	4	4	✓	✓			✓		
ELECTRONICS										
Micro electronics manufacture	1	1	1	✓	✓	✓	✓		✓	
MEDICAL AIR										
Medical equipment	1	1	1	✓	✓	✓			✓	✓
Breathing air	1	1	1-3	✓	✓	✓	✓		✓	✓
Dental laboratories	1	1	1	✓	✓	✓			✓	✓

Table in accordance with VDMA recommendation, Guideline 15390-1 (Draft 11/2013).

COMPRESSED AIR FILTERS

Airborne particles, water vapour, microbes, and chemical gases enter compressors. After compression has taken place these contaminants become concentrated and more destructive.

Compressed air quality is essential to all modern production facilities. Compressed air filters, often referred to as line filters, are used to remove these contaminates from compressed air. Clean and dry air protects the compressed air system, reduces maintenance costs and increases finished product quality.

Types of filters vary depending on the application, the pressure level and type of contaminants.

Industrial filters
Industrial filters are used in typical industrial low pressure applications. They are typically made of cast aluminium for lower air flows, and of carbon steel for higher flows. They all have anticorrosion protection.

High pressure filters
Demanding technical construction calculations according to PED and ASME ensure the safe operation of the filters even at high pressures.

Sterile filters
The rugged stainless steel housing allows the sterilization process in the demanding pharmaceutical, food and similar applications.

Filters for special applications
Different types of filters are available for special applications.

COMPRESSED AIR FILTERS		Pressure	Capacity	Dew point	Page
AF	Aluminium compressed air filters	16 bar	60 - 2.760 Nm³/h		12
AF HT	Aluminium high temperature compressed air filters	16 bar	60 - 2.760 Nm³/h		14
AAF	Aluminium compressed air filters	16 bar	10 - 780 Nm³/h		16
CF	Aluminium compressed air filters	20 bar	72 - 2.760 Nm³/h		18
BF	Welded carbon steel compressed air filters	16 bar	1.680 - 31.400 Nm³/h		20
BF HP	High pressure welded carbon steel compressed air filters	25, 50 bar	1.680 - 31.400 Nm³/h		22
WFIT	Welded stainless steel comp. air filters - threaded connections	16 (12) bar	75 - 3.600 Nm³/h		24
WHFIT	High pressure stainless steel process compressed air filters	50 bar	150 - 2.400 Nm³/h		26
WFIF	Welded stainless steel comp. air filters - flanged connections	16 (12, 10) bar	150 - 21.120 Nm³/h		28
WFIW	Welded stainless steel comp. air filters - welding end connections	16 (12, 10) bar	75 - 21.120 Nm³/h		30
P-VAC	Vacuum pump protection filters	20-2000 mbar	7,5 - 345 Nm³/h		32
M-VAC	Medical vacuum filters	20-2000 mbar	7,5 - 787 Nm³/h		34
AFs	Silicone free compressed air filters	16 bar	60 - 2.760 Nm³/h		36
HF	Cast aluminium high pressure compressed air filters	50 bar	71 - 2.760 Nm³/h		38
CHP	Carbon steel high pressure compressed air filters	100, 250, 400 bar	40 - 715 Nm³/h		40
IHP	Stainless steel high pressure compressed air filters	100, 250, 400 bar	40 - 715 Nm³/h		42
PF	Stainless steel process compressed air filters	16 (12, 10) bar	75 - 21.120 Nm³/h		44
HPF	High pressure stainless steel process compressed air filters	50 bar	150 - 2.400 Nm³/h		46
SF	Stainless steel sterile compressed air filters	16 (10) bar	75 - 21.120 Nm³/h		48
SPF	Stainless steel sterile compressed air filters	16 (12) bar	75 - 3.600 Nm³/h		50
AV	Stainless steel air venting filters		9 - 310 Nm³/h		52
MSS	Mobile steam sterilizer	1 to 3,6 bar	-		54

AF SERIES

ALUMINIUM COMPRESSED AIR FILTERS

16 bar
operating pressure

60 to 2760 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

AF filters are designed for protection of the downstream compressed air system and equipment against defects and other failures.

They ensure high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems up to 16 bar. For any other technical gas please contact producer or your local distributor.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 9 different grades of filter elements (B, P, R, M, S, A, A², H² and MS²).

Optional internal and external condensate drains should be used for efficient condensate draining from filter housing.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

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B 15 µm 

P 3 µm 

R 1 µm 

M 0,1 µm 

S 0,01 µm 

A activated carbon 

A² 0,1 µm 

H² 0,1 µm 

MS² 0,1 µm 

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AOK 16B  page111

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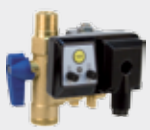
TD16M  page104

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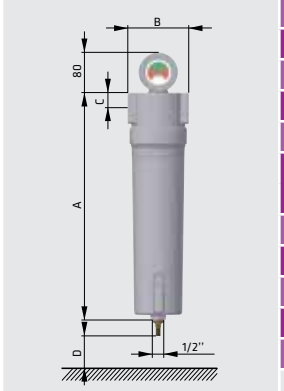
TECHNICAL DATA										FILTER ELEMENTS								
Filter housing size	Pipe size	Max. oper. press.	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon	[4] **A²** adsorption (act. carbon)	[4] **H²** catalyst (hopcalite)	[4] **MS²** molecular sieve
	inch	[bar/psi]	Nm³/h	scfm	A	B	C	D	kg									
AF 0056	3/8"	16/232	60	35	187	88	20	60	0,7	06050 B15	06050 P	06050 R	06050 M	06050 S	06050 A	-	-	-
AF 0076	1/2"	16/232	78	46	187	88	20	60	0,7	07050 B15	07050 P	07050 R	07050 M	07050 S	07050 A	07050 A²	07050 H²	07050 MS²
AF 0106	3/4"	16/232	120	70	257	88	20	80	0,8	14050 B15	14050 P	14050 R	14050 M	14050 S	14050 A	14050 A²	14050 H²	14050 MS²
AF 0186	1"	16/232	198	116	263	125	32	100	1,8	12075 B15	12075 P	12075 R	12075 M	12075 S	12075 A	12075 A²	12075 H²	12075 MS²
AF 0306	1"	16/232	335	197	363	125	32	120	2,5	22075 B15	22075 P	22075 R	22075 M	22075 S	22075 A	22075 A²	22075 H²	22075 MS²
AF 0476	1 1/2"	16/232	510	300	461	125	32	140	2,5	32075 B15	32075 P	32075 R	32075 M	32075 S	32075 A	32075 A²	32075 H²	32075 MS²
AF 0706	1 1/2"	16/232	780	459	640	125	32	160	3,2	50075 B15	50075 P	50075 R	50075 M	50075 S	50075 A	50075 A²	50075 H²	50075 MS²
AF 0946	2"	16/232	1000	588	684	163	43	520	5,1	51090 B15	51090 P	51090 R	51090 M	51090 S	51090 A	-	-	-
AF 1506	2"	16/232	1500	882	935	163	43	770	7,1	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A	-	-	-
AF 1756	2 1/2"	16/232	1680	990	935	163	43	770	6,9	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A	-	-	-
AF 2006	3"	16/232	2160	1270	795	240	59	630	12,9	51140 B15	51140 P	51140 R	51140 M	51140 S	51140 A	-	-	-
AF 2406	3"	16/232	2760	1620	1000	240	59	780	14,0	75140 B15	75140 P	75140 R	75140 M	75140 S	75140 A	-	-	-



quality class - solids (ISO 8573-1)	7	6	3	2	1	1[3]	1[3]	1[3]	1
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005	<0,005	-	-
quality class - oils (ISO 8573-1)	-	-	-	2	1	1	0/1	-	-
pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870	see spec.	see spec.	< 50 / 0,725
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]	6 months [2]	6 months [2]	
filter material	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres			
						activ. carbon	activ. carbon	hopcalite	molecular sieve
pleated version	-	✓	✓	✓	✓	-	✓	✓	✓
wrapped version	-	-	-	-	-	✓	-	-	-
sintered version	✓	-	-	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113	45 / 113	45 / 113	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] "B" filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A, A², H²", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.
[4] For elements A², H² and MS² it is necessary to reduce the flow according to technical data sheet specification.

AF HT SERIES

ALUMINIUM HIGH TEMPERATURE COMPRESSED AIR FILTERS

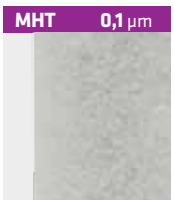
16 bar
operating pressure

60 to **2760** Nm³/h
volume flow rate

3/8” to **3”**
connections

1,5 to **120**°C
operating temperature range

RAL 5012
standard colour



DESCRIPTION

AF HT filter housings are designed for very high efficient removal of solid particles, water and oil aerosols, from compressed air systems in **high temperature applications**.

To meet the required compressed air quality, appropriate filter element (BHT, N25HT, N5HT, RHT, MHT, SHT) must be installed into filter housing.

For any other technical gas please contact producer or your local distributor.

MCDI

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Drain valve

AOK 20SS

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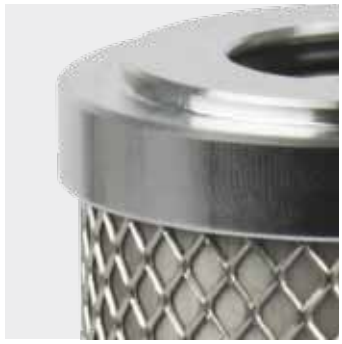
APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics




TECHNICAL DATA										FILTER ELEMENTS					
Filter housing size	Pipe size	Max.oper. press.	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**BHT** sintered 15 µm	**N25HT** prefilter 25 µm	**N5HT** prefilter 5 µm	**RHT** prefilter 1 µm	**MHT** microfilter 0,01 µm	**SHT** activated carbon
	inch	[bar/psi]	Nm³/h	scfm	A	B	C	D	kg						
AF HT 0056	3/8"	16/232	60	35	187	88	20	60	0,7	06050 BHT	06050 N25HT	06050 N5HT	06050 RHT	06050 MHT	06050 SHT
AF HT 0076	1/2"	16/232	78	46	187	88	20	60	0,7	07050 BHT	07050 N25HT	07050 N5HT	07050 RHT	07050 MHT	07050 SHT
AF HT 0106	3/4"	16/232	120	70	257	88	20	80	0,8	14050 BHT	14050 N25HT	14050 N5HT	14050 RHT	14050 MHT	14050 SHT
AF HT 0186	1"	16/232	198	116	263	125	32	100	1,8	12075 BHT	12075 N25HT	12075 N5HT	12075 RHT	12075 MHT	12075 SHT
AF HT 0306	1"	16/232	335	197	363	125	32	120	2,5	22075 BHT	22075 N25HT	22075 N5HT	22075 RHT	22075 MHT	22075 SHT
AF HT 0476	1 1/2"	16/232	510	300	461	125	32	140	2,5	32075 BHT	32075 N25HT	32075 N5HT	32075 RHT	32075 MHT	32075 SHT
AF HT 0706	1 1/2"	16/232	780	459	640	125	32	160	3,2	50075 BHT	50075 N25HT	50075 N5HT	50075 RHT	50075 MHT	50075 SHT
AF HT 0946	2"	16/232	1000	588	684	163	43	520	5,1	51090 BHT	51090 N25HT	51090 N5HT	51090 RHT	51090 MHT	51090 SHT
AF HT 1506	2"	16/232	1500	882	935	163	43	770	7,1	76090 BHT	76090 N25HT	76090 N5HT	76090 RHT	76090 MHT	76090 SHT
AF HT 1756	2 1/2"	16/232	1680	990	935	163	43	770	6,9	76090 BHT	76090 N25HT	76090 N5HT	76090 RHT	76090 MHT	76090 SHT
AF HT 2006	3"	16/232	2160	1270	795	240	59	630	12,9	51140 BHT	51140 N25HT	51140 N5HT	51140 RHT	51140 MHT	51140 XSHT
AF HT 2406	3"	16/232	2760	1620	1000	240	59	780	14,0	75140 BHT	75140 N25HT	75140 N5HT	75140 XRHT	75140 MHT	75140 SHT

quality class - solids (ISO 8573-1)	7	6	-	3	1	1
residual oil content [mg/m³]	-	-	-	-	<0,01	<0,01
quality class - oils (ISO 8573-1)	-	-	-	-	1	1
pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	10 / 0,145	20 / 0,290	80 / 1,160	80 / 1,160
change filter cartridge at pressure drop [mbar / psi]	1)	350 / 5,07	-	350 / 5,07	350 / 5,07	350 / 5,07
filter material	sintered brass	stainless steel mesh 1.4301	stainless steel mesh 1.4301	borosilicate micro fibres		
pleated version	-	-	-	✓	✓	✓
wrapped version	-	✓	✓	-	-	-
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	120-248	120-248	120-248	120-248	120-248	120-248

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

Replace filter element at least every 12 months or follow the instructions for specific filter element. Change the sealing when you disassemble filter housing. Once per year make a visual check of filter housing and make sure there is no visual damage.

AAF SERIES

ALUMINIUM COMPRESSED AIR FILTERS

16 bar
operating pressure

10 to 780 Nm³/h
volume flow rate

1/8" to 1 1/2"
connections

1,5 to 65°C
operating temperature range

RAL 5012, RAL 7040
standard colour

DESCRIPTION

AAF filters are designed for protection of the downstream compressed air system and equipment with lower air flows against defects and other failures.

They ensure high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems up to 16 bar. For any other technical gas please contact producer or your local distributor.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 5 different grades of filter elements (P, R, M, S and A).

Optional internal and external condensate drains should be used for efficient condensate draining from filter housing.

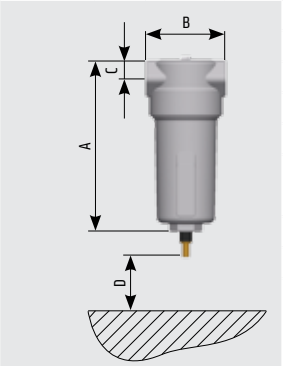
APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint





TECHNICAL DATA										FILTER ELEMENTS							
Filter housing size	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon	**CKL-AAF**	**AAR** pressure regulator	**AAL** lubricator
	inch	[bar/psi]	Nm³/h	scfm	A	B	C	D	kg								
AAF 0006[3]	1/8"	16/232	10	6	105	55	14	50	0,23	03528 P	03528 R	03528 M	03528 S	03528 A	CKL-AAF 0006	AAR 0006	AAL 0006
AAF 0016[3]	1/4"	16/232	18	11	125	55	14	70	0,24	05528 P	05528 R	05528 M	05528 S	05528 A	CKL-AAF 0016	AAR 0016	AAL 0016
AAF 0026	1/4"	16/232	25	15	145	73	18	50	0,42	03844 P	03844 R	03844 M	03844 S	03844 A	CKL-AAF 0026	AAR 0026	AAL 0026
AAF 0036	3/8"	16/232	30	18	145	73	18	50	0,42	03844 P	03844 R	03844 M	03844 S	03844 A	CKL-AAF 0036	AAR 0036	AAL 0036
AAF 0046	1/4"	16/232	35	22	189	88	32	60	0,72	06050 P	06050 R	06050 M	06050 S	06050 A	CKL-AAF 0046	-	-
AAF 0056	3/8"	16/232	60	35	189	88	32	60	0,71	06050 P	06050 R	06050 M	06050 S	06050 A	CKL-AAF 0056	-	-
AAF 0076	1/2"	16/232	78	46	189	88	32	80	0,70	07050 P	07050 R	07050 M	07050 S	07050 A	CKL-AAF 0076	-	-
AAF 0106	3/4"	16/232	120	70	257	88	32	150	0,78	14050 P	14050 R	14050 M	14050 S	14050 A	CKL-AAF 0106	-	-
AAF 0186	1"	16/232	198	116	261	125	37	160	1,9	12075 P	12075 R	12075 M	12075 S	12075 A	CKL-AAF 0186	-	-
AAF 0306	1"	16/232	335	197	361	125	37	250	2,3	22075 P	22075 R	22075 M	22075 S	22075 A	CKL-AAF 0306	-	-
AAF 0476	1 1/2"	16/232	510	300	461	125	37	350	2,5	32075 P	32075 R	32075 M	32075 S	32075 A	CKL-AAF 0476	-	-
AAF 0706	1 1/2"	16/232	780	459	641	125	37	530	3,2	50075 P	50075 R	50075 M	50075 S	50075 A	CKL-AAF 0706	-	-



quality class - solids (ISO 8573-1)	6	3	2	1	1 [2]	-	-	-
residual oil content [mg/m³]	-	-	<0,1	<0,01	<0,005	-	-	-
quality class - oils (ISO 8573-1)	-	-	2	1	1	-	-	-
pressure drop - new element [mbar / psi]	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870	-	-	-
change filter cartridge at pressure drop [mbar / psi]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [1]	-	-	-
filter material	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	-	-
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113	65 / 149	-	-

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] Filter elements "A" must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[2] Valid if "S" filter cartridge is installed upstream.
[3] For size AAF 0006 and 0016 no differential pressure indicator and no internal condensate drain is available, IED not available.

CF SERIES

ALUMINIUM COMPRESSED AIR FILTERS

20 bar
operating pressure

72 to 2760 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

CF filters are designed for protection of the downstream compressed air system with pressure up to 20 bar against defects and other failures.

They ensure high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems. For any other technical gas please contact producer or your local distributor.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 6 different grades of filter elements (B, P, R, M, S and A).

Optional internal and external condensate drains should be used for efficient condensate draining from filter housing.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

MDA60

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MDM40

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MDM40C

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B 15 µm


P 3 µm


R 1 µm


M 0,1 µm


S 0,01 µm


A activated carbon


MCD

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AOK 20B

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TD25M

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EMD HP

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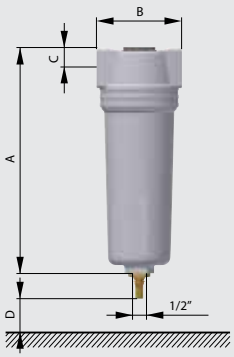
TECHNICAL DATA										FILTER ELEMENTS					
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon
	inch	bar/psi	Nm³/h	scfm	A	B	C	D	kg						
CF 20	3/8"	20/290	72	42	187	88	20	80	0,7	20 CB	20 CP	20 CR	20 CM	20 CS	20 CA
CF 21	1/2"	20/290	96	56	256	88	20	80	0,8	21 CB	21 CP	21 CR	21 CM	21 CS	21 CA
CF 30	1/2"	20/290	150	88	278	106	25	100	1,3	30 CB	30 CP	30 CR	30 CM	30 CS	30 CA
CF 31	3/4"	20/290	216	127	278	106	25	100	1,3	31 CB	31 CP	31 CR	31 CM	31 CS	31 CA
CF 40	1"	20/290	282	166	252	125	32	120	2,1	40 CB	40 CP	40 CR	40 CM	40 CS	40 CA
CF 41	1"	20/290	360	212	352	125	32	140	2,4	41 CB	41 CP	41 CR	41 CM	41 CS	41 CA
CF 42	1 1/4"	20/290	432	254	352	125	32	140	2,4	42 CB	42 CP	42 CR	42 CM	42 CS	42 CA
CF 43	1 1/2"	20/290	510	300	450	125	32	160	3,2	43 CB	43 CP	43 CR	43 CM	43 CS	43 CA
CF 44	1 1/2"	20/290	750	441	450	125	32	160	3,2	44 CB	44 CP	44 CR	44 CM	44 CS	44 CA
CF 50	2"	20/290	888	522	605	160	43	180	5,1	50 CB	50 CP	50 CR	50 CM	50 CS	50 CA
CF 51	2"	20/290	1176	692	605	160	43	180	5,1	51 CB	51 CP	51 CR	51 CM	51 CS	51 CA
CF 52	2 1/2"	20/290	1440	847	685	160	43	200	6,3	52 CB	52 CP	52 CR	52 CM	52 CS	52 CA
CF 60	3"	20/290	1968	1158	800	240	55	300	12,9	60 CB	60 CP	60 CR	60 CM	60 CS	60 CA
CF 61	3"	20/290	2760	1624	800	240	55	300	12,9	61 CB	61 CP	61 CR	61 CM	61 CS	61 CA



quality class - solids (ISO 8573-1)	7	6	3	2	1	1 [3]
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]
filter media	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon
pleated version	-	✓	✓	✓	✓	-
wrapped version	-	-	-	-	-	✓
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113

CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232	247	261	276	290
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13	2,25	2,38	2,50	2,63

[1] B filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.

BF SERIES

WELDED CARBON STEEL COMPRESSED AIR FILTERS

16 bar
operating pressure

1680 to 31400 Nm³/h
volume flow rate

DN80 to DN300
connections

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

BF filters are designed for protection of the downstream compressed air system and equipment against defects and other failures. Due to their robust welded carbon steel construction, are used for installation in heavy industrial applications with high air flows.

They ensure high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems up to 16 bar. For any other technical gas please contact producer or your local distributor.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 6 different grades of filter elements (B, P, R, M, S and A).

Optional external condensate drains should be used for efficient condensate draining from filter housing.

Fluid group 1 on request.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

MDA60

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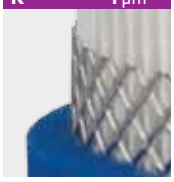
B 15 µm

P 3 µm

R 1 µm



M 0,1 µm

S 0,01 µm

A activated carbon

AOK 20B

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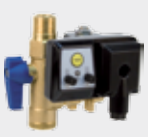
TD16M



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ECD-B

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EMD12

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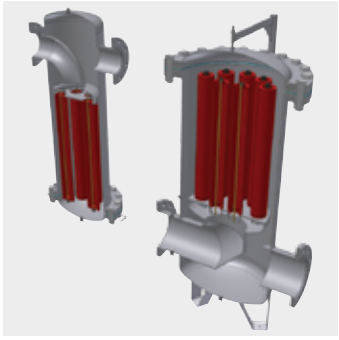
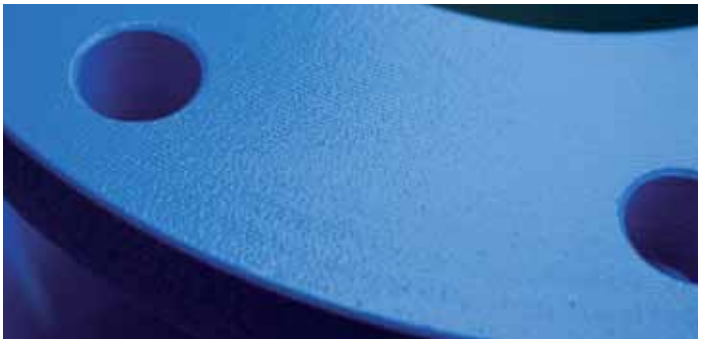
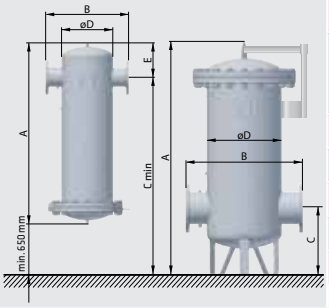




TECHNICAL DATA											FILTER ELEMENTS					
Filter housing size	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]					Mass	**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon
	DN	bar/psi	Nm³/h	scfm	A	B	C	D	E	kg						
BF 0240	80	16/232	1.680	989	1170	450	1645	219	177	61	1×76090 B15	1×76090 P	1×76090 R	1×76090 M	1×76090 S	1×76090 A
BF 0300	100	16/232	3.150	1.853	1340	560	1780	324	227	115	2×76090 B15	2×76090 P	2×76090 R	2×76090 M	2×76090 S	2×76090 A
BF 0450	125	16/232	4.700	2.765	1340	560	1780	324	227	123	3×76090 B15	3×76090 P	3×76090 R	3×76090 M	3×76090 S	3×76090 A
BF 0600	150	16/232	6.300	3.706	1425	620	1810	368	265	178	4×76090 B15	4×76090 P	4×76090 R	4×76090 M	4×76090 S	4×76090 A
BF 0900	150	16/232	9.400	5.530	1480	680	1850	419	650	218	6×76090 B15	6×76090 P	6×76090 R	6×76090 M	6×76090 S	6×76090 A
BF 1200	200	16/232	12.550	7.382	1835	792	510	508	-	320	8×76090 B15	8×76090 P	8×76090 R	8×76090 M	8×76090 S	8×76090 A
BF 1500	200	16/232	15.700	9.235	1880	918	535	610	-	455	10×76090 B15	10×76090 P	10×76090 R	10×76090 M	10×76090 S	10×76090 A
BF 1800	250	16/232	18.850	11.088	1950	955	555	610	-	500	12×76090 B15	12×76090 P	12×76090 R	12×76090 M	12×76090 S	12×76090 A
BF 2500	250	16/232	25.100	14.765	2060	1042	645	711	-	590	16×76090 B15	16×76090 P	16×76090 R	16×76090 M	16×76090 S	16×76090 A
BF 3000	300	16/232	31.400	18.481	2130	1085	680	711	-	684	20×76090 B15	20×76090 P	20×76090 R	20×76090 M	20×76090 S	20×76090 A

BF 0240
BF 0300
BF 0450
BF 0600
BF 0900

BF 1200
BF 1500
BF 1800
BF 2500
BF 3000



quality class - solids (ISO 8573-1)	7	6	3	2	1	1 [3]
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]
filter media	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon
pleated version	-	✓	✓	✓	✓	-
wrapped version	-	-	-	-	-	✓
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] "B" filter element can be cleared with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A" must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.
Models BF 0240 to BF 0900 can be produced with optional integrated support legs, which should be noticed at order.

BF HP SERIES

HIGH PRESSURE WELDED CARBON STEEL COMPRESSED AIR FILTERS

25, 50 bar
operating pressure

1680 to 31400 Nm³/h
volume flow rate

DN80 to DN300
connections

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

BF HP filters are designed for protection of the downstream compressed air system and equipment against defects and other failures in high pressure applications. Due to their robust welded carbon steel construction, are used for installation in heavy industrial applications with high air flows.

They ensure high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems up to 25 or upo to 50 bar. For any other technical gas please contact producer or your local distributor.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 6 different grades of filter elements (B, P, R, M, S and A).

Optional external condensate drains should be used for efficient condensate draining from filter housing.
Fluid group 1 on request.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

MDH150

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MDH200

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B 15 µm

P 3 µm

R 1 µm

M 0,1 µm

S; 0,01 µm

A activated carbon

TD50M

page104

EMD HP

page102

AOK 50B

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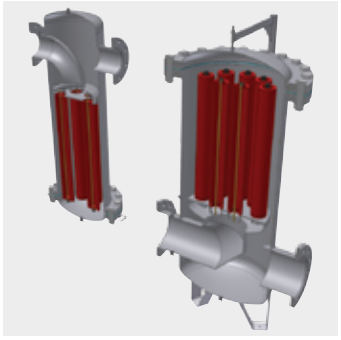
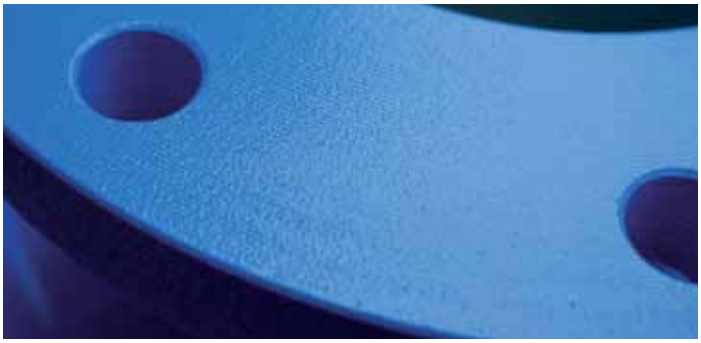
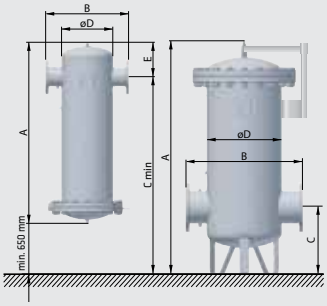




TECHNICAL DATA									FILTER ELEMENTS					
Filter housing size	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon
	DN	bar/psi	Nm³/h	scfm	A	C	D	E						
BF HP 0240	80	25/362; 50/725	1.680	989	1170	1645	219	177	1×76090 B15	1×76090 P	1×76090 R	1×76090 M	1×76090 S	1×76090 A
BF HP 0300	100	25/362; 50/725	3.150	1.853	1340	1780	324	227	2×76090 B15	2×76090 P	2×76090 R	2×76090 M	2×76090 S	2×76090 A
BF HP 0450	125	25/362; 50/725	4.700	2.765	1340	1780	324	227	3×76090 B15	3×76090 P	3×76090 R	3×76090 M	3×76090 S	3×76090 A
BF HP 0600	150	25/362; 50/725	6.300	3.706	1425	1810	368	265	4×76090 B15	4×76090 P	4×76090 R	4×76090 M	4×76090 S	4×76090 A
BF HP 0900	150	25/362; 50/725	9.400	5.530	1480	1850	419	650	6×76090 B15	6×76090 P	6×76090 R	6×76090 M	6×76090 S	6×76090 A
BF HP 1200	200	25/362; 50/725	12.550	7.382	1835	510	508	-	8×76090 B15	8×76090 P	8×76090 R	8×76090 M	8×76090 S	8×76090 A
BF HP 1500	200	25/362; 50/725	15.700	9.235	1880	535	610	-	10×76090 B15	10×76090 P	10×76090 R	10×76090 M	10×76090 S	10×76090 A
BF HP 1800	250	25/362; 50/725	18.850	11.088	1950	555	610	-	12×76090 B15	12×76090 P	12×76090 R	12×76090 M	12×76090 S	12×76090 A
BF HP 2500	250	25/362; 50/725	25.100	14.765	2060	645	711	-	16×76090 B15	16×76090 P	16×76090 R	16×76090 M	16×76090 S	16×76090 A
BF HP 3000	300	25/362; 50/725	31.400	18.481	2130	680	711	-	20×76090 B15	20×76090 P	20×76090 R	20×76090 M	20×76090 S	20×76090 A

BF HP 0240
BF HP 0300
BF HP 0450
BF HP 0600
BF HP 0900

BF HP 1200
BF HP 1500
BF HP 1800
BF HP 2500
BF HP 3000



quality class - solids (ISO 8573-1)	7	6	3	2	1	1 [3]
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]
filter media	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon
pleated version	-	✓	✓	✓	✓	-
wrapped version	-	-	-	-	-	✓
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113

CORRECTION FACTORS											
Operating pressure [bar]	3	5	7	10	13	16	20	25	30	40	50
Operating pressure [psi]	44	72	100	145	189	232	290	362	435	580	725
Correction factor	0,50	0,75	1	1,38	1,75	2,13	2,63	3,25	3,88	5,13	6,38

[1] "B" filter element can be cleared with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A" must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.
Models BF HP 0240 to BF HP 0900 can be produced with optional integrated support legs, which should be noticed at order.

WFIT SERIES

WELDED STAINLESS STEEL COMPRESSED AIR FILTERS - THREADED CONNECT.

16 (12) bar
operating pressure

75 to 3600 Nm³/h
volume flow rate

1/4" to 3"
connections

up to +150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

WFIT welded stainless steel filters with threaded connections are designed for protection of the downstream compressed air system and equipment against defects and other failures.

They are used for filtration of compressed air as well as many other gasses where the risk for corrosion is very high or where stainless steel housing is required.

To meet the required gas quality appropriate filter element must be installed into filter housing.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 8 different grades of filter elements (PI, PIW, PN, PP, PR, PM, PS and PA).

Optional external condensate drains should be used for efficient condensate draining from filter housing.

Fluid group 1 on request.

APPLICATIONS

- Biotechnology
- Breweries
- Chemical industry
- Petrochemical industry
- Dairies
- Fermentation processes
- Pharmaceutical industry
- Hospitals

MDHI 50 KIT

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PI 1; 20 µm

PIW 1; 20 µm

PN 5; 25 µm

PP 3 µm

PR 1 µm

PM 0,1 µm

PS 0,01 µm

PA activated carbon

Drain valve

MCDI

page113

AOK 20SS

page108

TD16Mcr

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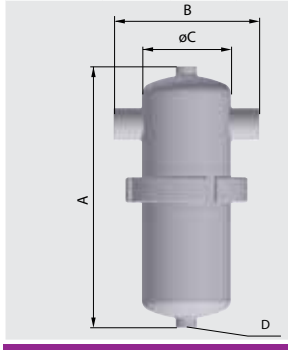
TECHNICAL DATA										FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]				Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
	inch	bar	Nm³/h	scfm	A	B	C	D	kg								
WFIT 005	1/4"	16	75	44	202	116	76,1	1/2"	1,9	0310 PI	0310 PIW	0310 PN	0310 PP	0310 PR	0310 PM	0310 PS	0310 PA
WFIT 007	3/8"	16	105	62	232	120	76,1	1/2"	2,2	0410 PI	0410 PIW	0410 PN	0410 PP	0410 PR	0410 PM	0410 PS	0410 PA
WFIT 010	1/2"	16	150	88	230	125	76,1	1/2"	2,2	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
WFIT 018	3/4"	16	225	132	254	125	76,1	1/2"	2,3	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
WFIT 030	1"	16	315	185	275	136	88,9	1/2"	3,1	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA
WFIT 047	1 1/4"	16	420	247	337	155	88,9	1/2"	3,5	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
WFIT 070	1 1/2"	16	600	353	386	180	114,3	1/2"	4,8	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
WFIT 094	2"	16	900	530	457	180	114,3	1/2"	5,4	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
WFIT 150	2"	16	1.260	742	583	180	114,3	1/2"	6,1	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530 PA
WFIT 175	2 1/2"	16	1.680	989	740	224	139,7	1/2"	9,2	2030 PI	2030 PIW	2030 PN	2030 PP	2030 PR	2030 PM	2030 PS	2030 PA
WFIT 200	3"	12	2.400	1.413	1004	224	139,7	1/2"	11,5	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA
WFIT 240	3"	12	3.600	2.119	1029	252	168,3	1/2"	15,1	3050 PI	3050 PIW	3050 PN	3050 PP	3050 PR	3050 PM	3050 PS	3050 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1)]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

WHFIT SERIES

HIGH PRESSURE STAINLESS STEEL PROCESS COMPRESSED AIR FILTERS

50 bar
operating pressure

150 to 2400 Nm³/h
volume flow rate

1/2" to 3"
connections

up to +150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

WHFIT process filter housings are designed for applications in process industry, where the risk for corrosion of compressed air system components is very high. WHFIT process filter housing can be used in variety of applications. For applications not listed please contact producer or your local distributor.

For any other technical gas please contact producer or your local distributor. For oil removal, coalescing filter element must be installed and flow direction inside-out must be provided. General arrangement is filter head on top and filter bowl on bottom.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 8 different grades of filter elements (PI, PIW, PN, PP, PR, PM, PS and PA).

• Fluid group 1 on request.

APPLICATIONS

• Packing industry
• Biotechnology
• Breweries
• Chemical industry
• Dairies
• Fermentation processes
• Food and beverage industry
• Pharmaceutical industry
• Hospitals

MDHI 50 KIT

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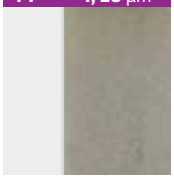
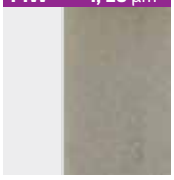
PI 1; 20 µm



PIW 1; 20 µm

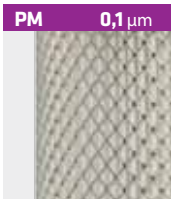


PN 5; 25 µm

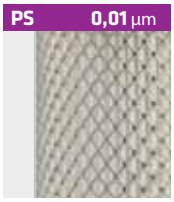
PP 3 µm

PR 1 µm

PM 0,1 µm



PS 0,01 µm



PA activated carbon

Drain valve

AOK 50 SS

page110

TD 400M

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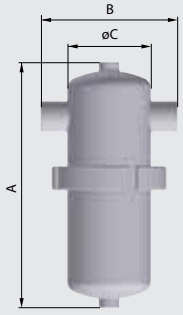
TECHNICAL DATA									FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]			Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
	inch	bar	Nm³/h	scfm	A	B	C	kg								
WHFIT 010	1/2"	50	150	88	231	125	76,1	2,5	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
WHFIT 018	3/4"	50	225	132	253	125	76,1	2,6	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
WHFIT 030	1"	50	315	185	274	136	88,9	3,4	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA
WHFIT 047	1 1/4"	50	420	247	336	155	88,9	3,9	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
WHFIT 070	1 1/2"	50	600	353	387	180	114,3	5,6	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
WHFIT 094	2"	50	900	530	453	180	114,3	6,2	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
WHFIT 150	2"	50	1260	742	580	180	114,3	6,9	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530 PA
WHFIT 200	3"	50	2400	1413	1005	224	139,7	14,1	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new elem.-dry [mbar / psi]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS					
Operating pressure [bar]	7	20	30	40	50
Operating pressure [psi]	100	290	435	580	725
Correction factor	1	2,63	3,88	5,13	6,38

[1] Valid if "S" filter cartridge is installed upstream.

WFIF SERIES

WELDED STAINLESS STEEL FILTERS - FLANGED CONNECTIONS

16 (12, 10) bar
operating pressure

150 to 21120 Nm³/h
volume flow rate

DN15 to DN200
connections

up to +150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

WFIF welded stainless steel filter housings with flange connections are designed filtration of compressed air as well as many other gasses where the risk for corrosion is very high or where stainless steel housing is required.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 8 different grades of filter elements (PI, PIW, PN, PP, PR, PM, PS and PA).

• Fluid group 1 on request.

Optional external condensate drains should be used for efficient condensate draining from filter housing.

APPLICATIONS

- Biotechnology
- Breweries
- Chemical industry
- Petrochemical industry
- Dairies
- Fermentation processes
- Pharmaceutical industry
- Pharmaceutical industry
- Hospitals

MDHI 50 KIT

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PI 1; 20 µm

PIW 1; 20 µm

PN 5; 25 µm

PP 3 µm

PR 1 µm

PM 0,1 µm

PS 0,01 µm

PA activated carbon

Drain valve

MCDI

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AOK 20SS

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TD16Mcr

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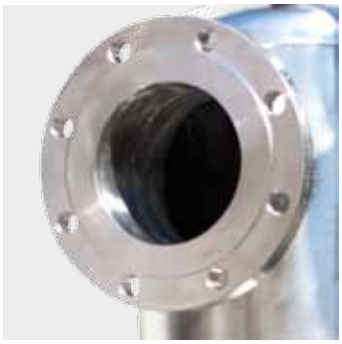
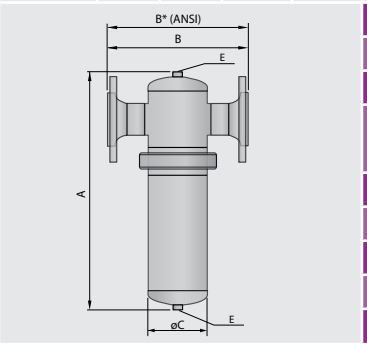




TECHNICAL DATA											FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]					Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
		bar	Nm³/h	scfm	A	B	B*	C	E	kg								
WFIF 010	DN15	16	150	88	230	195	-	76,1	1/2"	3,7	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
WFIF 018	DN20	16	225	132	254	201	219	76,1	1/2"	4,5	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
WFIF 030	DN25	16	315	185	275	216	244	88,9	1/2"	5,7	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA
WFIF 047	DN32	16	420	247	337	235	257	88,9	1/2"	7,3	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
WFIF 070	DN40	16	600	353	386	260	290	114,3	1/2"	9,1	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
WFIF 094	DN50	16	900	530	457	270	304	114,3	1/2"	10,4	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
WFIF 150	DN50	16	1.260	742	583	270	304	114,3	1/2"	11,1	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530-PA
WFIF 175	DN65	16	1.680	989	740	294	340	139,7	1/2"	14,2	2030 PI	2030 PIW	2030 PN	2030 PP	2030 PR	2030 PM	2030 PS	2030 PA
WFIF 200	DN80	12	2.400	1.413	1004	304	340	139,7	1/2"	19,3	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA
WFIF 240	DN80	12	3.600	2.119	1029	332	368	168,3	1/2"	22,9	3050 PI	3050 PIW	3050 PN	3050 PP	3050 PR	3050 PM	3050 PS	3050 PA
WFIF 450	DN100	10	5.040	2.966	986	410	-	219,1	1"	55	3x2030 PI	3x2030 PIW	3x2030 PN	3x2030 PP	3x2030 PR	3x2030 PM	3x2030 PS	3x2030 PA
WFIF 600	DN100	10	6.720	3.955	1240	410	-	219,1	1"	58	3x3030 PI	3x3030 PIW	3x3030 PN	3x3030 PP	3x3030 PR	3x3030 PM	3x3030 PS	3x3030 PA
WFIF 900	DN150	10	9.600	5.650	1311	480	-	273,0	1"	87	4x3030 PI	4x3030 PIW	4x3030 PN	4x3030 PP	4x3030 PR	4x3030 PM	4x3030 PS	4x3030 PA
WFIF 1200	DN150	10	13.440	7.910	1351	540	-	323,9	1"	108	6x3030 PI	6x3030 PIW	6x3030 PN	6x3030 PP	6x3030 PR	6x3030 PM	6x3030 PS	6x3030 PA
WFIF 1800	DN200	10	17.280	10.171	1496	660	-	406,4	1"	200	8x3030 PI	8x3030 PIW	8x3030 PN	8x3030 PP	8x3030 PR	8x3030 PM	8x3030 PS	8x3030 PA
WFIF 2000	DN200	10	21.120	12.431	1496	660	-	406,4	1"	200	10x3030 PI	10x3030 PIW	10x3030 PN	10x3030 PP	10x3030 PR	10x3030 PM	10x3030 PS	10x3030 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] Valid if "S" filter cartridge is installed upstream.
B = flange connection EN 1092-1/11 PN16
B* = flange connection ANSI B16.5 WN Cl 150

WFIW SERIES

WELDED STAINLESS STEEL FILTERS - WELDING END CONNECTIONS

16 (12, 10) bar
operating pressure

75 to 21120 Nm³/h
volume flow rate

ø13 to ø219,1
connections

up to +150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

WFIW welded stainless steel filter housings have been specifically developed for filtration of compressed air as well as many other gases (for list of suitable gasses please contact us or your local dealer) where the risk for corrosion is very high or where stainless steel housing is required.

To meet the required gas quality appropriate filter element must be installed into filter housing.

Fluid group 1 on request.

APPLICATIONS

- Biotechnology
- Breweries
- Chemical industry
- Petrochemical industry
- Diaries
- Fermentation processes
- Pharmaceutical industry
- Hospitals

MDHI 50 KIT

page83

PI 1; 20 µm

PIW 1; 20 µm

PN 5; 25 µm

PP 3 µm

PR 1 µm

PM 0,1 µm

PS 0,01 µm

PA activated carbon

Drain valve

MCDI

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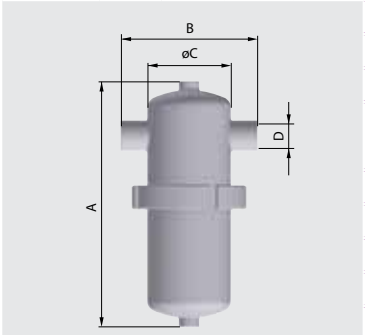
TECHNICAL DATA										FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]				Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
	[ø, mm]	bar	Nm³/h	scfm	A	B	C	D	kg								
WFIW 005	13,5	16	75	44	202	116	76,1	1/2"	1,7	0310 PI	0310 PIW	0310 PN	0310 PP	0310 PR	0310 PM	0310 PS	0310 PA
WFIW 010	14,2	16	150	88	230	125	76,1	1/2"	1,9	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
WFIW 018	21,3	16	225	132	254	125	76,1	1/2"	2,0	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
WFIW 030	26,9	16	315	185	275	136	88,9	1/2"	2,6	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525-PS	0525 PA
WFIW 047	33,7	16	420	247	337	155	88,9	1/2"	3,0	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
WFIW 070	48,3	16	600	353	386	180	114,3	1/2"	4,3	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
WFIW 094	60,3	16	900	530	457	180	114,3	1/2"	4,8	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
WFIW 150	60,3	16	1260	742	583	180	114,3	1/2"	5,3	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530-PA
WFIW 175	76,1	16	1680	989	740	224	139,7	1/2"	9,0	2030 PI	2030 PIW	2030 PN	2030 PP	2030 PR	2030 PM	2030 PS	2030 PA
WFIW 200	88,9	12	2400	1413	1004	224	139,7	1/2"	10,8	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA
WFIW 240	88,9	12	3600	2119	1029	252	168,3	1/2"	16,2	3050 PI	3050 PIW	3050 PN	3050 PP	3050 PR	3050 PM	3050 PS	3050 PA
WFIW 450	114,3	10	5040	2966	986	410	219,1	1"	45	3x2030 PI	3x2030 PIW	3x2030 PN	3x2030 PP	3x2030 PR	3x2030 PM	3x2030 PS	3x2030 PA
WFIW 600	114,3	10	6720	3955	1240	410	219,1	1"	46	3x3030 PI	3x3030 PIW	3x3030 PN	3x3030 PP	3x3030 PR	3x3030 PM	3x3030 PS	3x3030 PA
WFIW 900	168,3	10	9600	5650	1311	480	273,0	1"	70	4x3030 PI	4x3030 PIW	4x3030 PN	4x3030 PP	4x3030 PR	4x3030 PM	4x3030 PS	4x3030 PA
WFIW 1200	168,3	10	13440	7910	1351	540	323,9	1"	80	6x3030 PI	6x3030 PIW	6x3030 PN	6x3030 PP	6x3030 PR	6x3030 PM	6x3030 PS	6x3030 PA
WFIW 1800	219,1	10	17280	10171	1496	660	406,4	1"	135	8x3030 PI	8x3030 PIW	8x3030 PN	8x3030 PP	8x3030 PR	8x3030 PM	8x3030 PS	8x3030 PA
WFIW 2000	219,1	10	21120	12431	1496	660	406,4	1"	135	10x3030 PI	10x3030 PIW	10x3030 PN	10x3030 PP	10x3030 PR	10x3030 PM	10x3030 PS	10x3030 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1)]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

Replace filter element at least every 12 months or follow the instructions for specific filter element. Change the sealing when you disassemble filter housing. Once per year make a visual check of filter housing and make sure there is no visual damage.

P-VAC SERIES

VACUUM PUMP PROTECTION FILTERS

20 to 2000 mbar(abs)
operating pressure

7,5 to 345 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

P-VAC filters are designed for protection of vacuum pumps. These filters are optimized for high-efficient removal of solid particles and other contamination from the suction side of vacuum pumps preventing damage to the pump.

Two filtration stages are available for P-VAC filters. Rough prefilter "VACP" removes bulk liquid and large solid particles, while high efficiency microfilter VACM removes very fine impurities which may damage the pump.

APPLICATIONS

- Vacuum pumps

VPG 60

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VPG 60E

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VPG 60C

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VACP 3 µm


VACM 0,1 µm


MCD-B

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MCD

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Drain valve


EVD

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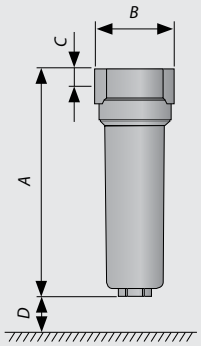
TECHNICAL DATA									FILTER ELEMENTS	
Filter model	Pipe size	Free air capacity at atmospheric pressure		Dimensions [mm]				Mass	**VACP** Prefilter	**VACM** Microfilter
	inch	Nm³/h	scfm	A	B	C	D	kg		
P-VAC 0056	3/8"	7,5	4,5	187	88	20	60	0,7	06050 VACP	06050 VACM
P-VAC 0076	1/2"	9,8	5,8	187	88	20	60	0,7	07050 VACP	07050 VACM
P-VAC 0106	3/4"	15,0	8,8	257	88	20	80	0,8	14050 VACP	14050 VACM
P-VAC 0186	1"	24,8	14,6	263	125	32	100	1,8	12075 VACP	12075 VACM
P-VAC 0306	1"	41,9	24,7	363	125	32	120	2,5	22075 VACP	22075 VACM
P-VAC 0476	1 1/2"	63,8	37,6	461	125	32	140	2,5	32075 VACP	32075 VACM
P-VAC 0706	1 1/2"	97,5	57,4	640	125	32	160	3,2	50075 VACP	50075 VACM
P-VAC 0946	2"	125	73,6	684	163	43	520	5,1	51090 VACP	51090 VACM
P-VAC 1506	2"	187	110,4	935	163	43	770	7,1	76090 VACP	76090 VACM
P-VAC 1756	2 1/2"	210	123,6	935	163	43	770	6,9	76090 VACP	76090 VACM
P-VAC 2006	3"	270	158,9	795	240	59	630	12,9	51140 VACP	51140 VACM
P-VAC 2406	3"	345	203	1000	240	59	780	14,0	75140 VACP	75140 VACM



pressure drop - new element-dry [mbar / psi]	10 / 0,15	30 / 0,45
filter media	acrilyc fibres, cellulose	borosilicate micro fibres
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149

CORRECTION FACTORS												
Absolute pressure [bar]	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02
Absolute pressure [psi]	14,7	13	11,6	10,2	8,7	7,3	5,8	3,3	2,9	1,45	0,73	0,29
Correction factor	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02

• To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor.

M-VAC SERIES

MEDICAL VACUUM FILTERS

20 to 2000 mbar(abs)
operating pressure

7,5 to 787 Nm³/h
volume flow rate

3/8" to DN150
connections

1,5 to 65°C
operating temperature range

RAL 9003
standard colour

DESCRIPTION

M-VAC filters are designed for medical vacuum applications. They are optimized for high-efficient removal of bacterial and other contamination (solids and liquids) from the suction side of vacuum pumps preventing damage to the pump and the potential biological infection of the surrounding environment. Removed liquids are collected in a transparent flask which can be removed for sterilisation.

The efficiency of the installed filter elements exceeds the 0,005 % penetration specified in HTM 2022 for infectious disease units, when tested in accordance with BS 3928.

APPLICATIONS

- Operating theatres
- Maternity units
- Dental applications
- Pathology laboratories
- Pharmaceutical applications
- Mortuary and post-mortem rooms

VPG 60

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VPG 60E

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VPG 60C

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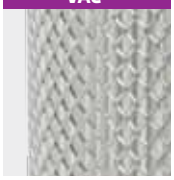
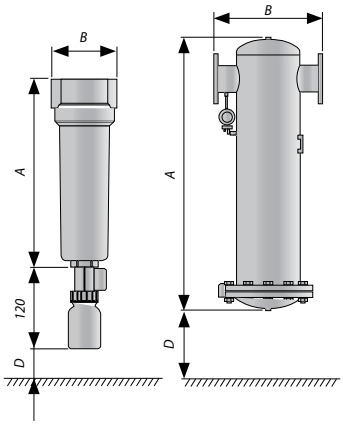
VAC






TECHNICAL DATA								FILTER ELEMENTS
Filter model	Pipe size	Free air capacity at atmospheric pressure		Dimensions [mm]			Mass	VAC
	inch	Nm³/h	scfm	A	B	D	kg	
M-VAC 0056	3/8"	7,5	4	187	88	60	0,7	06050
M-VAC 0076	1/2"	9,8	6	187	88	60	0,7	07050
M-VAC 0106	3/4"	15,0	9	257	88	80	0,8	14050
M-VAC 0186	1"	24,8	15	263	125	100	1,8	12075
M-VAC 0306	1"	41,9	25	363	125	120	2,5	22075
M-VAC 0476	1 1/2"	63,8	38	461	125	140	2,5	32075
M-VAC 0706	1 1/2"	97,5	57	640	125	160	3,2	50075
M-VAC 0946	2"	125	74	684	163	520	5,1	51090
M-VAC 1506	2"	187,5	110	935	163	770	7,1	76090
M-VAC 1756	2 1/2"	210	124	935	163	770	6,9	76090
M-VAC 2006	3"	270	159	795	240	630	12,9	51140
M-VAC 2406	3"	345	203	1000	240	780	14	75140
M-VAC B240	DN80	275	162	1170	450	650	61	1x 76090
M-VAC B300	DN100	394	232	1340	560	650	115	2x 76090
M-VAC B450	DN125	587	345	1340	560	650	123	3x 76090
M-VAC B600	DN150	787	463	1425	620	650	178	4x 76090
							pressure drop - new element-dry [mbar / psi]	30 / 0,45
							filter media	borosilicate micro fibes
							min. operating temperature (°C / °F)	1,5 / 35
							max. operating temperature (°C / °F)	65 / 149



CORRECTION FACTORS												
Absolute pressure [bar]	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02
Absolute pressure [psi]	14,7	13	11,6	10,2	8,7	7,3	5,8	3,3	2,9	1,45	0,73	0,29
Correction factor	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02

• To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor.

AFs SERIES

SILICONE FREE FILTERS

16 bar
operating pressure

60 to **2760** Nm³/h
volume flow rate

3/8” to **3”**
connections

1,5 to **65**°C
operating temperature range

RAL 3020
standard colour

MCDI

page113

Drain valve

DESCRIPTION

AFs filters are designed for applications in paint industry. Quantity of substances that could cause impairments in paint wetting applications or cause defects in paint work have been reduced to a minimum.

To meet the required compressed air quality appropriate “paint compatible” filter element must be installed into filter housing.

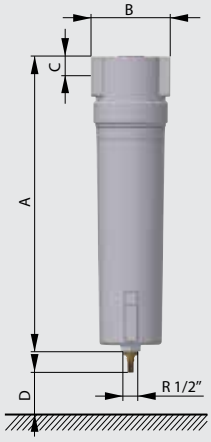
APPLICATIONS

- Painting
- Automotive industry





TECHNICAL DATA									FILTER ELEMENTS	
Filter model	Pipe size	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**Ms** Microfilter 0,1 µm	**Ss** Microfilter 0,01 µm
	inch	Nm³/h	scfm	A	B	C	D	kg		
AFs 0056	3/8"	60	35	187	88	20	60	0,7	06050 Ms	06050 Ss
AFs 0076	1/2"	75	46	187	88	20	60	0,7	07050 Ms	07050 Ss
AFs 0106	3/4"	120	70	257	88	20	80	0,8	14050 Ms	14050 Ss
AFs 0186	1"	198	116	263	125	32	100	1,8	12075 Ms	12075 Ss
AFs 0306	1"	335	197	363	125	32	120	2,5	22075 Ms	22075 Ss
AFs 0476	1 1/2"	510	300	461	125	32	140	2,5	32075 Ms	32075 Ss
AFs 0706	1 1/2"	780	459	640	125	32	160	3,2	50075 Ms	50075 Ss
AFs 0946	2"	1000	588	684	163	43	520	5,1	51090 Ms	51090 Ss
AFs 1506	2"	1500	882	935	163	43	770	7,1	76090 Ms	76090 Ss
AFs 1756	2 1/2"	1680	990	935	163	43	770	6,9	76090 Ms	76090 Ss
AFs 2006	3"	2160	1270	795	240	59	630	12,9	51140 Ms	51140 Ss
AFs 2406	3"	2760	1620	1000	240	59	780	14,0	75140 Ms	75140 Ss



quality class - solids (ISO 8573-1)	2	1
quality class - oils (ISO 8573-1)	2	1
residual oil content	<0,1 mg/m³	<0,01 mg/m³
pressure drop - new element-dry [mbar / psi]	50/0,725	80 / 1,160
pressure drop - new element-wet [mbar / psi]	120/1,74	190 / 2,756
change filter element at pressure drop [mbar / psi]	350 mbar	350 mbar
filter media	borosilicate micro fibes	borosilicate micro fibes
pleated version	✓	✓
wrapped version	-	-
sintered version	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

HF SERIES

CAST ALUMINIUM HIGH PRESSURE FILTERS

50 bar
operating pressure

71 to **2760** Nm³/h
volume flow rate

1/2" to **3"**
connections

1,5 to **65**°C
operating temperature range

RAL 5012
standard colour

RAL 7040
optional colour

MDHI 50

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MDH200

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B 15 µm

P 3 µm

R 1 µm

M 0,1 µm

S 0,01 µm

A activated carbon

TD50M

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Drain valve

EMD HP

page102

AOK 50B

page109

DESCRIPTION

HF filters are designed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons and other vapours from compressed air systems.

To meet the required compressed air quality appropriate filter element (B, P, R, M, S, A) must be installed into filter housing.

For any other technical gas please contact producer or your local distributor.

Optional external condensate drains should be used for efficient condensate draining from filter housing.

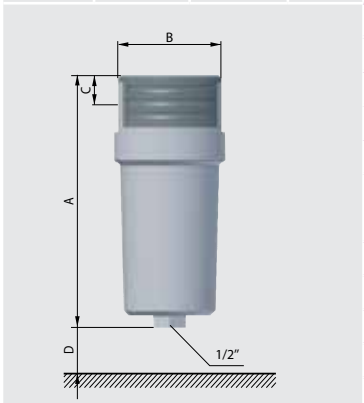
APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- PET
- Paint





TECHNICAL DATA										FILTER ELEMENTS					
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon
	inch	bar/psi	Nm³/h	scfm	A	B	C	D	kg						
HF 007	1/2"	50/725	71	42	250	110	30	80	2,1	HF 6060 B	HF 6060 P	HF 6060 R	HF 6060 M	HF 6060 S	HF 6060 A
HF 010	3/4"	50/725	112	66	250	110	30	90	2,1	HF 7060 B	HF 7060 P	HF 7060 R	HF 7060 M	HF 7060 S	HF 7060 A
HF 018	1"	50/725	204	120	250	110	30	140	2,1	HF 12060 B	HF 12060 P	HF 12060 R	HF 12060 M	HF 12060 S	HF 12060 A
HF 047	1 1/2"	50/725	282	166	535	160	45	260	9,5	HF 22090 B	HF 22090 P	HF 22090 R	HF 22090 M	HF 22090 S	HF 22090 A
HF 070	1 1/2"	50/725	400	235	535	160	45	360	9,5	HF 32090 B	HF 32090 P	HF 32090 R	HF 32090 M	HF 32090 S	HF 32090 A
HF 094	2"	50/725	494	291	715	160	45	540	12,2	HF 50090 B	HF 50090 P	HF 50090 R	HF 50090 M	HF 50090 S	HF 50090 A
HF 150	2"	50/725	799	470	715	160	45	550	12,2	HF 51090 B	HF 51090 P	HF 51090 R	HF 51090 M	HF 51090 S	HF 51090 A
HF 200	3"	50/725	2160	1270	862	198	70	620	30,4	HF 51140 B	HF 51140 P	HF 51140 R	HF 51140 M	HF 51140 S	HF 51140 A
HF 240	3"	50/725	2760	1620	1010	198	70	780	34,9	HF 75140 B	HF 75140 P	HF 75140 R	HF 75140 M	HF 75140 S	HF 75140 A



quality class - solids (ISO 8573-1)	7	6	3	2	1	1 [3]
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop - new element [mbar / psi]	20 / 0,29	10 / 0,145	20 / 0,29	50 / 0,725	80 / 1,16	60 / 0,87
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]
filter media	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon
pleated version	-	✓	✓	✓	✓	-
wrapped version	-	-	-	-	-	✓
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113

CORRECTION FACTORS										
Operating pressure [bar]	3	5	7	10	13	16	20	30	40	50
Operating pressure [psi]	44	72	100	145	189	232	290	435	580	725
Correction factor	0,50	0,75	1	1,38	1,75	2,13	2,63	3,88	5,13	6,38

[1] B filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A,", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.

CHP SERIES

CARBON STEEL HIGH PRESSURE FILTERS

100, 250, 400 bar
operating pressure

40 to 715 Nm³/h
volume flow rate

1/4" to 2"
connections

1,5 to 65°C
operating temperature range

Nickel plated 25 µm
surface protection

DESCRIPTION

CHP carbon steel high pressure filters are designed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons and other vapours from high pressure compressed air systems up to 400 bar.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 6 different grades of filter elements (B, P, R, M, S and A).

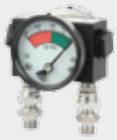
For any other technical gas please contact producer or your local distributor.

Optional external condensate drain should be used for efficient condensate draining from filter housing.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- PET
- Paint

MDH 200



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MDH 400

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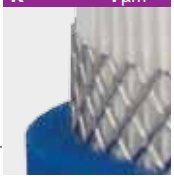
B 15 µm

P 3 µm

R 1 µm



M 0,1 µm

S 0,01 µm

A activated carbon

TD 150M

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TD 400M

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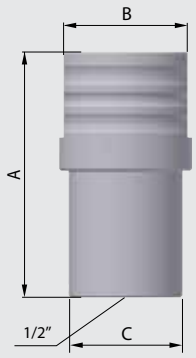
Drain valve





TECHNICAL DATA									FILTER ELEMENTS					
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]			Mass	**B** sintered 15 µm	**P** prefilter 3 µm	**R** prefilter 1 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon
	inch	bar/psi	Nm³/h	scfm	A	B	C	kg						
CHP 003	1/4"	100/250/400	40	23,5	165	83,5	70	4,6	CHP 0305 B	CHP 0305 P	CHP 0305 R	CHP 0305 M	CHP 0305 S	CHP 0305 A
CHP 005	3/8"	100/250/400	70	41,2	165	83,5	70	4,6	CHP 0310 B	CHP 0310 P	CHP 0310 R	CHP 0310 M	CHP 0310 S	CHP 0310 A
CHP 007	1/2"	100/250/400	130	76,5	210	103	85	8,7	CHP 0420 B	CHP 0420 P	CHP 0420 R	CHP 0420 M	CHP 0420 S	CHP 0420 A
CHP 010	3/4"	100/250/400	195	115	235	103	85	9,3	CHP 0520 B	CHP 0520 P	CHP 0520 R	CHP 0520 M	CHP 0520 S	CHP 0520 A
CHP 018	1"	100/250/400	275	162	253	119	100	15	CHP 0525 B	CHP 0525 P	CHP 0525 R	CHP 0525 M	CHP 0525 S	CHP 0525 A
CHP 030	1 1/4"	100/250/400	380	223	303	119	100	16	CHP 0725 B	CHP 0725 P	CHP 0725 R	CHP 0725 M	CHP 0725 S	CHP 0725 A
CHP 047	1 1/2"	100/250/400	495	291	329	146	130	29	CHP 0730 B	CHP 0730 P	CHP 0730 R	CHP 0730 M	CHP 0730 S	CHP 0730 A
CHP 094	2"	100/250/400	715	421	415	182	150	49	CHP 1030 B	CHP 1030 P	CHP 1030 R	CHP 1030 M	CHP 1030 S	CHP 1030 A



quality class - solids (ISO 8573-1)	8	6	3	2	1	1 [3]
residual oil content [mg/m³]	-	-	-	<0,1	<0,01	<0,005
quality class - oils (ISO 8573-1)	-	-	-	2	1	1
pressure drop - new element [mbar / psi]	20 / 0,29	10 / 0,145	20 / 0,29	50 / 0,725	80 / 1,16	60 / 0,87
change filter cartridge at pressure drop [mbar / psi]	[1]	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months [2]
filter media	sintered brass	acrylic fibres, cellulose	borosilicate micro fibres			activated carbon
pleated version	-	✓	✓	✓	✓	-
wrapped version	-	-	-	-	-	✓
sintered version	✓	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	45 / 113

CORRECTION FACTORS							
Operating pressure [bar]	7	25	40	64	100	250	400
Operating pressure [psi]	100	362	580	928	1450	3625	5800
Correction factor	1	3	5	8	12	12	12

[1] B filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.
[2] Filter elements "A", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[3] Valid if "S" filter cartridge is installed upstream.

IHP SERIES

STAINLESS STEEL HIGH PRESSURE FILTERS

100, 250, 400 bar
operating pressure

40 to 715 Nm³/h
volume flow rate

1/4" to 2"
connections

1,5 to 65°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

IHP stainless steel high pressure filters are designed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons and other vapours from compressed air systems up to 400 bar.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 5 different grades of filter elements (N5, N25, M, S and A).

For any other technical gas please contact producer or your local distributor.

Optional external condensate drain should be used for efficient condensate draining from filter housing.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- PET
- Paint

MDH 400

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N5 5 µm

N25 25 µm

M 0,1 µm

S 0,01 µm

A activated carbon

TD 400M

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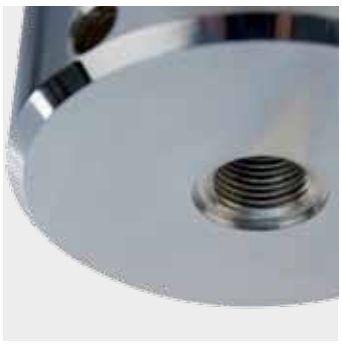
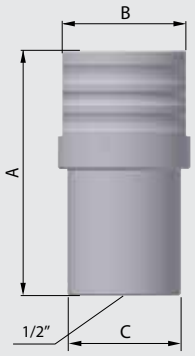
Drain valve





TECHNICAL DATA									FILTER ELEMENTS					
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]			Mass	N5 5 µm	N25 25 µm	**M** microfilter 0,1 µm	**S** microfilter 0,01 µm	**A** activated carbon	**CKL-IHP**
	inch	bar/psi	Nm³/h	scfm	A	B	C	kg						
IHP 003	1/4"	100/250/400	40	23,5	165	83,5	70	4,6	IHP 0305 N5	IHP 0305 N25	IHP 0305 M	IHP 0305 S	IHP 0305 A	CKL-IHP 0305
IHP 005	3/8"	100/250/400	70	41,2	165	83,5	70	4,6	IHP 0310 N5	IHP 0310 N25	IHP 0310 M	IHP 0310 S	IHP 0310 A	CKL-IHP 0310
IHP 007	1/2"	100/250/400	130	76,5	210	103	85	8,7	IHP 0420 N5	IHP 0420 N25	IHP 0420 M	IHP 0420 S	IHP 0420 A	CKL-IHP 0420
IHP 010	3/4"	100/250/400	195	115	235	103	85	9,3	IHP 0520 N5	IHP 0520 N25	IHP 0520 M	IHP 0520 S	IHP 0520 A	CKL-IHP 0520
IHP 018	1"	100/250/400	275	162	253	119	100	15	IHP 0525 N5	IHP 0525 N25	IHP 0525 M	IHP 0525 S	IHP 0525 A	CKL-IHP 0525
IHP 030	1 1/4"	100/250/400	380	223	303	119	100	16	IHP 0725 N5	IHP 0725 N25	IHP 0725 M	IHP 0725 S	IHP 0725 A	CKL-IHP 0725
IHP 047	1 1/2"	100/250/400	495	291	329	146	130	29	IHP 0730 N5	IHP 0730 N25	IHP 0730 M	IHP 0730 S	IHP 0730 A	CKL-IHP 0730
IHP 094	2"	100/250/400	715	421	415	182	150	49	IHP 1030 N5	IHP 1030 N25	IHP 1030 M	IHP 1030 S	IHP 1030 A	CKL-IHP 1030
									quality class - solids (ISO 8573-1)		-	-	2	1	1 [2]	-
									residual oil content [mg/m³]		-	-	<0,1	<0,01	<0,005	-
									quality class - oils (ISO 8573-1)		-	-	2	1	1	-
									pressure drop - new element [mbar / psi]		10 / 0,15	10 / 0,15	50 / 0,725	80 / 1,16	60 / 0,87	-
									change filter cartridge at pressure drop [mbar / psi]		-	-	350 / 5,07	350 / 5,07	6 months [1]	-
									filter media		stainless steel mesh 1.4301	stainless steel mesh 1.4301	borosilicate micro fibres		activated carbon	-
									pleated version		-	-	✓	✓	-	-
									wrapped version		✓	✓	-	-	✓	-
									sintered version		-	-	-	-	-	-
									min. operating temperature (°C / °F)		1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
									max. operating temperature (°C / °F)		65 / 149	65 / 149	65 / 149	65 / 149	45 / 113	65 / 149



CORRECTION FACTORS							
Operating pressure [bar]	7	25	40	64	100	250	400
Operating pressure [psi]	100	362	580	928	1450	3625	5800
Correction factor	1	3	5	8	12	12	12

[1] Filter elements "A,", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.
[2] Valid if "S" filter cartridge is installed upstream.

PF SERIES

STAINLESS STEEL PROCESS FILTERS

16 (12, 10) bar
operating pressure

75 to 21120 Nm³/h
volume flow rate

1/4" to DN200
connections

up to 150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

PF process filters are designed for applications in process industry, where the risk for corrosion of compressed air system components is very high.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 9 different grades of filter elements.

PF process filter housing can be used in variety of applications. For applications not listed please contact producer or your local distributor.

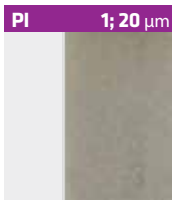
For any other technical gas please contact producer or your local distributor.

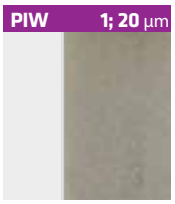
For oil removal, coalescing filter element must be installed and flow direction inside-out must be provided. General arrangement is bowl on the top and filter head on the bottom.

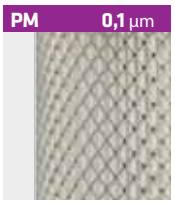
Fluid group 1 on request.

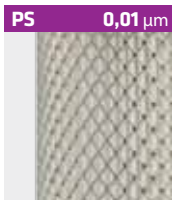
APPLICATIONS

- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Food and beverage industry
- Pharmaceutical industry
- Hospitals









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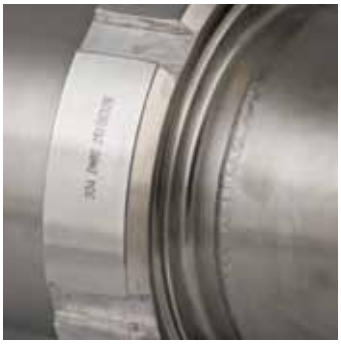
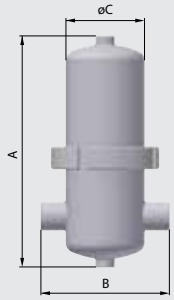



TECHNICAL DATA										FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]				Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
	inch	bar	Nm³/h	scfm	A	B	C	D	kg								
PF 005	1/4"	16	75	44	202	116	76,1	1/4"	1,7	0310 PI	0310 PIW	0310 PN	0310 PP	0310 PR	0310 PM	0310 PS	0310 PA
PF 007	3/8"	16	105	62	232	120	76,1	1/4"	1,9	0410 PI	0410 PIW	0410 PN	0410 PP	0410 PR	0410 PM	0410 PS	0410 PA
PF 010	1/2"	16	150	88	230	125	76,1	1/4"	1,9	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
PF 018	3/4"	16	225	132	254	125	76,1	1/4"	2,0	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
PF 030	1"	16	315	185	275	136	88,9	1/4"	2,6	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA
PF 047	1 1/4"	16	420	247	337	155	88,9	1/4"	3,0	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
PF 070	1 1/2"	16	600	353	386	180	114,3	1/4"	4,3	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
PF 094	2"	16	900	530	457	180	114,3	1/4"	4,8	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
PF 150	2"	16	1.260	742	583	180	114,3	1/4"	5,3	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530 PA
PF 175	2 1/2"	16	1.680	989	740	224	139,7	1/4"	9,0	2030 PI	2030 PIW	2030 PN	2030 PP	2030 PR	2030 PM	2030 PS	2030 PA
PF 200	3"	12	2.400	1.413	1004	224	139,7	1/4"	10,8	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA
PF 240	3"	12	3.600	2.119	1029	252	168,3	1/4"	16,2	3050 PI	3050 PIW	3050 PN	3050 PP	3050 PR	3050 PM	3050 PS	3050 PA
PF 450	DN100	10	5.040	2.966	986	410	219,1	1"	45	3x2030 PI	3x2030 PIW	3x2030 PN	3x2030 PP	3x2030 PR	3x2030 PM	3x2030 PS	3x2030 PA
PF 600	DN100	10	6.720	3.955	1240	410	219,1	1"	46	3x3030 PI	3x3030 PIW	3x3030 PN	3x3030 PP	3x3030 PR	3x3030 PM	3x3030 PS	3x3030 PA
PF 900	DN150	10	9.600	5.650	1311	480	273,0	1"	70	4x3030 PI	4x3030 PIW	4x3030 PN	4x3030 PP	4x3030 PR	4x3030 PM	4x3030 PS	4x3030 PA
PF 1200	DN150	10	13.440	7.910	1351	540	323,9	1"	80	6x3030 PI	6x3030 PIW	6x3030 PN	6x3030 PP	6x3030 PR	6x3030 PM	6x3030 PS	6x3030 PA
PF 1800	DN200	10	17.280	10.171	1496	660	406,4	1"	135	8x3030 PI	8x3030 PIW	8x3030 PN	8x3030 PP	8x3030 PR	8x3030 PM	8x3030 PS	8x3030 PA
PF 2000	DN200	10	21.120	12.431	1496	660	406,4	1"	135	10x3030 PI	10x3030 PIW	10x3030 PN	10x3030 PP	10x3030 PR	10x3030 PM	10x3030 PS	10x3030 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] Valid if "S" filter cartridge is installed upstream.

HPF SERIES

HIGH PRESSURE STAINLESS STEEL PROCESS FILTERS

50 bar
operating pressure

150 to 2400 Nm³/h
volume flow rate

1/2" to 3"
connections

up to 150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

HPF process filters are designed for high pressure applications in process industry, where the risk for corrosion of compressed air system components is very high.

Required compressed air quality according to standard ISO 8571-1 can be achieved with 9 different grades of filter elements.

HPF process filter housing can be used in variety of applications. For applications not listed please contact producer or your local distributor.

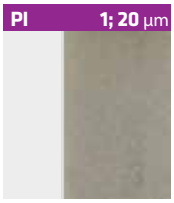
For any other technical gas please contact producer or your local distributor.
For oil removal, coalescing filter element must be installed and flow direction inside-out must be provided. General arrangement is bowl on the top and filter head on the bottom.

Fluid group 1 on request.

APPLICATIONS

- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Food and beverage industry
- Pharmaceutical industry
- Hospitals

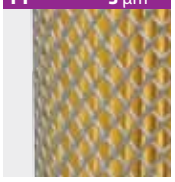
PI 1; 20 µm



PIW 1; 20 µm

PN 5; 25 µm

PP 3 µm

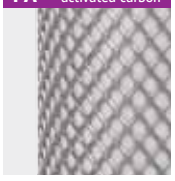


PR 1 µm

PM 0,1 µm

PS 0,01 µm

PA activated carbon



VSF sterile

option

AOK 50SS

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TD 400M

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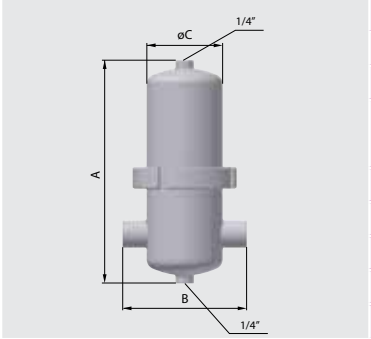
Drain valve





TECHNICAL DATA									FILTER ELEMENTS							
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20°C		Dimensions [mm]			Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon
	inch	bar	Nm³/h	scfm	A	B	C	kg								
HPF 010/50	1/2"	50	150	88	231	125	76,1	2,5	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA
HPF 018/50	3/4"	50	225	132	253	125	76,1	2,6	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA
HPF 030/50	1"	50	315	185	274	136	88,9	3,4	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA
HPF 047/50	1 1/4"	50	420	247	336	155	88,9	3,9	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA
HPF 070/50	1 1/2"	50	600	353	387	180	114,3	5,6	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730 PS	0730 PA
HPF 094/50	2"	50	900	530	453	180	114,3	6,2	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA
HPF 150/50	2"	50	1260	742	580	180	114,3	6,9	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530 PA
HPF 200/50	3"	50	2400	1413	1005	224	139,7	14,1	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1]
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60
filter media	sintered INOX 1.4404	sintered INOX 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon
pleated version	-	-	-	✓	✓	✓	✓	-
wrapped version	-	-	✓	-	-	-	-	✓
sintered version	✓	✓	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113

CORRECTION FACTORS					
Operating pressure [bar]	7	20	30	40	50
Operating pressure [psi]	100	290	435	580	725
Correction factor	1	2,63	3,88	5,13	6,38

[1] Valid if "S" filter cartridge is installed upstream.

SF SERIES

STAINLESS STEEL STERILE FILTERS

16 (10) bar
operating pressure

75 to 21120 Nm³/h
volume flow rate

DN10 to DN50 TC ISO
DN100 to DN200 EN
connections

up to 150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

SF stainless steel sterile filters are designed for high-efficient sterile filtration of compressed air, process air and technical gasses. SF sterile filters provide high-efficient removal of sub-micron particles down to 0,01µm including microorganisms (bacteria). Filter housing surface is polished down to grade Ra0,8.

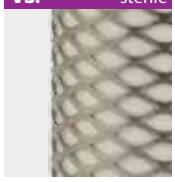
Required compressed air quality according to standard ISO 8571-1 can be achieved with appropriate filter element.

All components meet the FDA requirements for contact with food in accordance with the Code of Federal Regulations (CFR), title 21.

For any other technical gas please contact producer or your local distributor.

Fluid group 1 on request.

VSF sterile



Drain valve

MSS

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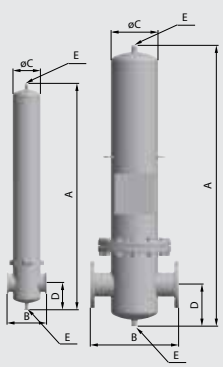
APPLICATIONS

- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Food and beverage industry
- Pharmaceutical industry
- Hospitals





TECHNICAL DATA											FILTER ELEMENTS
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]					Mass	**VSF** sterile 0,01 µm
	inch	bar/psi	Nm³/h	scfm	A	B	C	D	E	kg	
SF 006	DN10 / ø17,2	16/232	75	44	218	125	76,1	69	1/8"	1,6	1 x 0310 VSF
SF 009	DN10 / ø17,2	16/232	105	62	246	125	76,1	69	1/8"	1,7	1 x 0410 VSF
SF012	DN15 / ø21,3	16/232	150	88	251	120	76,1	69	1/8"	1,7	1 x 0420 VSF
SF 018	DN15 / ø21,3	16/232	225	132	275	120	76,1	69	1/8"	1,8	1 x 0520 VSF
SF 032	DN25 / ø35,7	16/232	315	185	303	169	114,3	86	1/4"	3,1	1 x 0530 VSF
SF 048	DN32 / ø42,4	16/232	600	353	363	169	114,3	86	1/4"	3,4	1 x 0730 VSF
SF 072	DN40 / ø48,3	16/232	900	530	446	169	114,3	86	1/4"	3,6	1 x 1030 VSF
SF 108	DN50 / ø60,3	16/232	1.260	742	587	183	114,3	96	1/4"	4,9	1 x 1530 VSF
SF 144	DN65 / ø76,1	16/232	1.680	989	763	195	139,7	120	1/4"	8,4	1 x 2030 VSF
SF 192	DN80 / ø88,9	16/232	2.400	1.413	1015	195	139,7	120	1/4"	10,2	1 x 3030 VSF
SF 432	DN100	10/145	5.040	2.966	1012	410	219,1	183	1/2"	44	3 x 2030 VSF
SF 576	DN100	10/145	6.720	3.955	1266	410	219,1	183	1/2"	45	3 x 3030 VSF
SF 768	DN150	10/145	9.600	5.650	1305	480	273	225	1/2"	70	4 x 3030 VSF
SF 1152	DN150	10/145	13.440	7.910	1418	540	323,9	256	1"	80	6 x 3030 VSF
SF 1536	DN200	10/145	17.200	10.124	1568	660	406,4	306	1"	135	8 x 3030 VSF
SF 1920	DN200	10/145	21.120	12.431	1568	660	406,4	306	1"	135	10 x 3030 VSF



quality class - solids (ISO 8573-1)	1
quality class - oils (ISO 8573-1)	-
pressure drop - new element (dry) [mbar / psi]	80/1,160
pressure drop - new element (wet) [mbar / psi]	190/2,756
filter media	Borosilicate micro fibres
pleated version	-
wrapped version	✓
sintered version	-
min. operating temperature (°C / °F)	-20 / -4
max. operating temperature (°C / °F)	150 / 302

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

SPF SERIES

STAINLESS STEEL STERILE FILTERS

16 (12) bar
operating pressure

75 to 3600 Nm³/h
volume flow rate

1/4" to 3"
connections

up to +150°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material

DESCRIPTION

SPF stainless steel sterile filter housings are specially designed for for applications in process industry, where the risk for corrosion of compressed air system components is very high.

Required compressed air quality according to standard ISO 8571-1 can be achieved with appropriate filter element. SPF process filter housing can be used in variety of applications. For applications not listed please contact producer or your local distributor.

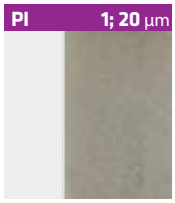
For oil removal, coalescing filter element must be installed and flow direction inside-out must be provided. General arrangement is filter head on the bottom and filter bowl on the top.

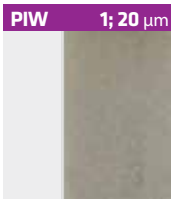
For any other technical gas please contact producer or your local distributor.

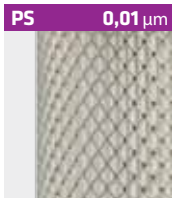
Fluid group 1 on request.

APPLICATIONS

- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Food and beverage industry
- Pharmaceutical industry
- Hospitals







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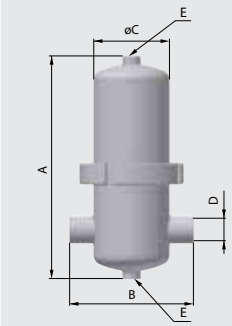
TECHNICAL DATA										FILTER ELEMENTS								
Filter housing size	Pipe size	Oper. press.	Flow rate at 7 bar(g), 20 °C		DImensions [mm]				Mass	**PI** prefilter 1; 20 µm	**PIW** prefilter 1; 20 µm	**PN** prefilter 5; 25 µm	**PP** prefilter 3 µm	**PR** prefilter 1 µm	**PM** microfilter 0,1 µm	**PS** microfilter 0,01 µm	**PA** activated carbon	**VSF** sterile 0,01 µm
	inch	bar	Nm³/h	scfm	A	B	C	E	kg									
SPF 005	1/4"	16	75	44	225	116	76,1	1/8"	1,7	0310 PI	0310 PIW	0310 PN	0310 PP	0310 PR	0310 PM	0310 PS	0310 PA	0310 VSF
SPF 007	3/8"	16	105	62	251	120	76,1	1/8"	1,9	0410 PI	0410 PIW	0410 PN	0410 PP	0410 PR	0410 PM	0410 PS	0410 PA	0410 VSF
SPF 010	1/2"	16	150	88	253	125	76,1	1/8"	1,9	0420 PI	0420 PIW	0420 PN	0420 PP	0420 PR	0420 PM	0420 PS	0420 PA	0420 VSF
SPF 018	3/4"	16	225	132	281	125	76,1	1/8"	2,0	0520 PI	0520 PIW	0520 PN	0520 PP	0520 PR	0520 PM	0520 PS	0520 PA	0520 VSF
SPF 030	1"	16	315	185	290	136	88,9	1/8"	2,6	0525 PI	0525 PIW	0525 PN	0525 PP	0525 PR	0525 PM	0525 PS	0525 PA	0525 VSF
SPF 047	1 1/4"	16	420	247	357	155	88,9	1/8"	3,0	0725 PI	0725 PIW	0725 PN	0725 PP	0725 PR	0725 PM	0725 PS	0725 PA	0725 VSF
SPF 070	1 1/2"	16	600	353	408	179	114,3	1/4"	4,3	0730 PI	0730 PIW	0730 PN	0730 PP	0730 PR	0730 PM	0730-PS	0730 PA	0730 VSF
SPF 094	2"	16	900	530	476	179	114,3	1/4"	4,8	1030 PI	1030 PIW	1030 PN	1030 PP	1030 PR	1030 PM	1030 PS	1030 PA	1030 VSF
SPF 150	2"	16	1260	742	602	180	114,3	1/4"	5,3	1530 PI	1530 PIW	1530 PN	1530 PP	1530 PR	1530 PM	1530 PS	1530 PA	1530 VSF
SPF 175	2 1/2"	16	1680	989	762	224	139,7	1/4"	9,0	2030 PI	2030 PIW	2030 PN	2030 PP	2030 PR	2030 PM	2030 PS	2030 PA	2030 VSF
SPF 200	3"	12	2400	1413	1030	224	139,7	1/4"	10,8	3030 PI	3030 PIW	3030 PN	3030 PP	3030 PR	3030 PM	3030 PS	3030 PA	3030 VSF
SPF 240	3"	12	3600	2119	1035	238	154	1/4"	16,2	3050 PI	3050 PIW	3050 PN	3050 PP	3050 PR	3050 PM	3050 PS	3050 PA	3050 VSF



quality class - solids (ISO 8573-1)	-	-	-	6	3	2	1	1 [1]	1
quality class - oils (ISO 8573-1)	-	-	-	-	-	2	1	1	-
pressure drop - new element-dry [mbar]	≤2600; ≤60	≤2600; ≤60	10	10	20	50	80	60	80
filter media	sintered stainless steel 1.4404	sintered stainless steel 1.4404	stainless steel mesh 1.4301	acrylic fibres, cellulose	borosilicate micro fibres			borosilicate micro fibres, activ. carbon	borosilicate micro fibres
pleated version	-	-	-	✓	✓	✓	✓	-	-
wrapped version	-	-	✓	-	-	-	-	✓	✓
sintered version	✓	✓	-	-	-	-	-	-	-
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	-20 / -4
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	65 / 149	120 / 248	120 / 248	120 / 248	45 / 113	150 / 302

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] Valid if "S" filter cartridge is installed upstream.

AV SERIES

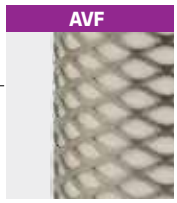
STAINLESS STEEL AIR VENTING FILTERS

9 to 310 Nm³/h
volume flow rate

DN32 to DN80
connections

up to +200°C
operating temperature range

stainless steel 1.4404-standard
stainless steel 1.4301-option
material



DESCRIPTION

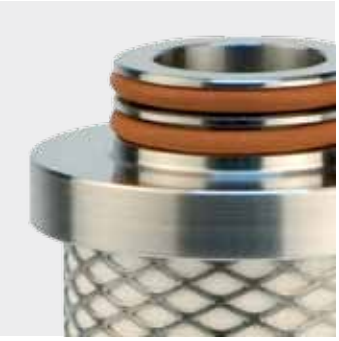
AV stainless steel filter housings are designed to remove impurities from air which is being feed or exhausted from tank during changing of liquid level.

To meet the required air quality appropriate filter element (typically AVF filtration grade) must be installed into filter housing.

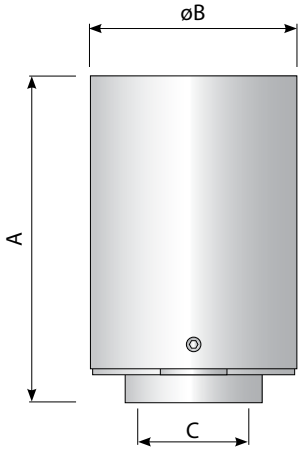
AV filter housing is also designed for sterilisation. Before use, if needed for the application, sterilize the filters.

APPLICATIONS

- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Food and beverage industry
- Pharmaceutical industry
- Water treatment systems



Filter housing model	Connection DIN 11851	Flow rate	Dimensions [mm]			Mass	Filter element type
	DN	Nm^3/h	A	ø B	C	kg	
AV 006	32	9	110	88,9	Rd 58 x 1/6	1,6	0310 AVF
AV 027	40	25	160	114,3	Rd 65 x 1/6	2,4	0525 AVF
AV 032	50	40	165	114,3	Rd 78 x 1/6	2,5	0530 AVF
AV 072	50	110	165	114,3	Rd 78 x 1/6	3,4	1030 AVF
AV 144	80	210	550	168,3	Rd 110 x 1/4	9,5	2030 AVF
AV 192	80	310	805	168,3	Rd 110 x 1/4	12,0	3030 AVF



MSS

MOBILE STEAM STERILIZER

1 to 3,6 bar
steam pressure

100 °C to 135 °C
steam operating temperature

up to 90 min
sterilisation time

up to 90 min
drying time

DESCRIPTION

Compressed air piping with high temperature and humidity is a suitable environment for microbial growth. In order to stop microbial activity, filters have to be sterilized. Sterilization can be done in place or in the autoclave. To perform autoclave, sterilization filters need to be removed from the system and due to septic conditions in the atmosphere it is difficult to prevent contamination during re-assembly of the installation.

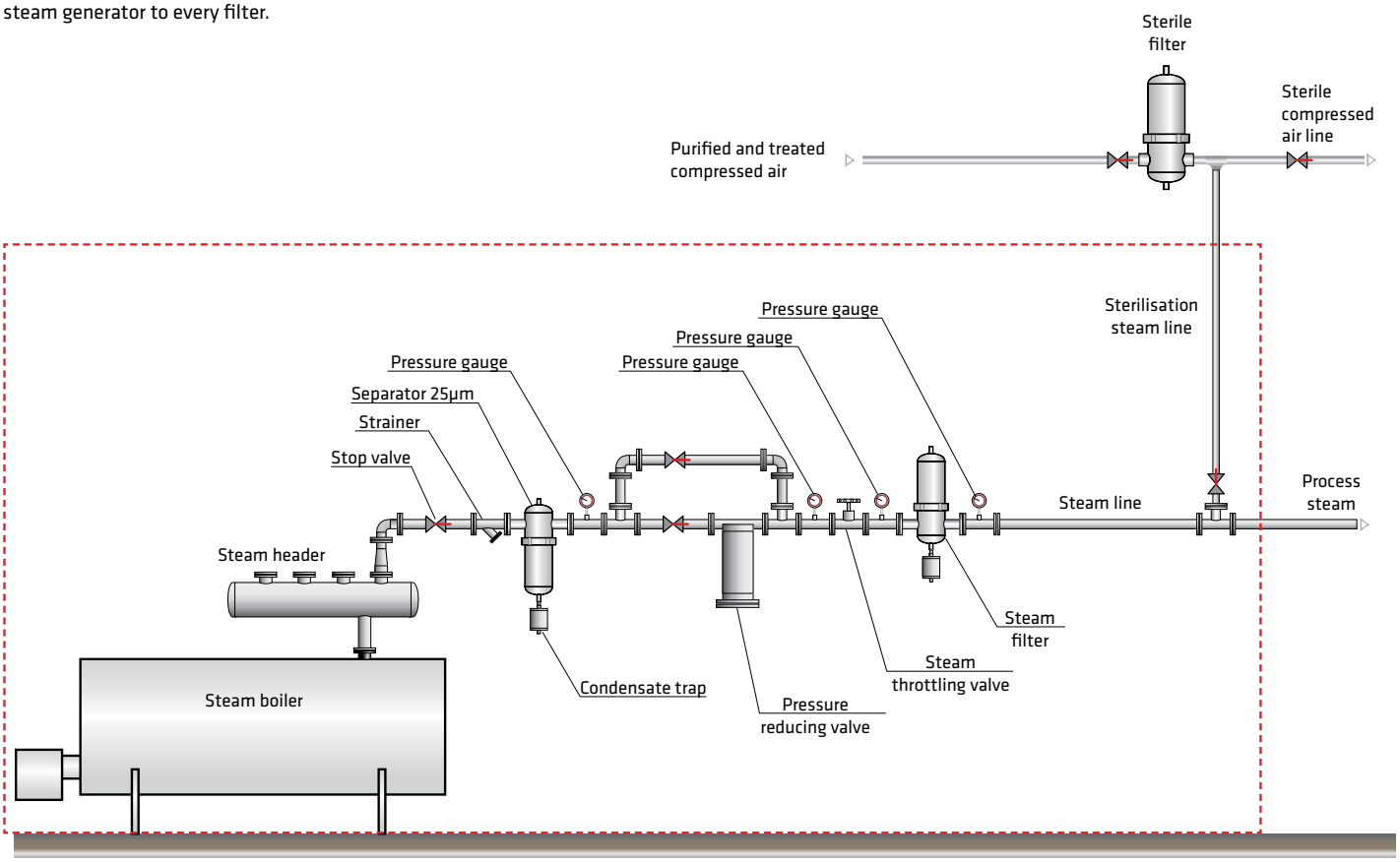
Sterilization in place (SIP) ensures much better results and is more common in the process industry. Steam sterilization is an effective method to stop microbial activity. "Mobile Steam Sterilizer" is designed for easier, cheaper and faster SIP. MSS can be easily connected to any part of installation where sterilization is required. After filter sterilization is completed MSS can simply be disconnected and transported to another location.

APPLICATIONS

- Food industry
- Wine production
- Dairies
- Small breweries

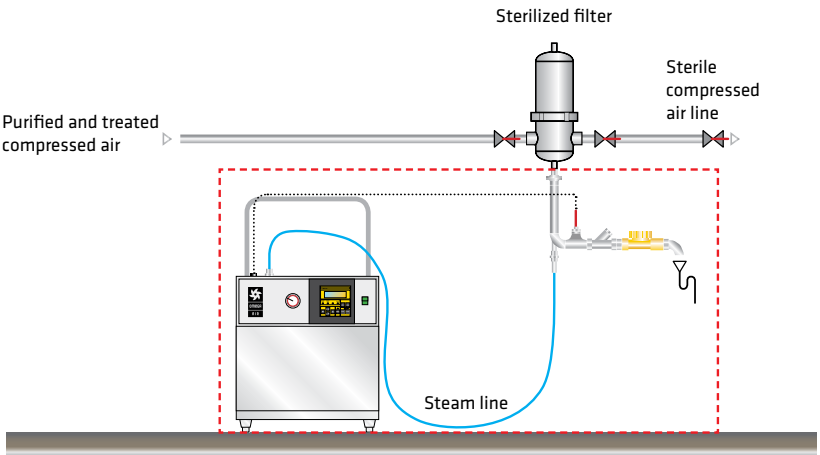
INSTALLATION OF CONVENTIONAL STERILIZATION

Scheme of a conventional sterilization in place system. All the equipment surrounded by red line is required to perform sterilization of the filter housing in the upper right corner. Such a fixed steam distribution line connects steam generator to every filter.



INSTALLATION OF MSS ON STERILE FILTER

Scheme of a new Mobile Steam Sterilizer connected to a filter. After sterilization cycle is completed flexible hose for steam distribution is disconnected from the filter and complete sterilizer (equipment outlined by a red frame) can be moved to another location.



TECHNICAL DATA	MSS
Power supply	110-230V / 50/60 Hz
Power consumption	1,7 kW
Sterilization temperature	Adjustable from 100 - 135°C
Sterilization time	Adjustable up to 90 min
Material drying time	Adjustable up to 90 min
Sound level	60 dB(A)
Dimensions W x H x -L	450 x 855 x 445 mm

CONDENSATE SEPARATORS

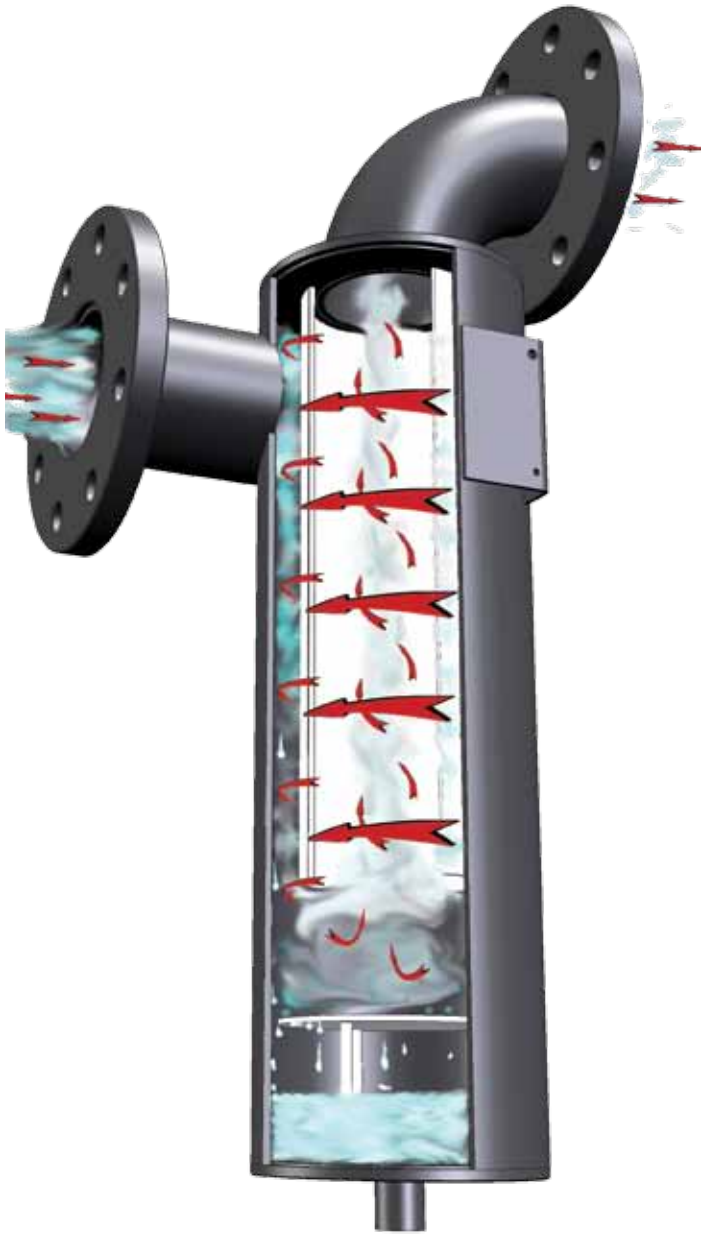
Since water moisture is a part of atmospheric air, condensate in compressed air systems can't be avoided. During compression process, the air is heated. It cools down as it passes through hoses, valves and piping. As it nears the ambient temperature (approach), vapour condenses to liquid and can be removed by mechanical separation. As the air cools further, more condensate is present.

Water moisture is not the only undesirable substance. There are also other pollutants in compressed air: lubricating oil carried over from oil lubricated air compressors, atmospheric corrosive gases inhaled by the air compressor, aerosols and vapours, solid particles and rust from pipe system and pressure vessels and solid particles drawn in by the air compressor.

It is very important to remove the most of impurities from compressed air. The first stage is to remove the major part of condensate, which contains the large amount of upper mentioned pollutants. This can be done by condensate separators.

Cyclone condensate separators use centrifugal motion to force condensate out of compressed air. The spinning causes the condensate to join together on the centrifugal separators walls. When the condensate gains enough mass it moves to the bottom of the separator bowl where the blind plate calms the air flow and prevents the condensate to be sucked by upper air flow. Condensate is removed out of the system by the condensate drain.

The compressed air leaving the condensate separator loses the most of condensate and pollutants, but the small amount still remains in air stream. They must be removed by other procedures - micro filtration processes and drying.



CKL-B SERIES

ALUMINIUM CONDENSATE SEPARATORS

16 bar
operating pressure

60 to 2160 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour

DESCRIPTION

CKL-B condensate separators are designed for high efficient removal of bulk liquids from compressed air and vacuum systems. Inside the housing there is an insert with vanes that creates controlled rotation of the air.

As a result of centrifugal action, liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the filter housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate from the CKL-B cyclone separator it is essential to install automatic or electronic condensate drain.

APPLICATIONS

- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial applications

SG

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TECHNICAL DATA

Model	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]				Mass
	inch	bar/psi	Nm³/h	SCFM	°C	°F	A	B	C	D	kg
CKL 005 B	3/8"	16/232	60	35	1,5 - 65	35 - 149	187	88	20	60	0,7
CKL 007 B	1/2"	16/232	78	46	1,5 - 65	35 - 149	187	88	20	60	0,7
CKL 010 B	3/4"	16/232	120	70	1,5 - 65	35 - 149	257	88	20	80	0,8
CKL 018 B	1"	16/232	198	116	1,5 - 65	35 - 149	263	125	32	100	1,8
CKL 047 B	1 1/2"	16/232	510	300	1,5 - 65	35 - 149	461	125	32	140	2,5
CKL 094 B	2"	16/232	1000	588	1,5 - 65	35 - 149	684	163	43	520	5,1
CKL 150 B	2 1/2"	16/232	1500	882	1,5 - 65	35 - 149	684	163	43	520	5,1
CKL 200 B	3"	16/232	2160	1270	1,5 - 65	35 - 149	795	240	59	630	12,9

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

CKL-B HT SERIES

HIGH TEMPERATURE ALUMINIUM CONDENSATE SEPARATORS

16 bar
operating pressure

60 to 2160 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 120°C
operating temperature range

RAL 9005
standard colour

DESCRIPTION

CKL-B HT are high temperature condensate separators, which are designed for high efficient removal of bulk liquids from high temperature compressed air and vacuum systems. Inside the housing there is an insert with vanes that creates controlled rotation of the air.

As a result of centrifugal action, liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the filter housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate from the CKL-B HT cyclone separator it is essential to install manual or automatic condensate drain.

APPLICATIONS

- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial applications

MCDI

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Drain valve

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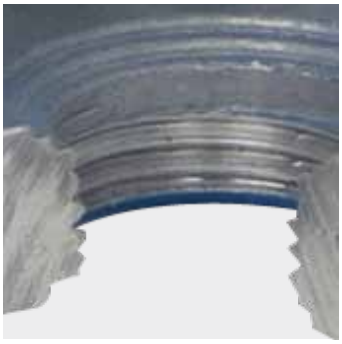


TECHNICAL DATA											
Model	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]				Mass
	inch	bar/psi	Nm³/h	SCFM	°C	°F	A	B	C	D	kg
CKL 005 B HT	3/8"	16/232	60	35	1,5 - 120	35 - 248	187	88	20	60	0,7
CKL 007 B HT	1/2"	16/232	78	46	1,5 - 120	35 - 248	187	88	20	60	0,7
CKL 010 B HT	3/4"	16/232	120	70	1,5 - 120	35 - 248	257	88	20	80	0,8
CKL 018 B HT	1"	16/232	198	116	1,5 - 120	35 - 248	263	125	32	100	1,8
CKL 047 B HT	1 1/2"	16/232	510	300	1,5 - 120	35 - 248	461	125	32	140	2,5
CKL 094 B HT	2"	16/232	1000	588	1,5 - 120	35 - 248	684	163	43	520	5,1
CKL 150 B HT	2 1/2"	16/232	1500	882	1,5 - 120	35 - 248	684	163	43	520	5,1
CKL 200 B HT	3"	16/232	2160	1270	1,5 - 120	35 - 248	795	240	59	630	12,9

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

CKL-C SERIES

ALUMINIUM CONDENSATE SEPARATORS

20 bar
operating pressure

72 to 2760 Nm³/h
volume flow rate

3/8" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour

DESCRIPTION

CKL-C condensate separators are designed for high efficient removal of bulk liquids from compressed air and vacuum systems up to 20 bar. Inside the housing there is an insert with vanes that creates controlled rotation of the air.

As a result of centrifugal action liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the filter housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate from the CKL-C cyclone separator it is essential to install automatic or electronic condensate drain.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

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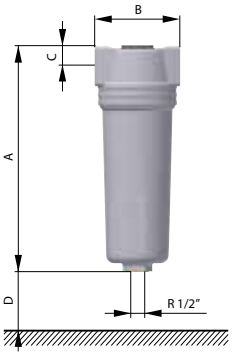
TECHNICAL DATA									
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass
	inch	bar/psi	Nm³/h	scfm	A	B	C	D	kg
CKL-C 20	3/8"	20/290	72	42	187	88	20	80	0,7
CKL-C 21	1/2"	20/290	96	56	256	88	20	80	0,8
CKL-C 30	1/2"	20/290	150	88	278	106	25	100	1,3
CKL-C 31	3/4"	20/290	216	127	278	106	25	100	1,3
CKL-C 40	1"	20/290	282	166	252	125	32	120	2,1
CKL-C 43	1 1/2"	20/290	510	300	450	125	32	160	3,2
CKL-C 50	2"	20/290	888	522	605	160	43	180	5,1
CKL-C 52	2 1/2"	20/290	1440	847	685	160	43	200	6,3
CKL-C 61	3"	20/290	2760	1624	800	240	60	300	12,9
								quality class - solids (ISO 8573-1)	-
								quality class - water (ISO 8573-1)	8
								quality class - oils (ISO 8573-1)	-
								efficiency	>98%



CORRECTION FACTORS																			
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232	247	261	276	290
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13	2,25	2,38	2,50	2,63

CS/CS SS SERIES

WELDED CONDENSATE SEPARATORS

16 bar
operating pressure

840 to 14280 Nm³/h
volume flow rate

DN65 to DN300
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour CS series

CS: carbon steel
CS SS: stainless steel 1.4404
material

DESCRIPTION

CS condensate separators are designed for high efficient removal of bulk liquids and large impurities from compressed air systems. The insert inside the housing creates controlled rotation of the air flow. Centrifugal flow of liquids (water, oil) and large particles is forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate.

The turbulent free zone in the lower part of the cyclone housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate from the CS cyclone separator it is essential to install automatic or electronic condensate drain. CS cyclone separators are also available in stainless steel version CS-SS.

APPLICATIONS

- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial applications

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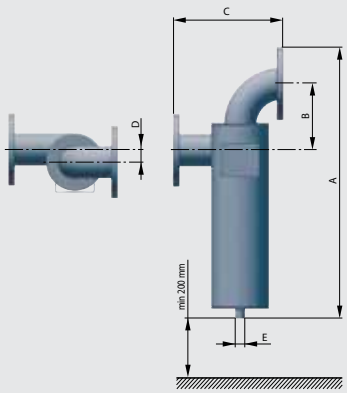
TECHNICAL DATA

Model		Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]					Mass
carbon steel	stainless steel	DN	bar/psi	Nm^3/h	SCFM	°C	°F	A	B	C	D	E	kg
CS 14	**CS SS 14**	65	16/232	840	495	1,5 - 65	35 - 149	613	153	302	45	1/2"	21
CS 28	**CS SS 28**	80	16/232	1710	1005	1,5 - 65	35 - 149	745	182	302	35	1/2"	26
CS 62	**CS SS 62**	125	16/232	3720	2190	1,5 - 65	35 - 149	1041	280	390	37	1/2"	56
CS 88	**CS SS 88**	150	16/232	5280	3110	1,5 - 65	35 - 149	1298	330	489	50	1/2"	94
CS 124	**CS SS 124**	200	16/232	7440	4380	1,5 - 65	35 - 149	1506	436	619	52	1/2"	147
CS 238	**CS SS 238**	300	16/232	14280	8404	1,5 - 65	35 - 149	1673	504	805	91	1/2"	290



quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

SFH/SFH SS SERIES

WELDED CONDENSATE SEPARATORS

16 bar
operating pressure

1760 to 12550 Nm³/h
volume flow rate

DN80 to DN350
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour CS series

SFH: carbon steel
SFH SS: stainless steel 1.4404
material

DESCRIPTION

SFH condensate separators are designed for high efficient removal of bulk liquids and large impurities from compressed air systems. The insert inside the housing creates controlled rotation of the air flow. Centrifugal flow of liquids (water, oil) and large particles is forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate.

The turbulent free zone in the lower part of the cyclone housing prevents condensate from being picked up and "carried over" into the airstream.
To discharge condensate from the SFH cyclone separator it is essential to install automatic or electronic condensate drain.
SFH cyclone separators are also available in stainless steel version SFH-SS.

APPLICATIONS

- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial applications

SFH

SFH SS

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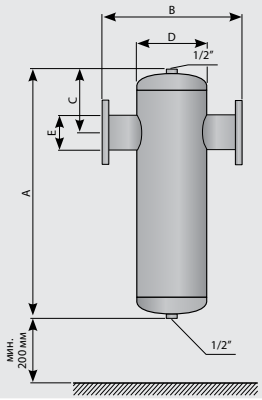
TECHNICAL DATA

Model		Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]					Mass
carbon steel	stainless steel	DN	bar/psi	Nm^3/h	SCFM	°C	°F	A	B	C	D	E	kg
SFH 029	SFH SS 029	80	16/232	1760	1024	1,5 - 65	35 - 149	720	400	165	219	1/2"	33
SFH 037	SFH SS 037	100	16/232	2200	1307	1,5 - 65	35 - 149	890	460	236	244	1/2"	45
SFH 066	SFH SS 066	125	16/232	3940	2331	1,5 - 65	35 - 149	980	550	250	273	1"	58
SFH 088	SFH SS 088	150	16/232	5300	3108	1,5 - 65	35 - 149	1040	570	250	300	1"	81
SFH 097	SFH SS 097	200	16/232	5820	3426	1,5 - 65	35 - 149	1110	690	265	350	1"	107
SFH 142	SFH SS 142	250	16/232	8520	5015	1,5 - 65	35 - 149	1330	800	360	480	1"	207
SFH 180	SFH SS 180	300	16/232	10770	6357	1,5 - 65	35 - 149	1470	820	408	550	1"	280
SFH 209	SFH SS 209	350	16/232	12550	7381	1,5 - 65	35 - 149	1670	920	471	622	1"	379



quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

SFH HP SERIES

WELDED HIGH PRESSURE CONDENSATE SEPARATORS

50 bar
operating pressure

1760 to 12550 Nm³/h
volume flow rate

DN80 to DN350
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour CS series

carbon steel
material

DESCRIPTION

SFH HP welded high pressure condensate separators are designed for high efficient removal of bulk liquids and large impurities from high pressure compressed air systems up to 50 bar. The insert inside the housing creates controlled rotation of the air flow. Centrifugal flow of liquids (water, oil) and large particles is forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate.

The turbulent free zone in the lower part of the cyclone housing prevents condensate from being picked up and "carried over" into the airstream.
To discharge condensate from the SFH HP cyclone separator it is essential to install automatic or electronic condensate drain.

APPLICATIONS

- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial applications

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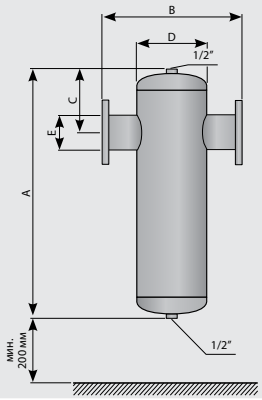
TECHNICAL DATA

Model	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]					Mass
	DN	bar/psi	Nm^3/h	SCFM	°C	°F	A	B	C	D	E	kg
SFH HP 029	80	50/725	1760	1024	1,5 - 65	35 - 149	720	400	165	219	1/2"	
SFH HP 037	100	50/725	2200	1307	1,5 - 65	35 - 149	890	460	236	244	1/2"	
SFH HP 066	125	50/725	3940	2331	1,5 - 65	35 - 149	980	550	250	273	1"	
SFH HP 088	150	50/725	5300	3108	1,5 - 65	35 - 149	1040	570	250	300	1"	
SFH HP 097	200	50/725	5820	3426	1,5 - 65	35 - 149	1110	690	265	350	1"	
SFH HP 142	250	50/725	8520	5015	1,5 - 65	35 - 149	1330	800	360	480	1"	
SFH HP 180	300	50/725	10770	6357	1,5 - 65	35 - 149	1470	820	408	550	1"	
SFH HP 209	350	50/725	12550	7381	1,5 - 65	35 - 149	1670	920	471	622	1"	



quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS

Operating pressure [bar]	3	5	7	10	13	16	20	30	40	50
Operating pressure [psi]	44	72	100	145	189	232	290	435	580	725
Correction factor	0,50	0,75	1	1,38	1,75	2,13	2,63	3,88	5,13	6,38

CKL-HF SERIES

ALUMINIUM CONDENSATE SEPARATORS

50 bar
operating pressure

71 to 2760 Nm³/h
volume flow rate

1/2" to 3"
connections

1,5 to 65°C
operating temperature range

RAL 9005
standard colour

RAL 7040
optional colour

DESCRIPTION

CKL-HF condensate separators are designed for high efficient removal of bulk liquids from compressed air systems. Inside the housing there is a condensate separator element.

This element separates already liquefied water from mainstream and prevents the liquids and large particles from being airborne again.

To discharge condensate from the CKL-HF condensate separator it is essential to install automatic or electronic condensate drain.

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- PET
- General industrial application

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TECHNICAL DATA											
Model	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]				Mass
	inch	bar/psi	Nm³/h	SCFM	°C	°F	A	B	C	D	kg
CKL-HF 007	1/2"	50/725	71	42	1,5 - 65	35 - 149	250	110	30	80	2,1
CKL-HF 010	3/4"	50/725	112	66	1,5 - 65	35 - 149	250	110	30	90	2,1
CKL-HF 018	1"	50/725	204	120	1,5 - 65	35 - 149	250	110	30	140	2,1
CKL-HF 047	1 1/2"	50/725	282	166	1,5 - 65	35 - 149	535	160	45	260	9,5
CKL-HF 070	1 1/2"	50/725	400	235	1,5 - 65	35 - 149	535	160	45	360	9,5
CKL-HF 094	2"	50/725	494	291	1,5 - 65	35 - 149	715	160	45	540	12,2
CKL-HF 150	2"	50/725	799	470	1,5 - 65	35 - 149	715	160	45	550	12,2
CKL-HF 200	3"	50/725	2160	1270	1,5 - 65	35 - 149	862	198	70	620	30,4
CKL-HF 240	3"	50/725	2760	1620	1,5 - 65	35 - 149	1010	198	70	780	34,9

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%

CORRECTION FACTORS										
Operating pressure [bar]	3	5	7	10	13	16	20	30	40	50
Operating pressure [psi]	44	72	100	145	189	232	290	435	580	725
Correction factor	0,50	0,75	1	1,38	1,75	2,13	2,63	3,88	5,13	6,38

CKL-CHP SERIES

CARBON STEEL HIGH PRESSURE CONDENSATE SEPARATORS

100, 250, 400 bar
operating pressure

40 to 715 Nm³/h
volume flow rate

1/4" to 2"
connections

1,5 to 65°C
operating temperature range

Nickel plated 25 µm
surface protection

DESCRIPTION

CKL-CHP condensate separators are designed for high efficient removal of bulk liquids from high pressure compressed air systems.

Condensate separator element inside the housing separates already liquefied water from mainstream and prevents the liquids and large particles from being airborne again.

To discharge condensate from the CKL-CHP condensate separator it is essential to install condensate drain. Please take appropriate pressure level into account.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

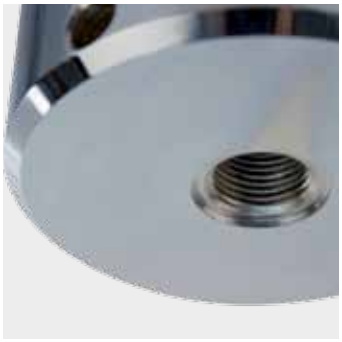
TD 150M

page 104

TD 400M

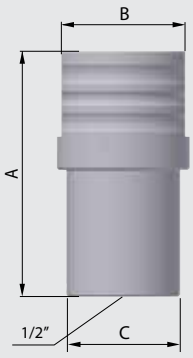
page 106





TECHNICAL DATA										
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]			Mass
	inch	bar/psi	Nm³/h	scfm	°C	°F	A	B	C	kg
CKL-CHP 003	1/4"	100/250/400	40	23,5	1,5 - 65	35 - 149	165	83,5	70	4,6
CKL-CHP 005	3/8"	100/250/400	70	41,2	1,5 - 65	35 - 149	165	83,5	70	4,6
CKL-CHP 007	1/2"	100/250/400	130	76,5	1,5 - 65	35 - 149	210	103	85	8,7
CKL-CHP 010	3/4"	100/250/400	195	115	1,5 - 65	35 - 149	235	103	85	9,3
CKL-CHP 018	1"	100/250/400	275	162	1,5 - 65	35 - 149	253	119	100	15
CKL-CHP 030	1 1/4"	100/250/400	380	223	1,5 - 65	35 - 149	303	119	100	16
CKL-CHP 047	1 1/2"	100/250/400	495	291	1,5 - 65	35 - 149	329	146	130	29
CKL-CHP 094	2"	100/250/400	715	421	1,5 - 65	35 - 149	415	182	150	49

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%



CORRECTION FACTORS							
Operating pressure [bar]	7	25	40	64	100	250	400
Operating pressure [psi]	100	362	580	928	1450	3625	5800
Correction factor	1	3	5	8	12	12	12

CKL-IHP SERIES

STAINLESS STEEL HIGH PRESSURE CONDENSATE SEPARATORS

100, 250, 400 bar
operating pressure

40 to 715 Nm³/h
volume flow rate

1/4" to 2"
connections

1,5 to 65°C
operating temperature range

Nickel plated 25 µm
surface protection

DESCRIPTION

CKL-IHP condensate separators are designed for high efficient removal of bulk liquids from high pressure compressed air systems.

Condensate separator element inside the housing separates already liquefied water from mainstream and prevents the liquids and large particles from being airborne again.

To discharge condensate from the CKL-IHP condensate separator it is essential to install condensate drain. Please take appropriate pressure level into account.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Chemical
- Petrochemical
- Plastics
- Paint

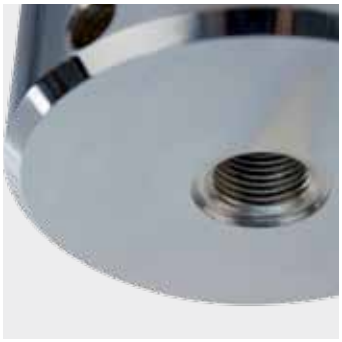
TD 150M

page 104

TD 400M

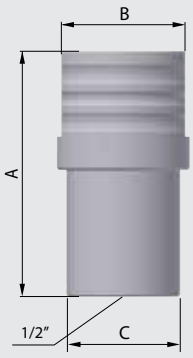
page 106





TECHNICAL DATA										
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]			Mass
	inch	bar/psi	Nm³/h	scfm	°C	°F	A	B	C	kg
CKL-IHP 003	1/4"	100/250/400	40	23,5	1,5 - 65	35 - 149	165	83,5	70	4,6
CKL-IHP 005	3/8"	100/250/400	70	41,2	1,5 - 65	35 - 149	165	83,5	70	4,6
CKL-IHP 007	1/2"	100/250/400	130	76,5	1,5 - 65	35 - 149	210	103	85	8,7
CKL-IHP 010	3/4"	100/250/400	195	115	1,5 - 65	35 - 149	235	103	85	9,3
CKL-IHP 018	1"	100/250/400	275	162	1,5 - 65	35 - 149	253	119	100	15
CKL-IHP 030	1 1/4"	100/250/400	380	223	1,5 - 65	35 - 149	303	119	100	16
CKL-IHP 047	1 1/2"	100/250/400	495	291	1,5 - 65	35 - 149	329	146	130	29
CKL-IHP 094	2"	100/250/400	715	421	1,5 - 65	35 - 149	415	182	150	49

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98%



CORRECTION FACTORS							
Operating pressure [bar]	7	25	40	64	100	250	400
Operating pressure [psi]	100	362	580	928	1450	3625	5800
Correction factor	1	3	5	8	12	12	12

INDICATORS

Pressure drop is a huge problem in compressed air system. Every additional obstruction of compressed air flow requires additional power to drive the compressor.

Compressed air system pipeline has fixed pressure drop, which has already been taken into account in the phase of compressor dimensioning. This pressure drop generally can't be changed.

Filter element pressure drop is variable factor of compressed air system. Despite the fact that the filter element play a useful role in the removal of compressed air pollutants, it's saturation could be a problem since it will increase in time. The result is an increase of pressure drop, additional compressor power, which means the significantly rising of operating costs.

For this reason the pressure drop in filter element must be monitored and controlled.

Omega Air produces several types of products for this purpose. There are indicators of pressure drop with an analogue or digital display of saturation level of the filter element, some of them with output for remote monitoring.

INDICATORS		Pressure	Capacity	Dew point	Page
PDi 16	Differential pressure indicator	16 bar			78
MDA 60	Differential pressure indicators	20 bar			79
MDM 40	Differential pressure indicators	20 bar			80
MDM 60	Differential pressure indicators	16 bar			81
EPG 60	Electronic pressure gauge	16 bar			82
MDHI 50	Differential high pressure stainless steel indicator	50 bar			83
MDH 200	Differential high pressure indicators	200 bar			84
MDH 400	Differential high pressure indicators	400 bar			85
OCI	Oil content indicator	0,68 - 16 bar			86
CHI	Humidity indicator	20 bar			87
VPG 60	Differential pressure indicators	20-2000 mbar			88


www.omega-air.si
EPG 60


bar (psi)


0.9 bar
0.6
0.1
pmax = 20 bar, Tmax = 65 °C

PDI 16

DIFFERENTIAL PRESSURE INDICATOR

16 bar
operating pressure

1,5 to 65°C
operating temperature range

DESCRIPTION

Pressure drop indicator PDI 16 is designed to indicate pressure drop across the filter element in compressed air system.

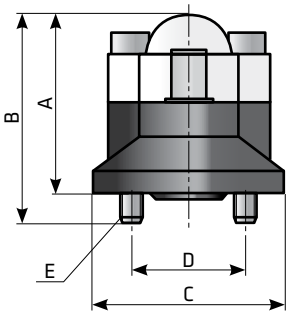
It detects when the filter cartridge is clogged and should be replaced. PDI 16 is typically installed on the head of the filter housing.

PDI 16 can be used in variety of applications. For applications not listed please contact us or your local distributor.

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

TECHNICAL DATA	
pressure drop (green area)	0 - 0,6 bar (0 - 8,7 psi)
pressure drop (red area)	0,6 - 0,9 bar (8,7 - 13 psi)
max. operating pressure	16 bar (232 psi)
operating temperature range	1,5 - 65 °C (35 - 149 °F)
mass	0,03 kg
DIMENSIONS	
A	35 mm
B	43 mm
C	ø40 mm
D	24 mm
E	M5



MDA 60

DIFFERENTIAL PRESSURE INDICATOR

20 bar
operating pressure

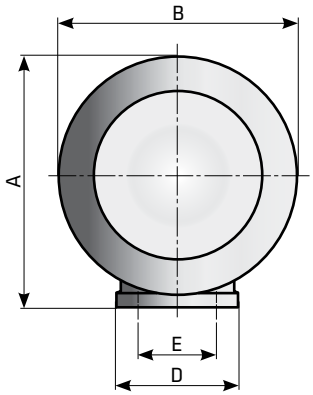
1,5 to 65°C
operating temperature range

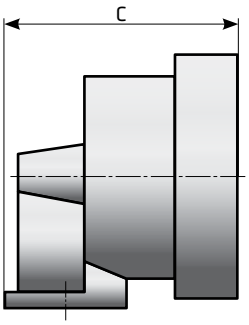
DESCRIPTION

Pressure drop indicator MDA 60 is designed for accurate indication of pressure drop across the filter element in compressed air system. For any other technical gas please contact producer or your local distributor.

MDA 60 is optimized for installation on the head of the filter housing.

MDA 60 can be used in variety of applications. For applications not listed please contact producer or your local distributor.





TECHNICAL DATA	
operating pressure range	0 - 20 bar (0 - 290 psi)
operating temperature range	1,5 - 65 °C (35 - 149 °F)
mass	0,36 kg
measuring range	2 bar (29 psi)
DIMENSIONS	
A	84 mm
B	80 mm
C	78 mm
D	ø40 mm
E	24 mm

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

MDM 40

DIFFERENTIAL PRESSURE INDICATOR

20 bar
operating pressure

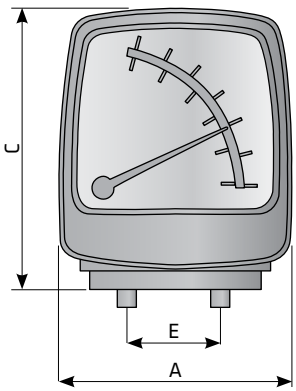
1,5 to 65°C
operating temperature range

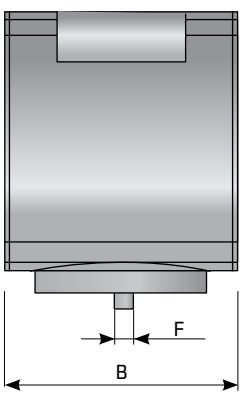
DESCRIPTION

Magnetic differential manometer MDM 40 is designed to indicate pressure drop across the filter element in compressed air system. For any other technical gas please contact producer or your local distributor.

It detects when the filter cartridge is clogged and should be replaced. MDM 40 is typically installed on the head of the filter housing.

MDM40 can be used in variety of applications. For applications not listed please contact producer or your local distributor.





TECHNICAL DATA - MDM40	
operating pressure range	0 - 20 bar (0 - 290 psi)
operating temperature range	1,5 - 65 °C (35 - 149 °F)
mass	0,15 kg
measuring range	0,9 bar (13 psi)
DIMENSIONS	
A	54 mm
B	54 mm
C	65 mm
E	23,5 mm (24,0 mm)
F	M5

Model	Description
MDM 40	basic version
MDM 40C	voltage-free contact version for remote alarm

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

MDM 60

DIFFERENTIAL PRESSURE INDICATOR

16 bar
operating pressure

1,5 to 65°C
operating temperature range

MDM 60
basic version

MDM 60 E
electronic version
with LED alarm

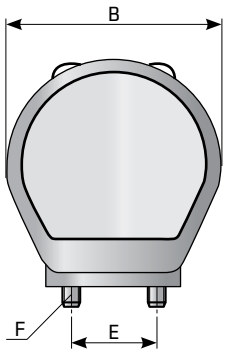
MDM 60 C
voltage free contact version
for remote alarm

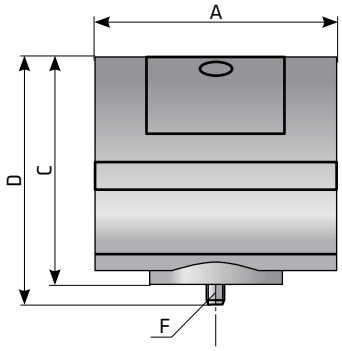
DESCRIPTION

Magnetic differential manometer MDM 60 has been developed to indicate pressure drop across the filter element in compressed air system. For any other technical gas please contact producer or your local distributor.

It detects when the filter cartridge is clogged and should be replaced. MDM 60 is typically installed on the head of the filter housing.

MDM60 can be used in variety of applications. For applications not listed please contact producer or your local distributor.





TECHNICAL DATA	
operating pressure range	0 - 16 bar (0 - 232 psi)
operating temperature range	1,5 - 65 °C (35 - 149 °F)
mass	0,15 kg
measuring range	0,9 bar (13 psi)
DIMENSIONS	
A	72 mm
B	64 mm
C	68 mm
D	74 mm
E	24 mm
F	M5
TYPES	
MDM 60	basic version
MDM 60E	electronic version (battery) with LED alarm light
MDM 60C	voltage-free contact version for remote alarm

APPLICATIONS

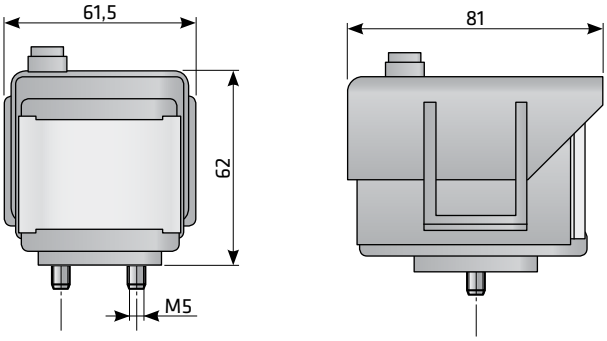
- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

EPG 60

ELECTRONIC PRESSURE GAUGE

16 bar
operating pressure

1,5 to 40°C
operating temperature range



DESCRIPTION

The EPG 60 is electronic pressure gauge designed for monitoring of filter cartridge condition.

Filter cartridge condition is estimated from pressure drop, working hours, total hours or their combination. A change filter cartridge warning is issued when these parameters approach their limiting values.

An optional Alarm/ Warning output and Service Network Protocol for remote surveillance available.

EPG 60 is battery operated. Low power consumption allows long intervals between battery replacements.

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

TECHNICAL DATA				
TYPE		EPG-SN	EPG	EPG 4-20mA
Service network connection possible		Yes	No	No
System pressure range		0-16 bar (0 – 232 psi)		
Differential pressure range		0,07 bar - 1,00 bar (1.0 psi – 14.5 psi)		
Max. differential pressure		1 bar, 14,7 psi		
Operating temperature	Ambient	1,5 °C - 40 °C (34,7 °F - 104 °F)		
	Compressed air	1,5 °C - 65 °C (34,7 °F - 149 °F)		
Mass		130 g (without batteries)		
Materials		PA6, glass fibres, NBR (sealing)		
Battery life time		>1 year (alkaline AA)		-
Output signal		No	No	4-20 mA

MDHI 50

DIFFERENTIAL HIGH PRESSURE STAINLESS STEEL INDICATOR

50 bar
operating pressure

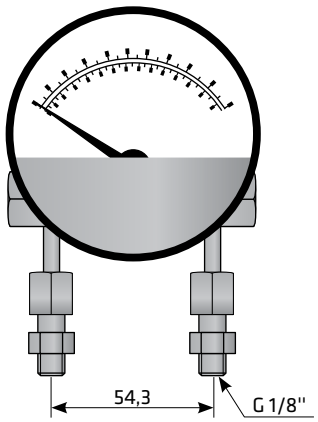
1,5 to 65°C
operating temperature range

DESCRIPTION

Differential pressure drop indicator MDHI 50 has been developed for accurate indication of pressure drop across the filter element in compressed air system.

MDHI 50 is optimized for installation on the head of the filter housing.

TECHNICAL DATA		
Ambient temperature range	1,5 - 60 °C	35 - 140°F
Measuring range	0 – 1 bar	0 - 14,5 psi
Static pressure	50 bar	725 psi
Protection class	IP 54	
Accuracy	±3% of full scale	
Connection	2 x G 1/8" male	



APPLICATIONS

- automotive
- electronics
- food & beverage
- chemical
- petrochemical
- plastics
- paint
- general industrial application

MDH 200

DIFFERENTIAL HIGH PRESSURE INDICATOR

200 bar
operating pressure

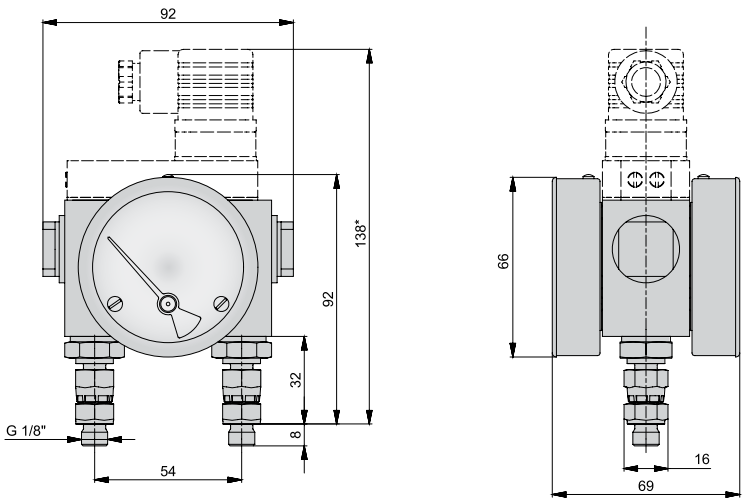
1,5 to 80°C
operating temperature range

DESCRIPTION

Magnetic differential manometer MDH200 is designed to indicate pressure drop across the filter element in compressed air system.

It detects when the filter cartridge is clogged and should be replaced. MDH200 is usually installed on the head of the filter housing.

Double dials on manometer allows readout values from both sides of the differential manometer.



APPLICATIONS

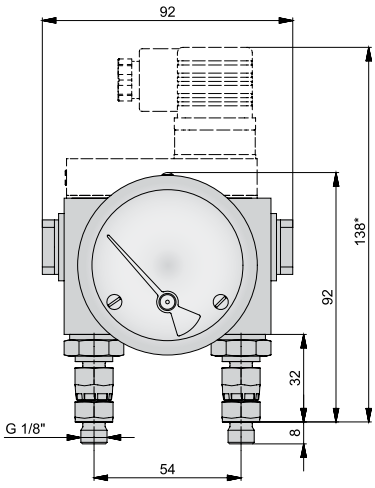
- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

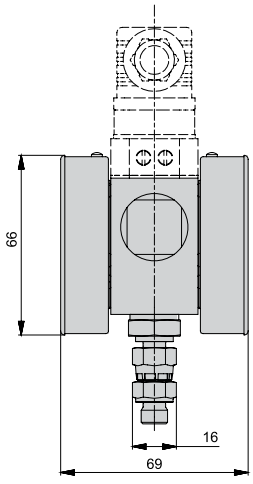
TECHNICAL DATA		
Ambient temperature range	1,5 - 80 °C	35 - 175°F
Measuring range	0 – 1 bar	0 - 14,5 psi
Static pressure	200 bar	2900 psi
Protection class	IP 64	
Accuracy	±5% of full scale	
Connection	2 x G 1/8" male	

Model	Description
MDH 200	basic version
MDH 200C	voltage-free contact version for remote alarm

MDH 400

DIFFERENTIAL HIGH PRESSURE INDICATOR





TECHNICAL DATA		
Ambient temperature range	1,5 - 80 °C	35 - 175°F
Measuring range	0 – 1 bar	0 - 14,7 psi
Static pressure	400 bar	5801 psi
Protection class	IP 65	
Accuracy	±5% of full scale	
Connection	On body G1/4"female – reducing fittings G1/8" male	

Model	Description
MDH 400	basic version
MDH 400C	voltage-free contact version for remote alarm

400 bar
operating pressure

1,5 to 80°C
operating temperature range

DESCRIPTION

Magnetic differential manometer MDH400 is designed to indicate pressure drop across the filter element in compressed air system.

It detects when the filter cartridge is clogged and should be replaced. MDH400 is usually installed on the head of the filter housing.

Double dials on manometer allows readout values from both sides of the differential manometer. Thanks to resistance stainless steel housing is also suitable for demanding applications.

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

OCI

OIL CONTENT INDICATOR

0,68 - 16 bar
operating pressure

1,5 to 49°C
operating temperature range

DESCRIPTION

OCI oil content indicator has been designed to monitor oil content in pressure vessels and receivers where air quality is critical. It is calibrated to detect aerosol-mist level of oil with sensitivity down to 0,01 PPMm (0,012 mg/m³).

Replacement cartridge is available when original is worn out.

APPLICATIONS

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application
- Outlet of activated carbon filters
- Outlet of activated carbon towers
- Monitoring of oil content

TECHNICAL DATA	
TYPE	OCI A-4000-120
Connection	G1/8"
Dimensions	166 x 16,2 mm
Mass	0,134 kg
Pressure range	0,68 - 16 barg
Operating temperature range	1,5 °C to 49 °C
Measuring range	0 - 25 PPM(m) at 20 °C 0 - 30 mg/m³

CHI

HUMIDITY INDICATOR

20 bar
operating pressure

RAL 9005
standard colour

DESCRIPTION

Humidity indicator CHI is designed for optical indication of dew point in compressed air system.

Humidity / dew point is determined based on the color of the silica gel, it is orange when dry and translucent when wet. Silica gel regains its orange color after regeneration.

CHI can be used in variety of applications. For applications not listed please contact producer or your local distributor.

Silicagel colour	Condition
Orange	Dry air
Transculent	Wet air

APPLICATIONS

- Desiccant dryers
- General compressed air

VPG 60

DIFFERENTIAL PRESSURE INDICATOR

20 to 2000 mbar(a)
operating pressure

1,5 to 65°C
operating temperature range

VPG 60
basic version

VPG 60 E
electronic version
with LED alarm

VPG 60 C
voltage free contact version
for remote alarm

DESCRIPTION

Magnetic differential manometer VPG 60 has been developed to indicate pressure drop across the filter element in vacuum system. It detects when the filter cartridge is clogged and should be replaced. VPG 60 is typically installed on the head of the filter housing.

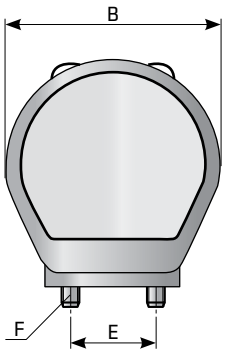
For any other technical gas please contact us or your local distributor.

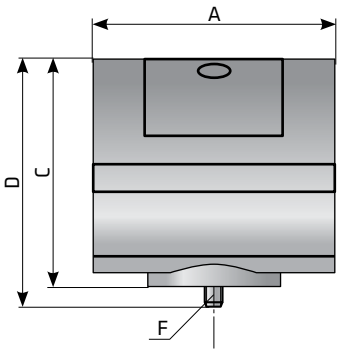
VPG 60 can be used in variety of applications. For applications not listed please contact us or your local dealer.

APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

TECHNICAL DATA	
operating pressure range	20 - 2000 mbar(a) (0,29 - 29 psi(a))
operating temperature range	1,5 - 65 °C (35 - 149 °F)
mass	0,15 kg
measuring range	0,09 bar (0,0013 psi)
DIMENSIONS	
A	72 mm
B	64 mm
C	68 mm
D	74 mm
E	24 mm
F	M5
TYPES	
VPG 60	basic version
VPG 60E	electronic version (battery) with LED alarm light
VPG 60C	voltage-free contact version for remote alarm





OMEGA AIR

Air and Gas Treatment

ACCESSORIES

Different accessories are small, but important part of compressed air system.

Despite the fact that this equipment is often unnoticed, also plays an important role in the reliable operation of the compressed air system.

Reliable mounting of compressed air equipment reduces mechanical stresses and relief the equipment, which ensures long and reliable operation without the risk of mechanical collapse.

Reliable connection of different types of filters through our Assembly kits for filters protects against compressed air leakage and allows the merging of filters with various threaded connections and filters of different manufacturers.

AK

ASSEMBLY KITS FOR FILTERS

DESCRIPTION

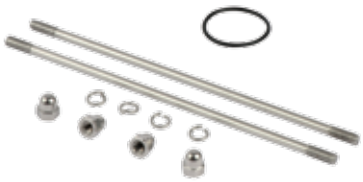
Assembly kits have been developed to connect two or more air filters together. Construction of assembly kit is universal and it can be used for any type of filter, including filters of some other world producers. It is easy to connect two filters together and it includes supporting elements for easy mounting on the wall or other surface.

AK - UNIVERSAL ASSEMBLY KITS

Type	Connection	Operating temp.	Operating pressure	Max. load/ console [kg]	Mass [kg]
AK 3/8"	3/8"	1,5 - 65°C	0 - 20 bar	0,47	0,3
AK 1/2"	1/2"	1,5 - 65°C	0 - 20 bar	0,47	0,3
AK 3/4"	3/4"	1,5 - 65°C	0 - 20 bar	0,6	0,3
AK 1"	1"	1,5 - 65°C	0 - 20 bar	1,57	0,5
AK 1 1/2"	1 1/2"	1,5 - 65°C	0 - 20 bar	2,2	0,5
AK 2"	2"	1,5 - 65°C	0 - 20 bar	2,32	1,57
AK 2 1/2"	2 1/2"	1,5 - 65°C	0 - 20 bar	2,28	1,53
AK 3"	3"	1,5 - 65°C	0 - 20 bar	2,22	1,47

AK AF

AK AAF



AK - ASSEMBLY KITS FOR OMEGA AIR FILTERS

Filter type	Assembly kit type	Suitable for filter size	Number of filters	Operating pressure
AF	**AK AF 2S**	**AF 0056-0106**	2	0-16 bar
	AK AF 3S		3	0-16 bar
	AK AF 2M	**AF 0186-0706**	2	0-16 bar
	AK AF 3M		3	0-16 bar
AAF	**AK AAF 2S**	**AAF 0006-0016**	2	0-16 bar
	AK AAF 3S		3	0-16 bar
	AK AAF 2M	**AAF 0026-0036**	2	0-16 bar
	AK AAF 3M		3	0-16 bar
	AK AAF 2L	**AAF 0046-0106**	2	0-16 bar
	AK AAF 3L		3	0-16 bar
	AK AAF 2XL	**AAF 0186-0706**	2	0-16 bar
	AK AAF 3XL		3	0-16 bar

WB

WALL MOUNTING BRACKETS FOR FILTERS

WB AF

WB CHP/IHP

WB - WALL MOUNTING BRACKETS

For filters	Wall mounting bracket type	Suitable for filter size	Maximum load [N]
AF	**WB AF S**	**AF 0056-0106**	60 N
	WB AF M	**AF 0186-0706**	150 N
CHP/IHP	**WB CHP/IHP S**	**CHP 003-005**	100 N
		IHP 003-005	
	WB CHP/IHP M	**CHP 007-010**	150 N
		IHP 007-010	
	WB CHP/IHP L	**CHP 018-030**	250 N
		IHP 018-030	
	WB CHP/IHP XL	**CHP 047**	350 N
		IHP 047	
	WB CHP/IHP XXL	**CHP 094**	700 N
		IHP 094	

WK

WALL MOUNTING KITS FOR FILTERS

WK AAF

WK - WALL MOUNTING KITS

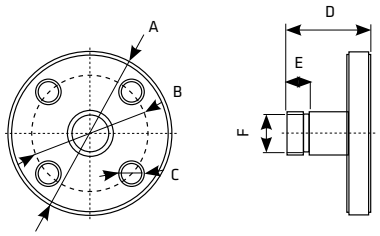
For filters	Wall mounting kit type	Suitable for filter size	Number of filters	Operating pressure	Maximum load [N]
AAF	**WK AAF 1S**	**AAF 0006-0016**	1	0-16 bar	40 N
	WK AAF 2S		2		
	WK AAF 3S		3		
	WK AAF 1M	**AAF 0026-0036**	1	0-16 bar	60 N
	WK AAF 2M		2		
	WK AAF 3M		3		
	WK AAF 1L	**AAF 0046-0106**	1	0-16 bar	100 N
	WK AAF 2L		2		
	WK AAF 3L		3		
	WK AAF 1XL	**AAF 0186-0706**	1	0-16 bar	150 N
	WK AAF 2XL		2		
	WK AAF 3XL		3		

FA

FLANGE ADAPTER

DESCRIPTION

Flange adapter FA is designed for all products and devices which cannot be connected to the pipeline without flanges such as: filter housings, condensate drains, dryers, valves, ... The product is made of male pipe thread which can be screwed to the female connection and the flange which can be coupled to another flange. The Flange adapter FA is completely protected from corrosion with zinc coating.



TECHNICAL DATA

Type	Flange size[1]	Pressure rating	Dimensions [mm]						Mass [kg]
			A	B	C	D	E	F	
FA 15-16	DN15	PN16	95	65	4 × ø14	65	15	G 1/2	0,7
FA 15-63		PN63	105	75	4 × ø14	65	15		1,1
FA 20-16	DN20	PN16	105	75	4 × ø14	65	15	G 3/4	1,0
FA 20-16		PN63	130	90	4 × ø18	65	15		1,4
FA 25-16	DN25	PN16	115	85	4 × ø14	65	17	G 1	1,2
FA 25-63		PN63	140	100	4 × ø18	65	17		1,8
FA 32-16	DN32	PN16	140	100	4 × ø18	85	17	G 1 1/4	2,1
FA 32-63		PN63	155	110	4 × ø22	85	17		2,7
FA 40-16	DN40	PN16	150	110	4 × ø18	95	19	G 1 1/2	2,4
FA 40-63		PN63	170	125	4 × ø22	95	19		3,2
FA 50-16	DN50	PN16	165	125	4 × ø18	105	21	G 2	3,2
FA 50-63		PN63	180	135	4 × ø22	105	21		4,5
FA 65-16	DN65	PN16	185	145	4 × ø18	105	21	G 2 1/2	3,7
FA 65-63		PN63	205	160	8 × ø22	105	21		5,2
FA 80-16	DN80	PN16	200	160	8 × ø18	105	21	G 3	4,7
FA 80-63		PN63	215	170	8 × ø22	105	21		7,4

[1] Standard flange EN 1092-1, other pipe connection on request.

SG

SIGHT GLASS

DESCRIPTION

Sight glass has been developed to easily check the level of accumulated condensate at he bottom of a compressed air filter.

Every cast aluminium filter housing has a pre-cast area where the sight glass can be mounted after appropriate holes are drilled.

TECHNICAL DATA

TYPE	SG
Operating pressure	0 to 16 bar (0 to 232 psi)
Operating temp.	1,5 to +65 °C (35 to 149 °F)
Operating fluid	Air, water, oil
Mass (kg)	0,010
Material	PA12
Dimensions (mm)	59,0 x 20,5 x 11,0

ES

EXHAUST SILENCER

ES

ES B

DESCRIPTION

ES series expansion silencers are designed for efficient noise reduction at variety of applications where compressed air is expanded/ depressurised to ambient pressure.

ES B series - exhaust silencers with bypass valves are available as an option. The bypass valve is designed to protect silencer from overload. It is positioned on the other side of the inlet port. The valve opens when the pressure in the silencer exceeds the limited value. The bypass valve is triggered by a spring-loaded mechanism.

ES E and ES BE series - version with nipple connection

TECHNICAL DATA

Type		Connection	Flow capacity		Operating pressure	Operating temp.	Dimensions	
Standard version	Pressure relief option		Nm³/h	scfm			ø [mm]	h [mm]
ES 06050	**ES 06050 B**	1/4"	190	118	0 to16 bar	1,5 to +65°C	51	70
ES 14050	**ES 14050 B**	3/8"	420	262			51	127
ES 12075	**ES 12075 B**	1/2"	850	530			75	130
ES 22075	**ES 22075 B**	3/4"	1.820	1.134			75	230
ES 22090	**ES 22090 B**	1"	2.310	1.440			90	233
ES 32090	**ES 32090 B**	1 1/4"	4.550	2.835			90	333
ES 32140	**ES 32140 B**	1 1/2"	6.370	3.970			140	336
ES 45140	**ES 45140 B**	2"	11.200	6.970			140	475

Versions ES E and ES BE are equipped vith external thread connection.

CONDENSATE DRAINS

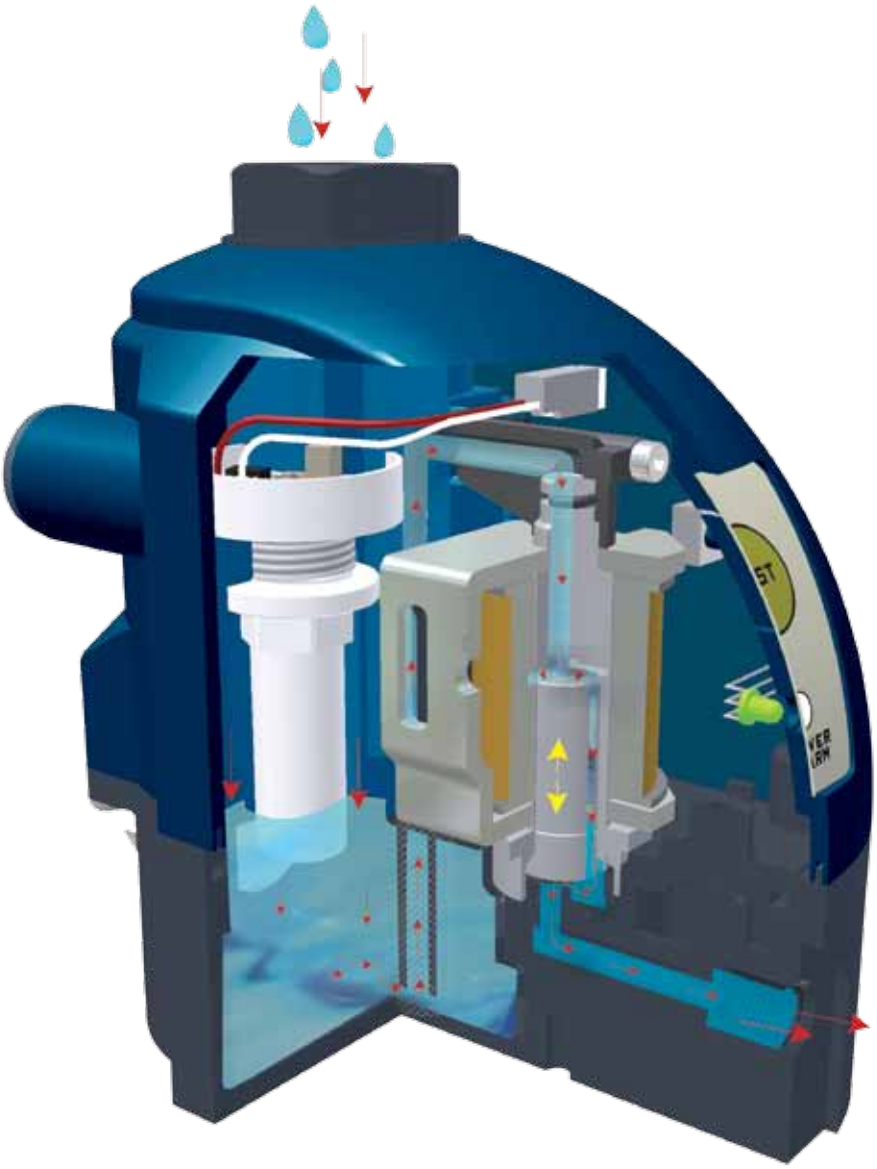
Condensate draining equipment is possibly the most ignored component of a compressed air system but nevertheless, a most important part. No matter how much money you wasted on high-quality equipment for compressed air (compressors, dryers, filters), compressed air quality becomes worthless, if the condensate is not discharged from the system.

Condensate in compressed air system can cause large problems:

- An inconsistent supply of dry air will cause production problems. For example, the moisture will wash away the lubrication from air tools, and cause erratic performance, downtime and maintenance.
- The presence of water will lead to the formation of rust and scale in the air piping system. This solid contamination will foul equipment.
- Your air dryers and in-line filtration products will not perform if they become overloaded with liquid contamination. Slugs of water due to drain failure can cause major problems in a desiccant dryer.
- Also, water can back up into the compressor and wreck the machinery.
- When a drain fails to eject all of the condensate collected, oil and/or water will collect, affecting - filter efficiency – causing carry over into the system – allowing freeze-up in the winter.
- Drains stuck in the open position due to condensate debris can be a major source of wasted energy in some plants.
- The condensate transferred to the end user, can lead to irreparable consequences to the final product or process.

Condensate drains are installed on moisture separators, coalescing filters, air receivers, air dryers and drip legs to remove this condensate from the compressed air system. The condensate should be piped from automatic drain valves to oil/water separators to remove the oil from the condensate prior to discharge to a drain. Pay attention, that the drains operate properly. Only in that way the filters and separators are successful in completing their task.

CONDENSATE DRAINS		Pressure	Capacity	Dew point	Page
EMD	Electronic condensate drain	16 bar			96
ECD-B	Electronic condensate drain	16 bar			98
IED	Electronic condensate drain	16 bar			100
EMD HP	High pressure electronic condensate drain	50 bar			102
TD M	Timer controlled condensate drain	16, 25, 50, 150 bar			104
TD 400M	High pressure timer controlled condensate drain	400 bar			106
AOK 20B	Automatic mechanical condensate drain	20 bar			107
AOK 20SS	Automatic mechanical stainless steel condensate drain	20 bar			108
AOK 50B	Automatic mechanical high pressure condensate drain	8-50 bar			109
AOK 50SS	Automatic stainless steel high pressure condensate drain	8-50 bar			110
AOK 16B	Automatic mechanical condensate drain	16 bar			111
AOK 16F	Automatic mechanical condensate drain	16 bar			112
MCD	Manual condensate drain	20 bar			113
MCD-B	Manual condensate drain	16 bar			114
EVD	Vacuum drain	20-2000 mbar			115



EMD SERIES

ELECTRONIC CONDENSATE DRAIN

16 bar
operating pressure

up to 75 l/h
drain capacity

1/2”
connections

1,5 to 65°C
operating temperature range

DESCRIPTION

EMD series is designed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system. The units can be installed as external drain on any application specified. Condensate accumulates in the collecting reservoir. When the level is high enough condensate is being discharged from the system without any air losses. Fluid level is detected by precise capacitive level sensor.

Special self-cleaning direct acting valve assures reliable operation. EMD series is also equipped with operation alarm, led indicator, test button and internal strainer. Version with Service Network for diagnostics parameter setting and alarm output is also available.

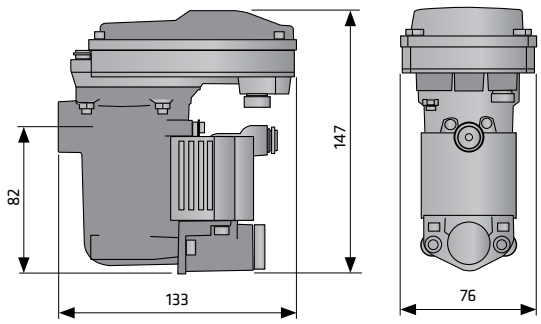
APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/air tank
- Air dryer
- Air filter

TECHNICAL DATA		EMD12	EMD12A	EMD12C	EMD12	EMD12A	EMD12C	EMD12	EMD12A	EMD12A	EMD25		EMD 75	
		230 V			115 V			24 Vac		24Vdc	230 V	115 V	230 V	115 V
Service network connection		-	-	✓	-	-	✓	-	-	-	-	-	-	-
Alarm output		-	✓	✓	-	✓	✓	-	✓	✓	-	-	-	-
Voltage		230 VAC, 50-60 Hz			115 VAC, 50-60 Hz			24 Vac, 50-60 Hz		24Vdc	230 V	115 V	230 V	115 V
Internal fuse		5 x 20 1A T			5 x 20 1A T			2A		2A	5 x 20 1A T		5 x 20 1A T	
Power		10 VA			10 VA			10 VA		8,5 W	24 VA		24 VA	
Operating pressure range		0-16 bar (0-232 psi)			0-16 bar (0-232 psi)			0-16 bar (0-232 psi)		0-8 bar	0-16 bar (0-232 psi)		0-16 bar (0-232 psi)	
Drain capacity (at 7 bar/101 psi)		12 l/h (0,007cfm)			12 l/h (0,007cfm)			12 l/h (0,007cfm)		12 l/h	25 l/h		75 l/h	
Operating temperature range		1,5-65°C (35-149°F)												
Inlet connection		G 1/2"			G 1/2"			G 1/2"		G 1/2"	G 1/2"		G 1/2"	
Outlet connection		Push connection for tube ø8												
Protection class		IP54												
Mass [kg]		0,55									0,9		1,2	
Dimensions A × B × C [mm]		133 x 76 x 147												
Peak compressor capacity [m³/min]	a	8,8									16,6		55,0	
	b	7,4									15,4		46,2	
	c	4,6									9,6		28,7	
Peak dryer capacity [m³/min]	a	18,56									38,6		116,0	
	b	14,9									31,0		93,1	
	c	9,28									19,3		58,0	
Peak filter capacity [m³/min]	a	92,8									193,3		580,0	
	b	74,4									154,9		465,0	
	c	46,4									96,6		290,0	

The amount of condensed water in compressed air system depends mainly on outside air temperature. Please take the relevant climate zone into account when dimensioning yours specific EMD drain series application:

a	Northern Europe, Canada, Central Asia
b	Rest of the World
c	Moist tropical and subtropical regions



ECD-B SERIES

ELECTRONIC CONDENSATE DRAIN

16 bar
operating pressure

15 to 150 l/h
drain capacity

1/2"
connections

1,5 to 65°C
operating temperature range

DESCRIPTION

ECD-B series is designed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor.

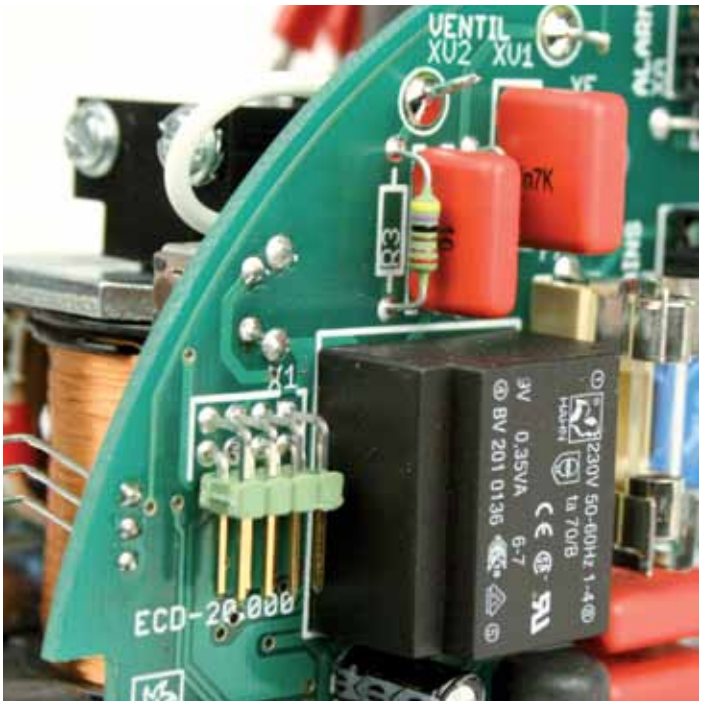
The units can be installed as external drain on any application specified. Condensate accumulates in the collecting reservoir and when the level is high enough condensate is being discharged from the system without any air losses. Fluid level is detected by precise capacitive level sensor.

Special self-cleaning direct acting valve assures reliable operating. ECD-B series is also equipped with operation alarm, led indicator, test button and internal strainer.

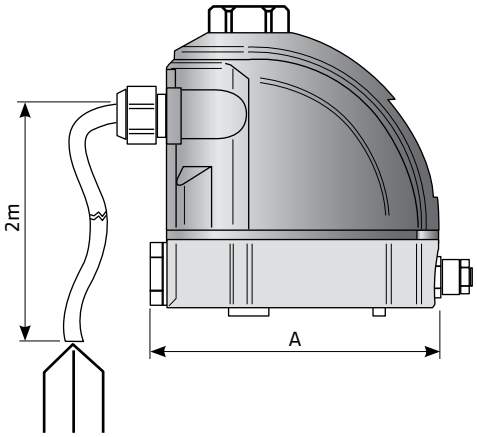
ECD-B series can be used in variety of applications. For applications not listed please contact producer or your local distributor.

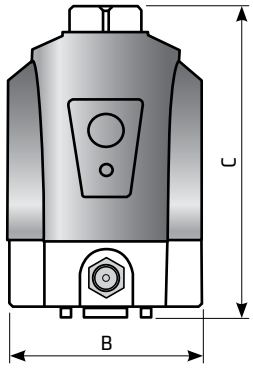
APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/air tank
- Air filter



TECHNICAL DATA		ECD 15B	ECD 40B	ECD 90B	ECD 150B
Voltage	115 VAC	115 V ± 10 %	115 V ± 10 %	115 V ± 10 %	115 V ± 10 %
	230 VAC	230 V ± 10 %	230 V ± 10 %	230 V ± 10 %	230 V ± 10 %
Power	115 VAC	24 VA	24 VA	24 VA	24 VA
	230 VAC	24 VA	24 VA	24 VA	24 VA
Frequency		50-60 Hz			
Operating pressure		0-16 bar (0 - 232 psi)			
Drain capacity (at 7 bar/101 psi)		15 l/h (0,0088 cfm)	40 l/h (0,023 cfm)	90 l/h (0,053 cfm)	150 l/h (0,088 cfm)
Operating temperature range		1,5 - 65 °C (35-149 °F)			
Inlet connection		R 1/2"	R 1/2"	R 1/2"	R 1/2"
Outlet connection		R 1/8"	R 1/8"	R 1/8"	R 1/8"
Power interface		3 × 0,75 mm²	3 × 0,75 mm²	3 × 0,75 mm²	3 × 0,75 mm²
Protection class		IP54	IP54	IP54	IP54
Mass [kg]		0,9	0,9	1,05	1,15
Dimensions A × B × C [mm]		120 × 82 × 125	120 × 82 × 125	120 × 82 × 135	120 × 82 × 150
Peak compressor performance [m³/min]	a	11,6	29,4	60,6	111,6
	b	9,3	23,5	48,5	89,3
	c	5,8	14,7	30,3	55,8
Peak dryer performance [m³/min]	a	23,2	58,8	121,2	223,2
	b	18,6	47,0	97,0	178,6
	c	11,6	29,4	60,6	111,6
Peak filter performance [m³/min]	a	116	294	606	1116
	b	93	235	485	893
	c	58	147	303	558
Compressor motor power [kW]		up to 30	up to 75	up to 160	up to 315





Please take the relevant climate zone into account when dimensioning yours specific ECD-B drain series application:

a	Northern Europe, Canada, Northern USA, Central Asia
b	Central and Southern Europe, Central America
c	South East Asian coastal regions, Oceania, Amazon and Congo regions

IED SERIES

ELECTRONIC CONDENSATE DRAIN

16 bar
operating pressure

8 l/h
drain capacity

1/2”
connections

1,5 to 65°C
operating temperature range

DESCRIPTION

IED drain series is designed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system. The series is designed to discharge condensed water from filter housing primarily.

Condensate accumulates in the bottom of filter housing. Fluid level is detected by precise capacitive level sensor. When the level is high enough condensate is being discharged from the system without any air losses.

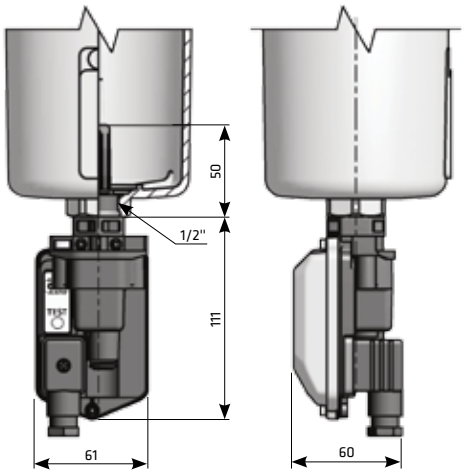
IED drain series is also equipped with led indicator and test button.

APPLICATIONS

- Air filter

TECHNICAL DATA	IED		IED A		IED C	
Version	230 V	115 V	230 V	115 V	230 V	115 V
Voltage	230 VAC, 50-60 Hz	115 VAC, 50-60 Hz	230 VAC, 50-60 Hz	115 VAC, 50-60 Hz	230 VAC, 50-60 Hz	115 VAC, 50-60 Hz
Internal fuse	5 x 20 1A T	5 x 20 1A T	5 x 20 1A T	5 x 20 1A T	5 x 20 1A T	5 x 20 1A T
Power	10 VA	10 VA	10 VA	10 VA	10 VA	10 VA
Operating pressure range	0-16 bar (0-232 psi)	0-16 bar (0-232 psi)	0-16 bar (0-232 psi)	0-16 bar (0-232 psi)	0-16 bar (0-232 psi)	0-16 bar (0-232 psi)
Drain capacity (at 7 bar/101 psi)	8 l/h at 7 bar (0,005 cfm at 101 psi)		8 l/h at 7 bar (0,005 cfm at 101 psi)		8 l/h at 7 bar (0,005 cfm at 101 psi)	
Operating temperature range	1,5-65°C (35-149°F)		1,5-65°C (35-149°F)		1,5-65°C (35-149°F)	
Inlet connection	G 1/2" parallel thread		G 1/2" parallel thread		G 1/2" parallel thread	
Protection class	IP54		IP54		IP54	
Mass [kg]	0,3		0,3		0,3	
Service netvork connection	-		-	-	✓	✓
Alarm output	-		✓	✓	✓	✓

Filter capacities by region			
	Northern Europe, Canada, Central Asia	Rest of the World	Moist tropical and subtropical regions
Peak filter capacity	70 m³/min	55 m³/min	34 m³/min



EMD HP SERIES

HIGH PRESSURE ELECTRONIC CONDENSATE DRAIN

50 bar
operating pressure

30,4 l/h
drain capacity

1/2"
connections

1,5 to 65°C
operating temperature range

DESCRIPTION

EMD HP series drain have been developed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system. The units can be installed as external drain on any application specified below. Condensate accumulates in the collecting reservoir and when the level is high enough condensate is being discharged from the system without any air losses. Fluid level is detected by precise capacitive level sensor.

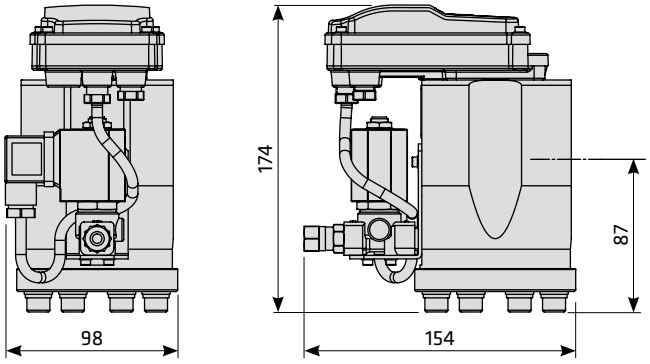
EMD HP series is also equipped with operation alarm (version A), led indicator, test button and internal strainer. Version with Service Network (version C) for diagnostics and parameter setting is also available. Working hours, valve operations and other operating parameters are stored in internal memory and can be read with Service Network reader.

APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/air tank
- Air dryer
- Air filter

TECHNICAL DATA	EMD HP	EMD HP A	EMD HP C	EMD HP	EMD HP A	EMD HP C	EMDHP	EMD HP A	EMD HPA
	230 V			115 V			24 Vac		24 Vdc
Service network connection	-	-	✓	-	-	✓	-	-	-
Alarm output	-	✓	✓	-	✓	✓	-	✓	✓
Voltage	230 VAC, 50-60 Hz			115 VAC, 50-60 Hz			24 Vac, 50-60 Hz		24Vdc
Internal fuse	5 x 20 1A T			5 x 20 1A T			2A		2A
Power	25 VA			25 VA			25 VA		22 W
Operating pressure range	0-50 bar (0-725 psi)			0-50 bar (0-725 psi)			0-50 bar (0-725 psi)		0-50 bar
Drain capacity (at 7 bar/101 psi)	30,4 l/h at 50 bar (0,018 cfm at 725 psi)								
Operating temperature range	1,5-65°C (35-149°F)								
Inlet connection	G 1/2" parallel thread								
Outlet connection	G 1/4" parallel thread								
Protection class	IP54								
Mass [kg]	2,3								

PEAK COMPRESSOR CAPACITY The data apply for drain, located in the most unfavorable location i.e. compressor cyclone od pressure vessel.			
System pressure	Northern Europe, Canada, Central Asia	Rest of the World	Moist tropical and subtropical regions
50 bar	29,5 m³/min	22,2 m³/min	12,9 m³/min
40 bar	26,4 m³/min	19,9 m³/min	11,5 m³/min
30 bar	22,9 m³/min	17,2 m³/min	10,0 m³/min
20 bar	18,7 m³/min	14,0 m³/min	8,1 m³/min



TD M SERIES

TIMER CONTROLLED CONDENSATE DRAIN

16, 25, 50, 150 bar
operating pressure

95 l/h
drain capacity

1/2"
connections

1,5 to 65°C
operating temperature range

DESCRIPTION

TD M timer controlled condensate drain is designed for reliable removal of condensate or other liquid from compressed air system. For any other technical gas please contact producer or your local distributor.

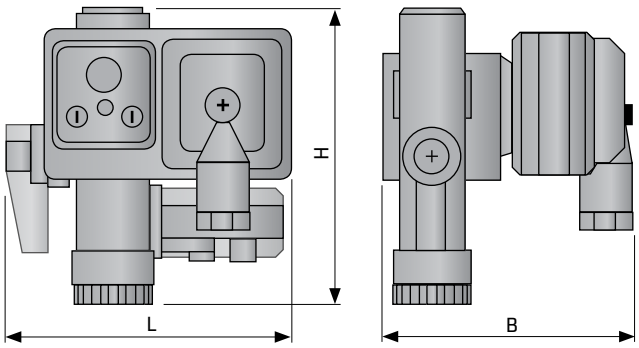
Discharge intervals can be set with two adjustment knobs. TD M drain is available in several types based on operating pressure and operating medium.

TD M can be used in variety of applications. For applications not listed please contact producer or your local dealer.

APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter

TECHNICAL DATA	TD16M		TD25M		TD50M		TD150M		TD16Mcr	
Supply voltage	115 V	230 V	115 V	230 V	115 V	230 V	115 V	230 V	115 V	230 V
Operating temp. range	1,5 - 65 °C (35-149 °F)		1,5 - 65 °C (35-149 °F)		1,5 - 65 °C (35-149 °F)		1,5 - 65 °C (35-149 °F)		1,5 - 65 °C (35-149 °F)	
Operating pressure	16 bar (232 psi)		25 bar (362 psi)		50 bar (735 psi)		150 bar (2175 psi)		16 bar (232 psi)	
Protection class	IP65		IP65		IP65		IP65		IP65	
Coil power	18VA (holding), 36 VA (inrush)		18VA (holding), 36 VA (inrush)		18VA (holding), 36 VA (inrush)		18VA (holding), 36 VA (inrush)		18VA (holding), 36 VA (inrush)	
Cable dimensions	3 × 0,75 mm²		3 × 0,75 mm²		3 × 0,75 mm²		3 × 0,75 mm²		3 × 0,75 mm²	
Mass (cable+valve)	0,35 kg		0,35 kg		0,35 kg		0,35 kg		0,35 kg	
Mass (strainer)	0,23 kg		0,23 kg		0,23 kg		-		0,23 kg	
Time ON	0,5 s - 10 s		0,5 s - 10 s		0,5 s - 10 s		0,5 s - 10 s		0,5 s - 10 s	
Time OFF	0,5 min - 45 min		0,5 min - 45 min		0,5 min - 45 min		0,5 min - 45 min		0,5 min - 45 min	
Drain capacity (at 7 bar)	144 l/h		113 l/h		74 l/h		95 l/h		204 l/h	
Flow rate Kvs	2,4 l/min		1,5 l/min		0,7 l/min		0,7 l/min		3,4 l/min	
Inlet connection	R 1/2"		R 1/2"		R 1/2"		R 1/4"		R 1/2"	
Outlet connection	R 1/4"		R 1/4"		R 1/4"		R 1/4"		R 1/4"	
Dimensions L×B×H [mm]	77×79×93	87,5×90,5×123	77×79×93	87,5×90,5×123	77×79×93	87,5×90,5×123	77×79×93	87,5×90,5×123	77×79×93	87,5×90,5×123
Medium	Air, water, oil		Air, water, oil		Air, water, oil		Air, water, oil		Aggressive fluids	
Option strainer	yes		yes		yes		no		no	



TD 400M SERIES

TIMER CONTROLLED CONDENSATE DRAIN

400 bar(g)
operating pressure

see spec.
drain capacity

1/2"
connections

1,5 to 150°C
operating temperature range

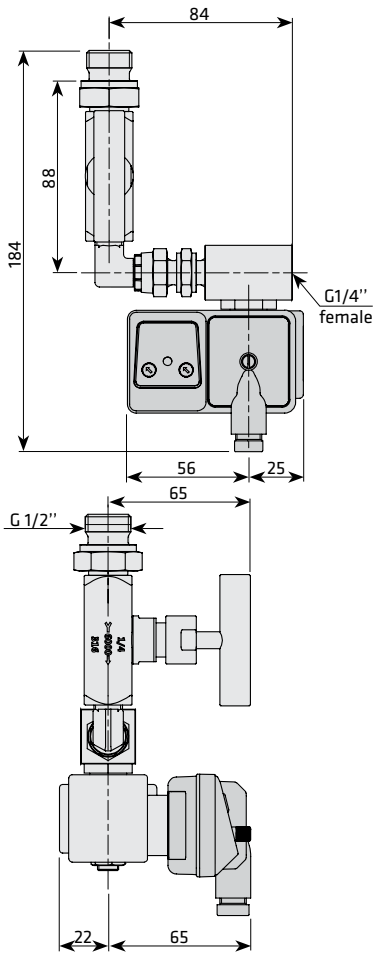
DESCRIPTION

TD400M timer controlled condensate drain is designed for reliable removal of condensate or other liquid from high pressure compressed air system(1). Discharge intervals can be set with two adjustment knobs. TD400M drain is available with a kit for easy installation which enable us to mount it in many different positions.

TD400M can be used in variety of applications. For applications not listed please contact us or your local dealer.

(1)For any other technical gas please contact us or your local dealer

TECHNICAL DATA	TD 400M 230V AC	TD 400M 24V DC
Supply voltage	230V (±10%), AC, 50/60Hz	24V DC
Operating temp. range	1,5 - 150 °C (35-302 °F)	
Operating pressure	0 - 400 bar (0 - 5800 psi)	
Protection class	IP65	
Coil power	8W	18 W
Cable dimensions	3 × 0,75 mm²	
Mass (timer+valve)	0,35 kg	
Mass (fittings+needle valve)	0,23 kg	
Time ON	0,5 s - 10 s	
Time OFF	0,5 min - 45 min	
Valve	Direct acting solenoid valve, 2/2, NC	
Connector	DIN EN 175301-803 form A	
Inlet connection	G 1/2"	
Outlet connection	G 1/4" (female)	
Dimensions L×B×H [mm]	105×87×184	
Medium	Air, water, oil	
Flow coefficient Kvs	0,3 l/min	0,3 l/min



DISCHARGE CAPACITY

Q-Discharge capacity [l/min], Kvs-Flow coefficient, Δp-pressure difference [bar], Time ON and Time OFF are determined by adjustment knobs, the range of each timer is specified in technical specification.

$$Q = Kvs \times \sqrt{\Delta p} \times \left(\frac{\frac{TimeON}{60}}{\frac{TimeON}{60} + TimeOFF} \right)$$

APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter

AOK 20B SERIES

AUTOMATIC MECHANICAL CONDENSATE DRAIN

20 bar
operating pressure

167 l/h
drain capacity

1/2"
connections

1,5 to 65°C
operating temperature range

TECHNICAL DATA	AOK 20B
Operating temperature range	1,5 - 65 °C (35-149 °F)
Operating pressure	20 bar (290 psi)
Mass	0,6 kg
Discharge capacity (at 7 bar/101 psi)	167 l/h
Inlet connection	G 1/2" (NPT option)
Outlet connection	G 1/2" (NPT option)
Dimensions A × B × C	135 × 110 × 130 mm
Medium	Condensate (air, water, oil)

RECOMMENDATIONS

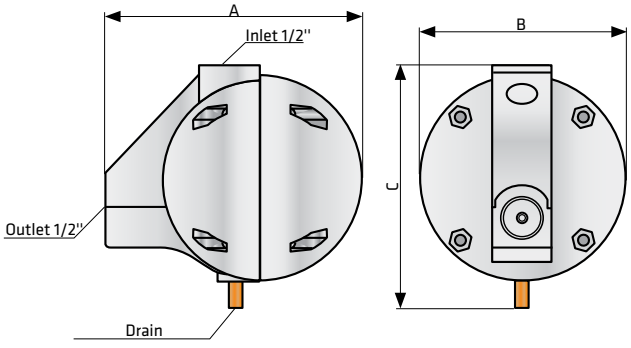
Install ball valve between pressure vessel and inlet connection.
Install strainer element between pressure vessel and inlet connection.
Install nipple with venting tube to avoid generating of air bubbles.
Nipple is screwed in inlet connection.

DESCRIPTION

AOK20 has been developed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor.

The unit can be installed as external drain on any application specified. Condensate accumulates in the aluminium reservoir and when the level is high enough condensate is discharged from the system without any air losses. Direct acting valve is operated by precise level controlled floater which assures reliable and efficient operation. Thanks to robust aluminium housing AOK20 is suitable for heavy duty applications. AOK20 is also equipped with separate manual drain for venting.

AOK20 can be used in variety of applications. For applications not listed please contact producer or your local distributor



APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter

AOK 20SS SERIES

AUTOMATIC MECHANICAL STAINLESS STEEL CONDENSATE DRAIN

20 bar
operating pressure

167 l/h
drain capacity

1/2"
connections

1,5 to 65°C
operating temperature range

stainless steel 1.4404
material

DESCRIPTION

AOK20 SS is designed for fully automatic discharging of condensate or any other non aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor. The unit can be installed as external drain on any application specified below.

Condensate accumulates in the stainless steel reservoir and when the level is high enough the condensate is discharged from the system without any air loss. A direct acting valve is operated by a precise level controlled floater which assures reliable and efficient operation.

Thanks to its robust stainless steel housing AOK20 SS is suitable for heavy duty applications. On the front, the AOK20 SS, is also equipped with a separate manual drain for venting.

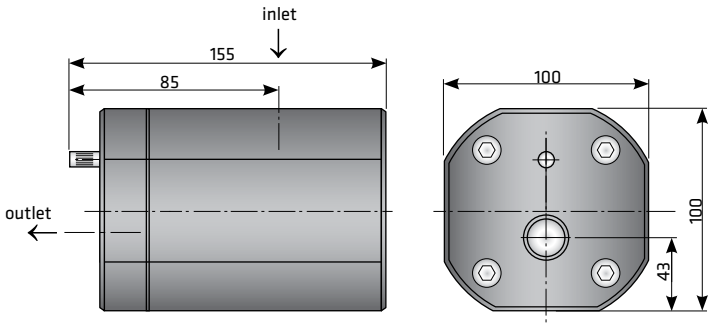
TECHNICAL DATA	AOK 20 SS
Operating temperature range	1,5 - 65 °C (35-149 °F)
Operating pressure	0-20 bar (0-290 psi)
Min. recommended operating pressure	1,5 bar(g) (21,8 psi)
Mass	6,6 kg
Discharge capacity (at 7 bar/101 psi)	167 l/h (at 7 barg) 252 l/h (at 16 barg)
Inlet connection	G 1/2" (NPT on request)
Outlet connection	G 1/2" (NPT on request)
Medium	Condensate (air, water, oil); non agressive

RECOMMENDATIONS

Install ball valve between pressure vessel and inlet connection.
Install strainer element between pressure vessel and inlet connection.
Install nipple with venting tube to avoid generating of air bubbles.
Nipple is screwed in inlet connection.

APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter



AOK 50B SERIES

AUTOMATIC MECHANICAL HIGH PRESSURE CONDENSATE DRAIN

8-50 bar
operating pressure

167 l/h
drain capacity

1/2"
connections

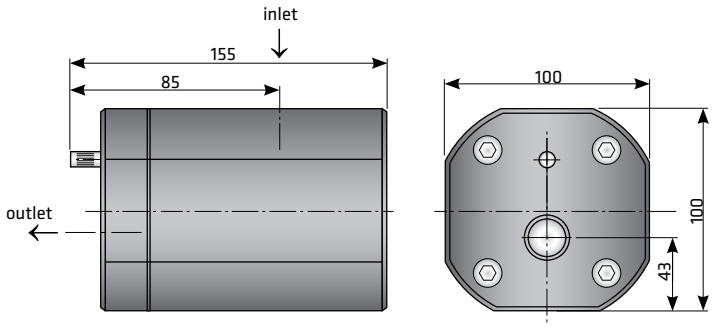
1,5 to 65°C
operating temperature range

aluminium
material

TECHNICAL DATA	AOK 50 B
Operating temperature range	1,5 - 65 °C (35-149 °F)
Operating pressure	8-50 bar (116-725 psi)
Min. reccomended operating pressure	10 bar(g) (145 psi)
Mass	2,8 kg
Discharge capacity	145 l/h (at 50 barg)
Inlet connection	G 1/2" (NPT on request)
Outlet connection	G 1/2" (NPT on request)
Medium	Condensate (air, water, oil); non aggressive

RECOMMENDATIONS

Install ball valve between pressure vessel and inlet connection.
Install strainer element between pressure vessel and inlet connection.
Install nipple with venting tube to avoid generating of air bubbles.
Nipple is screwed on inlet connection.



DESCRIPTION

AOK50B has been developed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system.
The unit can be installed as external drain on any application specified below.

Condensate accumulates in the aluminium reservoir and when the level is high enough condensate is being discharged from the system. Direct acting valve is operated by precise level controlled floater which assures reliable and efficient operation.

Thanks to light aluminium housing AOK50B for ease mounting and is also suitable for heavy duty applications.
On front side AOK50B is also equipped with separate manual drain or venting.

APPLICATIONS

- Air compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter

AOK 50SS SERIES

AUTOMATIC STAINLESS STEEL HIGH PRESSURE CONDENSATE DRAIN

8 - 50 barg
operating pressure

1/2"
connections

1,5 to 65°C
operating temperature range

stainless steel 1.4404
material

DESCRIPTION

AOK50SS has been developed for fully automatic discharging of condensate or any other non-aggressive fluid from compressed air system.
The unit can be installed as external drain on any application specified below.

Condensate accumulates in the stainless steel reservoir and is discharged from the system when the level is high enough.

A direct acting valve is operated by a precise level controlled floater which assures reliable and efficient operation.

Thanks to its robust stainless steel housing AOK50 SS is suitable for heavy duty applications. On the front, the AOK50 SS, is also equipped with a separate manual drain for venting.

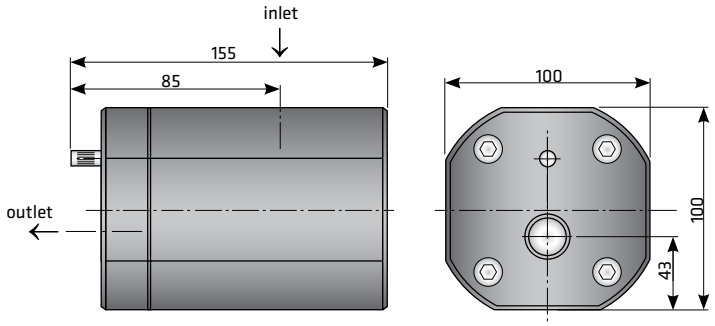
TECHNICAL DATA	AOK 50 SS
Operating temperature range	1,5 - 65 °C (35-149 °F)
Operating pressure	8-50 bar (116-725 psi)
Min. reccomended operating pressure	10 bar(g) (145 psi)
Mass	7,2 kg
Discharge capacity	145 l/h (at 50 barg)
Inlet connection	G 1/2" (NPT on request)
Outlet connection	G 1/2" (NPT on request)
Medium	Condensate (air, water, oil); non aggressive

RECOMMENDATIONS

Install ball valve between pressure vessel and inlet connection.
Install strainer element between pressure vessel and inlet connection.
Install nipple with venting tube to avoid generating of air bubbles.
Nipple is screwed on inlet connection.

APPLICATIONS

- Cyclone condensate separator
- Air filter



AOK 16B SERIES

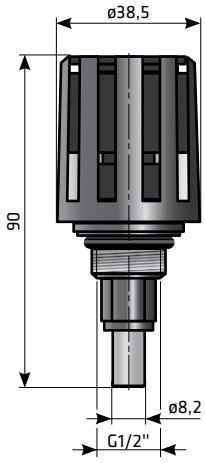
AUTOMATIC MECHANICAL CONDENSATE DRAIN

16 bar
operating pressure

1/2”
connections

1,5 to 65°C
operating temperature range

TECHNICAL DATA	AOK 16B
Operating temp. range	1,5 - 65 °C (35-149 °F)
Operating pressure	0 - 16 bar (0 - 232 psi)
Mass	0,04 kg
Connection	G 1/2”
Outlet connection	ø8
Dimensions H × D	90 × ø38,5 mm
Medium	Condensate (air, water, oil)



DESCRIPTION

AOK16B is designed for fully automatic discharging of condensate or any other non aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor. AOK16B is easy to install inside to the filter housing.

AOK16B can be used in a variety of applications. For applications not listed please contact producer or your local distributor.

APPLICATIONS

- Cyclone condensate separator
- Air filter

AOK 16F SERIES

AUTOMATIC MECHANICAL CONDENSATE DRAIN

16 bar
operating pressure

1/8”
connections

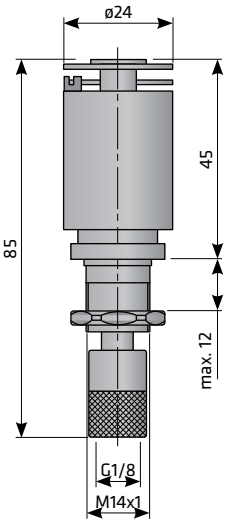
1,5 to 50°C
operating temperature range

DESCRIPTION

AOK16F is designed for fully automatic discharging of condensate or any other non aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor. AOK16F is easy to install inside to the filter housing.

AOK16F can be used in variety of applications. For applications not listed please contact producer or your local distributor.

TECHNICAL DATA	AOK 16F
Operating temp. range	1,5 - 65 °C
Operating pressure	0 - 16 bar (0 - 232 psi)
Mass	0,05 kg
Connection	ø 14 mm
Outlet connection	G 1/8
Dimensions H × D	85 × ø24 mm
Medium	Condensate (air, water, oil)



APPLICATIONS

- Air filter

MCD SERIES

MANUAL CONDENSATE DRAIN

20 bar
operating pressure

1/2"
connections

1,5 to 65°C
operating temperature range

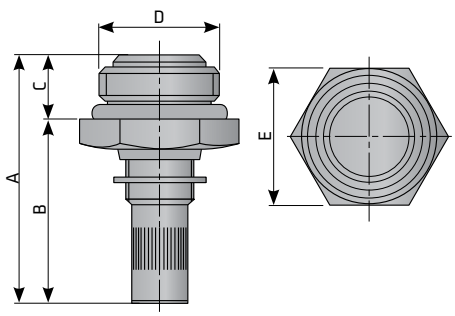
DESCRIPTION

MCD is designed for the discharging of condensate or any other non aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor.

In order to prevent condensate from re-entering in the airstream we recommend controlling the condensate level in filter bowl, which requires an automatic drain trap.

MCD is easy to install on the filter housing. MCD can be used in variety of applications.

TECHNICAL DATA		MCD	MCDi
Operating temp. range		1,5 - 65 °C (35-149 °F)	1,5 - 65 °C (35-149 °F)
Operating pressure		0-20 bar (290 psi)	0-20 bar (290 psi)
Mass		0,06 kg	0,06 kg
Connection		G 1/2"	G 1/2"
Dimensions	A	38,2 mm	38,2 mm
	B	29,2 mm	29,2 mm
	C	9 mm	9 mm
	D	G1/2"	G1/2"
	E	24,0 mm	24,0 mm
Medium		Condensate (air, water, oil)	Condensate (air, water, oil)
Material		brass	stainless steel



APPLICATIONS

- Air filter

MCD-B SERIES

MANUAL CONDENSATE DRAIN

16 bar
operating pressure

1/2"
connections

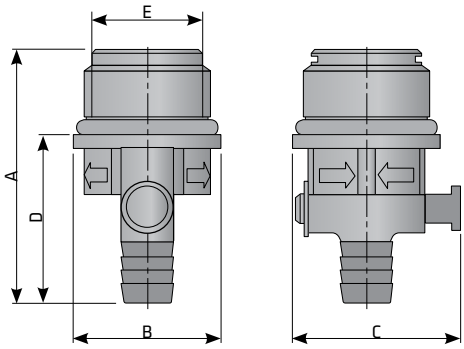
1,5 to 65°C
operating temperature range

DESCRIPTION

MCD-B is designed for manual discharging of condensate or any other non-aggressive fluid from compressed air system. For any other technical gas please contact producer or your local distributor.

MCD-B is easy to install on the filter housing. Condensate can be drained only manually. MCD-B is closed even if the system is non-pressurized. MCD-B can be used in variety of applications.

TECHNICAL DATA		MCD-B
Operating temp. range		1,5 - 65 °C (35-149 °F)
Operating pressure		0 - 16 bar (0 - 232 psi)
Mass		0,011 kg
Connection		G 1/2"
Dimensions	A	41,5 mm
	B	ø24,0 mm
	C	27,5mm
	D	27,5mm
	E	G1/2"
Medium		Condensate (air, water, oil)

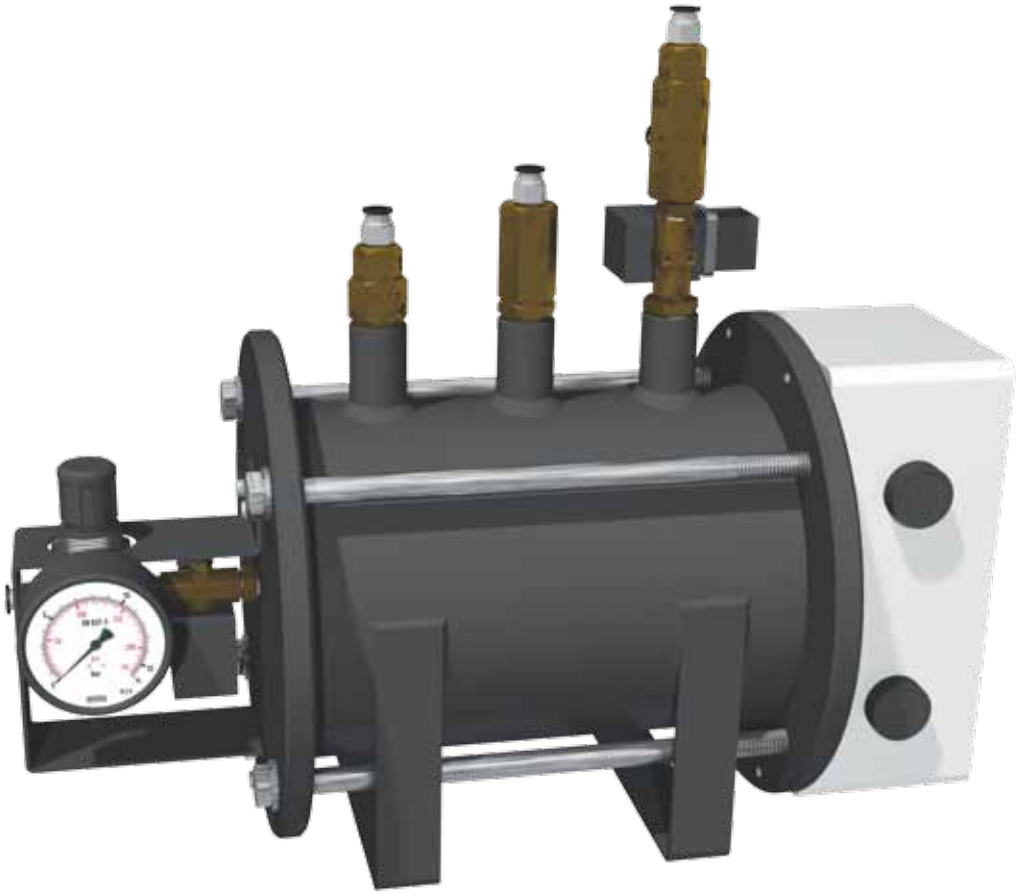


APPLICATIONS

- Air filter

EVD SERIES

VACUUM DRAIN



20-2000 mbar(abs)
operating pressure

1,5 to 65°C
operating temperature range

1/2"
inlet/outlet connections

ø8"
compressed air supply

DESCRIPTION

EDV has been developed for fully automatic discharging of condensate or any other non-aggressive fluid from vacuum system. The unit can be installed as external drain on any application specified below. Condensate accumulates in the aluminium reservoir and when the level is high enough condensate is being discharged from the system by the compressed air.

TECHNICAL DATA		EVD
Operating temp. range		1,5 - 65 °C (35-149 °F)
Operating pressure		20 - 2000 mbar(abs) / (0,29 - 29 psi)
Inlet connection		G 1/2"
Outlet connection		G 1/2"
Compressed air supply		Push connection for tube ø8
Air vent connection		Push connection for tube ø8
Electric power connection		230 Vac
Dimensions	A	465 mm
	B	240 mm
	C	390 mm
Medium		Condensate (air, water, oil); Non aggresive
Material		Aluminium

APPLICATIONS

- Vacuum systems

WATER/OIL SEPARATION EQUIPMENT

Condensate is an unavoidable result of air compression. It is a chemically aggressive fluid that mainly consists of water, but also contains oil and dirt particles. Oil carryover is unavoidable if you have compressors that use oil in the compression chamber. The lubricant will mix with the condensation and create an oily water that must be properly handled to avoid violating environmental regulations.

Just one litre of used oil can contaminate up to one million litres of fresh water. This is the reason that environmental regulations strictly prohibit the discharge of oily wastes and chemicals, including the condensate drained from a compressed air system.

Compressed air condensate must therefore be treated in accordance with water resource legislation to achieve prescribed safety levels before it can be disposed of in the waste water system.

Compressor condensate must therefore be either collected and treated by special processes or treated prior to disposal to the environment. An oil/water separator can be used here to remove the oil from the condensate.

Since the condensate is approximately 95% water and 5% oil, water/oil separators have been developed to reduce or eliminate the amount of oil in the condensate.


IN
OUT

WOSm SERIES

WATER-OIL SEPARATORS

ø8 mm
inlet connection

1,5 to 65°C
operating temperature range

DESCRIPTION

WOSm water oil separators have been developed to separate lubricant oil from condensate generated in compressed air systems. Due to patented technology regular service can be done in 30 seconds without any cleaning.

Separation begins in “cyclonic depressurization chamber” and continues in “filter cartridge”. When the “filter cartridge” is fully saturated you just simply unscrew complete cartridge and replace it with new one.

All the condensate stays in old cartridge which can also be sealed with plastic cover and disposed according to local directives and laws.

APPLICATIONS

- Compressed air systems
- Suitable for installation inside compressors
- Compressed air dryers
- Condensate separators
- Pressure vessels

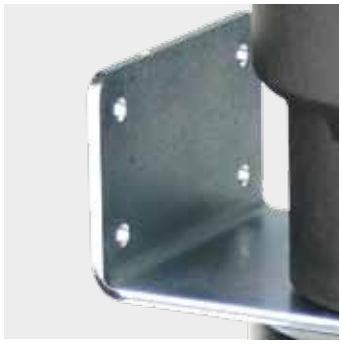
ADVANTAGES

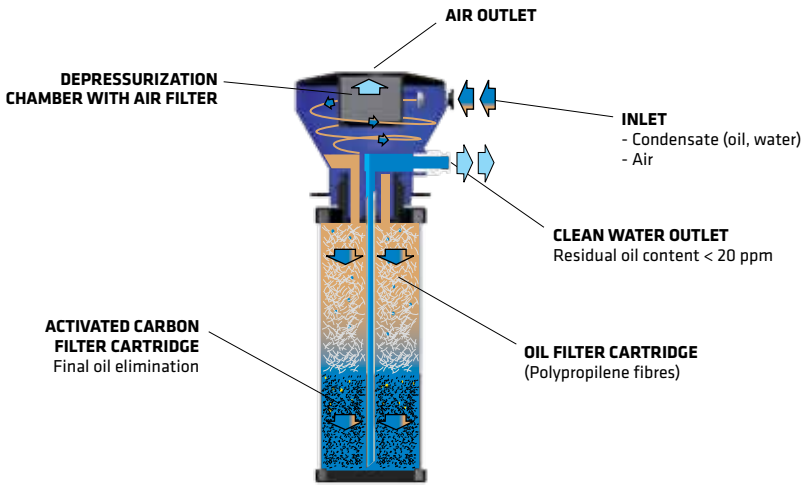
✓ Quick and clean separator cartridge replacement.

✓ Easy installation due to compact design and small dimensions.

OMEGA AIR
Z-83.5-31
Deutsches Institut für Bautechnik, Berlin



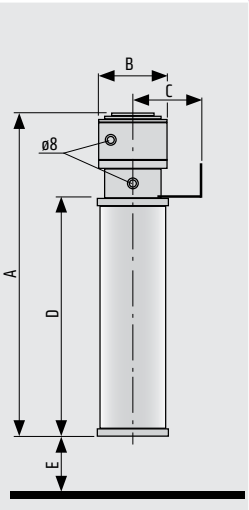





TECHNICAL DATA

Operating temperature	1,5 - 45 °C (max 65 °C)[1]; 35 - 113 °F (max. 149 °F)[1]
Operating media	Condensate (air, water, oil); Non aggressive; Not suitable for emulsion
Residual oil content	< 20ppm
Service interval	When first of following parameters appears:
	- 4000 operating hours of compressor [2]
	- 12 months regardless of compressor operating hours
	- when all white polypropylene media becomes yellow

		Cold climate zone 15 °C 60 %RH	Mild climate zone 25 °C 60 %RH	Hot climate zone 40 °C 100 %RH	Dimensions [mm] A	B	C	D	E
WOSm1	Max oil adsorption [g]	740	650	370	483	106	80	335	50
	Max FAD [Nm³/min]/[scfm]	1,23/43,05	1,08/37,8	0,62/21,9					
	Max condensate flow [l/h]	0,57	0,90	1,91					
WOSm2	Max oil adsorption [g]	1520	1340	770	816	106	80	670	50
	Max FAD [Nm³/min]/[scfm]	2,54/88,9	2,23/78,05	1,28/45,2					
	Max condensate flow [l/h]	1,19	1,87	3,96					



[1] Max. operating temperature is 65 °C, but when temperature is over 45 °C, performance may decrease.
[2] At compressor oil carryover 2,5 mg/m³. Lower/higher oil carry over means proportionally longer/shorter lifetime (e.g. if oil carryover is 5 mg/m³ lifetime reduces to 2000 operating hours).

WOS SERIES
WATER-OIL SEPARATORS

ø10 mm
inlet connection

1,5 to 45°C
operating temperature range

RAL 5012
standard colour

RAL 9005
optional colour

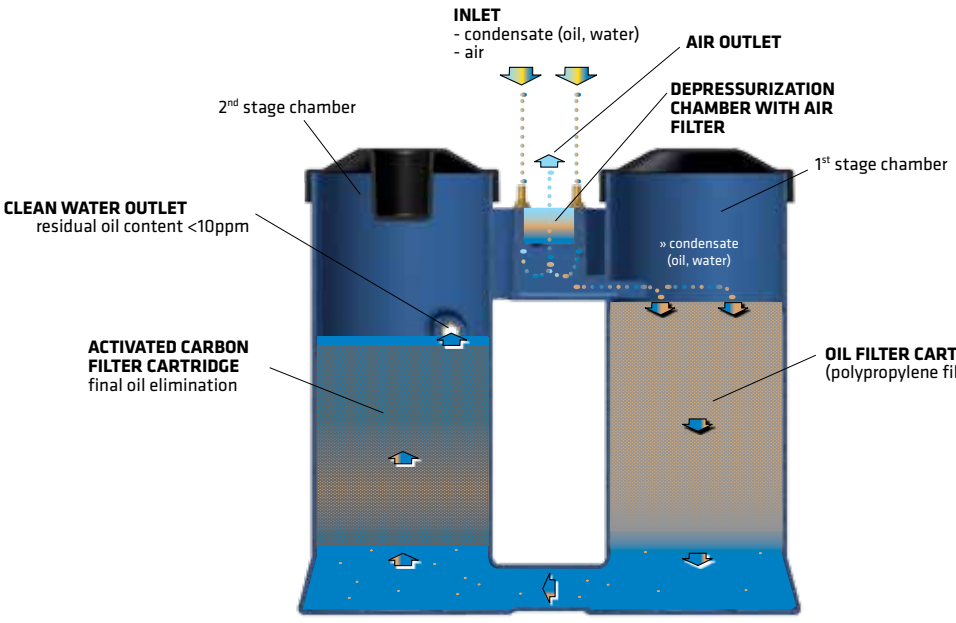
ADVANTAGES

- ✓ No complex sizing required.
- ✓ Simple to install.
- ✓ Works with any type od condensate drain.
- ✓ Can handle and separate any type of oil.
- ✓ Oil residue value is less than 10 ppm.
- ✓ Easy to maintain.
- ✓ No condensate settling tank is required (therefore there is no bacteria build-up).
- ✓ Small compact design.
- ✓ Test valve and test set included for sampling purposes.

DESCRIPTION

WOS water oil separators have been developed to separate lubricant oil from condensate from compressed air systems.

WOS water-oil separator can be used in variety of applications. For applications not listed please contact producer or your local distributor.



APPLICATIONS

- Compressed air systems

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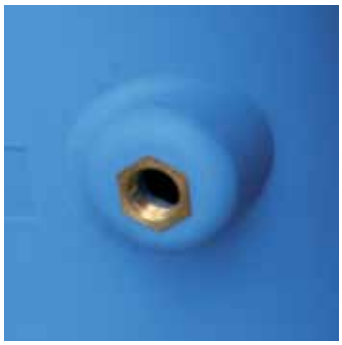
Z-83.5-31
Deutsches Institut für Bautechnik, Berlin



Water quality test

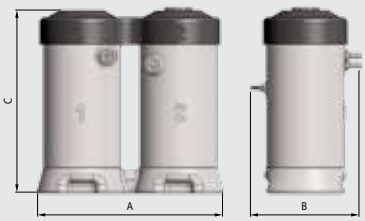
Water quality test should be performed at least once per month, to control the contamination level of disposed condensate.

If oil concentration is reached, oil filter cartridges must be changed.

TECHNICAL DATA

Operating temperature	1,5 - 45 °C (max 65 °C)[1]; 35 - 113 °F (max. 149 °F)[2]
Operating media	Condensate (air, water, oil); Non aggressive; Not suitable for emulsion
Residual oil content	< 10ppm
Service interval	When first of following parameters appears:
	- 4000 operating hours of compressor [4]
	- 12 months regardless of compressor operating hours
	- outlet oil concentration reaches concentration determined with local directives

TECHNICAL DATA		Cold climate zone 15 °C 60 %RH	Mild climate zone 25 °C 60 %RH	Hot climate zone 40 °C 100 %RH	Dimensions [mm] A	B	C
WOS-4	Max oil adsorption [kg]	2,89	2,43	1,23	416	243	411
	Max FAD [Nm³/min]/[scfm]	4,82/170	4,04/142	2,05/72,3			
	Max condensate flow [l/h]	2,3	3,4	6,3			
WOS-8	Max oil adsorption [kg]	6,01	5,04	2,55	730	343	680
	Max FAD [Nm³/min]/[scfm]	10,0/353	8,4/296	4,25/150			
	Max condensate flow [l/h]	4,7	7,1	13,1			
WOS-20	Max oil adsorption [kg]	14,64	12,28	6,22	820	366	940
	Max FAD [Nm³/min]/[scfm]	24,4/861	20,5/723	10,37/366			
	Max condensate flow [l/h]	11,4	17,2	32,0			
WOS-35	Max oil adsorption [kg]	25,4	21,31	10,79	960	386	1137
	Max FAD [Nm³/min]/[scfm]	42,3/1495	35,5/1254	17,99/635			
	Max condensate flow [l/h]	19,8	29,8	55,6			



[1] Max. operating temperature is 65 °C, but when temperature is over 45 °C, performance may decrease.

[2] At compressor oil carryover 2,5 mg/m³. Lower/higher oil carry over means proportionally longer/shorter lifetime (e.g. if oil carryover is 5mg/m³ lifetime reduces to 2000 operating hours).

WOS CD SERIES

CONDENSATE DISTRIBUTOR

3/4" to 3"
inlet connection

1,5 to 65°C
operating temperature range

RAL 5012
standard colour

DESCRIPTION

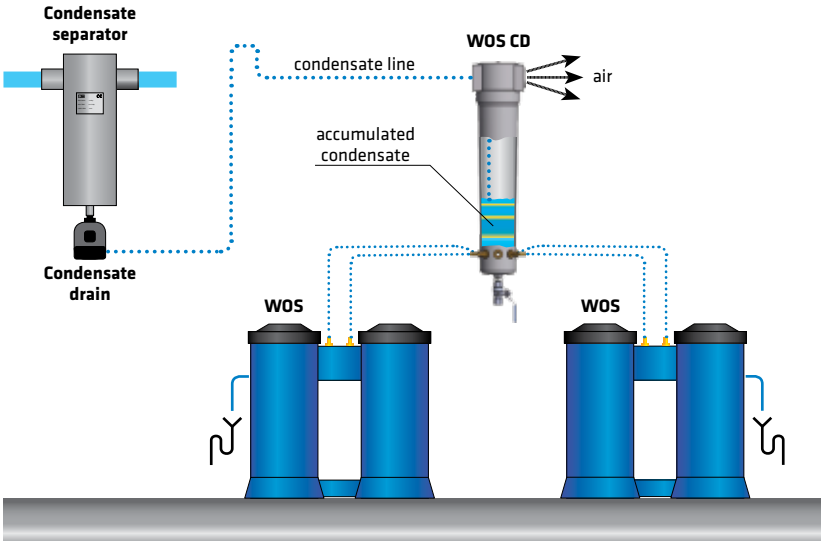
WOS CD is intended for systems, where amount of generated condensate exceeds capacity of single largest available WOS water oil separator. WOS CD can evenly distribute collected condensate between up to three WOS 35 water oil separators.

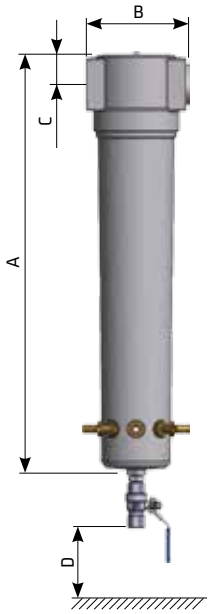
WOS CD is equipped with flow distributor on the inlet port, up to 8 hose tail connections mounted on elbows for convenient outlet, manual ball valve for cleaning purpose and vent port for safe aeration.

Optional wall mounting kit is available. Maximum capacity in regard to free air delivery, when connected to WOS-35 is 120 Nm^3/min.

APPLICATIONS

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application





TECHNICAL DATA

Type	Pipe size	Hosetail connections	Dimensions [mm]				Volume	Mass
	inch	pcs	A	B	C	D	L	kg
WOS CD 2	3/4"	2	257	88	20	140	0,6	1,2
WOS CD 4	1 1/2"	4	461	125	32	140	2,8	3
WOS CD 8	2"	8	684	163	43	140	6,0	6
WOS CD 12	3"	12	795	240	59	140	20,0	12,9

DRYERS, COOLERS, OIL REMOVERS

No matter where you are, in tropics or in desert, atmospheric air contains some water vapour. When the air or gas cools to the point where it can hold no more water vapour (past the saturation point), it will start to condense into liquid water. This happens at the temperature called the dew point. This dew point is a kind of measure, how much compressed air drying is needed.

Dry air is important. In almost every process, clean and dry compressed air will result in lower operating costs. Impurities such as solid particles, water and oil, which are in the air will be deposited on the inner surfaces of pipes fittings and inner components, causing an increase in pressure drop. The result is undesired loss of performance efficiency.

DRYERS, COOLERS, OIL REMOVERS		Pressure	Capacity	Dew point	Page
A-DRY	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	6 - 600 Nm³/h	-40°C(-25°C/-70°C)	126
A-DRY BI+BM	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	6 - 200 Nm³/h	-40°C(-25°C/-70°C)	128
X-DRY	Heatless regeneration modular ads. compressed air dryers	4 to 16 bar	300 - 1.050 Nm³/h	-40°C(-25°C/-70°C)	130
B-DRY	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	110 - 1.000 Nm³/h	-40°C(-25°C/-70°C)	132
F-DRY	Heatless regeneration adsorption compressed air dryers	4 to 16 bar	1200 - 6.500 Nm³/h	-40°C(-25°C/-70°C)	134
COM-DRY	Refrigerant + adsorption compressed air dryers	4 to 14 bar	6 - 6.500 Nm³/h	-40°C	136
R-DRY BVA	Adsorption dryers - Vacuum regeneration with ambient air	4 to 11 bar	390 - 20.200 Nm³/h	-40°C	138
R-DRY BP	Adsorption dryers - Cooling with purge	4 to 11 bar	390 - 20.200 Nm³/h	-40°C	140
R-DRY BVL	Adsorption dryers - Vacuum regeneration with closed loop	4 to 11 bar	390 - 20.200 Nm³/h	-40°C	142
RC-DRY	Adsorption dryers - Regen. by heat of compression - full stream	4 to 11 bar	390 - 20.200 Nm³/h	-20°C	144
HPR-DRY	Adsorption dryers - High pressure heat regeneration	50 bar	2.485 - 23.400 Nm³/h	-40°C	146
HP-DRY	High pressure heatless regeneration adsorption dryers	50, 100, 150, 400 bar	50 - 1.600 Nm³/h	-40°C	148
M-DRY	Membrane compressed air dryers	12 bar	3 - 180 Nm³/h	+15, +3, -20, -40°C	150
OMD	Refrigeration compressed air dryers	14 bar	19 - 13.248 Nm³/h	3°C	152
OMD ES	Refrigeration compressed air dryers	14 bar	21 - 8.800 Nm³/h	3°C	154
OMH	Refrigeration high inlet temperature compressed air dryers	14 (16) bar	46 - 256 Nm³/h	7°C	156
OHP	Refrigeration high pressure compressed air dryers	50 (45) bar	25 - 5.010 Nm³/h	3°C	158
OSL	Refrigeration compressed air dryers	16 (14) bar	19 - 144 Nm³/h	3°C	160
ACA	Air cooled aftercoolers	7 bar	66 - 4.500 Nm³/h		162
ACW	Water cooled aftercoolers	16 bar	132 - 45.570 Nm³/h		163
TAC	Activated carbon towers	16 bar	6 - 6.500 Nm³/h		164
TAC HP	High pressure activated carbon towers	50, 100, 150, 400 bar	50 - 1.600 Nm³/h		166
A-CAT	Oil vapours catalysator	4 to 11 bar	100 - 2.500 Nm³/h		168
SORBEO	Adsorbents				170


OMEGA
AIR

A-DRY 6-600 SERIES

HEATLESS REGENERATION ADSORPTION COMPRESSED AIR DRYERS

4 to 16 bar
operating pressure

1,5 to 50°C
inlet air temperature range

-40°C (-25°C / -70°C)
pressure dew points

6 to 600 Nm³/h
flow rate

RAL 5012 / RAL 7040
standard / optional colour

15-20%
avg. comp. air consumption

DESCRIPTION

A-DRY 6-600 desiccant adsorption dryer has been designed to separate water moisture from compressed air thus reducing the dew point in the system. A-DRY is a range of products offering our customers a wide array of dried air solutions with volumetric flow rates ranging from 6 Nm³/h to 600 Nm³/h.

An innovative new design of A-DRY adsorption driers, developed with consideration of our customers, enables fast and reliable installation, use and servicing. Installation is simple with our ready to use controller while minimising the number of parts and motions required for assembly and disassembly makes servicing fast and reliable.

ADVANTAGES

- ✓ Wide range of products to fit your need.
- ✓ Robust and intuitive ready to use controller.
- ✓ Simple assembly and disassembly.
- ✓ Fast and reliable servicing.
- ✓ Adsorbent in cartridges.
- ✓ Standard version includes coalescing prefilter and particle afterfilter.

APPLICATIONS

• Compressed air systems

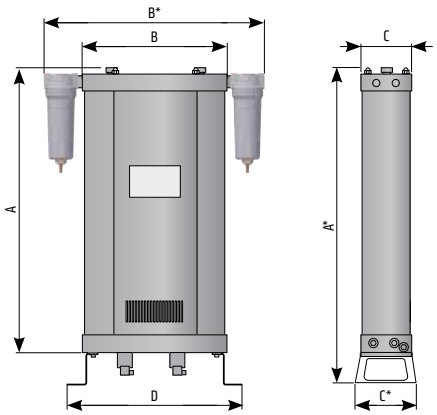
TECHNICAL DATA											
Type	Connection IN/OUT	Nominal volume flow		Dimensions							Mass
		Inlet[1]	Outlet[2]								
	''	[Nm³/h]	[Nm³/h]	A [mm]	A* [mm]	B [mm]	B* [mm]	C [mm]	C* [mm]	D [mm]	kg
A-DRY 06	G3/8"	6	4,7	339	520	280	480	100	130	354	10,5
A-DRY 12	G3/8"	12	9,5	573	715	280	480	100	130	354	13,5
A-DRY 24	G3/8"	24	19,0	1041	1105	280	480	100	130	354	19,0
A-DRY 36	G3/8"	36	28,4	1509	1495	280	480	100	130	354	27,5
A-DRY 60	G3/4"	60	47,4	972	1105	370	570	148	170	434	45,0
A-DRY 75	G3/4"	75	59,3	1167	1300	370	570	148	170	434	53,0
A-DRY 105	G3/4"	117	83	1567	1700	370	570	148	170	434	70,0
A-DRY 150	G1"	150	118	1345	1440	440	725	198	240	570	170,5
A-DRY 200	G1"	200	158	1538	1655	440	725	198	240	570	182,2
A-DRY 250	G 1 1/2"	250	196	799	953	740	1019	405	650	820	410,5
A-DRY 300	G 1 1/2"	300	235	899	1053	740	1019	405	650	820	427,7
A-DRY 400	G 1 1/2"	400	313	1094	1247	740	1019	405	650	820	461,9
A-DRY 600	G 1 1/2"	600	470	1484	1638	740	1019	405	650	820	530,0

Operating pressure range	4 to 16 bar(g) (A-DRY 06-200); 4 to 10 bar(g) (A-DRY 250-600)
Operating temperature range	+1,5 °C to +50 °C
Pressure dew points	-25 °C / -40 °C / -70 °C
Voltage, frequency	230V, 50/60 Hz
Power consumption	<35 W
Protection class	IP 65
Filter (inlet)*	super fine; 0,01 µm
Filter (outlet)	dust filter; 1 µm

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.

(2) Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.

* If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.



CORRECTION FACTORS - F1													
Operating pressure [bar]	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

CORRECTION FACTORS - F2						
Inlet temperature [°C]	25	30	35	40	45	50
Correction factor	1,00	1,00	1,00	0,97	0,87	0,80

DEW POINT			
[°C]	-25	-40	-70
C_D	1,1	1	0,7

A-DRY BI+BM SERIES

HEATLESS REGENERATION ADSORPTION COMPRESSED AIR DRYERS

4 to 16 bar
operating pressure

1,5 to 50°C
inlet air temperature range

-40°C (-25°C / -70°C)
pressure dew points

6 to 200 Nm³/h
flow rate

RAL 9003
standard colour

15-20%
avg. comp. air consumption

DESCRIPTION

A-DRY BI+BM desiccant adsorption dryer has been designed to separate water moisture from compressed air thus reducing the dew point in the system. A-DRY BI+BM is a range of products offering our customers a wide array of dried air solutions with volumetric flow rates ranging from 6 Nm³/h to 200 Nm³/h.

An innovative new design of A-DRY BI+BM adsorption driers, developed with consideration of our customers, enables fast and reliable installation, use and servicing. Installation is simple with our ready to use controller while minimising the number of parts and motions required for assembly and disassembly makes servicing fast and reliable.

APPLICATIONS

- Compressed air systems

ADVANTAGES

- ✓ Wide range of products to fit your need.
- ✓ Robust and intuitive ready to use controller.
- ✓ Simple assembly and disassembly.
- ✓ Fast and reliable servicing.
- ✓ Adsorbent in cartridges.
- ✓ Standard version includes coalescing prefilter and particle afterfilter.

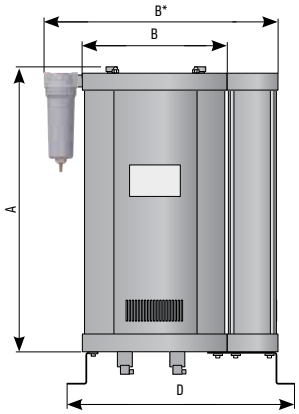
TECHNICAL DATA											
Type	Connection IN/OUT	Nominal volume flow		Dimensions							Mass
		Inlet[1]	Outlet[2]								
	''	[Nm³/h]	[Nm³/h]	A [mm]	A* [mm]	B [mm]	B* [mm]	C [mm]	C* [mm]	D [mm]	kg
A-DRY 06 BI	G3/8"	6	4,7	339	520	280	467	100	130	444	10,5
A-DRY 12 BI	G3/8"	12	9,5	573	715	280	467	100	130	444	13,5
A-DRY 24 BI	G3/8"	24	19,0	1041	1105	280	467	100	130	444	19,0
A-DRY 36 BI	G3/8"	36	28,4	1509	1495	280	467	100	130	444	27,5
A-DRY 60 BI	G3/4"	60	47,4	972	1105	370	607	148	170	573	45,0
A-DRY 75 BI	G3/4"	75	59,3	1167	1300	370	607	148	170	573	53,0
A-DRY 105 BI	G3/4"	117	83	1567	1700	370	607	148	170	573	70,0
A-DRY 150 BI	G1"	150	118	1345	1440	440	948	198	240	933	170,5
A-DRY 200 BI	G1"	200	158	1538	1655	440	948	198	240	933	182,2

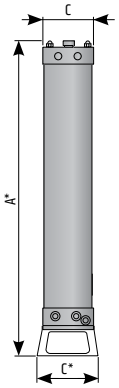
Operating pressure range	4 to 16 bar(g)
Operating temperature range	+1,5 °C to +50 °C
Pressure dew points	-25 °C / -40 °C / -70 °C
Voltage, frequency	230V, 50/60 Hz
Power consumption	<35 W
Protection class	IP 65
Filter (inlet)*	super fine; 0,01 µm
Filter (outlet)	dust filter; 1 µm

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.

(2) Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.

* If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.





CORRECTION FACTORS - F1													
Operating pressure [bar]	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

CORRECTION FACTORS - F2						
Inlet temperature [°C]	25	30	35	40	45	50
Correction factor	1,00	1,00	1,00	0,97	0,87	0,80

DEW POINT			
[°C]	-25	-40	-70
C_D	1,1	1	0,7

X-DRY SERIES

HEATLESS REGENERATION MODULAR ADSORPTION COMPRESSED AIR DRYERS

4 to 16 bar
operating pressure

1,5 to 50°C
inlet air temperature range

-40°C (-25°C / -70°C)
pressure dew points

300 to 1050 Nm³/h
flow rate

RAL 5012 / RAL 7040
standard / optional colour

15-20%
avg. comp. air consumption

DESCRIPTION

X-DRY 300-1050 modular adsorption dryers are designed for continuous separation of water vapour from compressed air thus reducing dew point. Operation of dryer requires two columns operated alternately. Adsorption takes place under pressure in first column while second column regenerates with a portion of already dried compressed air at ambient pressure.

A dryer consists of two columns, filled with desiccant beads, controller with LCD display, valves, manometers, support construction and suitable filter housings with the required filter element. Proven robust design enables efficient and reliable operation, fast installation and simple maintenance.

APPLICATIONS

- Compressed air systems

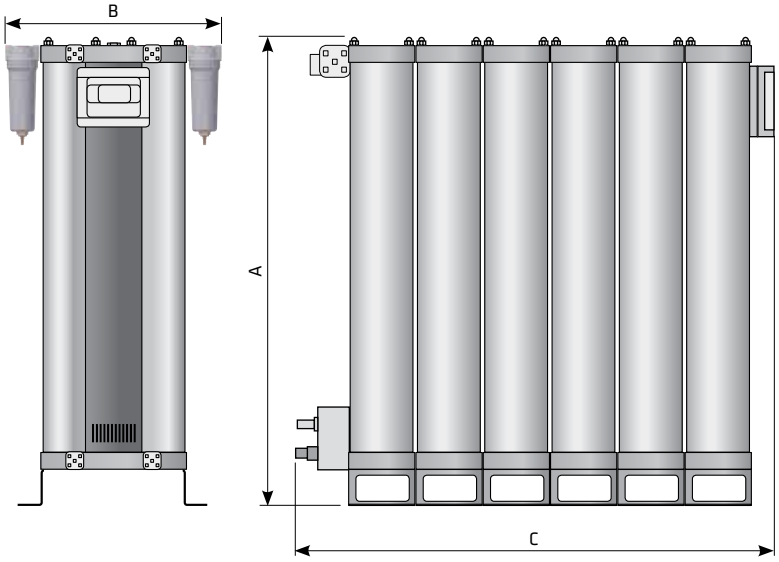




TECHNICAL DATA							
Type	Connection IN/OUT[3]	Nominal volume flow		Dimensions			Mass
		Inlet[1]	Outlet[2]				
	''	[Nm³/h]	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg
X-DRY 300	G 2''	300	237	1515	674	686	350
X-DRY 450	G 2''	450	255,5	1515	674	886	520
X-DRY 600	G 2''	600	474	1515	674	1086	690
X-DRY 750	G 2''	750	592,5	1515	674	1286	860
X-DRY 900	G 2''	900	711	1515	674	1486	1030
X-DRY1050	G 2''	1050	829,5	1515	674	1686	1200

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.
[2] Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.
[3] Refers to inlet and outlet filter housing.

Operating pressure range	4 to 16 bar
Operating temperature range	+1,5 °C to +60 °C
Pressure dew points	-40°C (-25 °C / -70 °C)
Voltage, frequency	230V, 50/60 Hz
Power consumption	<60 W
Protection class	IP 65
Filter (inlet)*	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm



CORRECTION FACTORS - F1															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

CORRECTION FACTORS - F2								
Inlet temperature [°C]	25	30	35	40	45	50	55	60
Correction factor	1,00	1,00	1,00	0,97	0,87	0,80	0,64	0,51

DEW POINT			
[°C]	-25	-40	-70
C_D	1,1	1	0,7

B-DRY SERIES

HEATLESS REGENERATION ADSORPTION COMPRESSED AIR DRYERS

4 to 16 bar
operating pressure

1,5 to 60°C
inlet air temperature range

-40°C (-25°C / -70°C)
pressure dew points

110 to 1000 Nm³/h
flow rate

RAL 5012 / RAL 7040
standard / optional colour

15-20%
avg. comp. air consumption

DESCRIPTION

B-DRY adsorption dryers are designed for continuous separation of water vapour from the compressed air thus reducing the pressure dew point. B-DRY series dryer consists of two columns, filled with desiccant beds, controller with LCD display, valves, manometers, support construction and suitable filter housings with the required filter element. Adsorption takes place under pressure in the first column while the second column regenerates with a portion of already dried compressed air at ambient pressure.

When the first column is saturated to a certain level column switch-over is carried out and the process of adsorption continues in the second column without any drop of pressure at the outlet of the dryer. Regeneration of saturated desiccant is possible because a small portion of already dry compressed air is decompressed and when expanded it becomes extremely dry.

APPLICATIONS

- Compressed air systems

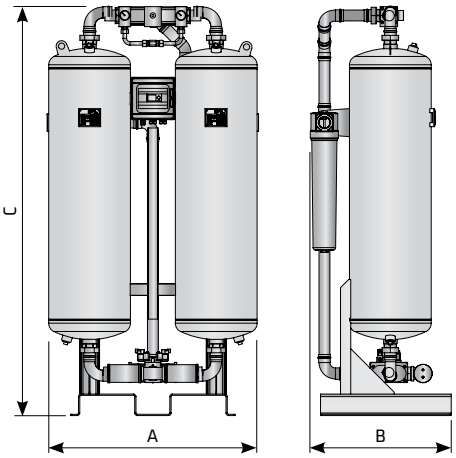




TECHNICAL DATA							
Type	Connection IN/OUT	Nominal volume flow		Dimensions			Mass
		Inlet[1]	Outlet[2]				
	"	[Nm³/h]	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg
B-DRY 110	G 1"	110	86,0	719 ±5	422	1647	140
B-DRY 150	G 1"	150	117,5	707 ±5	422	1897	156
B-DRY 200	G 1"	200	157,0	707 ±5	471	1664	196
B-DRY 250	G 1"	260	204,0	707 ±5	471	1914	236
B-DRY 300	G 1 1/2"	320	251,0	860 ±5	535	1742	274
B-DRY 400	G 1 1/2"	410	321,5	854 ±5	535	1989	295
B-DRY 600	G 1 1/2"	590	462,5	854 ±5	671	2051	392
B-DRY 800	G 2"	770	603,5	1059 ±5	701	2080	507
B-DRY 1000	G 2"	1000	784,0	1051 ±5	701	2140	597

Voltage, frequency	230V, 50/60 Hz
Power consumption	<60 W
Protection class	IP 65
Filter (inlet)*	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
DPD control	optional
Input for stand-by	standard

DEW POINT - CORRECTION FACTORS - C_D			
Operat. temperature [°C]	-25	-40	-70
Operat. temperature [F]	-13	-40	-94
Correction factor C_D	1,1	1	0,7



OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}								
Operat. temperature [°C]	25	30	35	40	45	50	55	60
Operat. temperature [F]	77	86	95	104	113	122	131	140
Correction factor C_{OT}	1	1	1	0,97	0,87	0,80	0,64	0,51

OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor C_{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.

(2) Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.

* If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.

F-DRY SERIES

HEATLESS REGENERATION ADSORPTION COMPRESSED AIR DRYERS

4 to 16 bar
operating pressure

1,5 to 60°C
inlet air temperature range

-40°C (-25°C / -70°C)
pressure dew points

1200 to 6500 Nm³/h
flow rate

RAL 5012
standard colour

15-20%
avg. comp. air consumption

DESCRIPTION

F-DRY adsorption dryers are designed for continuous separation of water vapour from the compressed air thus reducing pressure dew point. F-DRY series dryer consists of two columns, filled with desiccant beds, controller with LCD display, valves, manometers, support construction and suitable filter housings with the required filter element. Adsorption takes place under pressure in the first column while the second column regenerates with a portion of already dried compressed air at ambient pressure.
When the first column is saturated to a certain level column switch-over is carried out and the process of adsorption continues in the second column without any drop of pressure at the outlet of the dryer. Regeneration of saturated desiccant is possible because a small portion of already dry compressed air is decompressed and when expanded it becomes extremely dry.

APPLICATIONS

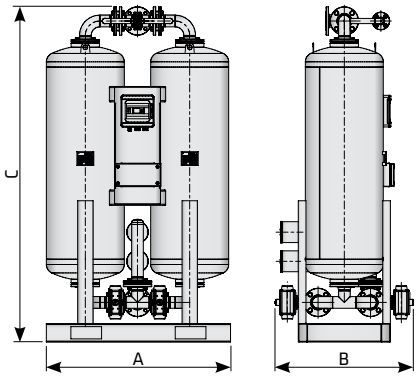
- Compressed air systems





TECHNICAL DATA							
Type	Connection IN/OUT	Nominal volume flow		Dimensions			Mass
		Inlet[1]	Outlet[2]				
	DN	[Nm³/h]	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg
F-DRY 1200	DN50	1200	936	1210	850	2170	820
F-DRY 1500	DN65	1500	1170	1535	950	2210	980
F-DRY 2000	DN65	2000	1560	1685	980	2330	1550
F-DRY 2500	DN80	2500	1950	1785	1120	2260	1680
F-DRY 3000	DN80	3000	2340	1875	1120	2400	1850
F-DRY 3750	DN100	3750	2925	2025	1230	2490	2300
F-DRY 5000	DN100	5000	3900	2235	1230	2600	2850
F-DRY 6500	DN125	6500	5070	2420	1430	2730	3750

Voltage, frequency	230V, 50/60 Hz
Power consumption	<60 W
Protection class	IP 65
Filter (inlet)*	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
DPD control	optional
Input for stand-by	standard



OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}													
Operating pressure [bar]	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor C_{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}								
Operat. temperature [°C]	25	30	35	40	45	50	55	60
Operat. temperature [F]	77	86	95	104	113	122	131	140
Correction factor C_{OT}	1	1	1	0,97	0,87	0,80	0,64	0,51

DEW POINT - CORRECTION FACTORS - C_D			
Operat. temperature [°C]	-25	-40	-70
Operat. temperature [F]	-13	-40	-94
Correction factor C_D	1,1	1	0,7

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.

(2) Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 17,3 %.

* If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.

COM-DRY SERIES

REFRIGERANT + ADSORPTION COMPRESSED AIR DRYERS

4 to 14 bar
operating pressure

1,5 to 55°C
operating temperature range

down to -40°C
pressure dew points

6 to 6.500 Nm³/h
flow rate

4,6 %
avg. comp. air consumption

DESCRIPTION

COM-Dry dryers have been designed for continuous separation of water vapour from compressed air thus reducing dew point. Drying consist of two steps.

Refrigerant dryer first eliminates large majority of water and reduces dew point down to PDP +3°C.

Further reduction of dew point is carried out by adsorption dryer. Operation of dryer is more simple compared to conventional heat regenerated adsorption dryer while average compressed air losses present only up to 4,6%.

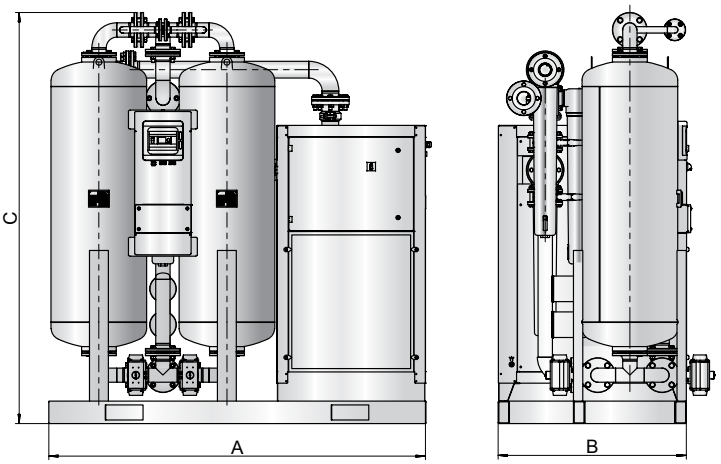
APPLICATIONS

- Compressed air systems

TECHNICAL DATA						
Type	Connection IN/OUT [2]	Nominal volume flow Inlet [1]	Adsorption dryer	Refrigeration dryer	Power	Volume
	DN	[Nm³/h]			kW	l
COM-DRY 06	G 3/8"	6	A-DRY 06	OMD 20	0,15	2,6
COM-DRY 12	G 3/8"	12	A-DRY 12	OMD 20	0,15	4,3
COM-DRY 24	G 3/8"	24	A-DRY 24	OMD 35	0,16	7,8
COM-DRY 36	G 3/8"	36	A-DRY 36	OMD 35	0,16	11,2
COM-DRY 60	G 1/2"	60	A-DRY 60	OMD 65	0,21	19,9
COM-DRY 75	G 1/2"	75	A-DRY 75	OMD 100	0,29	24,3
COM-DRY 110	G 3/4"	110	B-DRY 110	OMD 135	0,39	20
COM-DRY 150	G 1"	150	B-DRY 150	OMD 175	0,48	25
COM-DRY 200	G 1"	200	B-DRY 200	OMD 235	0,71	36
COM-DRY 250	G 1"	260	B-DRY 250	OMD 280	0,79	45
COM-DRY 300	G 1"	320	B-DRY 300	OMD 330	0,82	57
COM-DRY 400	G 1 1/2"	410	B-DRY 400	OMD 410	0,71	70
COM-DRY 600	G 1 1/2"	590	B-DRY 600	OMD 710	1,4	102
COM-DRY 800	G 2"	770	B-DRY 800	OMD 920	1,5	134
COM-DRY 1000	G 2"	1000	B-DRY 1000	OMD 1050	2,1	164
COM-DRY 1200	DN50	1200	F-DRY 1200	OMD 1200	2,3	225
COM-DRY 1500	DN65	1500	F-DRY 1500	OMD 1900	3,6	280
COM-DRY 2000	DN65	2000	F-DRY 2000	OMD 2200	3,9	295
COM-DRY 2500	DN80	2500	F-DRY 2500	OMD 2600	5,2	470
COM-DRY 3000	DN80	3000	F-DRY 3000	OMD 3350	5,9	570
COM-DRY 3750	DN100	3750	F-DRY 3750	OMD 4400	7,1	660
COM-DRY 5000	DN100	5000	F-DRY 5000	OMD 5400	10,8	980
COM-DRY 6500	DN125	6500	F-DRY 6500	OMD 6600	11,3	1200

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.
Outlet flow refers to typical assumption during regeneration phase for operating at nominal inlet flow conditions. Outlet flow includes average air losses of approximately 4,6%. Maximum purge air flow during regeneration phase is up to 5,7% of nominal inlet conditions.

[2] Reffers to inlet and outlet filter housing.



CORRECTION FACTORS

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).
CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP} x C_{IT} x C_{AT} x C_{D}

OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}											
Operating pressure [bar]	4	5	6	7	8	9	10	11	12	13	14
Operating pressure [psi]	58	72	87	100	115	130	145	160	174	189	203
Correction factor C_{OP}	0,63	0,75	0,88	1	1,05	1,09	1,14	1,18	1,21	1,24	1,27

INLET TEMPERATURE - CORRECTION FACTORS - C_{IT}							
Inlet temperature [°C]	25	30	35	40	45	50	55
Inlet temperature [F]	77	86	95	104	113	122	131
Correction factor C_{IT}	*	*	1	0,81	0,67	0,55	0,45

AMBIENT TEMPERATURE - CORRECTION FACTORS - C_{AT}					
Ambient temp. [°C]	<25	30	35	40	45
Ambient temp. [F]		86	95	104	113
Correction factor C_{IT}	1	0,95	0,88	0,79	0,68

DEW POINT - CORRECTION FACTORS - C_{D}			
Ambient temp. [°C]	-25	-40	-70
Ambient temp. [F]	-13	-40	94
Correction factor C_{D}	*	1	*

*Contact manufacturer.

R-DRY BVA SERIES

VACUUM REGENERATION WITH AMBIENT AIR

4 to 11 bar
operating pressure

1,5 to 42,5°C
inlet air temperature range

-40°C
pressure dew points

390 to 20.200 Nm³/h
flow rate

0 %
avg. comp. air consumption

DESCRIPTION

R-DRY BVA 400-20000 adsorption dryers are designed for continuous separation of water vapour from compressed air thus lowering the dew point.

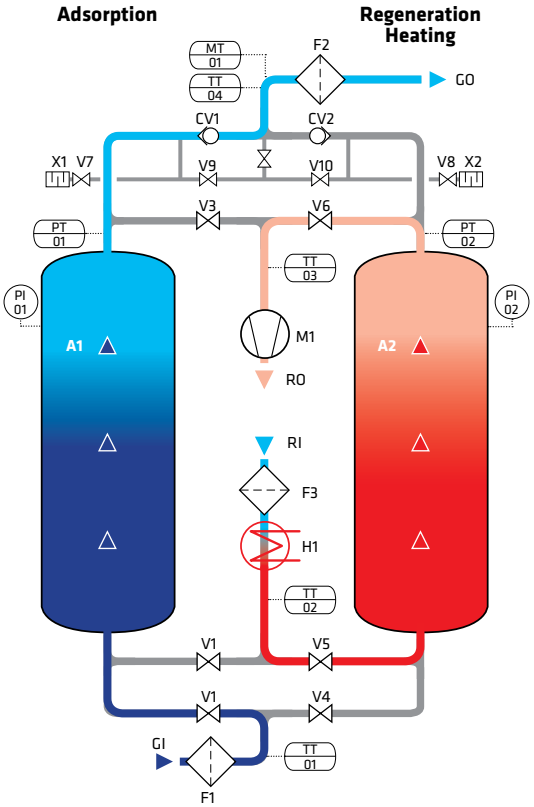
R-DRY BVA dryers have two columns that operate alternately. Adsorption takes place under pressure in the first column while the second column regenerates (heated ambient air for desorption + ambient air in vacuum mode for cooling). BVA type of dryer is suitable for applications running at mild ambient conditions. Due to regeneration in vacuum mode BVA type of dryers don't consume any compressed air for the operation.

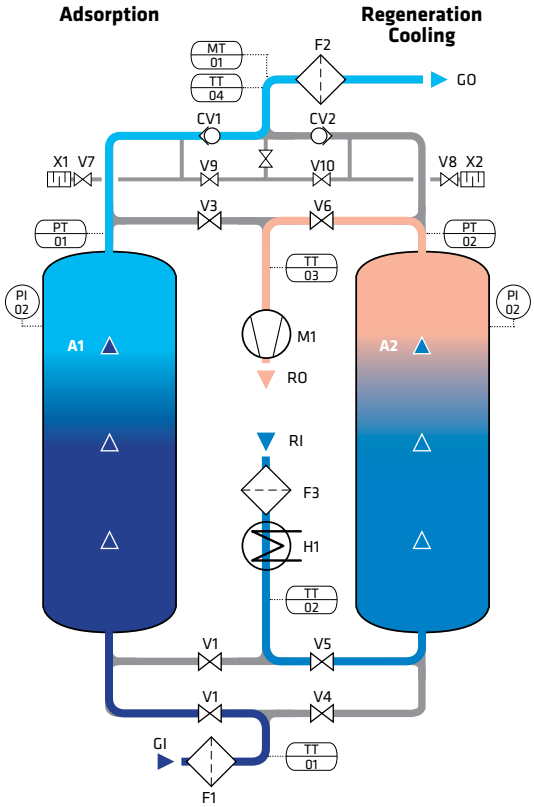
A dryer consists of two columns, filled with desiccant beads, a blower, heater, controller with an LCD display, valves, manometers, and a support construction. A proven and robust design enables efficient and reliable operation, fast installation and simple maintenance.

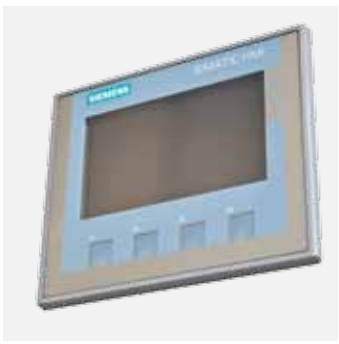
APPLICATIONS

- Compressed air systems

A1-2	pressure vessel
F1	inlet filter (super fine coalescing)
F2	outlet filter (dust)
V1-6	ball valve with pneumatic actuator
V7-10	angle seated valve with pneumatic actuator
CV1-2	check valve
TT1-4	temperature transducer
PI1-2	pressure indicator
PT1-2	pressure transducer
DT1	dewpoint transducer
M1	blower
H1	heater
F3	regeneration air filter
GI	air inlet
GO	air outlet
RI	regeneration air inlet
RO	regeneraton air outlet
ES1-2	ekspansion silencer







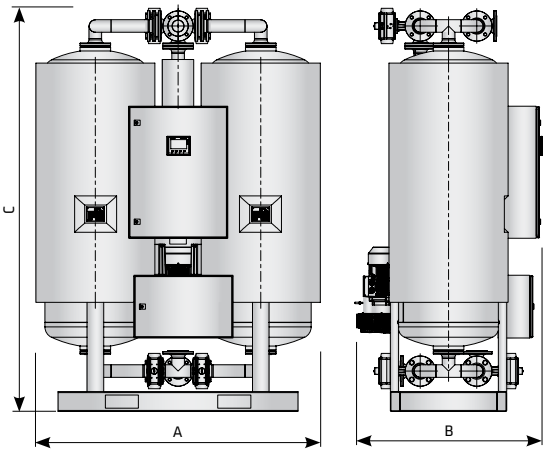
TECHNICAL DATA									
Type	Connection IN/OUT [2]	Nominal volume flow Inlet [1]	Dimensions			Mass	Blower power	Heater power	Filter type
	DN	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg	kW	kW	
R-DRY 400 BVA	DN50	390	1.200	850	2.250	1000	1,3	3,5	AF 0476
R-DRY 600 BVA	DN50	590	1.500	900	2.350	1400	1,6	5,5	AF 0706
R-DRY 780 BVA	DN50	780	1.750	1.000	2.450	1800	1,6	7	AF 0706
R-DRY 1000 BVA	DN50	930	1.750	1.250	2.450	1900	1,6	8	AF 0946
R-DRY 1200 BVA	DN80	1.150	1.900	1.100	2.450	2200	1,6	10	AF 1506
R-DRY 1600 BVA	DN80	1.600	1.900	1.350	2.500	2600	4	14	AF 1756
R-DRY 2000 BVA	DN100	1.950	2.200	1.150	2.600	3400	4	17	AF 2006
R-DRY 2500 BVA	DN100	2.530	2.350	1.150	2.750	3800	7,5	22	AF 2406
R-DRY 3000 BVA	DN100	2.990	2.500	1.150	2.750	4000	8,5	26	BF 300
R-DRY 3600 BVA	DN100	3.680	2.800	1.350	2.850	4800	8,5	32	BF 450
R-DRY 4100 BVA	DN125	4.100	3.000	1.350	2.850	5100	8,5	35	BF 450
R-DRY 5000 BVA	DN125	4.990	3.200	1.450	2.950	5900	15	45	BF 600
R-DRY 6500 BVA	DN150	6.550	3.520	1.750	3.050	7200	15	56	BF 900
R-DRY 7700 BVA	DN150	7.700	3.700	2.000	3.100	7900	15	70	BF 900
R-DRY 10000 BVA	DN200	10.250	4.300	2.200	3.550	12000	22	95	BF 1200
R-DRY 12000 BVA	DN200	11.700	4.400	2.500	3.550	14200	-	-	BF 1200
R-DRY 14000 BVA	DN200	14.800	4.800	2.600	3.650	16800	-	-	BF 1500
R-DRY 16000 BVA	DN250	16.000	5.000	3.200	3.650	18500	-	-	BF 1800
R-DRY 18000 BVA	DN250	18.200	5.200	3.500	4.200	20000	-	-	BF 1800
R-DRY 20000 BVA	DN250	20.200	6.000	3.500	4.350	23000	-	-	BF 2500

OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}								
Operating pressure [bar]	4	5	6	7	8	9	10	11
Operating pressure [psi]	58	72	87	100	115	130	145	160
Correction factor C_{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}					
Operat. temperature [°C]	25	30	35	40	42,5
Operat. temperature [F]	77	86	95	104	108
Correction factor C_{OT}	1	1	1	0,7	0,52

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure , inlet temperature 35°C and pressure dew point at outlet -40°C

[2] Refers to dryer inlet and outlet connection without filters



Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional
Blower suction conditions	Max 40°C, 25% RH

R-DRY BP SERIES

COOLING WITH PURGE

4 to 11 bar
operating pressure

1,5 to 42,5°C
inlet air temperature range

-40°C
pressure dew points

390 to 20.200 Nm³/h
flow rate

2-3 %
avg. comp. air consumption

DESCRIPTION

R-DRY BP 400-20000 adsorption dryers are designed for continuous separation of water vapour from compressed air thus lowering the dew point.

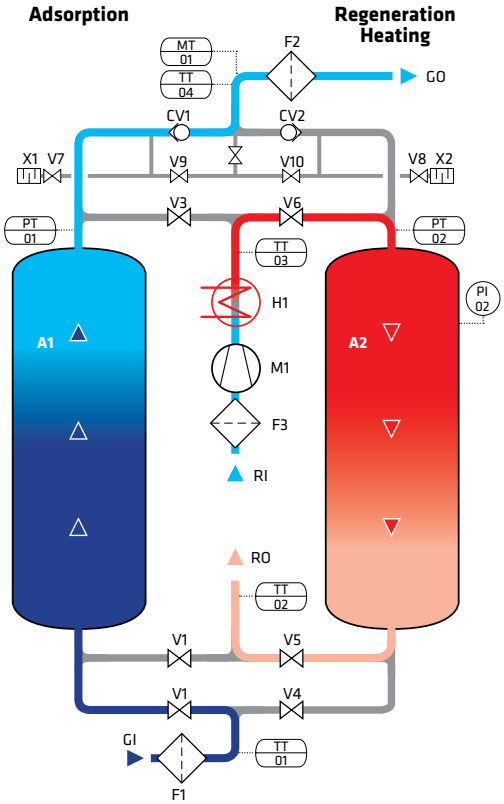
R-DRY BP dryers have two columns that operate alternately. Adsorption takes place under pressure in the first column while the second column regenerates (heated ambient air for desorption + expanded dry compressed air purge for cooling). BP type of dryer is suitable for applications where low PDP is required at hotter and more humid ambient conditions and where compressed air can be utilised for cooling.

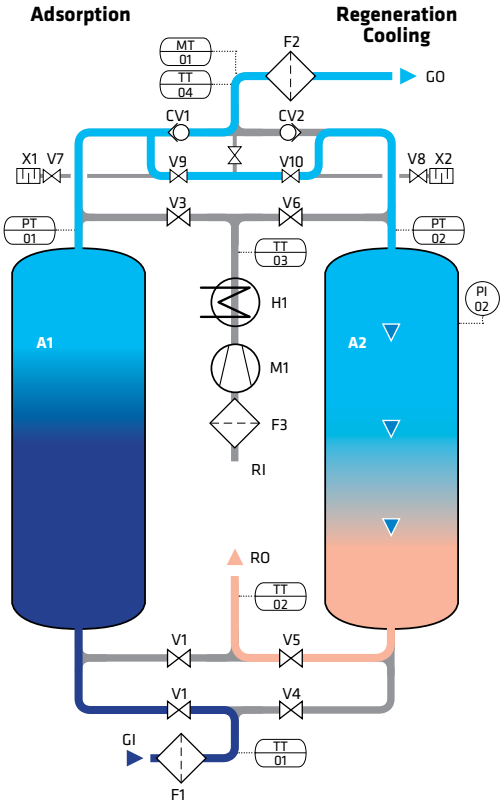
A dryer consists of two columns, filled with desiccant beads, a blower, heater, controller with an LCD display, valves, manometers, and a support construction. A proven and robust design enables efficient and reliable operation, fast installation and simple maintenance.

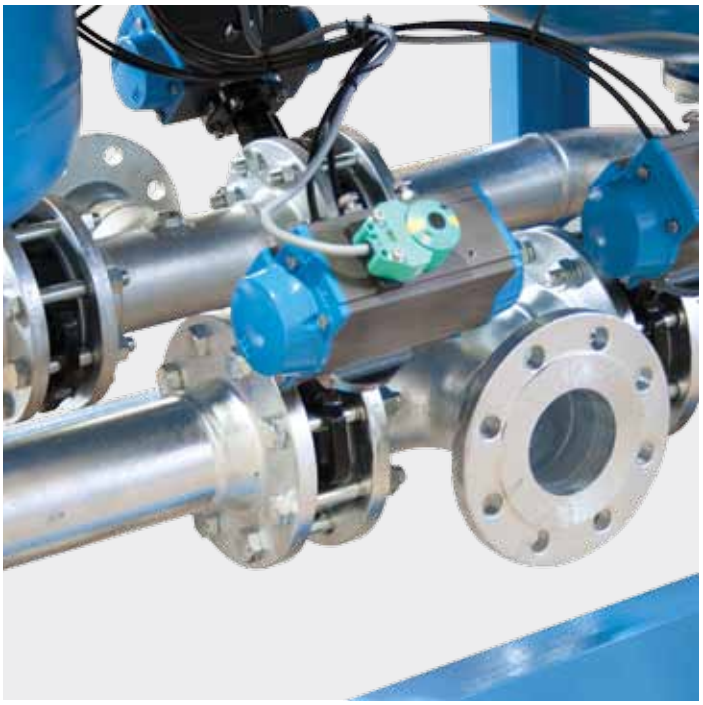
APPLICATIONS

- Compressed air systems

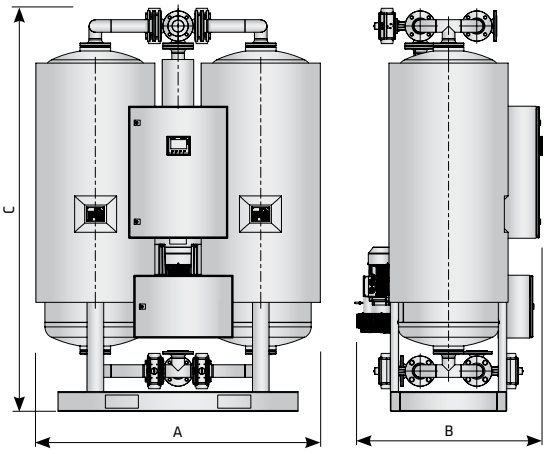
A1-2	pressure vessel
F1	inlet filter (super fine coalescing)
F2	outlet filter (dust)
V1-6	ball valve with pneumatic actuator
V7-10	angle seated valve with pneumatic actuator
CV1-2	check valve
TT1-4	temperature transducer
PI1-2	pressure indicator
PT1-2	pressure transducer
DT1	dewpoint transducer
M1	blower
H1	heater
F3	regeneration air filter
GI	air inlet
GO	air outlet
RI	regeneration air inlet
RO	regeneraton air outlet
ES1-2	ekspansion silencer







TECHNICAL DATA									
Type	Connection IN/OUT [2]	Nominal volume flow Inlet [1]	Dimensions			Mass	Blower power	Heater power	Filter type
	DN	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg	kW	kW	
R-DRY 400 BP	DN50	390	1.200	850	2.250	1000	1,3	3,5	AF 0476
R-DRY 600 BP	DN50	590	1.500	900	2.350	1400	1,6	5,5	AF 0706
R-DRY 780 BP	DN50	780	1.750	1.000	2.450	1800	1,6	7	AF 0706
R-DRY 1000 BP	DN50	930	1.750	1.250	2.450	1900	1,6	8	AF 0946
R-DRY 1200 BP	DN80	1.150	1.900	1.100	2.450	2200	1,6	10	AF 1506
R-DRY 1600 BP	DN80	1.600	1.900	1.350	2.500	2600	4	14	AF 1756
R-DRY 2000 BP	DN100	1.950	2.200	1.150	2.600	3400	4	17	AF 2006
R-DRY 2500 BP	DN100	2.530	2.350	1.150	2.750	3800	7,5	22	AF 2406
R-DRY 3000 BP	DN100	2.990	2.500	1.150	2.750	4000	8,5	26	BF 300
R-DRY 3600 BP	DN100	3.680	2.800	1.350	2.850	4800	8,5	32	BF 450
R-DRY 4100 BP	DN125	4.100	3.000	1.350	2.850	5100	8,5	35	BF 450
R-DRY 5000 BP	DN125	4.990	3.200	1.450	2.950	5900	15	45	BF 600
R-DRY 6500 BP	DN150	6.550	3.520	1.750	3.050	7200	15	56	BF 900
R-DRY 7700 BP	DN150	7.700	3.700	2.000	3.100	7900	15	70	BF 900
R-DRY 10000 BP	DN200	10.250	4.300	2.200	3.550	12000	22	95	BF 1200
R-DRY 12000 BP	DN200	11.700	4.400	2.500	3.550	14200	-	-	BF 1200
R-DRY 14000 BP	DN200	14.800	4.800	2.600	3.650	16800	-	-	BF 1500
R-DRY 16000 BP	DN250	16.000	5.000	3.200	3.650	18500	-	-	BF 1800
R-DRY 18000 BP	DN250	18.200	5.200	3.500	4.200	20000	-	-	BF 1800
R-DRY 20000 BP	DN250	20.200	6.000	3.500	4.350	23000	-	-	BF 2500



OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}								
Operating pressure [bar]	4	5	6	7	8	9	10	11
Operating pressure [psi]	58	72	87	100	115	130	145	160
Correction factor C_{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}					
Operat. temperature [°C]	25	30	35	40	42,5
Operat. temperature [F]	77	86	95	104	108
Correction factor C_{OT}	1	1	1	0,7	0,52

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure , inlet temperature 35°C and pressure dew point at outlet -40°C

[2] Refers to dryer inlet and outlet connection without filters

Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional
Blower suction conditions	Max 50°C, 35% RH

R-DRY BVL SERIES

VACUUM REGENERATION WITH CLOSED LOOP

4 to 11 bar
operating pressure

1,5 to 50°C
ambient operating temp. range

1,5 to 42,5°C
inlet air temperature range

-40°C
pressure dew points

390 to 20.200 Nm³/h
flow rate

0 %
avg. comp. air consumption

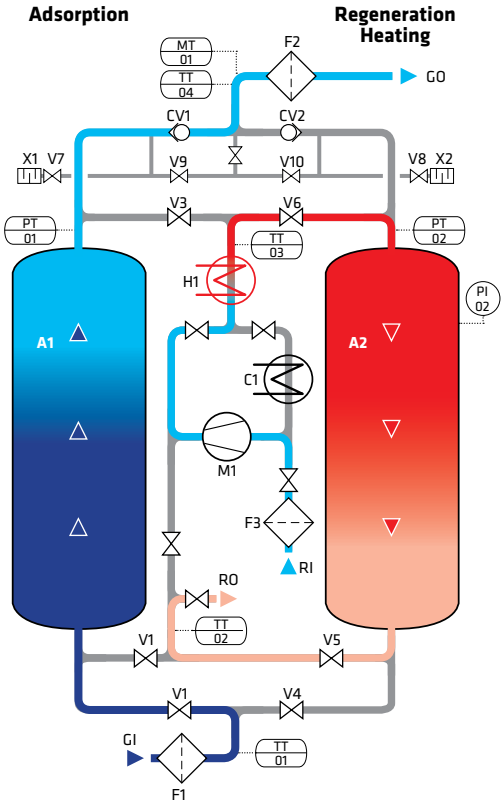
DESCRIPTION

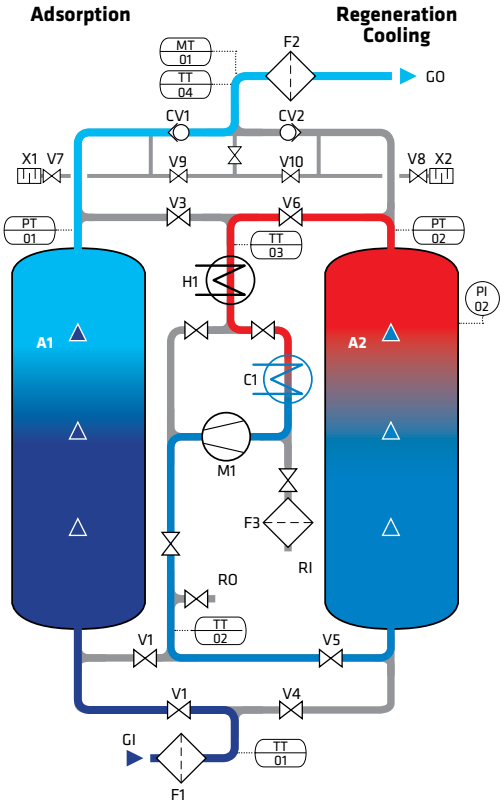
R-DRY BVL 400-10000 adsorption dryers are designed for continuous separation of water vapour from compressed air thus lowering the dew point. R-Dry BVL dryers have two columns that operate alternately. Adsorption takes place under pressure in the first column while the second column is regenerated(heated ambient air for desorption + cooling with water cooled air in a closed loop). Due to cooling in a closed loop BVL type of dryer is suitable for applications where low PDP is required at hotter and more humid ambient conditions. Due to cooling with water cooled air in a closed loop BVL type of dryers don't consume any compressed air for the operation.
A dryer consists of two columns, filled with desiccant beads, blower, heater, air-water heat exchanger, controller with an LCD display, valves, manometers, and support construction. A proven and robust design enables efficient and reliable operation, fast installation and simple maintenance.

APPLICATIONS

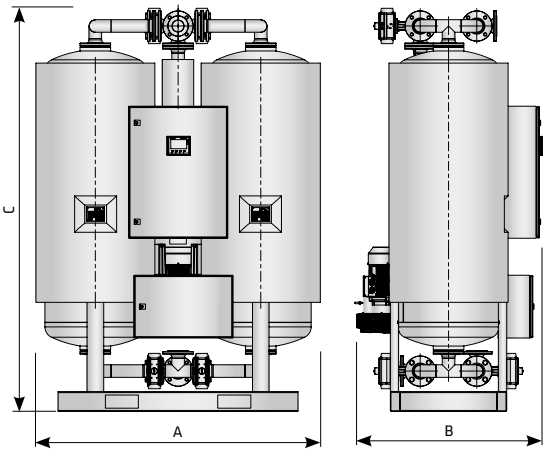
- Compressed air systems

A1-2	pressure vessel
F1	inlet filter (super fine coalescing)
F2	outlet filter (dust)
V1-6	ball valve with pneumatic actuator
V7-10	angle seated valve with pneumatic actuator
CV1-2	check valve
TT1-4	temperature transducer
PI1-2	pressure indicator
PT1-2	pressure transducer
DT1	dewpoint transducer
M1	blower
H1	heater
F3	regeneration air filter
GI	air inlet
GO	air outlet
RI	regeneration air inlet
RO	regeneraton air outlet
ES1-2	ekspansion silencer
C1	water cooled heat exchanger





TECHNICAL DATA									
Type	Connection IN/OUT [2]	Nominal volume flow Inlet [1]	Dimensions			Mass	Blower power	Heater power	Filter type
	DN	[Nm³/h]	A [mm]	B [mm]	C [mm]	kg	kW	kW	
R-DRY 400 BVL	DN50	390	1.200	850	2.250	1.400	1,3	3,5	AF 0476
R-DRY 600 BVL	DN50	590	1.500	900	2.350	1.900	1,6	5,5	AF 0706
R-DRY 780 BVL	DN50	780	1.750	1.000	2.450	2.300	1,6	7	AF 0706
R-DRY 1000 BVL	DN50	930	1.750	1.250	2.450	2.400	1,6	8	AF 0946
R-DRY 1200 BVL	DN80	1.150	1.900	1.100	2.450	3.000	1,6	10	AF 1506
R-DRY 1600 BVL	DN80	1.600	1.900	1.350	2.500	3.200	4	14	AF 1756
R-DRY 2000 BVL	DN100	1.950	2.200	1.150	2.600	4.420	4	17	AF 2006
R-DRY 2500 BVL	DN100	2.530	2.350	1.150	2.750	5.000	7,5	22	AF 2406
R-DRY 3000 BVL	DN100	2.990	2.500	1.150	2.750	5.200	8,5	26	BF 300
R-DRY 3600 BVL	DN100	3.680	2.800	1.350	2.850	6.240	8,5	32	BF 450
R-DRY 4100 BVL	DN125	4.100	3.000	1.350	2.850	6.700	8,5	35	BF 450
R-DRY 5000 BVL	DN125	4.990	3.200	1.450	2.950	7.700	15	45	BF 600
R-DRY 6500 BVL	DN150	6.550	3.520	1.750	3.050	9.400	15	56	BF 900
R-DRY 7700 BVL	DN150	7.700	3.700	2.000	3.100	10.300	15	70	BF 900
R-DRY 10000 BVL	DN200	10.250	4.300	2.200	3.550	15.600	22	95	BF 1200
R-DRY 12000 BVL	DN200	11.700	4.400	2.500	3.550	-	-	-	BF 1200
R-DRY 14000 BVL	DN200	14.800	4.800	2.600	3.650	-	-	-	BF 1500
R-DRY 16000 BVL	DN250	16.000	5.000	3.200	3.650	-	-	-	BF 1800
R-DRY 18000 BVL	DN250	18.200	5.200	3.500	4.200	-	-	-	BF 1800
R-DRY 20000 BVL	DN250	20.200	6.000	3.500	4.350	-	-	-	BF 2500



OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}								
Operating pressure [bar]	4	5	6	7	8	9	10	11
Operating pressure [psi]	58	72	87	100	115	130	145	160
Correction factor C_{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}					
Operat. temperature [°C]	25	30	35	40	42,5
Operat. temperature [F]	77	86	95	104	108
Correction factor C_{OT}	1	1	1	0,7	0,52

Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional
Blower suction conditions	Max 50°C, 35% RH

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure , inlet temperature 35°C and pressure dew point at outlet -40°C

[2] Refers to dryer inlet and outlet connection without filters

RC-DRY series

REGENERATION BY HEAT OF COMPRESSION - FULL STREAM

4 to 11 bar
operating pressure

140 to 200°C
inlet air temperature range

-20°C
pressure dew points

390 to 20.200 Nm³/h
flow rate

0 %
avg. comp. air consumption

DESCRIPTION

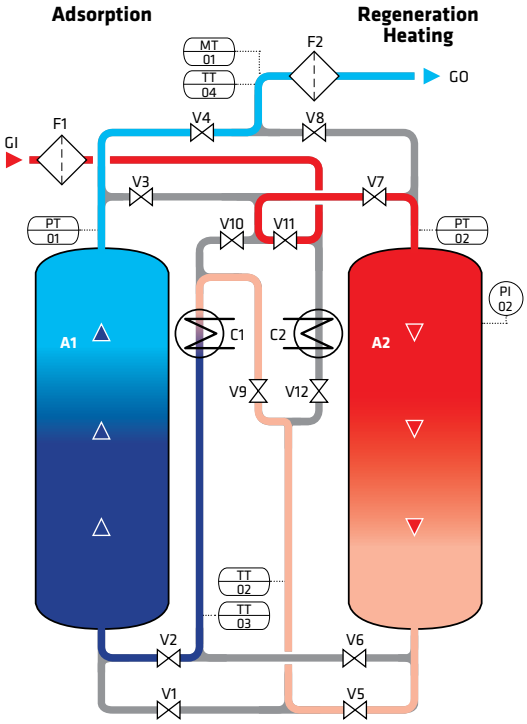
RC-DRY adsorption dryers have been designed for continuous separation of water vapour from compressed air thus reducing dew point. Operation of dryer requires two columns operated alternately. Heat of compression dryers do not need any additional source of energy to regenerate the adsorbent as they fully or partially utilise the heat generated during compression of the air in the compressor. Adsorption as well as regeneration take place under pressure meaning no compressed air is wasted for depressurisation.

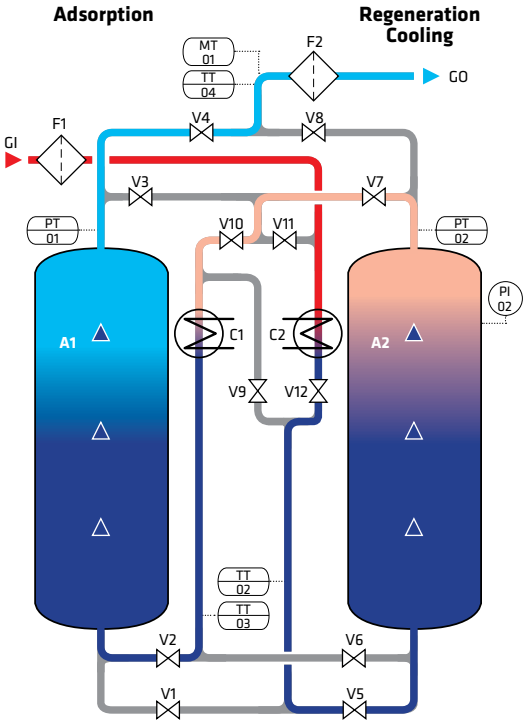
A dryer consists of two columns, filled with desiccant beads, water cooled heat exchangers, controller with LCD display, valves, manometers, and support construction. Proven robust design enables efficient and reliable operation, fast installation and simple maintenance.

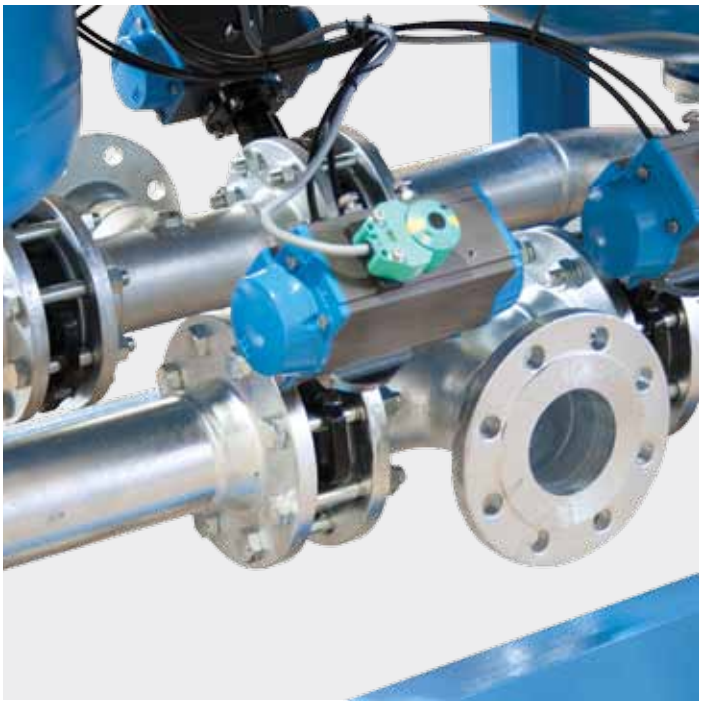
APPLICATIONS

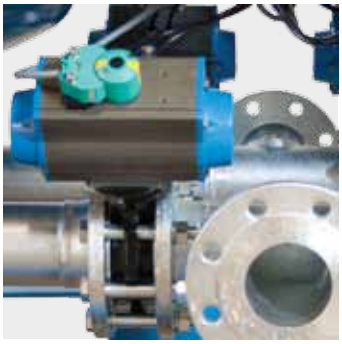
- Compressed air systems

A1-2	pressure vessel
F1	inlet filter (super fine coalescing)
F2	outlet filter (dust)
V1-6	ball valve with pneumatic actuator
V7-10	angle seated valve with pneumatic actuator
CV1-2	check valve
TT1-4	temperature transducer
PI1-2	pressure indicator
PT1-2	pressure transducer
DT1	dewpoint transducer
GI	air inlet
GO	air outlet
RO	regeneraton air outlet
C1-2	water cooled heat exchanger

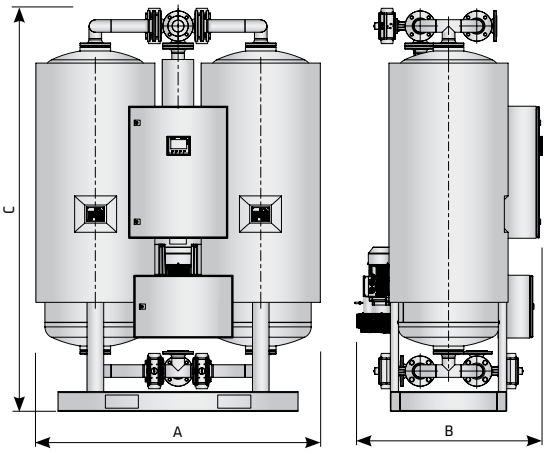








TECHNICAL DATA			
Type	Connection IN/OUT [2]	Nominal volume flow Inlet [1]	Filter type
	DN	[Nm³/h]	
RC-DRY 400	DN50	390	AF 0476
RC-DRY 600	DN50	590	AF 0706
RC-DRY 780	DN50	780	AF 0706
RC-DRY 1000	DN50	930	AF 0946
RC-DRY 1200	DN80	1.150	AF 1506
RC-DRY 1600	DN80	1.600	AF 1756
RC-DRY 2000	DN100	1.950	AF 2006
RC-DRY 2500	DN100	2.530	AF 2406
RC-DRY 3000	DN100	2.990	BF 300
RC-DRY 3600	DN100	3.680	BF 450
RC-DRY 4100	DN125	4.100	BF 450
RC-DRY 5000	DN125	4.990	BF 600
RC-DRY 6500	DN150	6.550	BF 900
RC-DRY 7700	DN150	7.700	
RC-DRY 10000	DN200	10.250	
RC-DRY 12000	DN200	11.700	
RC-DRY 14000	DN200	14.800	
RC-DRY 16000	DN250	16.000	
RC-DRY 18000	DN250	18.200	
RC-DRY 20000	DN250	20.200	



OPERATING PRESSURE - CORRECTION FACTORS - C_{OP}								
Operating pressure [bar]	4	5	6	7	8	9	10	11
Operating pressure [psi]	58	72	87	100	115	130	145	160
Correction factor C_{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}					
Operat. temperature [°C]	25	30	35	40	42,5
Operat. temperature [F]	77	86	95	104	108
Correction factor C_{OT}	1	1	1	0,7	0,52

[1] Refers to 1bar(a) and 20°C at 7 bar operating pressure , inlet temperature 35°C and pressure dew point at outlet -40°C

[2] Refers to dryer inlet and outlet connection without filters

Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional

HPR-DRY SERIES

HIGH PRESSURE HEAT REGENERATION

up to 50 bar
operating pressure

1,5 to 42,5°C
inlet air temperature range

-40°C
pressure dew points

2.485 to 23.400 Nm³/h
flow rate

RAL 5012
standard colour

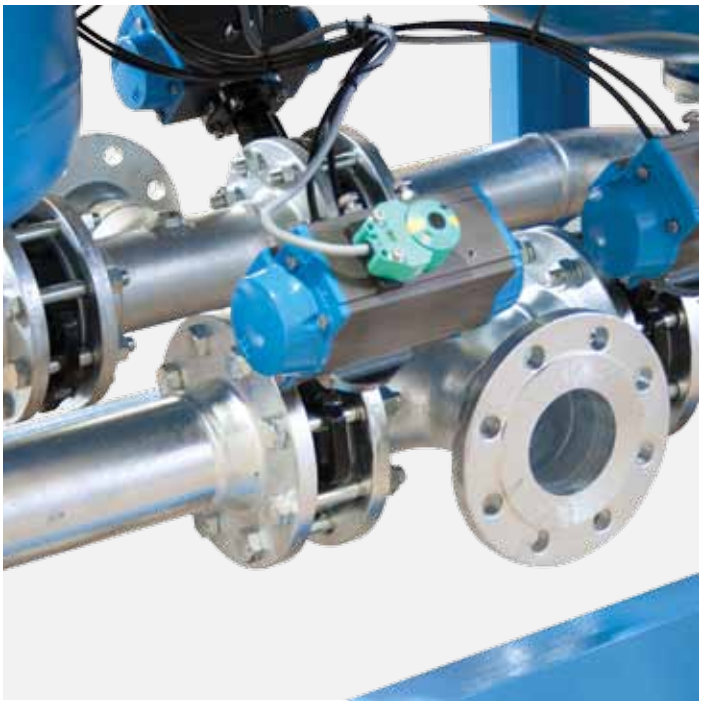
DESCRIPTION

HPR-DRY adsorption dryers are designed for continuous separation of water vapour from compressed air thus reducing dew point. Operation of dryer requires two columns operated alternately. Adsorption takes place under pressure in first column while second column regenerates with a heated ambient air or purge.

A dryer consists of two columns, filled with desiccant beads, blower, heater, controller with LCD display, valves, manometers, and support construction. Proven robust design enables efficient and reliable operation, fast installation and simple maintenance.

APPLICATIONS

- Compressed air systems



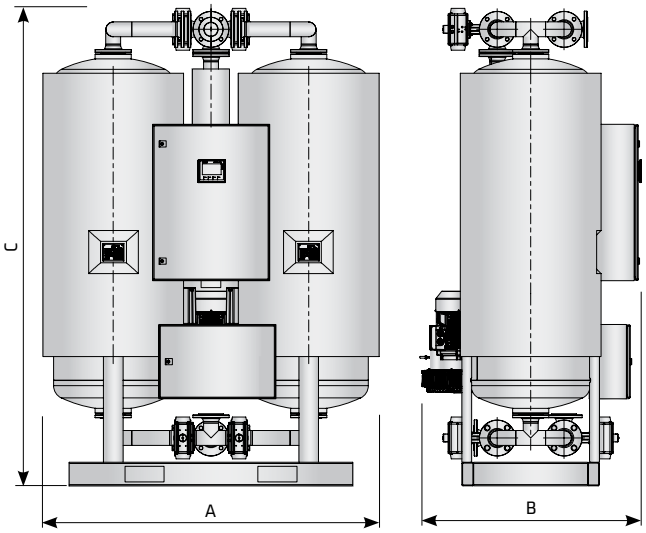
Protection class	IP 54
Filter (inlet)	super fine - 0,01 µm
Filter (outlet)	dust filter; 1 µm
Column insulation	optional

Type	Max. oper. pressure	Connection IN/OUT	Inlet nominal volume flow
	bar	DN	[Nm³/h]
HPR-DRY 400	50	DN50	2.485
HPR-DRY 600	50	DN50	3.760
HPR-DRY 780	50	DN50	4.970
HPR-DRY 1000	50	DN50	5.930
HPR-DRY 1200	50	DN80	7.330
HPR-DRY 1600	50	DN80	10.200
HPR-DRY 2000	50	DN100	12.430
HPR-DRY 2500	50	DN100	16.120
HPR-DRY 3000	50	DN100	19.000
HPR-DRY 3600	50	DN100	23.400

OPERATING PRESSURE 50 bar - CORRECTION FACTORS - C_{OP} (35 °C; 100 bar)						
Operating pressure [bar]	25	30	35	40	45	50
Correction factor C_{OP}	0,51	0,61	0,71	0,81	0,90	1

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}					
Operat. temperature [°C]	25	30	35	40	42,5
Operat. temperature [F]	77	86	95	104	108
Correction factor C_{OT}	1	1	1	0,7	0,52

(1) Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C and pressure dew point at outlet -40°C.



HP-DRY SERIES

HIGH PRESSURE HEATLESS REGENERATION ADSORPTION DRYERS

50, 100, 250, 400 bar
operating pressure

1,5 to 50°C
inlet air temperature range

-40°C
pressure dew points

50 to 1600 Nm³/h
flow rate

RAL 5012
standard colour

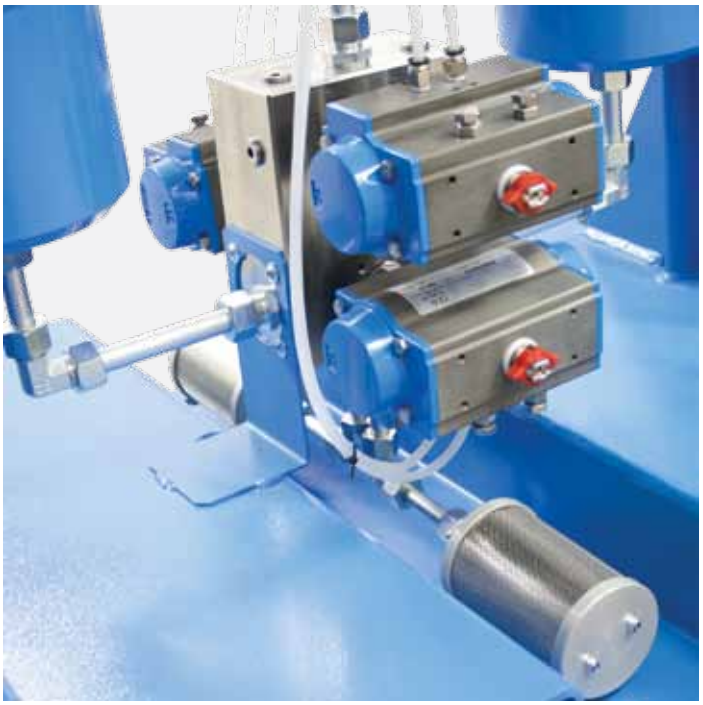
DESCRIPTION

HP-DRY adsorption dryers have been designed for continuous separation of water vapour from compressed air thus reducing dew point. Operation of the dryer requires two columns operated alternately. Adsorption takes place under pressure in the first column while the second column regenerates with a portion of already dried compressed air at ambient pressure.

Dryers consists from control valves, controller with LED display and two columns filled with desiccant. Springs in the columns make sure that the desiccant beads will not move during operation. Proven robust design enables efficient and reliable operation, fast installation and simple maintenance.

APPLICATIONS

- Compressed air systems



50 bar version

Type	Connection [3]	Inlet flow [1]	Outlet flow [2]	Dimensions			Mass
	IN/OUT ["]	[Nm³/h]	[Nm³/h]	H [mm]	W [mm]	D [mm]	[kg]
HP-DRY 050 PN50	G 3/8"	50	48,5	1200	680	580	130
HP-DRY 100 PN50	G 3/8"	100	97	1250	680	580	150
HP-DRY 150 PN50	G 3/8"	150	145,5	1550	680	580	170
HP-DRY 250 PN50	G 3/8"	250	242,5	1700	820	700	260
HP-DRY 350 PN50	G 1/2"	350	339,5	1700	820	700	320
HP-DRY 500 PN50	G 1/2"	500	485	1920	820	700	410
HP-DRY 650 PN50	G 1/2"	650	630,5	2250	820	700	460

OPERATING PRESSURE 50 bar - CORRECTION FACTORS - C_{OP} (35 °C; 50 bar)						
Operating pressure [bar]	25	30	35	40	45	50
Correction factor C_{OP}	0,51	0,61	0,71	0,81	0,90	1

100 bar version

Type	Connection [3]	Inlet flow [1]	Outlet flow [2]	Dimensions			Mass
	IN/OUT ["]	[Nm³/h]	[Nm³/h]	H [mm]	W [mm]	D [mm]	[kg]
HP-DRY 050 PN100	G 3/8"	50	48,5	1250	680	580	125
HP-DRY 100 PN100	G 3/8"	100	97	1350	680	580	170
HP-DRY 150 PN100	G 3/8"	150	145,5	1650	680	580	200
HP-DRY 250 PN100	G 3/8"	250	242,5	1550	680	600	210
HP-DRY 350 PN100	G 1/2"	350	339,5	1460	820	680	270
HP-DRY 500 PN100	G 1/2"	500	485	1700	820	680	290
HP-DRY 650 PN100	G 1/2"	650	630,5	1800	820	700	380
HP-DRY 800 PN100	G 1/2"	800	776	1850	820	680	480

OPERATING PRESSURE 100 bar - CORRECTION FACTORS - C_{OP} (35 °C; 100 bar)						
Operating pressure [bar]	50	60	70	80	90	100
Correction factor C_{OP}	0,50	0,60	0,70	0,80	0,90	1,00

250 bar version

Type	Connection [3]	Inlet flow [1]	Outlet flow [2]	Dimensions			Mass
	IN/OUT ["]	[Nm³/h]	[Nm³/h]	H [mm]	W [mm]	D [mm]	[kg]
HP-DRY 050 PN250	G 3/8"	50	48,5	1000	680	450	95
HP-DRY 100 PN250	G 3/8"	100	97	1360	680	450	135
HP-DRY 150 PN250	G 3/8"	150	145,5	1600	680	450	145
HP-DRY 250 PN250	G 3/8"	250	242,5	1500	680	450	180
HP-DRY 350 PN250	G 1/2"	350	339,5	1400	820	650	250
HP-DRY 500 PN250	G 1/2"	500	485	1500	820	650	300
HP-DRY 650 PN250	G 1/2"	650	630,5	1500	820	650	400
HP-DRY 800 PN250	G 1/2"	800	776	1550	820	650	460
HP-DRY 1000 PN250	G 1/2"	1000	970	1600	820	650	580
HP-DRY 1200 PN250	G 1/2"	1200	1164	1550	820	700	620
HP-DRY 1400 PN250	G 1/2"	1400	1358	1650	820	700	650

OPERATING PRESSURE 50 bar - CORRECTION FACTORS - C_{OP} (35 °C; 250 bar)						
Operating pressure [bar]	110	130	160	190	220	250
Correction factor C_{OP}	0,44	0,52	0,64	0,76	0,88	1,00

OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}						
Operating temperature [°C]	25	30	35	40	45	50
Correction factor C_{OT}	1	1	1	0,97	0,87	0,80

400 bar version

Type	Connection [3]	Inlet flow [1]	Outlet flow [2]	Dimensions			Mass
	IN/OUT ["]	[Nm³/h]	[Nm³/h]	H [mm]	W [mm]	D [mm]	[kg]
HP-DRY 100 PN400	G 3/8"	100	97	1120	680	450	120
HP-DRY 150 PN400	G 3/8"	150	145,5	1360	680	450	135
HP-DRY 250 PN400	G 3/8"	250	242,5	1450	680	580	190
HP-DRY 350 PN400	G 1/2"	350	339,5	1350	820	580	270
HP-DRY 500 PN400	G 1/2"	500	485	1380	820	650	310
HP-DRY 650 PN400	G 1/2"	650	630	1450	820	650	440
HP-DRY 800 PN400	G 1/2"	800	776	1230	820	650	425
HP-DRY 1000 PN400	G 1/2"	1000	970	1450	820	650	600
HP-DRY 1200 PN400	G 1/2"	1200	1164	1450	1000	900	850
HP-DRY 1400 PN400	G 1/2"	1400	1358	1500	1000	900	800
HP-DRY 1600 PN400	G 1/2"	1600	1552	1450	1000	900	1200

OPERATING PRESSURE 50 bar - CORRECTION FACTORS - C_{OP} (35 °C; 400 bar)							
Operating pressure [bar]	250	275	300	325	350	375	400
Correction factor C_{OP}	0,63	0,69	0,75	0,81	0,88	0,94	1,00

DEW POINT - CORRECTION FACTORS - C_{DP}			
Dew point temperature [°C]	-25	-40	-55
Correction factor C_{DP}	1,1	1	0,7

(1) Refers to 1bar(a) and 20°C, at nominal operating pressure , inlet temperature 35°C and pressure dew point at outlet -40°C.
(2) Purge air requirements depend on actual operating conditions (Typically about 3%).
(3) Threads of the dryer are male. It is possible to remove the fittings on the inlet and outlet, to get a pipe connection (for welding), where you should contact the manufacturer for the diameter and thickness. Also on the inlet you can remove the fittings and pipes entirely to get a female connection directly on the pre-filter.

M-DRY SERIES

MEMBRANE COMPRESSED AIR DRYERS

12 bar
operating pressure

1,5 to **60**°C
operating temperature range

+15, +3, -20, -40°C
pressure dew points

3 to **180** Nm³/h
flow rate

DESCRIPTION

M-DRY membrane air dryers have been developed for high efficient removal of water vapours from compressed air. Super fine coalescing filter is required upstream.

APPLICATIONS

- Automotive painting
- Industrial ''Point-of-use'' drying
- Low dew point instrument air
- Pneumatics
- Medical air
- Analytical equipment
- Pressurizing electrical cabinets

TECHNICAL DATA								
Model	Pipe size	Operating pressure	Flow rate *		DImensions [mm]			
	inch	bar	Nm³/h	scfm	A	B	C	D
M-DRY 3	1/4	12	3	1,8	224	43,7	325	175
M-DRY 6	1/4	12	6	3,5	325	43,7	453	175
M-DRY 9	1/4	12	9	5,3	427	43,7	555	175
M-DRY 12	1/4	12	12	7,1	503	43,7	611	175
M-DRY 18	1/2	12	18	10,6	312	61	476	208
M-DRY 24	1/2	12	24	14,1	376	61	540	208
M-DRY 32	1/2	12	36	21,2	465	61	661	208
M-DRY 44	1/2	12	48	28,3	592	61	788	208
M-DRY 63	1/2	12	63	37,1	411	89	607	208
M-DRY 90	1/2	12	90	53	551	89	755	284
M-DRY 123	1/2	12	123	72,4	551	89	755	284
M-DRY 180	1	12	180	106,6	607	114	1805	290

*At 7 bar, inlet dew point +35 °C, outlet dew point +15 °C

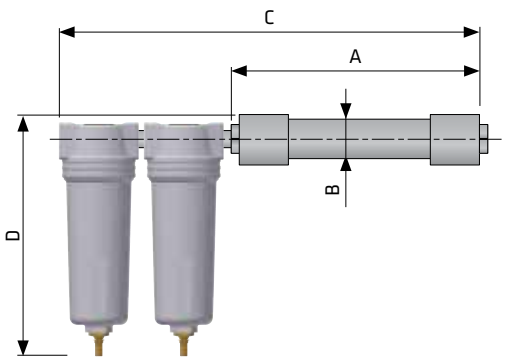
PERFORMANCE DATA								
Outlet dew point	**15 °C**		**3 °C**		**-20 °C**		**-40 °C**	
Purge air consumption	**10 %**		**14 %**		**21 %**		**29 %**	
% Water removal	**69,70 %**		**86,53 %**		**98,20 %**		**99,77 %**	
	Nm³/h	**scfm**	**Nm³/h**	**scfm**	**Nm³/h**	**scfm**	**Nm³/h**	**scfm**
MFP 3	3	1,8	2,2	1,3	1,4	0,8	1,02	0,6
MFP 6	6	3,5	4,3	2,5	2,8	1,7	2	1,2
MFP 9	9	5,3	6,4	3,8	4,3	2,5	3,1	1,8
MFP 12	12	7,1	8,5	5,0	5,7	3,3	4,1	2,4
MFP 18	18	10,6	12,8	7,5	8,5	5,0	6,2	3,6
MFP 24	24	14,1	17	10,1	11,3	6,7	8,2	4,8
MFP 32	36	21,2	25,6	15,1	17	10	12,4	7,3
MFP 44	48	28,3	34,1	20,1	22,7	13,4	16,4	9,7
MFP 63	63	37,1	44,9	26,4	29,7	17,5	21,5	12,7
MFP 90	90	53	67,3	39,6	43,8	25,8	31,1	18,3
MFP 123	123	72,4	91,7	54,0	58,8	34,6	42,6	25,1
MFP 180	180	106,6	128,1	75,4	85,5	50,3	61,5	36,2

At 7 bar, inlet dew point +35 °C, data refers on inlet flow capacity

CORRECTION FACTORS									
Operating pressure [bar]	4	5	6	7	8	9	10	11	12
Operating pressure [psi]	58	72	87	100	115	130	145	160	174
Correction factor - C_{OP}	0,41	0,56	0,76	1	1,22	1,48	1,76	1,86	2,22

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	2*
quality class - oils (ISO 8573-1)	-
differential pressure [mbar / psi]	200 / 2,9
required inlet air quality (particles)	class 1
required inlet air quality (oil)	class 1 <0,01 mg/m³

*Outlet dew point depend on inlet conditions and flow.
For specific operating conditions check tables.



OMD SERIES

REFRIGERATION COMPRESSED AIR DRYERS

up to 14 bar
operating pressure

45°C
max. ambient temperature

3°C
pressure dew point

19 to 13.248 Nm³/h
flow rate

55°C
inlet air temperature range

RAL 5012
standard colour

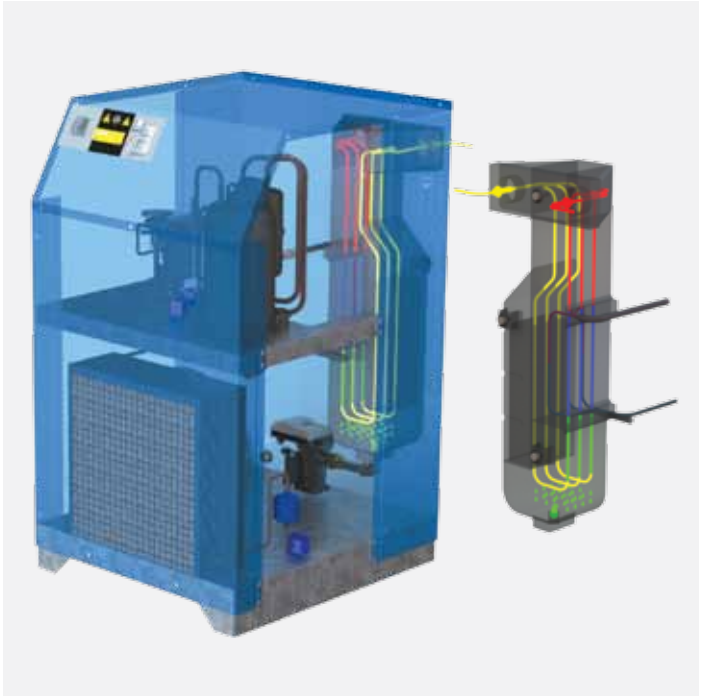
DESCRIPTION

OMD refrigeration dryer has been designed to lower the dew point in compressed air system by cooling the inlet air. By this water vapour retention of air drops significantly. The excess water condenses and is drained out of the system. Dryers are dimensioned to correspond to compressors from 3 kw-120 kw with output flow of 19 Nm³/h – 13.200 Nm³/h.

OMD dryers achieve excellent performance even in instances of high ambient and high inlet temperatures. The highly efficient and ultra compact heat exchanger is able to operate effectively in ambient temperatures up to 45°C and inlet temperatures of 55°C, ensuring a reduced compressed air pressure drop.

APPLICATIONS

- Compressed air systems
- Sized to match standard compressor outputs



TECHNICAL DATA

Type	Air flow [Nm³/h]	Power supply	Controller	Dimensions W [mm]	L [mm]	H [mm]	Air connections	Condensate drain	Ts Thermal switch	PA high pressure switch	PB low pressure switch	Mass net-gross [kg]	Refrigerant
OMD 20	19	1/230/50-60	RDC 1.1	310	345	435	G 3/8" BSP-F	EMD12	✓	-	-	21-23	R 134a
OMD 35	33	1/230/50-60		370	515	475	G 1/2" BSP-F	EMD12	✓	-	-	25-27	R 134a
OMD 50	52	1/230/50-60		370	515	475	G 1/2" BSP-F	EMD12	✓	-	-	26-28	R 134a
OMD 65	66	1/230/50-60		370	515	475	G 1/2" BSP-F	EMD12	✓	-	-	28-30	R 134a
OMD 100	98	1/230/50-60		370	515	475	G 1/2" BSP-F	EMD12	✓	-	-	32-34	R 134a
OMD 135	137	1/230/50-60		345	420	740	G 1" BSP-F	EMD12	✓	-	-	34-38	R 134a
OMD 175	175	1/230/50		345	445	740	G 1 1/4" BSP-F	EMD12	✓	-	-	39-43	R 134a
OMD 235	235	1/230/50		345	445	740	G 1 1/4" BSP-F	EMD12	✓	-	-	40-44	R407C
OMD 280	284	1/230/50		485	455	825	G 1 1/4" BSP-F	EMD12	✓	-	-	41-45	R407C
OMD 330	333	1/230/50		555	580	885	G 1 1/2" BSP-F	EMD12	✓	-	-	54-66	R407C
OMD 410	410	1/230/50		555	580	885	G 1 1/2" BSP-F	EMD12	✓	-	-	56-68	R407C
OMD 570	573	1/230/50		555	625	975	G 2" BSP-F	EMD12	✓	✓	-	94-107	R407C
OMD 710	710	1/230/50		555	625	975	G 2" BSP-F	EMD12	✓	✓	-	96-109	R407C
OMD 920	917	1/230/50		665	725	1.105	G 2 1/2" BSP-F	EMD12	✓	✓	✓	144-164	R407C
OMD 1050	1037	3/400/50	DMC24	645	920	1.100	G 2 1/2" BSP-F	EMD12	✓	✓	✓	170-190	R407C
OMD 1200	1201	3/400/50		645	920	1100	G 2 1/2" BSP-F	EMD12	✓	✓	✓	172-192	R407C
OMD 1350	1365	3/400/50		790	1.000	1.465	DN80 PN16	OBM32	✓	✓	✓	242-283	R407C
OMD 1900	1911	3/400/50		790	1.000	1.465	DN80 PN16	OBM32	✓	✓	✓	276-317	R407C
OMD 2200	2239	3/400/50		790	1.000	1.465	DN80 PN16	OBM32	✓	✓	✓	311-352	R407C
OMD 2600	2621	3/400/50		1.135	1.205	1.750	DN100 PN16	2xOBM32	✓	✓	✓	463-516	R407C
OMD 3350	3385	3/400/50		1.135	1.205	1.750	DN100 PN16	2xOBM32	✓	✓	✓	538-591	R407C
OMD 4400	4423	3/400/50		1.135	1.205	1.750	DN100 PN16	2xOBM32	✓	✓	✓	612-665	R407C
OMD 5400	5400	3/400/50		1.300	1750	1810	DN150 PN16	3xOBM32	✓	✓	✓	830-920	R407C
OMD 6600	6624	3/400/50		1.300	1750	1810	DN150 PN16	3xOBM32	✓	✓	✓	940-1030	R407C
OMD 7200	7200	3/400/50		1.300	1750	1810	DN200 PN16	4xOBM32	✓	✓	✓	1055-1145	R407C
OMD 8800	8800	3/400/50		1.300	1750	1810	DN200 PN16	4xOBM32	✓	✓	✓	1200-1290	R407C
OMD 10800	10800	3/400/50		1547	2270	2440	DN200 PN16	6xOBM32	✓	✓	✓	1650-1850	R407C
OMD 13200	13248	3/400/50		1547	2270	2440	DN200 PN16	6xOBM32	✓	✓	✓	1850-2050	R407C

CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES

Operat. pressure [bar]	4	5	6	7	8	10	12	14
Correction factor	0,77	0,86	0,93	1,00	1,05	1,14	1,21	1,27

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES

Temperature [°C]	≤25	30	35	40	45
Correction factor	1,00	0,95	0,88	0,79	0,68

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES

Temperature [°C]	≤30	35	40	45	50	55
Correction factor	1,11	1,00	0,81	0,67	0,55	0,45

CORRECTION FACTOR FOR DEW POINT CHANGES

Temperature [°C]	3	5	7	10
Correction factor	1,00	1,099	1,209	1,385

OMD ES SERIES

ENERGY SAVING REFRIGERATION COMPRESSED AIR DRYERS

up to 14 bar
operating pressure

45°C
max. ambient temperature

3°C
pressure dew point

21 to 8800 Nm³/h
flow rate

70°C
max. inlet air temperature

RAL 5012
standard colour

DESCRIPTION

OMD ES energy saving dryers combine excellent performance with reduced energy consumption. Reduced energy consumption compared to standard range is achieved by thermal mass at smaller sizes and by var iable speed compressor at larger sizes. The highly efficient and ultra compact heat exchanger is able to operate effectively in ambient temperatures up to 45°C and inlet temperatures of 55°C, ensuring a reduced compressed air pressure drop. The OMD ES series has been designed and built to expedite inspection and maintenance operations. The easily removed panels offer immediate access to the operating components of the unit.

APPLICATIONS

- Compressed air systems
- Sized to match standard compressor outputs

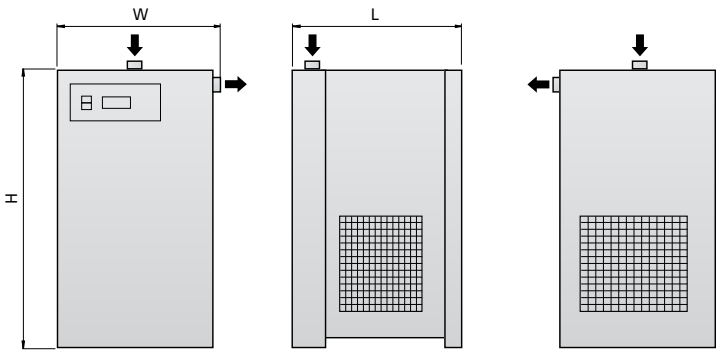
TECHNICAL DATA										
Type	Air flow [Nm³/h]	Power supply	Dimensions W [mm]	Dimensions L [mm]	Dimensions H [mm]	Air connections inlet/outlet	Cooling air flow [m³/h]	Heat rejection [kW]	Nominal power consumption 50Hz (60Hz) [kW]	Refrigerant type
OMD 20 ES	21	1/230V/50-60Hz	375	420	770	G 1/8" BSP-F	200	0,45	0,16 (0,21)	R134a
OMD 35 ES	33		375	420	770	G 1/2" BSP-F	200	0,57	0,18 (0,22)	
OMD 50 ES	51		375	420	770	G 1/2" BSP-F	300	0,68	0,22 (0,27)	
OMD 70 ES	72		375	420	770	G 1/2" BSP-F	300	0,87	0,23 (0,28)	
OMD 110 ES	108		380	420	775	G 1" BSP-F	300	1,0	0,31 (0,39)	
OMD 135 ES	138	1/230V/50Hz	380	420	775	G 1" BSP-F	300	1,7	0,46	R407C
OMD 185 ES	186		520	455	865	G 1 1/4" BSP-F	380	2,36	0,69	
OMD 240 ES	240		520	455	865	G 1 1/4" BSP-F	380	2,64	0,75	
OMD 330 ES	330		605	580	940	G 1 1/2" BSP-F	450	3,43	0,70	
OMD 375 ES	372		605	580	940	G 1 1/2" BSP-F	450	4,11	0,84	
OMD 490 ES	486		610	625	1030	G 2" BSP-F	1900	4,87	0,98	
OMD 630 ES	630		610	625	1030	G 2" BSP-F	1900	4,93	1,10	
OMD 750 ES	750		715	725	1155	G 2 1/2" BSP-F	2500	6,5	1,45	
OMD 870 ES	870		715	725	1155	G 2 1/2" BSP-F	3300	7,2	1,69	
OMD 960 ES	960		715	725	1155	G 2 1/2" BSP-F	3300	7,93	1,73	
OMD 1260 ES	1260	3/400V/50Hz	890	1000	1595	DN80 PN16	5400	9,2	2,75	R134a
OMD 1800 ES	1800		890	1000	1595	DN80 PN16	7200	13,8	3,30	R407C
OMD 2200 ES	2208		890	1000	1595	DN80 PN16	7400	17,3	3,80	
OMD 2400 ES	2400		1135	1263	1747	DN100 PN16	14400	18,2	4,60	
OMD 3000 ES	3000		1135	1263	1747	DN100 PN16	14400	20,1	5,20	
OMD 3600 ES	3600		1135	1263	1747	DN100 PN16	14800	27,1	6,10	
OMD 4400 ES	4416		1135	1263	1747	DN100 PN16	14800	33,9	6,90	
OMD 5400 ES	5400		1300	1810	1810	DN150 PN16	21600	39,2	8,80	
OMD 6600 ES	6624		1300	1810	1810	DN150 PN16	22200	48,5	11,20	
OMD 7200 ES	7200		1400	2260	1870	DN200 PN16	28800	51,8	11,60	
OMD 8800 ES	8832		1400	2260	1870	DN200 PN16	29600	63,0	14,90	

CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES								
Operat. pressure [bar]	4	5	6	7	8	10	12	14
Correction factor	0,77	0,86	0,93	1,00	1,05	1,14	1,21	1,27

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES					
Temperature [°C]	≤25	30	35	40	45
Correction factor	1,00	0,95	0,88	0,79	0,68

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES						
Temperature [°C]	≤30	35	40	45	50	55
Correction factor	1,11	1,00	0,81	0,67	0,55	0,45

CORRECTION FACTOR FOR DEW POINT CHANGES				
Temperature [°C]	3	5	7	10
Correction factor	1,00	1,099	1,209	1,385



OMH SERIES

REFRIGERATION HIGH INLET TEMPERATURE COMPRESSED AIR DRYERS

up to 14 (16) bar
operating pressure

up to 90°C
inlet air temperature range

7°C
pressure dew point

46 to 256 Nm³/h
flow rate

RAL 5012
standard colour

DESCRIPTION

OMH is synonymous of quality/performance at high temperature.

It incorporates a dryer and an aftercooler in a single unit; its strong point is that it includes all the latest technologies in a compact design without sacrificing performance in extreme operating conditions.

The OMH series was designed in the utmost respect for the environment thanks to the use of ecological refrigerant fluids and the choice of recyclable manufacturing materials.

Compressed air treated with OMH dryer series guarantees high quality standards, conforming to ISO 8573.1, in fact they respect Class 6 for residual humidity and Class 3 for maximum concentration of solid contaminants.

APPLICATIONS

- High temperature compressed air systems

TECHNICAL DATA								
Type	Air flow [Nm³/h]	Operating pressure bar	Power supply	Dimensions A [mm]	B [mm]	C [mm]	Air connections	Mass net-gross [kg]
OMH 45	46	16	1f/230V/50Hz	426	416	650	G 1/2"	29-33
OMH 70	68	16	1f/230V/50Hz	426	416	650	G 1/2"	32-36
OMH 100	103	16	1f/230V/50Hz	426	416	650	G 1/2"	38-42
OMH 140	142	14	1f/230V/50Hz	444	440	900	G 1"	39-43
OMH 180	182	14	1f/230V/50Hz	444	440	900	G 1 1/4"	50-57
OMH 250	256	14	1f/230V/50Hz	469	511	900	G 1 1/4"	53-60

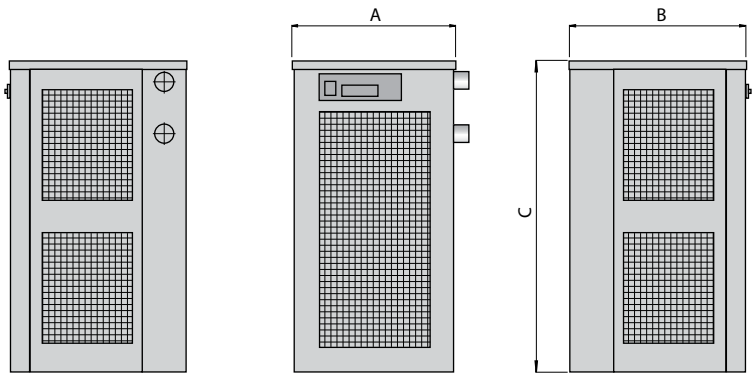
CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES								
Operat. pressure [bar]	4	5	6	7	8	10	12	14
Correction factor C_{OP}	0,77	0,86	0,93	1,00	1,05	1,14	1,21	1,27

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES					
Temperature [°C]	≤30	32	35	40	45
Correction factor C_{AT}	1,13	1,08	1,00	0,90	0,80

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES			
Temperature [°C]	≤70	80	90
Correction factor C_{IT}	1,00	0,90	0,89

CORRECTION FACTOR FOR DEW POINT CHANGES			
Temperature [°C]	5	7	10
Correction factor C_{DP}	0,75	1,00	1,087

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).
CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP} x C_{AT} x C_{IT} x C_{DP}
Data refer to the following nominal conditions: Ambient temperature of 35°C, with inlet air at pressure 7 barg and 70°C and pressure Dew Point 7°C.
Max. operating condition : Ambient temperature 45°C , Inlet air temperature 90°C and Inlet air pressure 14 barg (16 barg for OMH 45-100).



OHP SERIES

REFRIGERATION HIGH PRESSURE COMPRESSED AIR DRYERS

50 (45) bar
operating pressure

1,5 to 65°C
inlet air temperature range

3°C
pressure dew point

25 to 5010 Nm³/h
flow rate

RAL 5012
standard colour

RAL 7040
optional colour

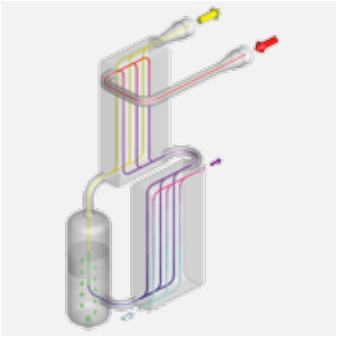
DESCRIPTION

OHP series (high pressure dryers for compressed air systems up to 50 barg) makes the most of manufacturing and functional advantages of brazed plate heat exchangers, which are more suitable for high pressure working conditions (on models OHP 90-3000).

Main features are:
- Simple and ergonomic component layouts guarantee functionality and efficiency;
- Excellent performance due to low pressure drop and constant pressure Dew Point;
- Dryer design is very attractive both aesthetically with a two tone cabinet and practically with a robust casing.

APPLICATIONS

- High pressure compressed air systems



TECHNICAL DATA									
Type	Air flow	Max. inlet pressure	Power supply	Dimensions			Zero loss drain (option)	Air connections	Mass net-gross [kg]
	[Nm³/h]	bar		A [mm]	B [mm]	C [mm]			
OHP 25	25	50	1/230V/50-60Hz	370	515	475	OBK 1/50	G 3/8" BSP-F	28-32
OHP 45	45	50	1/230V/50-60Hz	370	515	475	OBK 1/50	G 3/8" BSP-F	29-33
OHP 70	72	50	1/230V/50-60Hz	370	515	475	OBK 1/50	G 3/8" BSP-F	32-36
OHP 90	90	50	1/230V/50-60Hz	345	420	740	OBK 1/50	G 3/4" BSP-F	38-42
OHP 135	135	50	1/230V/50Hz	345	420	740	OBK 1/50	G 3/4" BSP-F	39-43
OHP 180	180	50	1/230V/50Hz	485	455	825	OBK 1/50	G 3/4" BSP-F	50-57
OHP 240	240	50	1/230V/50Hz	485	455	825	OBK 1/50	G 3/4" BSP-F	53-60
OHP 315	315	50	1/230V/50Hz	555	580	885	OBK 1/50	G 1" BSP-F	89-101
OHP 450	450	50	1/230V/50Hz	555	580	885	OBK 1/50	G 1" BSP-F	101-113
OHP 600	615	50	1/230V/50Hz	555	580	885	OBK 1/50	G 1" BSP-F	115-128
OHP 800	810	50	1/230V/50Hz	665	725	1105	OBK 1/50	G 1 1/2" BSP-F	156-176
OHP 1000	1008	50	1/230V/50Hz	665	725	1105	OBK 1/50	G 1 1/2" BSP-F	190-210
OHP 1250	1260	50	3/400V/50Hz	790	1000	1465	OBK 2/50	G 2" BSP-F	252-293
OHP 1600	1620	45	3/400V/50Hz	790	1000	1465	OBK 2/50	G 2" BSP-F	265-306
OHP 2250	2280	45	3/400V/50Hz	790	1000	1465	OBK 2/50	G 2" BSP-F	391-432
OHP 2400	2430	45	3/400V/50Hz	1135	1205	1750	OBK 2/50	Flange ANSI 3"	444-497
OHP 3000	3030	45	3/400V/50Hz	1135	1205	1750	OBK 2/50	Flange ANSI 3"	461-514
OHP 4000	4020	45	3/400V/50Hz	1135	1205	1750	OBK 2/50	Flange ANSI 3"	486-539
OHP 5000	5010	45	3/400V/50Hz	1135	1205	1750	OBK 2/50	Flange ANSI 3"	552-605

CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES								
Operat. pressure [bar]	15	20	25	30	35	40	45	50
Correction factor C_{OP}	0,57	0,7	0,8	0,88	0,94	1	1,05	1,1

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES						
Temperature [°C]	≤25	30	35	40	45	50
Correction factor C_{AT}	1	0,96	0,9	0,82	0,72	0,6

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES									
Temperature [°C]	≤25	30	35	40	45	50	55	60	65
Correction factor C_{IT}	1,2	1,12	1	0,83	0,69	0,59	0,5	0,44	0,39

CORRECTION FACTOR FOR DEW POINT CHANGES				
Temperature [°C]	3	5	7	10
Correction factor C_{DP}	1	1,09	1,19	1,37

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).
CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP} x C_{AT} x C_{IT} x C_{DP}
Data refers to the following nominal conditions: Ambient temperature of 25°C, with inlet air at pressure 40 barg and 35°C - pressure dew point of 3°C.
Max. operating condition : Ambient temperature 50°C , Inlet air temperature 65°C and inlet air pressure 50 barg (45 barg from OHP 1600).

OSL SERIES

REFRIGERATION COMPRESSED AIR DRYERS

16 (14) bar
operating pressure

1,5 to 55°C
inlet air temperature range

3°C
pressure dew point

19 to 144 Nm³/h
flow rate

RAL 5012
standard colour

DESCRIPTION

OSL dryer series utilises a natural evolution of the patented ALU-DRY heat exchanger which is already established and well known for its high efficiency. This new version is designed with easy to fit air connections which improves the internal flow pattern.

Compact size, optimized layout and innovative solutions reduce manufacturing costs whilst maintaining the same levels of reliability, quality and attention to details.

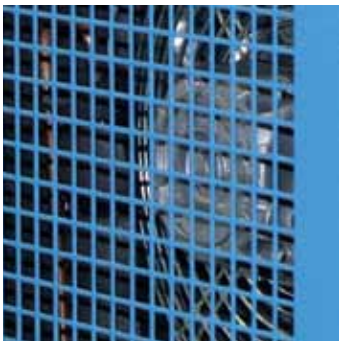
OSL dryer series is designed and manufactured with respect to the environment using R134a ozone friendly refrigerant and completely recyclable materials.

APPLICATIONS

• Compressed air systems

Controller is installed on complete series featuring:
- Dewpoint led display
- Fan control
- Timed programmable condensate drain solenoid valve with manual test
- Dewpoint and malfunction visual alarm

OSL dryer series includes as standard:
- powder coated cabinet (zinc coated on request)
- stainless steel hot gas by-pass valve
- quick coupling condensate drain solenoid valve for fast and easy cleaning
- condensate drain valve complete with isolation ball valve and strainer
- refrigerant low pressure service plug
- ON/OFF illuminated switch



TECHNICAL DATA										
Type	Flow rate		Connections	Power	Supply	Max. press.	Dimensions [mm]			Mass net/gross
	Nm³/h	scfm	ø	W	f/V/Hz	barg	L	B	H	kg
OSL 20	19	11	G3/8" BSP-F	160	1/230/50 (60)	16	560	220	460	21-23
OSL 42	43	25	G1/2" BSP-F	190	1/230/50 (60)	16	560	220	460	24-27
OSL 55	58	34	G1/2" BSP-F	210	1/230/50 (60)	16	560	220	460	25-28
OSL 80	82	48	G1" BSP-F	280	1/230/50 (60)	16	560	220	460	27-30
OSL 115	115	67	G1" BSP-F	330	1/230/50 (60)	16	560	220	460	29-32
OSL 144	144	85	G1" BSP-F	450	1/230/50	14	560	220	580	32-35

Correction factor for operating pressure changes											
Inlet air pressure	barg	4	5	6	7	8	10	12	14	15	16
Factor		0,77	0,86	0,93	1,00	1,05	1,14	1,21	1,27	1,30	1,33

Correction factor for ambient temperature changes						
Ambient temperature	°C	≤ 25	30	35	40	45
Factor		1,00	0,98	0,95	0,88	0,80

Correction factor for inlet air temperature changes							
Inlet air temperature	°C	30	35	40	45	50	55
Factor		1,15	1,00	0,84	0,71	0,59	0,50

Correction factor for dew point changes					
Dew point	°C	3	5	7	10
Factor		0,913	1,00	1,088	1,250

Data refer to the following nominal conditions: Ambient temperature of 25°C, with inlet air at 7 barg and 35°C and pressure DewPoint 5°C in accordance to ISO8573.1 class 6.
All models are equipped with R134.a refrigerant. Max. operating condition : Ambient temperature 45°C , Inlet air temperature 55°C and Inlet air pressure 16 (14) barg

ACA SERIES

AIR COOLED AFTERCOOLERS

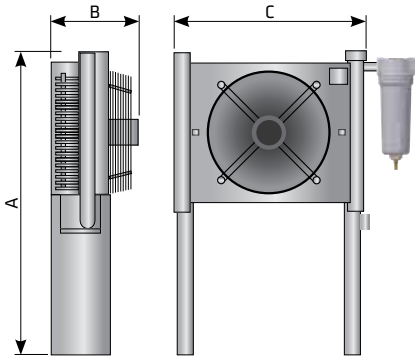
15 bar
operating pressure

120°C
inlet air temperature

170°C
max. inlet air temperature

66 to 4500 Nm³/h
flow rate

RAL 9005
standard colour



DESCRIPTION

Air cooled aftercoolers series ACA are designed to reduce compressed air temperature and water vapour dew point in compressed air system. High efficiency axial fan forces ambient air over the heat exchangers copper tubes supported by aluminium fins, which provides the necessary cooling effect. The compressed air is cooled down to approximately 10°C above ambient temperature.

ACA aftercoolers ensures the maximum performance and protection of all equipment, such refrigeration dryers, adsorption dryers and filters, positioned downstream of this unit.

APPLICATIONS

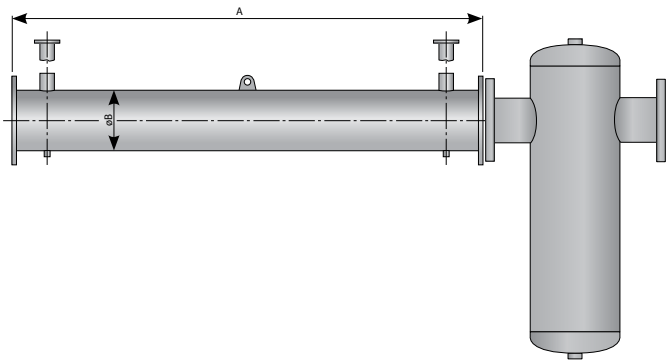
- Compressed air systems

TECHNICAL DATA

Model	Flow rate		Pipe size	Power supply	Fan	Dimensions			Mass
fixed bundle	Nm³/h	scfm		ph/V/Hz	ø mm/ W	A [mm]	B [mm]	C [mm]	kg
ACA 003	66	39	G 1"	1/230/50	ø250-45W	850	300	715	19
ACA 007	126	74	G 1"	1/230/50	ø250-45W	850	300	715	20
ACA 010	222	131	G 1 1/2"	3/400/50	ø350-110W	990	310	845	27
ACA 018	294	173	G 1 1/2"	3/400/50	ø400-130W	990	310	845	29
ACA 030	390	230	G 2"	3/400/50	ø500-750W	1175	440	980	44
ACA 047	522	307	G 2"	3/400/50	ø500-750W	1175	440	980	48
ACA 070	774	456	G 2"	3/400/50	ø600-370W	1325	490	1130	61
ACA 094	990	583	G 2 1/2"	3/400/50	ø600-370W	1325	490	1130	66
ACA 150	1260	742	DN100	3/400/50	ø800-1470W	1800	660	1590	127
ACA 175	1560	918	DN100	3/400/50	ø800-1470W	1800	660	1590	143
ACA 240	1890	1112	DN100	3/400/50	ø800-1470W	1800	790	1560	148
ACA 300	2520	1483	DN100	3/400/50	ø800-1470W	2000	795	1740	166
ACA 450	3090	1819	DN125	3/400/50	2x ø800-1470W	2090	830	1850	212
ACA 600	4500	2649	DN125	3/400/50	2x ø800-1470W	2300	850	2010	315

ACW SERIES

WATER COOLED AFTERCOOLERS



16 bar
operating pressure

DN50 to DN500
connections

1,5 to 200°C
operating temperature range

132 to 45570 Nm³/h
flow rate

RAL 9005
standard colour

DESCRIPTION

ACW – Water-cooled aftercooler series has been designed to reduce compressed air temperature thus water vapour content in compressed air system. Hot compressed air/gas passes through the tubes. Cooling water passes around the tubes in counter flow.

ACW aftercooler ensures the maximum performance and protection of all equipment, such refrigeration dryers, adsorption dryers and filters, positioned downstream of this unit.

TECHNICAL DATA							
Model	Connections		Flow capacity[1]		Operating pressure	Dimensions	
fixed bundle	Air	Water	Nm³/h	scfm	bar	A [mm]	B [mm]
ACW 010 F	DN50	DN20	132	78	0 - 16	806	60,3
ACW 018 F	DN50	DN20	235	138	0 - 16	816	60,3
ACW 030 F	DN50	DN20	367	216	0 - 16	816	60,3
ACW 047 F	DN50	DN20	661	389	0 - 16	870	60,3
ACW 070 F	DN50	DN20	955	562	0 - 16	870	60,3
ACW 094 F	DN80	DN20	1323	779	0 - 16	1500	88,9
ACW 150 F	DN80	DN20	2205	1298	0 - 16	1510	88,9
ACW 200 F	DN100	DN40	2650	1560	0 - 16	1500	114,3
ACW 240 F	DN125	DN32	3087	1817	0 - 16	1300	139,7
ACW 300 F	DN125	DN32	3969	2336	0 - 16	1300	139,7
ACW 375 F	DN150	DN65	5200	3060	0 - 16	1300	168,3
ACW 450 F	DN200	DN50	7056	4153	0 - 16	1300	219
ACW 600 F	DN200	DN65	8967	5278	0 - 16	1300	219
ACW 900 F	DN250	DN80	11025	6489	0 - 10	1300	273
ACW 1200 F	DN300	DN80	16170	9517	0 - 10	1300	323,9
ACW 1500 F	DN400	DN100	22050	12978	0 - 10	1300	406
ACW 1800 F	DN400	DN150	26460	15574	0 - 10	1300	406
ACW 2500 F	DN450	DN200	33810	19900	0 - 10	1300	457
ACW 3000 F	DN500	DN200	45570	26821	0 - 10	1300	508

[1] Refers to 1 bar and 20°C at 7 bar operating pressure and inlet temperature 120°C

APPLICATIONS

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

TAC SERIES

ACTIVATED CARBON TOWER

16 bar
operating pressure

1,5 to 45°C
inlet air temperature range

3/8" to DN125
connections

6 to 6500 Nm³/h
flow rate

RAL 9005
standard colour

DESCRIPTION

TAC activated carbon towers have been developed for separating oil vapours from compressed air (dry type separation).

TAC series is made from high quality carbon steel. Flow distributors ensure uniform distribution of air flow through activated carbon bed. Oil vapours as well as some other hydrocarbons are separated due to adsorption process.

Super fine coalescing filter is required upstream TAC and 1µm dust filter is recommended downstream to intercept activated carbon dust.
High pressure version is available on request.

Stainless steel version available on request.

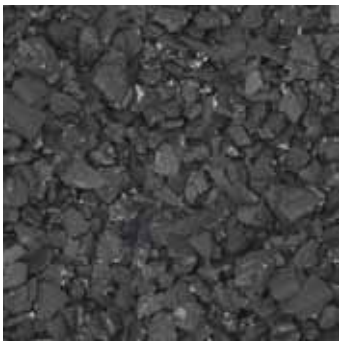
High pressure version available on request.

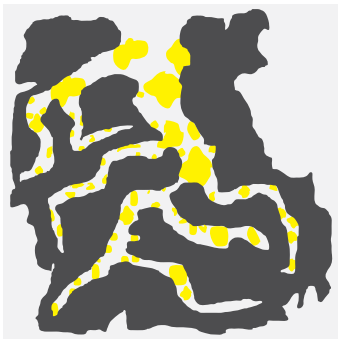
APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

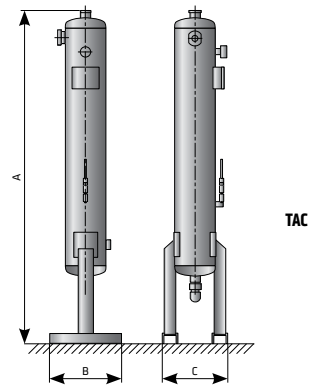
TACm

TAC

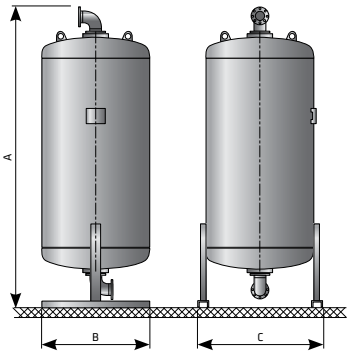




TECHNICAL DATA									
Type	Pipe size	Operating pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]			Mass	Cartridge number
		bar	Nm³/h	scfm	A	B	C	kg	
TACm 6	3/8"	16	6	3,5	404	188	100	3,5	1 x ø80
TACm 12	3/8"	16	12	7	638	188	100	5,3	2 x ø80
TACm 23	3/8"	16	24	14,1	1106	188	100	6,5	4 x ø80
TACm 35	3/8"	16	36	21,1	1574	188	100	12	6 x ø80
TACm 56	1/2"	16	60	35,3	1106	270	148	15	4 x ø129
TACm 70	1/2"	16	75	44,1	1340	270	148	18	5 x ø129
TACm 105	1/2"	16	105	61,8	1808	270	148	22	7 x ø129
TAC 110	1"	16	110	86	1522	350	252	45	-
TAC 150	1"	16	150	117	1766	350	252	52	-
TAC 200	1"	16	200	157	1532	400	303	71	-
TAC 250	1"	16	260	204	1784	400	303	83	-
TAC 300	1 1/2"	16	320	251	1551	450	357	97	-
TAC 400	1 1/2"	16	410	321	1798	450	357	114	-
TAC 600	1 1/2"	16	590	462	1893	650	424	160	-
TAC 800	2"	16	770	603	1877	650	468	201	-
TAC 1000	2"	16	1000	784	1961	650	506	242	-
TAC 1200 F	DN50	16	1200	936	2170	550	550	280	-
TAC 1500 F	DN65	16	1500	1170	2210	620	620	355	-
TAC 2000 F	DN65	16	2000	1560	2330	700	700	420	-
TAC 2500 F	DN80	16	2500	1950	2260	760	760	510	-
TAC 3000 F	DN80	16	3000	2340	2400	800	800	595	-
TAC 3750 F	DN100	16	3750	2925	2490	920	920	745	-
TAC 5000 F	DN100	16	5000	3900	2600	1050	1050	960	-
TAC 6500 F	DN125	16	6500	5070	2730	1150	1150	1300	-



TAC



TAC F

quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	-
quality class - oils (ISO 8573-1)	0/1
pressure drop - new element-dry [mbar / psi]	20 / 0,29
filter media	act. carbon
residual oil vapour content (nominal) [mg/m³]	<0,003

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,0	2,13

CORRECTION FACTORS						
Operating temperature [°C]	20	25	30	35	40	45
Correction factor	1	0,98	0,97	0,92	0,86	0,75

Replace activated carbon every 12 months or sooner if required. Check residual oil content with oil indicator monthly.

TAC HP SERIES

HIGH PRESSURE ACTIVATED CARBON TOWER

50/100/250/400 bar
operating pressure

1,5 to 45°C
inlet air temperature range

3/8" to 1/2"
connections

50 to 1600 Nm³/h
flow rate

RAL 9005
standard colour

DESCRIPTION

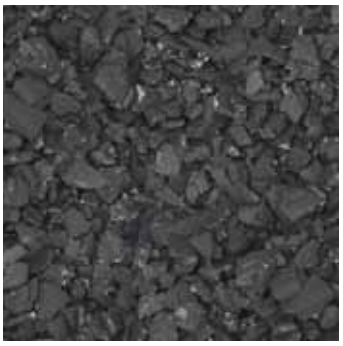
TAC HP activated carbon towers have been developed for separating oil vapours from compressed air (dry type separation). TAC HP series is made from high quality carbon steel. Flow distributors ensure uniform distribution of air flow through activated carbon bed.

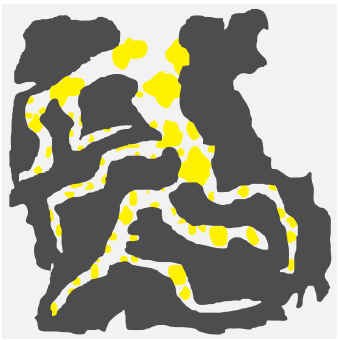
Oil vapours as well as some other hydrocarbons are separated due to adsorption process. Super fine coalescing filter is required ustream TAC HP and 1 µm dust filter is recommended downstream to intercept activated carbon dust.

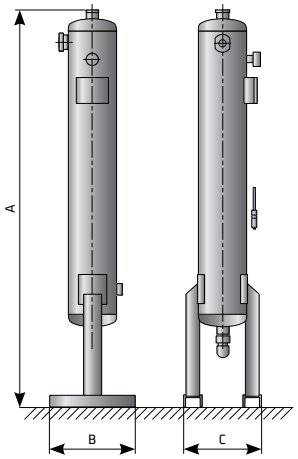
APPLICATIONS

- Automotive
- Electronics
- Food & beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

TECHNICAL DATA								
Type	Connection size	Operating pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]			Mass
	inch	bar	Nm³/h	scfm	A	B	C	kg
TAC HP 50 PN50	3/8"	50	50	49	1200	340	580	52
TAC HP 100 PN50	3/8"		100	97	1250	340	580	60
TAC HP 150 PN50	3/8"		150	146	1550	340	580	68
TAC HP 250 PN50	3/8"		250	243	1700	410	700	104
TAC HP 350 PN50	1/2"		350	340	1700	410	700	128
TAC HP 500 PN50	1/2"		500	485	1920	410	700	164
TAC HP 650 PN50	1/2"		650	631	2250	410	700	184
TAC HP 50 PN100	3/8"	100	50	49	1250	340	580	50
TAC HP 100 PN100	3/8"		100	97	1350	340	580	68
TAC HP 150 PN100	3/8"		150	146	1650	340	580	80
TAC HP 250 PN100	3/8"		250	243	1550	340	600	84
TAC HP 350 PN100	1/2"		350	340	1460	410	680	108
TAC HP 500 PN100	1/2"		500	485	1700	410	680	116
TAC HP 650 PN100	1/2"		650	631	1800	410	700	152
TAC HP 800 PN100	1/2"		800	776	1850	410	680	192
TAC HP 50 PN250	3/8"	250	50	49	1000	340	450	38
TAC HP 100 PN250	3/8"		100	97	1360	340	450	54
TAC HP 150 PN250	3/8"		150	146	1600	340	450	58
TAC HP 250 PN250	3/8"		250	243	1500	340	450	72
TAC HP 350 PN250	1/2"		350	340	1500	410	650	120
TAC HP 500 PN250	1/2"		500	485	1500	410	650	112
TAC HP 650 PN250	1/2"		650	631	1500	410	650	160
TAC HP 800 PN250	1/2"		800	776	1550	410	650	184
TAC HP 1000 PN250	1/2"		1000	970	1600	410	650	232
TAC HP 1200 PN250	1/2"		1200	1164	1550	410	700	248
TAC HP 1400 PN250	1/2"		1400	1358	1650	410	700	260
TAC HP 100 PN400	3/8"	400	100	97	1120	340	450	48
TAC HP 150 PN400	3/8"		150	146	1360	340	450	54
TAC HP 250 PN400	3/8"		250	243	1450	340	580	76
TAC HP 350 PN400	1/2"		250	340	1350	410	580	108
TAC HP 500 PN400	1/2"		500	485	1380	410	650	124
TAC HP 650 PN400	1/2"		650	631	1450	410	650	176
TAC HP 800 PN400	1/2"		800	776	1230	410	650	170
TAC HP 1000 PN400	1/2"		1000	970	1450	410	650	240
TAC HP 1200 PN400	1/2"		1200	1164	1450	500	900	340
TAC HP 1400 PN400	1/2"		1400	1358	1500	500	900	320
TAC HP 1600 PN400	1/2"		1600	1552	1450	500	900	480







CORRECTION FACTORS - OPERATING PRESSURE - HP-TAC PN50						
Operating pressure [bar]	25	30	35	40	45	50
Operating pressure [psi]	363	435	508	580	653	725
Correction factor C_{OP}	0,51	0,61	0,71	0,81	0,9	1

CORRECTION FACTORS - OPERATING PRESSURE - HP-TAC PN100						
Operating pressure [bar]	50	60	70	80	90	100
Operating pressure [psi]	725	870	1015	1160	1305	1450
Correction factor C_{OP}	0,5	0,6	0,7	0,8	0,9	1

CORRECTION FACTORS - OPERATING PRESSURE - HP-TAC PN250						
Operating pressure [bar]	110	130	160	190	220	250
Operating pressure [psi]	1595	1885	2320	2755	3190	3625
Correction factor C_{OP}	0,44	0,52	0,64	0,76	0,88	1

CORRECTION FACTORS - OPERATING PRESSURE - HP-TAC PN400							
Operating pressure [bar]	250	275	300	325	350	375	400
Operating pressure [psi]	3625	3990	4350	4715	5075	5440	5800
Correction factor C_{OP}	0,63	0,69	0,75	0,81	0,88	0,94	1

CORRECTION FACTORS - OPERATING TEMPERATURE						
Operating temperature [°C]	20	25	30	35	40	45
Correction factor	1	0,98	0,97	0,92	0,86	0,75

Replace activated carbon every 12 months or sooner if required. Check residual oil content with oil indicator monthly.

A-CAT SERIES

OIL VAPOURS CATALYSATOR

4 to 11 bar
operating pressure

1,5 to 55°C
inlet air temperature range

DN15 to DN100
connections

100 to 2500 Nm³/h
flow rate

DESCRIPTION

A-CAT is designed for obtaining oil free compressed air from oil-contaminated air - according to standard ISO 8573-1. A-CAT converter guarantees oil free compressed air using catalyst material that ensures total degradation of oil. During the process of oil removal, clean water and CO_2 is produced which are suitable for disposal with no additional processing. Higher oil concentrations does not affect catalyst durability and efficiency.

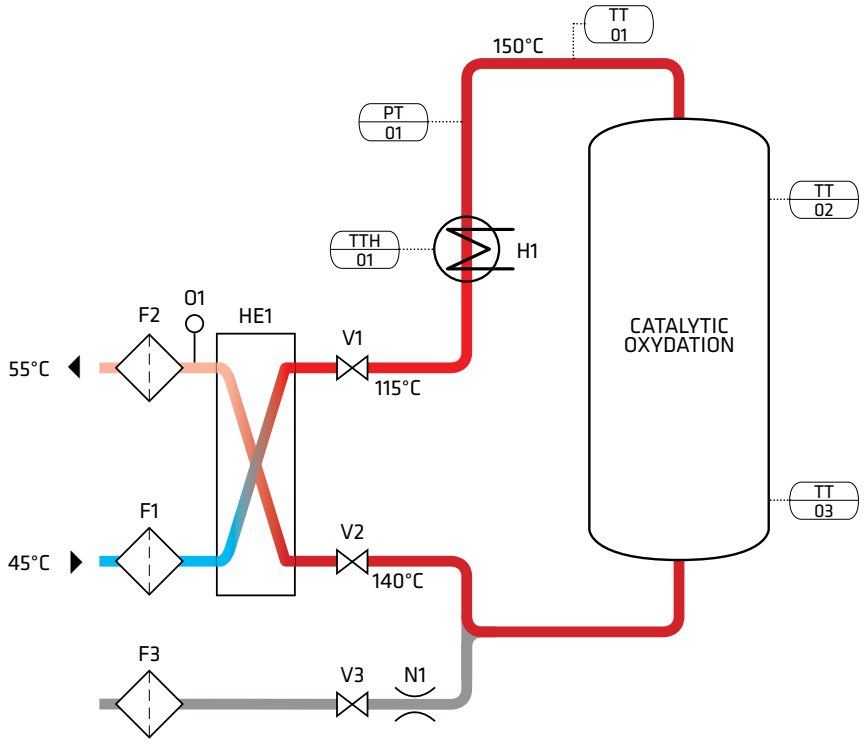
A-CAT is installed on oil-lubricated compressor's outlet pipe. Compressed air flows through a plate heat exchanger and pipe electric heater. Pre-heated compressed air than enters the converter vessel filled with catalyst material. At the bottom, oil free compressed air leaves the converter vessel and flows through the plate heat exchanger again, where it cools down with cold incoming compressed air. After the oil free air is cooled down, it can be used in further applications.

APPLICATIONS

- Food industry
- Chemical industry
- Automotive industry
- PET blowing
- Breathing air







TECHNICAL DATA			
Model	Connection	Inlet flow rate [1]	Heater power
	In/Out	Nm³/h	kW
A-CAT 100	DN15	100	1,5
A-CAT 200	DN25	200	3
A-CAT 300	DN32	300	4
A-CAT 400	DN40	400	5
A-CAT 600	DN50	600	7,5
A-CAT 800	DN50	800	11
A-CAT 1100	DN65	1100	15
A-CAT 1500	DN80	1500	20
A-CAT 2000	DN100	2000	25
A-CAT 2500	DN100	2500	32

[1]Refers to 1bar(a) and 20°C at 7 bar operating pressure, inlet temperature 35°C.

SORBEO

ADSORBENTS

DESCRIPTION

SORBEO type adsorbents are highly porous materials suitable for use in many adsorption applications. Adsorbents are available in several pack sizes.
For detail specification please refer to technical data sheet of specific adsorbent.

APPLICATIONS

- Adsorption dryers

SORBEO MS 3A - Molecular sieve

Adsorbent SORBEO MS3 is a highly porous, crystalline aluminosilicate in beaded form. The pore openings in the crystals have a diameter of approximately 3 Å. Adsorbent has been specially designated for drying of ethylene in cracked gas units. Also, propylene, butadiene and other unsaturated hydrocarbons are dried using this molecular sieve. Adsorbent is also used in **drying of gases containing H_2S and CO_2** where COS formation has to be minimized.

Model	Shape	Bulk density	Package	Mass
SORBEO MS3-S	Granulate 2,5mm - 5,0mm	0,7 kg/l	5,8 L container	4 kg
SORBEO MS3-M			16,6 L container	11,5 kg
SORBEO MS3-L			35,4 L container	24 kg
SORBEO MS3-XL			216,5 L barrel	150 kg
SORBEO MS3-XXL			4 x barrel	600 kg

SORBEO MS 4A - Molecular sieve

Adsorbent SORBEO MS4 is a highly porous, crystalline aluminosilicate in beaded form. The pore openings in the crystals have a diameter of approximately 4 Å. SORBEO MS4 is a product for dynamic drying of most gases and vapors. It can also be used to remove other impurities with effective molecule diameters smaller than 4 Å. Typical applications for SORBEO MS4 adsorbent are **drying/purification of natural gas, reformer gas and air**.

Model	Shape	Bulk density	Package	Mass
SORBEO MS4-S	Granulate 2,5mm - 5,0mm	0,7 kg/l	5,8 L container	4 kg
SORBEO MS4-M			16,6 L container	11,5 kg
SORBEO MS4-L			35,4 L container	24 kg
SORBEO MS4-XL			220 L barrel	150 kg
SORBEO MS4-XXL			Big bag	800 kg

SORBEO MS 10A - Molecular sieve

Adsorbent SORBEO MS10 is a highly porous, crystalline aluminosilicate in beaded form. The pore openings in the crystals have a diameter of approximately 10 Å. Due to its high capacity for water and CO_2 this molecular sieve is widely used for **air purification in cryogenic air separation plants**. It is also applied in the **removal of H2S/mercaptans and other sulphur compounds** from natural gas and LPG.

Model	Shape	Bulk density	Package	Mass
SORBEO MS10-S	Granulate 2,5mm - 5,0mm	0,64 kg/l	5,8 L container	3,5 kg
SORBEO MS10-M			16,6 L container	10,5 kg
SORBEO MS10-L			35,4 L container	22 kg
SORBEO MS10-XL			216,5 L barrel	130 kg
SORBEO MS10-XXL			4x barrel	520 kg

SORBEO AA - Activated Alumina

Adsorbent SORBEO AA is a smooth sphere of activated alumina. It is a desiccant for drying a wide variety of liquids and gases. Although all molecules are adsorbed to some extent on activated alumina, those molecules having the highest polarity are preferentially absorbed. SORBEO AA can be used as **adsorbent in adsorption dryers, acid removal originating from lubricating oils and refrigerants, process stream purification/removal of highly polar compounds**.

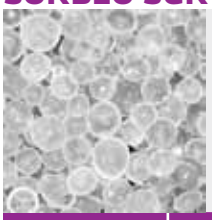
Model	Shape	Bulk density	Package	Mass
SORBEO AA-S	Granulate 2,0mm - 5,0mm	0,77 kg/l	5,8 L container	4 kg
SORBEO AA-M			16,6 L container	12 kg
SORBEO AA-L			35,4 L container	27 kg
SORBEO AA-XL			220 L barrel	170 kg
SORBEO AA-XXL			Big bag	907 kg

SORBEO SGW - Silica Gel

Water resistant adsorbent SORBEO SGW is a wide pore, beaded form of silica gel. It is a buffer adsorbent used to protect adsorbent beds. SGW exhibits a high water capacity under conditions of high relative humidity and in particular when water is present in the liquid phase. It also has a high capacity for liquid hydrocarbons and other organic liquids. It is used as a **buffer layer in molecular sieve and silica gel beds** which may be subject to occasional liquid carryover.

Model	Shape	Bulk density	Package	Mass
SORBEO SGW-S	Granulate 2,0mm - 5,0mm	0,45 kg/l	5,8 L container	2,5 kg
SORBEO SGW-M			16,6 L container	7 kg
SORBEO SGW-L			35,4 L container	15 kg
SORBEO SGW-XL			220 L barrel	100 kg
SORBEO SGW-XXL			4x barrel	400 kg

SORBEO SGR - Silica Gel



Adsorbent SORBEO SGR is a narrow pore, beaded form of silica. SORBEO SGR consists of relatively large beads and is used in a wide variety of drying and purification processes. Main applications are in **dynamic drying and hydrocarbon dew point control of Natural Gas, drying of other gases and liquids in refining and petrochemical processes, and in air drying**. Beaded silica gels are specifically suitable, when dust and attrition are critical in application.

Model	Shape	Bulk density	Package	Mass
SORBEO SGR-S	Granulate 2,0mm - 5,0mm	0,7 kg/l	5,8 L container	4 kg
SORBEO SGR-M			16,6 L container	11,5 kg
SORBEO SGR-L			35,4 L container	24 kg
SORBEO SGR-XL			220 L barrel	150 kg
SORBEO SGR-XXL			Big bag	500 kg

SORBEO AC - Activated Carbon

Activated carbon packages can purify compressed air and gases by means of an adsorptive process and is mainly used for separating oil vapors from compressed air flows.
Activated carbon can be used for other applications according to its specifications at any time. Typical applications for activated carbon are **purification of natural gas, reformer gas and air**.

Model	Shape	Bulk density	Package	Mass
SORBEO AC-S	Pellets 3 mm	0,47 kg/l	5,8 L container	2,7 kg
SORBEO AC-M			16,6 L container	7,8 kg
SORBEO AC-L			35,4 L container	16,5 kg
SORBEO AC-XL			220 L barrel	103 kg

SORBEO HC - Catalyst

Catalyst SORBEO HC is intended for catalytic oxidation of CO to CO_2 in dry air or other gases. In this way poisonous CO is removed and CO_2 is generated instead.
This process is used in applications such as **compressed breathing air, respirators, escape masks and cryogenic gas purification**.

Model	Shape	Bulk density	Package	Mass
SORBEO HC-S	Granulate 3 mm	0,9 kg/l	5,8 L container	5 kg
SORBEO HC-M			16,6 L container	14 kg
SORBEO HC-L			35,4 L container	31 kg
SORBEO HC-XL			220 L barrel	190 kg

SORBEO CMS - Carbon Molecular Sieve

Sorbeo CMS is pelletised form carbon molecular sieve CMS is mainly used to separate N_2 from air but is can also be used in many other applications (separating methane from methane / CO_2 mixture or ethylene from ethylene mixture gasses...). Typical applications for activated carbon are **Oxygen/ Nitrogen separation**.

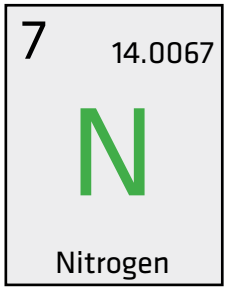
Model	Shape	Bulk density	Package	Mass
SORBEO CMS-S	Pellets 1,8 ± 0,2 mm	0,68 -0,73 kg/l	5,8 L container	4,0 kg
SORBEO CMS-M			16,6 L container	11 kg
SORBEO CMS-L			35,4 L container	24 kg
SORBEO CMS-XL			220 L barrel	137 kg

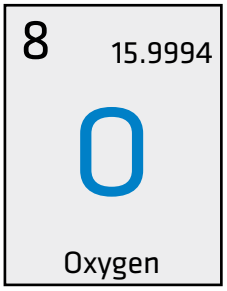
SORBEO SGC - Silica gel

Adsorbent SORBEO SGC is a beaded silica gel with very high mechanical integrity. It meets the demand for a heavy-metal free and environmental friendly indicating agent. Sorbeo SGC provides safe moisture indication without any concerns regarding carcinogenic ingredients. It also provides superior moisture indication with a crisp color change. Typical applications are **transformer air breathers as well as other breather filters, laboratory uses, packaging of moisture sensitive goods and many others.**

Model	Shape	Bulk density	Package	Mass
SORBEO SGC-S	Granulate 2-5 mm	0,8 kg/l	5,8 L container	4 kg
SORBEO SGC-M			16,6 L container	11,5 kg
SORBEO SGC-L			35,4 L container	24 kg
SORBEO SGC-XL			220 L barrel	150 kg

GENERATORS





NITROGEN BASICS

- Inert, Colourless, Odourless and Tasteless Gas
- Nitrogen does not enter in chemical Reactions
- Nitrogen prevents oxygen access:
  - for oxidation of metals, polymers and chemicals,
  - for bacteriological growth (foodstuffs & beverage)
  - to reduces the risk of combustion and explosion (chemicals, reactions, processes)
- Source of Nitrogen
  - LIN = Liquid Nitrogen, GAN = Gaseous Nitrogen

OXYGEN BASICS

- Reactive, Colourless, Odourless and Tasteless Gas
- Reacts with with most of the chemical elements
- Necessary for most living organisms and for Combustion Processes
  - Injection in water (fish farms, waste water treatment plants)
  - Achieving high temperatures (glass blowing, metal cutting and production)
  - Healthcare applications (hospitals, veterinary clinics)
- Source of Oxygen
  - LOX = Liquid Oxygen, GOX = Gaseous Oxygen

GENERATORS		Pressure	Capacity	Dew point	Page
N-GEN	PSA nitrogen generators	10 bar	3 - 442 Nm^3/h		174
O-GEN	PSA oxygen generators	10 bar	1 - 95 Nm^3/h		176


1
2
3
4

N-GEN SERIES

PSA NITROGEN GENERATORS

6-10 bar
operating pressure

5 to **35** °C
operating temperature range

up to **40** °C
ambient air temperature range

< -40 °C
dew points (atmospheric)

3 to **442,5** Nm³/h
capacity

up to **99,999** %
purity

DESCRIPTION

The N-GEN nitrogen generators extract the available nitrogen in the ambient air from the other gases by applying the Pressure Swing Adsorption (PSA) technology.

During the PSA process compressed, cleaned ambient air is led to a molecular sieve bed, which allows the nitrogen to pass through as a product gas, but adsorbs other gases. The sieve releases the adsorbed gases to the atmosphere, when the outlet valve is closed and the bed pressure returns to ambient pressure.

Subsequently the bed will be purged with nitrogen before fresh compressed air will enter for a new production cycle. In order to guarantee a constant product flow NG nitrogen generators use two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

APPLICATIONS

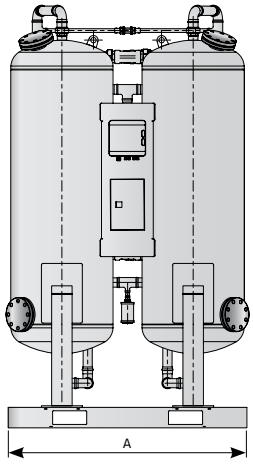
- Blanketing of Chemicals
- Pharmaceuticals
- Gas Assisted Injection Moulding (GAIM)
- Heat Treatment of Ferrous & Non-Ferrous Metals
- Inerting of Flammable Liquids
- Laser Cutting
- Prevention of Dust Explosions
- Re-flow and Wave Soldering of PCBs
- UV-Curing of Coatings
- Food processing

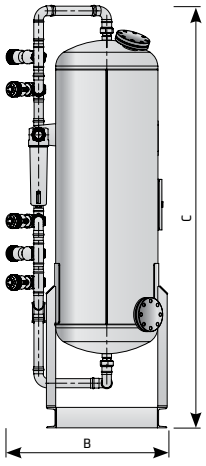
STANDARD EQUIPMENT

- Set of External Feed Air Filters
- Adsorber Vessels in Carbon Steel
- Long life Pneumatic Valves
- Internal Piping & Fittings zinc plated carbon steel
- Nitrogen flow Regulation
- Control System with SIEMENS PLC
- WebControl

OPTIONAL EQUIPMENT

- Oxygen Analyser with Zirconium-Oxide Sensor
- Electronic Product Flow Meter
- Feed Air / Product Moisture Analyser
- Feed Air / Product Pressure Transmitters
- Feed Air / Product Temperature Transmitters
- Nitrogen Sterile Filters
- Nitrogen Booster
- Nitrogen Cylinder Filling System





TECHNICAL DATA						
Type	Connection		Dimensions [mm]			Mass
	In	Out	A	B	C	kg
N-GEN 03	1/2"	1/2"	635	530	1650	110
N-GEN 05	1/2"	1/2"	635	530	1650	130
N-GEN 10	1/2"	1/2"	685	530	1650	190
N-GEN 15	1/2"	1/2"	795	545	1655	230
N-GEN 20	1"	1/2"	795	585	1920	295
N-GEN 25	1"	1/2"	845	660	1975	410
N-GEN 35	1"	1/2"	1040	780	2005	585
N-GEN 50	1"	1/2"	1040	795	2250	740
N-GEN 65	2"	1/2"	1150	795	2335	835
N-GEN 100	2"	1"	1425	945	2480	1260
N-GEN 150	2"	1"	1650	1100	2550	1590
N-GEN 200	2"	1"	1805	1160	2615	1905
N-GEN 250	3"	1"	2020	1190	2780	2430
N-GEN 300	3"	2"	2255	1280	2780	2810
N-GEN 400	3"	2"	2720	1470	2880	3640

PERFORMANCE										
Type		Discharge pressure	Discharge pressure	Residual Oxygen [vol. %]						
		barg	barg	3	2	1	0,5	0,1	0,01	0,001
				Residual Nitrogen [vol. %]						
				96,00	96,97	97,87	98,17	98,47	-(1)	-(1)
				Residual Argon [vol. %]						
				1,00	1,03	1,13	1,33	1,43	-(1)	-(1)
				Total inert gas purity [vol. %]						
				97	98	99	99,5	99,9	99,99	99,999*
N-GEN 03	N_2 flow [Nm³/h]	7,5	6,2	5,23	4,27	3,62	3,00	1,99	0,99	0,61
	Feed air consumption [Nm³/h]			13,4	12,2	11,4	10,4	8,4	6,1	5,5
N-GEN 05	N_2 flow [Nm³/h]	7,5	6,2	9,0	7,4	6,2	5,2	3,4	1,7	1,1
	Feed air consumption [Nm³/h]			23,2	21,0	19,7	18,0	14,5	10,5	9,5
N-GEN 10	N_2 flow [Nm³/h]	7,5	6,2	15,2	12,4	10,5	8,7	5,8	2,9	1,8
	Feed air consumption [Nm³/h]			38,9	35,3	33,0	30,2	24,3	17,6	15,9
N-GEN 15	N_2 flow [Nm³/h]	7,5	6,2	24,1	19,7	16,7	13,8	9,2	4,6	2,8
	Feed air consumption [Nm³/h]			61,8	56,1	52,5	48,0	38,6	28,0	25,3
N-GEN 20	N_2 flow [Nm³/h]	7,5	6,2	30,2	24,6	20,9	17,3	11,5	5,7	3,5
	Feed air consumption [Nm³/h]			77,3	70,3	65,6	60,1	48,3	35,1	31,6
N-GEN 25	N_2 flow [Nm³/h]	7,5	6,2	42,7	34,8	29,5	24,5	16,2	8,1	4,9
	Feed air consumption [Nm³/h]			109,4	99,4	92,8	85,0	68,4	49,6	44,7
N-GEN 35	N_2 flow [Nm³/h]	7,5	6,2	67,4	55,0	46,6	38,6	25,6	12,8	7,9
	Feed air consumption [Nm³/h]			172,7	156,9	146,6	134,2	107,9	78,3	70,6
N-GEN 50	N_2 flow [Nm³/h]	7,5	6,2	87,4	71,3	60,4	49,9	33,2	16,6	10,2
	Feed air consumption [Nm³/h]			224,0	203,5	190,1	173,4	140,0	101,6	91,6
N-GEN 65	N_2 flow [Nm³/h]	7,5	6,2	111,9	91,4	77,4	64,2	42,6	21,2	13,1
	Feed air consumption [Nm³/h]			286,9	260,6	243,5	223,0	179,3	130,1	117,3
N-GEN 100	N_2 flow [Nm³/h]	7,5	6,2	192,9	157,5	133,5	110,6	73,4	36,6	22,5
	Feed air consumption [Nm³/h]			494,5	449,3	419,7	384,4	309,1	224,3	202,2
N-GEN 150	N_2 flow [Nm³/h]	7,5	6,2	259,4	211,8	179,5	148,7	98,7	49,1	30,2
	Feed air consumption [Nm³/h]			664,9	604,1	564,3	516,9	415,6	301,6	271,9
N-GEN 200	N_2 flow [Nm³/h]	7,5	6,2	354,3	289,2	245,0	203,1	134,8	67,2	41,3
	Feed air consumption [Nm³/h]			907,9	824,8	770,6	705,8	567,5	411,8	371,3
N-GEN 250	N_2 flow [Nm³/h]	7,5	6,2	434,1	354,4	300,3	248,9	165,1	82,3	50,6
	Feed air consumption [Nm³/h]			1112,6	1010,8	944,3	864,9	695,4	504,6	455,0
N-GEN 300	N_2 flow [Nm³/h]	7,5	6,2	590,9	482,4	408,7	338,8	224,8	112,0	68,9
	Feed air consumption [Nm³/h]			1514,3	1375,8	1285,3	1177,2	946,5	686,9	619,3
N-GEN 400	N_2 flow [Nm³/h]	7,5	6,2	771,8	630,0	533,8	442,5	293,6	146,3	90,0
	Feed air consumption [Nm³/h]			1977,9	1797,0	1678,8	1537,6	1236,3	897,1	808,9

* On request

(1) For concentrations at higher purity please contact manufacturer.

All flow rates valid for generator operation at ambient conditions 20 °C, 1.013,25 mbar and 60% RH.

Performance ±5%.

O-GEN SERIES

PSA OXYGEN GENERATORS

10 barg
operating pressure

5 to 35 °C
operating temperature range

up to 45 °C
ambient air temperature range

-60 °C
dew points (atmospheric)

1,02 to 94,9 Nm³/h
capacity

up to 95 %
purity

DESCRIPTION

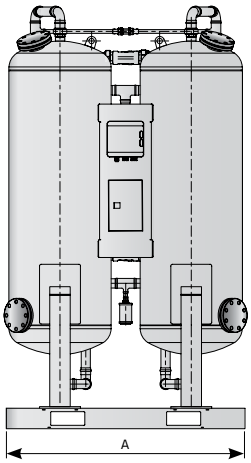
The O-GEN series oxygen generators extract the available oxygen in the ambient air from the other gases by applying the Pressure Swing Adsorption (PSA) technology. During the PSA process compressed, cleaned ambient air is led to a molecular sieve bed, which allows the oxygen to pass through as a product gas, but adsorbs other gases. The sieve releases the adsorbed gases to the atmosphere, when the outlet valve is closed and the bed pressure returns to ambient pressure. Subsequently the bed will be purged with oxygen before fresh compressed air will enter for a new production cycle. In order to guarantee a constant product flow, O-GEN oxygen generators use modules of two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase. Under normal operating conditions and with correct maintenance the molecular sieve beds will have an almost indefinite lifetime.

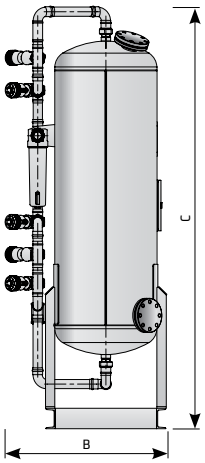
APPLICATIONS

- Aquaculture
- Feed Gas for Ozone Generators
- Glass blowing
- Leaching
- NOx Reduction for Fuel Burners
- Oxygen Lancing
- Welding, Brazing
- Wellness

STANDARD EQUIPMENT

- Set of External Feed Air Filters
- Adsorber Vessel in Carbon Steel
- Long life Pneumatic Valves
- Internal Piping & Fittings in SS316
- Exhaust Mufflers
- Air and Oxygen flow Regulation
- Control System with SIEMENS PLC
- WebControl
- Pressure Transmitter for Automated Idle-Mode





OPTIONAL EQUIPMENT

- Oxygen Analyzer with Zirconium-Oxide Sensor
- Electronic Product Flow Meter
- Feed Air / Product Moisture Analyser
- Oxygen Booster with Cylinder Filling System
- Feed Air / Product Temperature Transmitters
- Touch screen or Semi-Graphical Operator Interface
- Sterile Filters

(1) Purity according to the Oxygen 93 Monograph of European Pharmacopoeia 7.1 and USP 23 and conform ISO 10083 standard.
Flow rates at standard atmospheric conditions (20 °C / 70 °F, 1013 mbar / 14,7 psi and 60% RH).
Performance +/- 5%.

TECHNICAL DATA

Type	Connection		Dimensions [mm]			Mass
	In	Out	A	B	C	kg
O-GEN 01	1/2''	1/2''	635	530	1650	130
O-GEN 02	1/2''	1/2''	685	530	1650	190
O-GEN 03	1/2''	1/2''	795	545	1655	230
O-GEN 04	1/2''	1/2''	795	585	1920	295
O-GEN 05	1/2''	1/2''	845	660	1975	410
O-GEN 06	1/2''	1/2''	950	720	2005	500
O-GEN 08	1/2''	1/2''	1040	780	2005	585
O-GEN 10	1''	1/2''	1100	780	2150	730
O-GEN 13	1''	1/2''	1150	795	2335	835
O-GEN 16	1''	1/2''	1250	850	2380	980
O-GEN 20	1''	1/2''	1330	890	2420	1120
O-GEN 23	1 1/4''	1/2''	1425	945	2480	1260
O-GEN 29	1 1/4''	1/2''	1550	1030	2520	1350
O-GEN 35	1 1/2''	1/2''	1680	1090	2580	1395
O-GEN 44	1 1/2''	1/2''	1805	1160	2615	1459
O-GEN 50	2''	1/2''	1900	1180	2680	1553
O-GEN 57	2''	1/2''	2070	1210	2720	1685
O-GEN 64	2''	1/2''	2180	1250	2750	1810
O-GEN 75	2''	1/2''	2255	1280	2780	1937
O-GEN 84	2 1/2''	1''	2480	1370	2850	2560
O-GEN 100	2 1/2''	1''	2720	1470	2880	3640

PERFORMANCE

Type		Inlet press. [barg]	Dischar. p. [barg]	Oxygen purity [%]		
				90	93[1]	95
O-GEN 01	O_2 flow [Nm³/h]	7,5	6,1	1,07	1,02	0,97
			Feed air consumption [Nm³/h]	11,6	11,4	11,3
O-GEN 02	O_2 flow [Nm³/h]	7,5	6,1	1,80	1,71	1,63
			Feed air consumption [Nm³/h]	19,6	19,3	19,0
O-GEN 03	O_2 flow [Nm³/h]	7,5	6,1	2,88	2,75	2,62
			Feed air consumption [Nm³/h]	31,4	30,9	30,4
O-GEN 04	O_2 flow [Nm³/h]	7,5	6,1	3,56	3,40	3,24
			Feed air consumption [Nm³/h]	38,8	38,2	37,6
O-GEN 05	O_2 flow [Nm³/h]	7,5	6,1	5,07	4,84	4,61
			Feed air consumption [Nm³/h]	55,2	54,4	53,6
O-GEN 06	O_2 flow [Nm³/h]	7,5	6,1	6,50	6,21	5,92
			Feed air consumption [Nm³/h]	70,9	69,8	68,7
O-GEN 08	O_2 flow [Nm³/h]	7,5	6,1	8,11	7,74	7,38
			Feed air consumption [Nm³/h]	88,4	87,1	85,7
O-GEN 10	O_2 flow [Nm³/h]	7,5	6,1	10,00	9,55	9,10
			Feed air consumption [Nm³/h]	109,0	107,4	105,7
O-GEN 13	O_2 flow [Nm³/h]	7,5	6,1	13,29	12,69	12,09
			Feed air consumption [Nm³/h]	144,8	142,7	140,5
O-GEN 16	O_2 flow [Nm³/h]	7,5	6,1	16,00	15,28	14,56
			Feed air consumption [Nm³/h]	174,4	171,8	169,2
O-GEN 20	O_2 flow [Nm³/h]	7,5	6,1	19,50	18,62	17,75
			Feed air consumption [Nm³/h]	212,6	209,4	206,2
O-GEN 23	O_2 flow [Nm³/h]	7,5	6,1	23,28	22,23	21,19
			Feed air consumption [Nm³/h]	253,8	250,0	246,1
O-GEN 29	O_2 flow [Nm³/h]	7,5	6,1	29,0	27,7	26,39
			Feed air consumption [Nm³/h]	316,1	311,4	306,6
O-GEN 35	O_2 flow [Nm³/h]	7,5	6,1	35,0	33,43	31,85
			Feed air consumption [Nm³/h]	381,5	375,8	370,1
O-GEN 44	O_2 flow [Nm³/h]	7,5	6,1	43,77	41,8	39,83
			Feed air consumption [Nm³/h]	477,0	469,9	462,7
O-GEN 50	O_2 flow [Nm³/h]	7,5	6,1	50,0	47,75	45,5
			Feed air consumption [Nm³/h]	545,0	536,8	528,7
O-GEN 57	O_2 flow [Nm³/h]	7,5	6,1	57,0	54,44	51,87
			Feed air consumption [Nm³/h]	621,3	612,0	602,7
O-GEN 64	O_2 flow [Nm³/h]	7,5	6,1	64,0	61,12	58,24
			Feed air consumption [Nm³/h]	697,6	687,1	676,7
O-GEN 75	O_2 flow [Nm³/h]	7,5	6,1	74,92	71,54	68,17
			Feed air consumption [Nm³/h]	816,6	804,3	792,1
O-GEN 84	O_2 flow [Nm³/h]	7,5	6,1	84,0	80,22	76,44
			Feed air consumption [Nm³/h]	915,6	901,9	888,1
O-GEN 100	O_2 flow [Nm³/h]	7,5	6,1	99,4	94,93	90,46
			Feed air consumption [Nm³/h]	1083,5	1067,3	1051,0

MEASURING EQUIPMENT

Compressed air is one of the most common but also one of the most expensive energy sources in industry. Quality and energy efficient air compressor is definitely the most important component of every compressed air system but without appropriate air treatment and measuring equipment it is not possible to provide quality and low cost compressed air.

Stable product quality, process optimization and energy savings are just some of the reasons why measuring equipment is becoming essential part of todays compressed air/gas systems. Type and number of sensors depend on specific application but the most common are pressure, flow and dew point sensors.

MEASURING EQUIPMENT		Pressure	Capacity	Dew point	Page
OS 330, OS 331	Display / data logger				180
OS 215, OS 220	Dew point sensor	50 bar			181
OS 400, OS 420	Economic flow / consumption sensor	50 bar			182
OS 16, OS 40	Pressure sensor	16, 40 bar			183
OS TS	Temperature sensor				183
OS 120	Residual oil sensor	3 to 15 bar			184
OS 130	Laser particle counter	3 to 8 bar			185
OS 600	Compressed air purity analyzer	3 to 15 bar			186
OS 551 - P6 set	Pressure data logger, flow, dew point, pressure sensors				187
OS 530	Portable leak detector for pressurized systems				188
OS 505 set	Portable dew point sensor	-1 to 15 bar			189


OMEGA
AIR
Graphic
Value
Menu

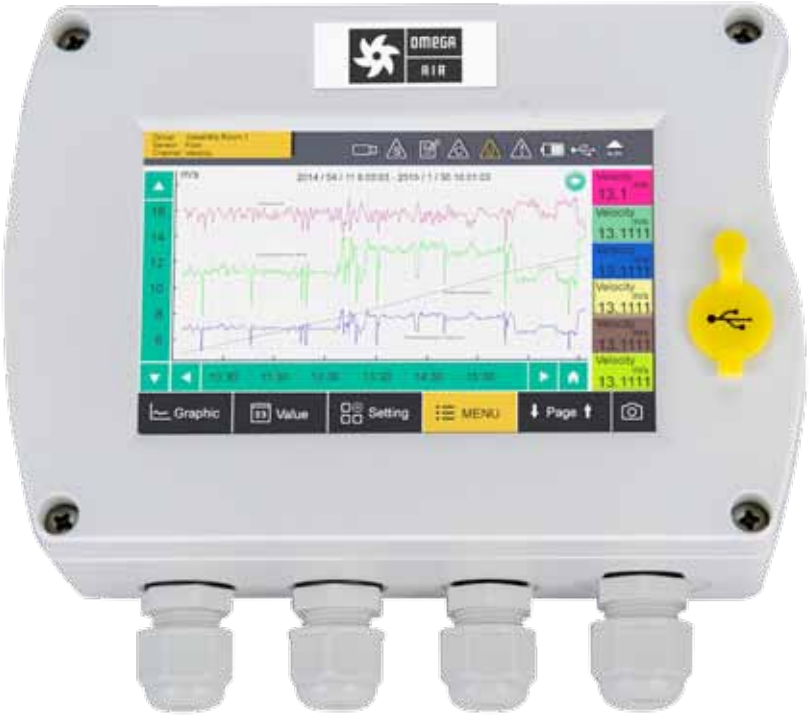
OS 330 & OS 331

DISPLAY / DATA LOGGER

5" touch display
display

2 digital inputs
digital inputs

2 analog inputs (option)
analog inputs



DESCRIPTION

The OS 330/331 is a very powerful yet cost effective new data logger and display solution. The high resolution 5" graphic display allows an easy operation where details are much sharper shown compared to many of the smaller low resolution displays.

The USB port works as a slave in combination with a PC, but also as a master when recorded data has to be transferred to a USB stick. It's versatility in regards of sensor inputs makes it a perfect solution for most measurement tasks.

APPLICATIONS

• General compressed air systems

	OS 330	OS 331
Casing	Size: 120 x 173 x 67 mm Protection class: IP65	
Display size	5" (Resolution: 800 x 480)	
Power supply	110 / 230 VAC	
Ambient temperature	0 to 50 °C	
Sensor inputs	2 inputs 4.200 mA (digital) 2 inputs for analog sensors - optional	
Communication interface	RS-485, Ethernet, USB	
Alarm	Red flashing display for preset alarm limit 2 alarm relay outputs	
Data logger (OS 331 only)	100 million values	
Sampling rate	1/s	
Accuracy	See sensor specification	
Included	Wall mountable casing	Wall mountable casing Internal data logger USB cable OSM-S Software for data analysis (requires internet connection)

NOTE: Power supply cable is not included.

OS 215 & OS 220

DEW POINT SENSOR

Option: OS MC - Measuring chamber

-20 to 50°C (OS 215)
-100 to 0°C (OS 220)
dew point measuring range

0 to 99,9%
relative humidity measuring range

-30 to 70°C
temperature measuring range

DESCRIPTION

The dew point sensors OS 215/OS 220 provides reliable and long term stable dew point monitoring in industrial applications.

With these models dew point measurement in refrigerant dryers becomes affordable and can replace traditional temperature measurement which often couldn't tell the real dew point. OS 215/OS 220 outputs the measurement value through the loop powered 4-20 mA signal.

	OS 215	OS 220
APPLICATION:	Refrigeration dryers	Adsorption & Refrigeration dryers
Measuring range	Dew point: –20 to 50 °C Relative humidity: 0 to 99,9 % Temperature: -30 to 70 °C	Dew point: –100 to 0 °C Relative humidity: 0 to 99,99 % Temperature: -30 to 70 °C
Pressure range	–1 to 50 bar	0 to 16 bar
Accuracy	Dew point: ± 2 °C	
Response time t90	0 to –20 °C: 30 sec –20 to 0 °C: 10 sec	-80 to -20 °C: 20 sec -20 to -80 °C: 180 sec
Connection	M12, 5 pole	
Process connection	G 1/2" BSP	
Output signal	4 to 20 mA (digital), 2-wire	4 to 20 mA (digital), 3-wire or loop powered (2-wire)
Ambient temperature	-20 to 50 °C	0 to 50 °C
Protection class	IP65	
Casing	Process connection: stainless steel Casing: Zinc alloy	
Included	Power cable with M12 connector (for connection to external display)	

APPLICATIONS

- General compressed air systems
- Compressed air dryers and sensitive equipment
- Plastic injection process resin drying
- Blow moulding process
- Medical gases in hospitals

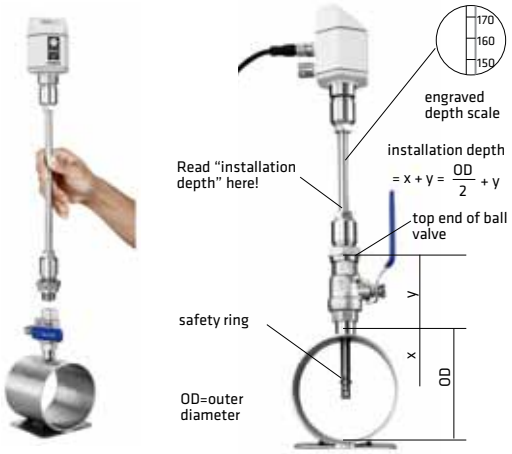
OS 400 & OS 420

ECONOMIC FLOW / CONSUMPTION SENSOR

up to 16bar
operating pressure

1/4" to DN250
tube diameters

-30 to 70°C
ambient temperature



OS 400 insertion type - installation method.

OS 400 & OS 420	
Pressure range	Up to 16 bar
Flow rate	See table below
Accuracy	max ± (3 % of measured value + 0.3 % full scale)
Principle of measurement	Thermal mass flow
Output signal	4 to 20 mA (digital), 3-wire
Process connection	BSP thread connections
Ambient temperature	–30 to 70 °C
Material	Measuring section: Stainless steel 1.4404 (316L)
Included	Power cable with M12 connector (for connection to external display)

DESCRIPTION

OS 400/OS420 are flow sensors, suitable for consumption measuring in different compressed air systems.

The version with display shows the volumetric flow and the total compressed air consumption. Via the keyboard tube diameters and the consumption counter can be set.

Various settings such as gas type, flow unit, reference standards, can be set.

Option:
Built-in display and external power supply

OS 400 insertion type		
Connection size	Length of shaft	Measuring range at 7 bar(g), 20 °C
inch	mm	m³/h
G 1/2"	220	depends on pipe

OS 420		
Connection size	Inner pipe diam.	Measuring range
inch	mm	m³/h
R 3/8"	12,6	0,5 - 60
R 1/2"	16,1	0,6 - 78
R 3/4"	21,7	0,9 - 120
R 1"	27,2	1,5 - 335
R 1 1/2"	41,8	2,8 - 780
R 2"	53	4,5 - 1440
R 2 1/2"	68,8	5,1 - 1680
R 3"	80,9	7,1 - 2760

OS 420: Shortened inlet section!
Recommended inlet section length is:
l = 15 x inner pipe diameter

APPLICATIONS

- General compressed air systems

OS 16 & OS 40

PRESSURE SENSOR

-30 to +100°C
media temperature

APPLICATIONS

- General compressed air systems
- Industrial equipment
- Hydraulic systems
- Pneumatic systems
- Industrial engines
- HVAC/R equipment
- Spraying systems
- Pumps
- Cooling systems

	OS 16	OS 40
Measuring/pressure range	Up to 16 bar	Up to 40 bar
Measuring range - media	-30 to 100°C	
Accuracy	0,5 % full scale	
Process connection	G 1/4" thread	
Output	4 to 20mA (digital), 2 wire	
Operating temperature	–30 to 80 °C	
Protection class	IP67	
Casing	Stainless steel 304L	
Included	Power cable (for connection to external display)	

DESCRIPTION

- High accurate and affordable industrial pressure sensor with excellent anti-interference capability.

OS TS

TEMPERATURE SENSOR

-50 to +180°C
measuring range

APPLICATIONS

- General compressed air systems
- Temperature measurement in liquids, gases and vapors
- Inlet / outlet temperature of dryers
- Outlet temperature of compressors

OS TS	
Measuring range	-50 to +180°C
Accuracy	0,5% of reading +0,2% full scale
Sensor type	Pt 100
Output signal	4...20 mA (digital), 2 wire loop powered
Process section	M12
Ambient temperature	-40°C ... +85°C
Protection class	IP 67
Material	Stainless steel 1.4404
Sensor diameter/ lenght	6 mm / 300 mm

OS 120

RESIDUAL OIL SENSOR

0,003 to 10,00 mg/m³
measuring range

3 to 15 bar
operating pressure

DESCRIPTION

The oil vapor sensor OS 120 monitors oil contents of compressed air and gases permanently or for spot checks. The simple installation and the outstanding performance makes OS 120 the ideal choice when oil vapor contents needs to be measured and monitored.

Oil free compressed air is not an easy task to be achieved. Monitoring is a must in many industries and applications to avoid contaminations in products and risks for health of humans. OS 120 makes this monitoring task affordable and reliable.

For best accuracy and long term stability, the sensor applies an automatic calibration. Sensor contaminations and sensor life time are monitored and will be indicated to the user. An over range detection will remove the sampling air from the sensor to protect it against contamination.

APPLICATIONS

- General compressed air systems
- Downstream of activated carbon filters
- Downstream of oil-free compressors
- Wherever upstream drying and filtration is applied

OS 120	
Measuring range	Concentration: 0,003 ... 10,00 mg/m³,
	Gas temperature: -20°C to +50°C
	Pressure: 3 ... 15 barg
	Relative humidity: < 40% RH, no condensation
Sample flow rate	< 2 l/min, measuring gas is released to ambient
Accuracy	5% of reading ± 0.003 mg/m³
Gas connection	6 mm quick connection
Output signal	4 ... 20 mA (0 ... 10 mg/m³) RS-485, Modbus/RTU
Ambient temperature	-20°C...+50°C
Protection class	IP 65
Casing/dimensions	PC, Al alloy, 271 X 205 X 91 mm
Display & data logger	5" touch screen, 100 million values
Power supply	24 VDC ± 5%, 8 W
Sensor type:	PID (photoionization detector)

OS 130

LASER PARTICLE COUNTER

0 - 40°C
measuring gas temperature

3-8 bar
system pressure

DESCRIPTION

OS 130 is a new generation laser particle counter optimized for applications in compressed air or compressed gases. With quality in mind and with the knowledge of customers needs this instrument is designed for continuous operation 24 hours, 7 days a week. Depending on the selected model there is sensitivity available from 0.1 µm up to 5.0 µm.

OS 130 can fulfill the requirements stipulated in the compressed air standard ISO 8573-4. The measurement values represent the particle counts per ft^3, l or m^3 or alternatively in $\mu g/m^3$. Settings can be done through the integrated display, an external display or through the service software.

OS 130			
Measuring range	System pressure:	3 ... 8 bar	
	Gas temperature:	0 °C ... +40 °C (at inlet)	
	Ambient temperature:	10 °C ... +40 °C	
	Particle size:	OS 130 A	2 channels: 0.3 - 0.5 µm, >0.5 µm
		OS 130 B	4 channels: 0.2 - 0.3 µm, 0.3 - 0.5 µm, 0.5 - 1.0 µm, >1.0 µm
		OS 130 C	4 channels: 0.5 - 1.0 µm, 1.0 - 3.0 µm, 3.0 - 5.0 µm, >5.0 µm
		OS 130 D	2 channels: 0.5 - 5.0 µm, >5.0 µm
		OS 130 E	4 channels: 0.3 - 0.5 µm, 0.5 - 1.0 µm, 1.0 - 5.0 µm, >5.0 µm
Counting efficiency	50%		
Sample flow rate	2.83 l/min		
Gas connection	6 mm quick connection		
Sampling rate	One sample per minute		
Output signal	RS-485, Modbus/RTU, 4 ... 20 mA		
Protection class	IP 65		
Casing dimensions	271 X 205 X 91 mm		
Display & data logger	5" touch screen, 100 million values		
Power supply	24 VDC, 5 W		
Transport temperature	-30 °C ... +70 °C		

APPLICATIONS

- General comp. air systems
- Medical air
- Pharmaceuticals
- Breathable air
- Marine air
- Food and beverage
- Medical engineering
- High speed trains
- Semiconductor fabs
- Conveyance of hygroscopic food
- High tech processes
- Electronics industry

OS 600

COMPRESSED AIR PURITY ANALYZER

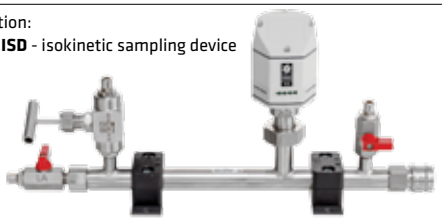
0,3 - 5,0 µm
particles

0,003 - 10.000 mg/m³
oil vapor

+100 to +20 °C
dew point

3 to 15 bar
operating pressure

Option:
OS ISD - isokinetic sampling device



DESCRIPTION

The OS 600 combines latest sensor technology, software-guided measurements and a time-saving setup into a handy, touchscreen-controlled multi-tool.

With our OS 600 you will finish measurement runs in much less time than with your traditional method.

APPLICATIONS

Portable multi-tool for compressed air purity measurements. Measures, records and validates quality parameters like particles, dew point, oil vapor contents, temperature and the pressure of compressed air systems.

OS 600			
Measuring range	**Sensor type**	**Range**	**Accuracy**
Particles	Laser optical detection	0,3 ... 0,5 µm 0,5 ... 1,0 µm 0,3 ... 0,5 µm	50% @ 0,3 ... 0,4 µm per JIS 100% @ 0,4 ... 5,0 µm per JIS
Oil vapor	Photoionisator detector PID	0,003 ... 10.000 mg/m³	5% of value ± 0.003 mg/m³
Dew point	Dual-sensor technology (QCM + Polymer)	-100°C ... +20°C	±2°C

Meduim humidity	< 40% relative humidity, no condensation
Medium temperature	0°C ... +40°C
Operating pressure	3 - 15 bar
Process connection	6 mm quick connection
Casing & Weight	PC, Al alloy, total product weight < 10 kg
Main power supply adaptor	AC/DC In: 100 ... 240 VAC, 50/60 Hz, 1,4A
Display data logger	5'' touch screen, 100 million values

OS 551-P6 SET

PORTABLE DATA LOGGER, FLOW, DEW POINT, PRESSURE SENSORS

OS 551-P6	
Casing	Size: 365 x 270 x 169 mm Weight: 4 kg Protection class: IP65
Power supply	230 VAC / 50 Hz (standard) 110 VAC / 60 Hz (on demand)
Battery	Internal rechargeable battery / up to 8 hour operations (depends on connected sensors)
Ambient temperature	0 to 45 °C
Sensor inputs	2 inputs for OS flow/dew point sensors 2 inputs for pressure sensors
Communication interface	USB, Ethernet
Accuracy	See sensor specification
Included	6 channel data recorder, USB cable OSM-S Software for data analysis included (requires internet connection)

DESCRIPTION

OS 551 - P6 is the ideal data logger for energy analyses (ISO 50001) and air audits (ISO 11011).

Measuring set consists of:

- 1 x OS 551 portable data logger
- 1 x OS 400 portable flow sensor
- 1 x OS 220 portable dew point sensor with measuring chamber
- 2 x OS 16 portable pressure sensor
- 4 x connection cables

APPLICATIONS

• Compressed air systems

OS 530

PORTABLE LEAK DETECTOR FOR PRESSURIZED SYSTEMS

40 kHz ±2 kHz
operating frequency

0 to +40°C
operating temperature

DESCRIPTION

Leaks in compressed air systems can cause thousands of Euro losses. The detection of leaks is an important maintenance requirement which traditionally can be done by soap water, but now by an US detector like OS 530.

When gases are leaking through tubes and tanks an ultrasonic sound is produced which can be detected by OS 530 even from several meter distance.

OS 530 transforms these inaudible signals into a frequency which can be easily heard by using the supplied noise isolated headset. The integrated laser pointer helps to spot the leak from distance. In unpressurized systems an ultrasonic tone generator can be used whose sound will leak through small openings.

APPLICATIONS

- Leak detection in compressed air, refrigerants, simply of any gas!
- Insulation test of doors and windows
- Detection of partial electrical discharges causing damages on insulations

OS 530				
Measuring range (detection distance)			Diameter	
			0,1 mm	0,2 mm
	Pressure	0,5 bar	2 m	2 m
		5,0 bar	8 m	14 m
Operating frequency	40 kHz ±2 kHz			
Battery life	Internal NiMH rechargeable, 4-6 hours of operation			
Included	Noise isolated headset, focus tube and focus tip, battery charger, transport case			

OS 505

PORTABLE DEW POINT SENSOR

-1 to 15 bar
operating pressure

-100 to -30°C
temperature range sensor A

-50 to +50°C
temperature range sensor B

DESCRIPTION

OS 505 is a combination of next generation measurement technology with modern user interface design. The experienced user knows that dew point measurement also requires the measurement of line pressure (according to ISO 8573), since dew point is pressure dependent. With the OS 505 the line pressure is measured in combination with the dew point, so the user can be confident that the calculation is accurate and free from human error.

OS 505 comes with two sensor units:

Sensor A uses the new QCM technology which provides fast and accurate measurement results at dew points below –30 °C down to –100 °C.

Sensor B is for high moisture applications from -50 °C to +50°C where the polymer sensor is more suitable. Both sensors can be easily exchanged.

OS 505 set	
Measuring range	Dew point sensor A: –100 ... –30 °C Dew point sensor B: –50 ... 50 °C Temperature: –30 ... 50 °C
Operating pressure	-1 to 15 bar (g)
Accuracy	Dew point: ±2 °Ctd @ –50 °Ctd Temperature: ± 0,3 °C Pressure: ± 0,05 bar
Response time t90	-50 to -10°C: 10s -10 to -50°C: 300 s
Process connection	Quick coupling
Battery life	6 hours
Included	Parking/Measuring chamber, Teflon hose with quick connector, data logger, SD card, Bluetooth, USB Charger with USB cable, Portable printer, Transport case, OSM-S Software

APPLICATIONS

- Compressed air systems

PRESSURE VESSELS

Compressed air receiver is an essential part of every compressed air system. It acts as a buffer and a storage medium between the compressor and the consumption system.

Air receivers are much more than just buffers. Their purpose is also:
- reducing excessive compressor cycling,
- eliminating pulsations from discharge line,
- collecting condensate and water in the air after the compressor,
- reducing energy costs by minimizing excessive starting of the compressor motor,
- help reducing dew point and temperature spikes...

Omega Air d.o.o is also a producer of custom made pressure vessels according to PED or ASME standards. Each of our pressure vessels is calculated, assembled, tested and guaranteed to conform standards and to withstand the process necessary for your application.

Custom made pressure vessels can include a diverse range of:
- sizes and volumes,
- horizontal or vertical designs,
- modular or packaged systems,
- special alloys and materials,
- high or low pressure ratings,
- heating and cooling options,
- accessory valves and piping,
- ladders and platforms,
- anticorrosion protection...

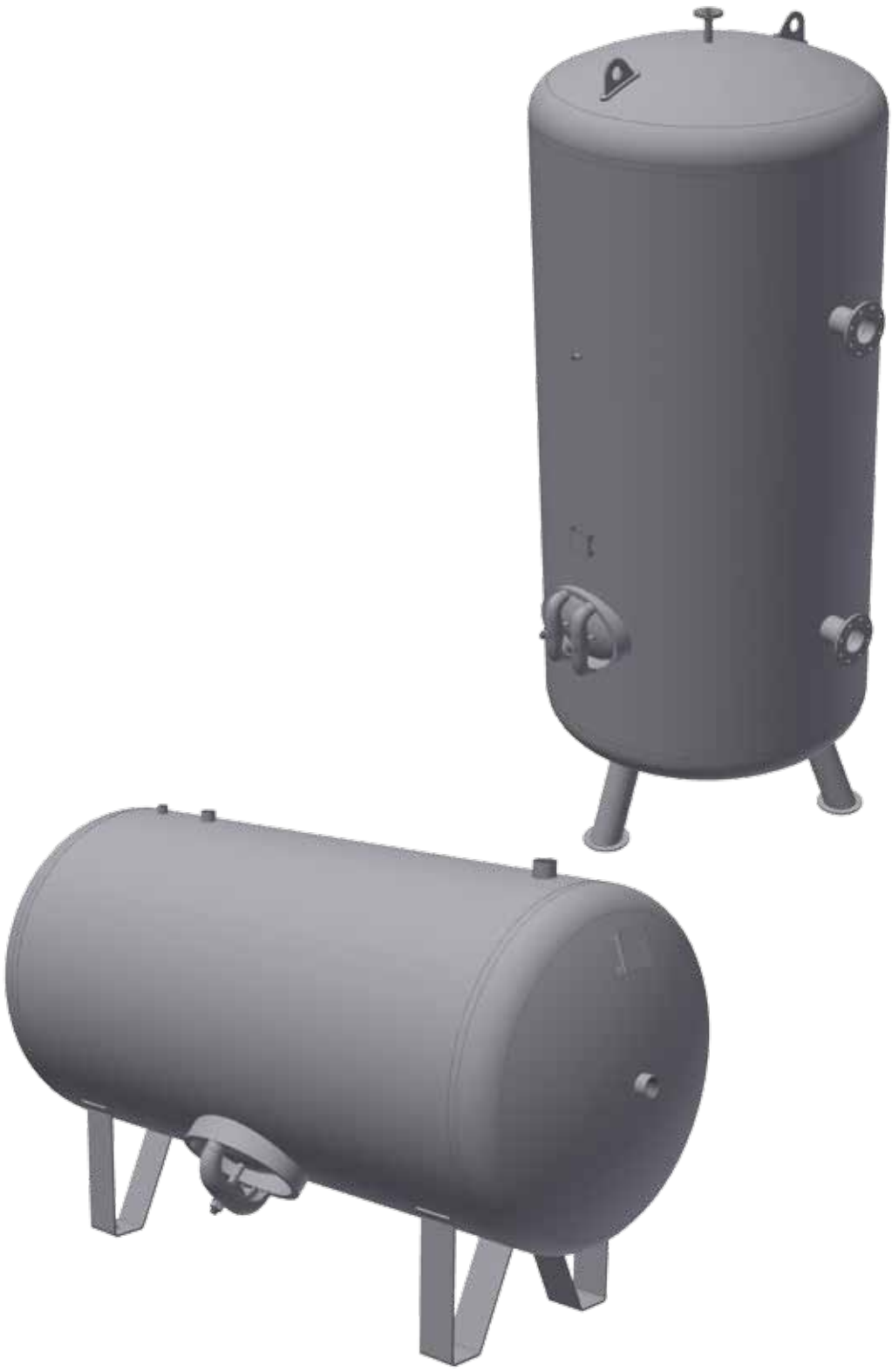
PRESSURE VESSEL		Pressure	Capacity	Dew point	Page
TP PED	Pressure vessels according to PED certification	10, 13 bar			192
TP ASME	Pressure vessels according to ASME certification	on request			194
TP	Custom made pressure vessels	on request			195

TP PED

PRESSURE VESSELS - PED

10 to 13 bar
operating pressure

-10 to +50°C
operating temperature range



DESCRIPTION

Pressure vessels are tanks, designed to store compressed air. On request Pressure vessels can also be designed for any other technical gas. Volume of pressure vessel depends on compressor capacity and on consumption of compressed air.

The supply of pressure vessel includes:
- Anticorrosion protection with basic colour painting and final painting
- CE – certificate
- Revision opening (from type TP 200 on)
- Supporting legs
- Connections for optional equipment

APPLICATIONS

• Compressed air systems

CE

TECHNICAL DATA																
Size	Volume	Connections number and dimensions									Dimensions (mm)			Max. pressure	Mass
	l	1/2"	3/4"	1"	6/4"	2"	DN50	DN80	DN100	DN150	H	D	L	bar	kg
Vertical pressure vessels															
50	47	7	-	-	-	-	-	-	-	-	920	300	-	13	25
100	101	6	-	-	-	1	-	-	-	-	1375	350	-	13	45
150	136	6	-	-	-	1	-	-	-	-	1395	400	-	13	55
200	199	3	-	4	-	-	-	-	-	-	1430	480	-	13	85
300	287	1	2	4	-	-	-	-	-	-	1930	480	-	13	115
500	496	1	2	4	-	-	-	-	-	-	2025	622	-	13	135
750	739	1	2	4	-	-	-	-	-	-	2090	750	-	13	170
1000	975	1	-	2	4	-	-	-	-	-	2140	850	-	13	260
1500	1368	1	-	2	-	4	-	-	-	-	2295	1000	-	13	310
2000	1853	1	-	2	-	4	-	-	-	-	2370	1150	-	13	460
3000	2825	1	-	2	-	4	-	-	-	-	2905	1250	-	13	630
4000	4028	1	-	2	-	-	-	4	-	-	3915	1250	-	13	810
5000	5121	1	-	2	-	-	-	4	-	-	3915	1400	-	13	1350
6000	5801	1	-	2	-	-	-	-	4	-	3510	1600	-	13	1750
8000	7707	1	-	2	-	-	-	-	4	-	4105	1700	-	13	2190
10000	9953	1	-	2	-	-	-	-	4	-	5200	1700	-	10	2500
15000	15498	1	-	1	-	-	1	-	-	4	4860	2200	-	10	3750
20000	21073	1	-	1	-	-	1	-	-	4	6360	2200	-	10	4710
25000	24790	1	-	1	-	-	1	-	-	4	7360	2200	-	10	5360
Horizontal pressure vessels															
50	47	6	-	-	-	-	-	-	-	-	400	300	775	13	25
100	101	5	-	-	-	1	-	-	-	-	505	350	1205	13	45
150	136	5	-	-	-	1	-	-	-	-	550	400	1220	13	55
200	199	3	-	3	-	-	-	-	-	-	635	480	1265	13	85
300	287	1	2	3	-	-	-	-	-	-	625	480	1770	13	115
500	496	1	2	-	3	-	-	-	-	-	820	622	1835	13	135
750	739	1	2	-	3	-	-	-	-	-	1025	750	1890	13	170
1000	975	1	-	2	3	-	-	-	-	-	1130	850	1935	13	260
1500	1368	1	-	2	-	3	-	-	-	-	1275	1000	2000	13	310
2000	1853	1	-	2	-	3	-	-	-	-	1500	1150	2100	13	460
3000	2825	1	-	2	-	-	-	3	-	-	1600	1250	3100	13	630
4000	4028	1	-	2	-	-	-	3	-	-	1600	1250	3600	13	810
5000	5121	1	-	2	-	-	-	3	-	-	1750	1400	3665	13	1350
6000	5801	1	-	2	-	-	-	-	3	-	1950	1600	3250	13	1750
8000	7707	1	-	2	-	-	-	-	3	-	2050	1700	3810	13	2190
10000	9953	1	-	2	-	-	-	-	3	-	2050	1700	4810	10	2500
15000	15498	1	-	1	-	-	1	-	-	3	2550	2200	4600	10	3750
20000	21073	1	-	1	-	-	1	-	-	3	2550	2200	6100	10	4710
25000	24790	1	-	1	-	-	1	-	-	3	2550	2200	7100	10	5360

For any nonstandard pressure vessel (based on operating media, design pressure, design temperature, standard, ...) please contact producer or your local distributor.

Horizontal pressure vessel

Vertical pressure vessel

TP ASME

PRESSURE VESSELS - ASME

on request
operating pressure

on request
operating temperature range

on request
design

DESCRIPTION

Pressure vessels are tanks, designed to store compressed air. Pressure vessels can also be designed for any other technical gas. Volume of pressure vessel depends on compressor capacity and on consumption of compressed air.

The supply of pressure vessel includes:
- Anticorrosion protection with basic colour painting and final painting
- ASME – certificate
- Revision openings
- Supporting legs
- Connections for optional equipment

APPLICATIONS

• Compressed air systems

U UM

TP SERIES

CUSTOM MADE PRESSURE VESSELS

on request
operating pressure

on request
operating temperature range

on request
design

DESCRIPTION

Omega Air d.o.o. is also a producer of custom made pressure vessels according to PED or ASME standards.

Each of our pressure vessels is calculated, assembled, tested and guaranteed to conform standards and to withstand the process necessary for your application.

Custom made pressure vessels can include a diverse range of:

- sizes and volumes,
- horizontal or vertical designs,
- modular or packaged systems,
- special alloys and materials,
- high or low pressure ratings,
- heating and cooling options,
- accessory valves and piping,
- ladders and platforms,
- anticorrosion protection...

APPLICATIONS

• Compressed air systems

COMPRESSED AIR EQUIPMENT

Compressed air equipment is a category, where all other devices and elements are included, which can't be classified into previous groups. This equipment helps to improve air quality and energy efficiency of compressed air system.

Painting air filtration system is designed to provide high-quality compressed air for paint shop and the removal of harmful substances, which has a detrimental impact on the quality of performance of the manufacturing process. This is the system for quality and pressure control of compressed air.

Not only the manufacturing process, the health of the worker should also be protected. Omega Air produce several systems for breathing air treatment, which provide safety breathing air in harmful working conditions. Gas concentration analysers constantly monitor CO, CO_2 and O_2 concentrations and trigger an alarm if concentrations of standard compliant values are exceeded.

COMPRESSED AIR EQUIPMENT		Pressure	Capacity	Dew point	Page
PP	Painting air filtration systems	16 bar	78 - 235 Nm^3/h		198
B-AIR	Breathing air filtration systems	16 bar	78 - 780 Nm^3/h		200
B-AIR plus	Portable breathing air filtration system	16 bar	120 Nm^3/h		202
AIRWATT	Heat recovery units	16 bar			204
BS 12-3,5	Petrol station equipment	12 bar	350 Nl/h		206
AWS	Petrol station equipment	10 bar	170 Nl/h		207
PETRO-PACK	Petrol station equipment	12 bar	350 Nl/h		208
BS TOWER	Petrol station equipment	12 bar			209


airwatt

PP SERIES

PAINTING AIR FILTRATION SYSTEMS

16 bar
operating pressure

1,5 to 65°C
operating temperature range

1/2"
connections

78 to 235 Nm³/h
flow rate

RAL 9005
standard colour

DESCRIPTION

PP pro paint system is specifically designed for purifying compressed air from solid, liquid and partially gaseous components. Protecting air equipment in addition to providing clean air for worker health protection. PP pro paint system is easy for wall mount.

Available modular combinations:

1. Comp. air for lower quality demands (down to 15 µm)
2. Comp. air for basic quality demands (down to 0,1 µm)
3. Comp. air for high quality demands (down to 0,01 µm)
4. Technical absolutely clean air (down to 0,1 µm, activated carbon)
5. Technical and breathable air
6. Compressed air for highest demands (all in one unit)

APPLICATIONS

- Chemical
- Petrochemical
- Paint
- General industrial applications
- Breathing air

TECHNICAL DATA							Separator CKL-PP	Microfilter M 0,1µm	Microfilter S 0,01µm	Active carbon A	Sterile filter with active carbon SFA	Adsorption dryer A-DRY 105	Pressure regulator	Quick coupling No.
Model	Pipe size	Flow rate at 7 bar(g), 20 °C		Dimensions (mm)										
	inch	Nm³/h	scfm	A	B	C								
PP-107	1/2"	78	46	270	135	276	✓						✓	2
PP-110	1/2"	120	71	270	135	345	✓						✓	2
PP-207	1/2"	78	46	380	135	276	✓	✓					✓	2
PP-210	1/2"	120	71	380	135	345	✓	✓					✓	2
PP-307	1/2"	78	46	490	135	276	✓	✓	✓				✓	2
PP-310	1/2"	120	71	490	135	345	✓	✓	✓				✓	2
PP-407	1/2"	78	46	580	135	276		✓	✓	✓			✓	4
PP-410	1/2"	120	71	580	135	345		✓	✓	✓			✓	4
PP-507	1/2"	78	46	612	135	370		✓	✓		✓		✓	4
PP-510	1/2"	120	71	612	135	440		✓	✓		✓		✓	4
PP-607	1/2"	78	46	1150	335	917		✓	✓		✓	✓	✓	4
PP-610	1/2"	120	71	1150	335	917		✓	✓		✓	✓	✓	4

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

B-AIR SERIES

BREATHING AIR FILTRATION SYSTEMS

16 bar
operating pressure

1,5 to 65°C
operating temperature range

1/2" to 1 1/2"
connections

78 to 780 Nm³/h
flow rate

RAL 1016
standard colour

DESCRIPTION

B-AIR™ point of use filter set is designed for high efficient preparation of top quality breathing air. On request B-AIR™ filter set can be supplied with wall mounting brackets, pressure regulator and quick couplings.

WARNING!
Breathing air filter set B-AIR is not declared as CO_2 and CO removal filter.
Despite that B-AIR comprises filter element which can reduce CO content.

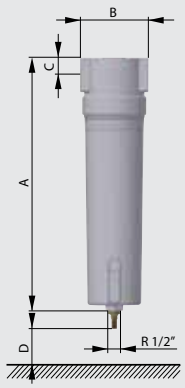
APPLICATIONS

- Breathing air





TECHNICAL DATA									FILTER ELEMENTS		
Filter model	Pipe size	Flow rate [2] at 7 bar(g), 20 °C		Dimensions [mm]				Mass	S Microfilter 0,01 µm	H^2 catalyst (hopcalite)	A^2 adsorption (act. carbon)
	inch	Nm³/h	scfm	A	B	C	D	kg			
B-AIR 0076	1/2"	78	46	187	88	20	60	3x0,47	07050 S	07050 H^2	07050 A^2
B-AIR 0106	3/4"	120	70	257	88	20	80	3x0,6	14050 S	14050 H^2	14050 A^2
B-AIR 0186	1"	198	116	263	125	32	100	3x1,57	12075 S	12075 H^2	12075 A^2
B-AIR 0306	1"	335	197	363	125	32	120	3x2,2	22075 S	22075 H^2	22075 A^2
B-AIR 0476	1 1/2"	510	300	461	125	32	140	3x2,8	32075 S	32075 H^2	32075 A^2
B-AIR 0706	1 1/2"	780	459	640	125	32	160	3x3,9	50075 S	50075 H^2	50075 A^2



	S Microfilter 0,01 µm	H^2 catalyst (hopcalite)	A^2 adsorption (act. carbon)
quality class - solids (ISO 8573-1)	1	1	1 [1]
quality class - oils (ISO 8573-1)	1	-	0/1
residual oil content	<0,01 mg/m³	-	<0,005
pressure drop - new element-dry [mbar / psi]	80 / 1,160	see spec.	see spec.
pressure drop - new element-wet [mbar / psi]	190 / 2,756	-	-
change filter element at pressure drop [mbar / psi]	3 months		
filter media	borosilicate micro fibes	borosilicate micro fibes, hopcalite	borosilicate micro fibes, activated carbon
min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35
max. operating temperature (°C / °F)	45 / 113	45 / 113	45 / 113

CORRECTION FACTORS															
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

[1] Valid if "S" filter cartridge is installed upstream.
[2] For optimum flow refer to technical data sheet

B-AIR plus SERIES

PORTABLE BREATHING AIR FILTRATION SYSTEMS

16 bar
operating pressure

1,5 to 40°C
operating temperature range

quick couplings
connections

120 Nm³/h
flow rate

RAL 1016
standard colour

DESCRIPTION

B-AIR PLUS system is specifically designed for applications where high quality breathing air and monitoring of breathing air supply are needed. B-AIR PLUS is a combination of our B-AIR 0106 breathing air filter set combined with gas concentration analysers, fitted with pressure regulator and quick couplings, all packed in a compact and robust casing.

Gas concentration analysers constantly monitor CO, CO_2 and O_2 concentrations and trigger an alarm if concentrations exceed the EN12021 and BS4275:1997 standard compliant values. In this way B-AIR PLUS can safely provide high quality breathing air for up to 5 people.

Small dimensions and low weight enable the use of B-AIR PLUS in many applications as it can be transported and set up with ease.

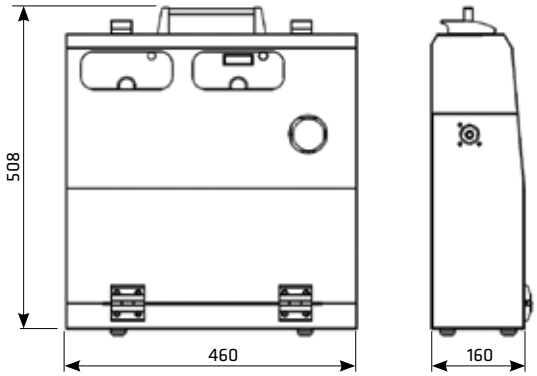
APPLICATIONS

- Breathing air

TECHNICAL DATA	
Operating pressure range	0 - 16 bar (0 - 232 psi)
Opreating temperature range	1,5 - 40 °C (35 - 104°F)
Connection (inlet/outlet)	INLET (male), OUTLET (female)
Flow rate (7 bar ,20 °C)	120 Nm^3/h (71 scfm)
Quality class - solids	ISO 8573-1
Quality class - oils	ISO 8573-1
Filtration stage S	solid and liquid particle filtrationdown to 0,01 µm
Filtration stage H^2	CO removal
Filtration stage A^2	oil particle filtration down to 0,1 µm
GAS ANALYSERS	
Electrical connection	230 VAC, 50/60 Hz
Power consumption	<10 W
CO monitoring	warning 3 ppm, alarm 5 ppm
CO_2 monitoring	alarms (increasing intensity) at 500 ppm/1500 ppm
O_2 monitoring	alarm at O_2 concentration <19,5%
Analyser approval	EN 50270:1999 EN 61000-6-3:2001+A11:2004 BS EN 61010-1:2001 IEC 61010-1 (2ed) AS 61610.1-2003 (Australia & New Zeland)
Protection class of sensors	IP 65
Dimensions	508 x 460 x 160 mm
Weight	12 kg

ADVANTAGES

- ✓ High quality breathing air for up to 5 people
- ✓ Air quality monitoring (EN 12021, BS 4275:1997)
- ✓ Compact & light weight



AIRWATT SERIES

HEAT RECOVERY UNITS

10 to 100 kW
heat capacity

15 to 132 kW
for compressor capacity

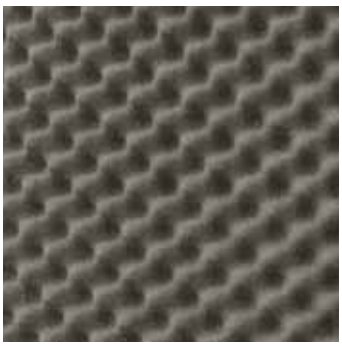
DESCRIPTION

Classical systems of the screw compressor have a regulated air cooling of the lubricating oil, which means that the excess heat is discharged into the ambient by the fan. In this way the heat is completely lost.

External heat recovery unit - AirWatt is designed to efficiently exploit the waste heat, generated during compression of air in rotary screw compressors. Sometimes this represents more than 70% of energy consumed by the rotary screw compressor for the operation. This heat can then be used to heat domestic water or for heating, at almost no additional costs. This does not only help save money, but is also environmentally friendly. Unit has two separate piping systems with counter flow. Energy exchange from compressor to sanitary water occurs in plate heat exchanger, where compressor oil and sanitary water meets. Unit is controlled by thermostatic valve, which prevents compressor system getting to cold and damaging compressor.

APPLICATIONS

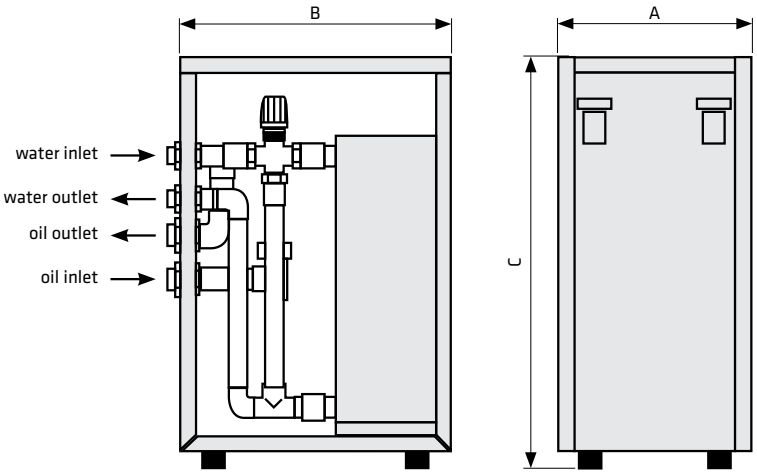
- Heat recovery in oil lubricated rotary screw compressors



TECHNICAL DATA								
Type	Motor power	Heat capacity	Oil connection	Water connection	Dimensions [mm]			Mass
	kW	kW	G	G	A	B	C	kg
AirWATT 22	15-22	12-17,6	1 1/4"	1"	360	500	760	33
AirWATT 37	26-37	20,8-29,6	1 1/4"	1"	360	500	760	35
AirWATT 75	45-75	36-60	1 1/4"	1"	360	500	760	42
AirWATT 100	90-132	72-100	2"	2"	450	600	860	58

TECHNICAL SPECIFICATIONS	
Operating pressure (oil)	1 – 16 bar
Maximum water pressure	10 bar
Operating temperature	5°C – 120°C
Max. outlet water temperature	70°C
Pressure drop (oil)	~ 100 mbar
Ambient temperature	5°C – 45°C
Water temperature indicator	Analog mechanical

Type	Classification according to Pressure Equipment Directive PED 97/23 / CE (fluid group 2)
AirWATT 22	not necessary
AirWATT 37	not necessary
AirWATT 75	not necessary
AirWATT 100	not necessary



BS 12-3,5

PETROL STATION EQUIPMENT

max 12 bar
operating pressure

up to 45 °C
operating temperature range

350 Nl/min
flow rate (ISO 1217)

DESCRIPTION

BS 12-3.5 (Air-water supply) unit is an ideal solution for every gas/petrol station. It offers top quality supply with compressed air and water.

High quality piston compressor with pressure vessel is integrated into vandal protected stainless steel housing.

Integrated AWS-C controller assures precise and user friendly inflating of tyres.

MAIN COMPONENTS

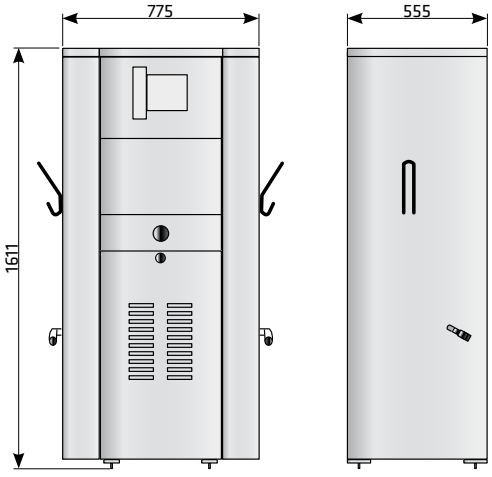
- Robust stainless steel housing,
- Integrated compressor,
- Integrated pressure gauge,
- Integrated pressure gauge which shows current pressure in pressure vessel,
- Hose (drive over) for compressed air supply,
- Hose (drive over) for water supply,
- Standard DIN connector,
- Noise protection / isolation,
- Quick coupling,
- Handy pipe for water supply
- Vandal protection.

APPLICATIONS

- Filling tyres with compressed air
- Water supply

BS12-3.5 series can be used in variety of applications. For applications not listed please contact producer or your local distributor.

TECHNICAL DATA	BS12-3,5
Operating pressure	max. 12 bar(g) (max. 174 psi)
Operating temperature range *	-15 to +45 °C (5 to 113 °F)
Flow capacity (ISO 1217)	350 Nl/min
Power supply	230 V / 50 Hz
Electric motor power	1,8 kW
Sound level (A) 1m	67 ± 2 dB
Electric heater power	Optional
Hose length	8 m
Mass	136 kg
Housing material	Stainless steel (INOX)
Pressure vessel material	Carbon steel
Pressure vessel capacity	25 l



* If temperatures below 1,5 °C are expected please contact producer or your local distributor.

AWS

PETROL STATION EQUIPMENT

max 10 bar
operating pressure

up to 45 °C
operating temperature range

170 Nl/min
flow rate (ISO 1217)

MAIN COMPONENTS

- Robust stainless steel housing,
- Integrated compressor,
- Integrated pressure gauge,
- Hose (drive over) for compressed air supply,
- Hose (drive over) for water supply,
- Standard DIN connector,
- Noise protection / isolation,
- Quick coupling,
- Handy pipe for water supply,
- Vandal protection.

DESCRIPTION

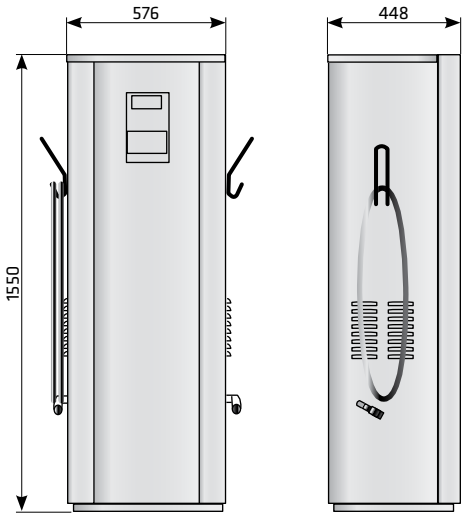
AWS (Air-water supply) unit is an ideal solution for every gas/petrol station. It offers top quality supply with compressed air and water.

High quality piston compressor with pressure vessel is surrounded by vandal protected stainless steel housing.

Integrated AWS-C controller assures precise inflating of tyres and is user friendly.

TECHNICAL DATA	AWS
Operating pressure	max. 10 bar(g) (max. 145 psi)
Operating temperature range *	-15 to +45 °C (5 to 113 °F)
Flow capacity (ISO 1217)	170 Nl/min
Power supply	230 V / 50 Hz
Electric motor power	1,5 kW
Sound level (A) 1m	68 ± 2 dB
Electric heater power	Optional
Hose length	8 m
Mass	87 kg
Housing material	Stainless steel (INOX)
Pressure vessel material	Carbon steel
Pressure vessel capacity	17 l

* If temperatures below 1,5 °C are expected please contact producer or your local distributor.



APPLICATIONS

- Filling tyres with compressed air
- Water supply

AWS series can be used in variety of applications. For applications not listed please contact producer or your local distributor.

PETRO-PACK

PETROL STATION EQUIPMENT

max 12 bar
operating pressure

up to 45 °C
operating temperature range

350 Nl/min
flow rate (ISO 1217)

DESCRIPTION

PETRO-PACK unit is a compressor designed for petrol station applications. It is perfect solutions for stations where is no place for inside installation. It offers top quality supply with compressed air.

All connections are ground mounted. High quality piston compressor with pressure vessel is surrounded by vandal protected stainless steel housing.

MAIN COMPONENTS

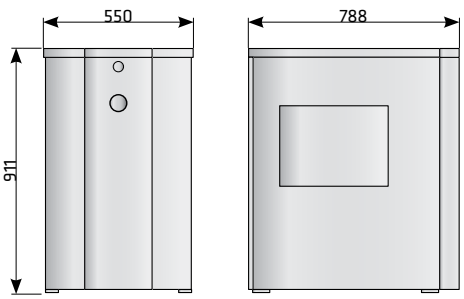
- Robust stainless steel housing,
- Integrated compressor,
- Noise protection / isolation,
- Vandal protection.

APPLICATIONS

- Filling tyres with compressed air
- Water supply

PETRO-PACK series can be used in variety of applications. For applications not listed please contact producer or your local distributor.

TECHNICAL DATA	PETRO-PACK
Operating pressure	max. 12 bar(g) (max. 174 psi)
Operating temperature range *	-15 to +45 °C (5 to 113 °F)
Flow capacity (ISO 1217)	350 Nl/min
Power supply	400 V / 50 Hz
Electric motor power	2,2 kW
Sound level (A) 1m	67 ± 2 dB
Electric heater power	Optional
Mass	108 kg
Housing material	Stainless steel (INOX)
Pressure vessel material	Carbon steel
Pressure vessel capacity	25 l



* If temperatures below 1,5 °C are expected please contact producer or your local distributor.

BS TOWER

PETROL STATION EQUIPMENT

max 12 bar
operating pressure

up to 45 °C
operating temperature range

DESCRIPTION

BS tower (Air-water supply) unit is an ideal solution for every gas/petrol station. It offers top quality supply with compressed air and water where compressed air and water systems are supplied from dislocated source.

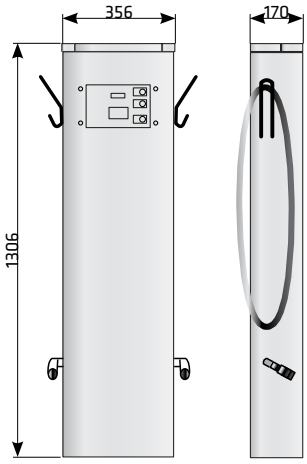
Integrated AWS-C controller assures precise inflating of tyres and is user friendly.

MAIN COMPONENTS

- Robust stainless steel housing,
- Integrated pressure gauge,
- Hose (drive over) for compressed air supply,
- Hose (drive over) for water supply,
- Standard DIN connector,
- Quick coupling,
- Handy pipe for water supply.

TECHNICAL DATA	BS TOWER
Operating pressure	max. 12 bar(g) (max. 174 psi)
Operating temperature range *	-15 to +45 °C (5 to 113 °F)
Electric heater power	Optional
Hose length	8
Housing material	Stainless steel (INOX)

* If temperatures below 1,5 °C are expected please contact producer or your local distributor.



APPLICATIONS

- Filling tyres with compressed air
- Water supply

BS TOWER series can be used in variety of applications. For applications not listed please contact producer or your local distributor.

INDUSTRIAL WATER CHILLERS

A chiller is a machine that removes heat from a liquid via a vapor-compression or absorption refrigeration cycle. This liquid can then be circulated through a heat exchanger to cool equipment, or another process stream (such as air or process water). As a necessary by product, refrigeration creates waste heat that must be exhausted to ambient or, for greater efficiency, recovered for heating purposes.

Chilled water is used to cool and dehumidify air in mid- to large-size commercial, industrial, and institutional facilities. Water chillers can be water-cooled, air-cooled, or evaporatively cooled. Water-cooled systems can provide efficiency and environmental impact advantages over air-cooled systems.

Industrial water chillers are used in a variety of applications. Suppliers of air treatment solutions to the industrial and commercial sectors include the sale of industrial water chillers with their compressors eliminating impure and unwanted condensate from the compressed air system. Industrial water chillers are the perfect solution for hot humid and dusty environments.

Industrial water chillers are in place to maximize your control on your chilled water supply. They combine advanced design features that include energy saving scroll compressors and sophisticated microprocessors. Productivity increases and your industrial applications are optimized delivering you a reduction in costs.

OBE SERIES

AIR-COOLED WATER CHILLERS WITH AXIAL FANS

2,55 to 23,11 kW
cooling capacity

1/2" to 1"
water connections diameter

R407C
refrigerant

DESCRIPTION

The new range of OBE chillers has been designed specifically to meet industrial requirements and provide accurate control of the chilled water temperature with the absolute reliability of continuous operation (with the option of hot bypass valve). It is particularly suitable for process cooling during the moulding and extrusion of plastic, laser cutting, precision engineering, pharmaceutical and food industry etc...

The range consists of 12 models with cooling capacities from 3-25 kW and is designed for outdoor installation (OBE002 excluded and OBE003 ÷ 007 optional). All units are equipped with:

- Hermetic rotary or scroll compressors,
- Ecological refrigerant R407C;
- Microprocessor controller (electronic thermostat for OBE002);
- Atmospheric pressure tank;
- Water pump

APPLICATIONS

- Process cooling during the moulding
- Extrusion of plastic
- Laser cutting
- Precision engineering
- Pharmaceutical
- Food industry

COOLING CIRCUIT
Manufactured from high quality materials by skilled personnel according to strict procedures of brazing, and conforms to Directive 97/23.
It comprises of:
- rotary (OBE002 ÷ 012 models) or scroll (OBE014 ÷ 025 models) compressor;
- Copper Coaxial evaporator made from AISI 316 stainless steel brazed plate;
- Micro channel condenser in aluminium with epoxy coating;
- Filter dryer;
- Flow sight glass with moisture indicator (OBE008 ÷ 025 models);
- External equalisation thermostatic expansion valve (except OBE002 model); The thermostatic expansion valve regulates the injection of liquid refrigerant into the evaporator. The injection is a response to the refrigeration requirements. The range of thermostatic valves are designed for specific applications and are connected to the circuit via bi-metal brazing
- High pressure switch with manual reset;
- Low pressure switch to semi-automatic reset (OBE008 ÷ 025 models);
- High and low pressure gauges (OBE008 ÷ 025 models);
- Pressure connections for checks and maintenance.

HYDRAULIC CIRCUIT
Composed of:
- Atmospheric pressure collection tank, thermally insulated manufactured from ABS (OBE002-007) and PVC (OBE008-25;
- Water pipes in copper and PVC
- Electric pump, thermally insulated, made with non-ferrous materials (steel, brass or plastic material, mechanical seals NBR or EPDM depending on the model);
- Calibrated water bypass (prevents incidents caused by the erroneous closure of the stop valves);
- Water differential pressure switch (OBE008 ÷ 025 models);
- Water manometer;
- Drain valve;
- Filling unit.

All models in the OBE range have, as standard, the hydraulic circuit made from non-ferrous materials, which is necessary for industrial applications.
All units in the range can be used with mixtures of water and ethylene glycol up to 30%.





Model OBE		002(5)	003	004	005	006(2)	007(2)	008(5)	009(5)	012	014	020	025	005 3Ph	006 3Ph	007 3Ph
Cooling capacity (1)	[kW]	2,55	2,74	3,51	4,28	5,21	6,21	8,16	10,11	12,73	16,22	21,02	23,11	5,23	6,08	7,01
Compressors power input (1)	[kW]	0,48	0,49	0,71	0,86	1,22	1,76	1,49	2,09	2,81	2,54	3,76	4,87	1,22	1,71	2,29
Total power input (1) (2)	[kW]	0,79(5)	0,99	1,21	1,36	1,72(2)	2,26(2)	2,80(5)	3,40(5)	4,12	4,32	5,99	7,1	1,73	2,21	2,8
Total absorbed current (1) (2)	[A]	4,44(5)	5,38	6,45	7,22	9,01(2)	11,31(2)	5,97(5)	6,88(5)	8,19	8,14	10,97	12,9	5,55	6,15	7,35
EER (pump excluded) (1)	---	4,16	4,43	4,19	4,32	3,85	3,29	4,53	4,21	4,09	4,89	4,63	4,09	3,86	3,3	2,89
Water flow (1)	[l/ h]	438	471	604	736	897	1068	1404	1739	2190	2790	3615	3975	900	1046	1206
Available pressure (1)	[kPa]	146	287	261	248	215	181	235	210	222	188	217	199	215	185	153
Maximum power input (total) (2) (3)	[kW]	1,3(5)	1,5	1,8	2	2,5(2)	3,0(2)	3,8(5)	4,9(5)	5,8	6,8	8,6	10	2,4	3	3,7
Maximum absorbed current (total) (2) (3)	[A]	6,6(5)	7,5	9,1	10,4	12,6(2)	14,4(2)	7,7(5)	9,5(5)	10,8	12,1	15,9	17,5	6,4	7,3	8,7
Starting current (2) (3)	[A]	21,3(5)	22,1	26,1	34,2	39,2(2)	55,2(2)	34,2(5)	42,2(5)	44,2	62,7	78,3	89,3	22,9	18,9	25,9
Fan power	[kW]	0,13	0,13	0,13	0,13	0,13	0,13	0,31	0,31	0,31	0,78	0,78	0,78	0,14	0,14	0,14
Fan current	[A]	0,65	0,65	0,65	0,65	0,65	0,65	1,2	1,2	1,2	1,7	1,7	1,7	0,38	0,38	0,38
Number of fans	[#]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
P3 Pump power input	[kW]	0,18(5)	0,37	0,37	0,37	0,37(2)	0,37(2)	1,00(5)	1,00(5)	1	1	1,45	1,45	0,37	0,37	0,37
P3 Pump absorbed current	[A]	1,60(5)	2,5	2,5	2,5	2,50(2)	2,50(2)	2,00(5)	2,00(5)	2	2	2,6	2,6	2,5	2,5	2,5
Power supply	[V/Ph/Hz]	230/1/50						400/3/50								
IP protection degree	---	IP40	IP40	IP40	IP40	IP40	IP40	IP44	IP44	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Refrigerant	---	R407C														
Compressor type	---	Rotary								Screw				Reciprocating		
Evaporator type	---	Coaxial						Brazed plates						Coaxial		
Condenser type	---	Microchannel														
N° of compressors	[#]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N° of refrigerant circuits	[#]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Air flow	[m³/h]	2.200	2.200	2.200	2.200	2.200	2.200	4.800	4.800	5.000	5.500	5.500	5.500	2.500	2.500	2.500
Sound pressure level (4)	[dbA]	46	46	46	46	46	46	49	49	49	49	49	49	46	46	46
Water connections diameter	[inch]	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1"	1"	1"	1"	1"	1"	1/2"	1/2"	1/2"
Width	[mm]	718	718	718	718	718	718	1.004	1.004	1.004	1.004	1.004	1.004	718	718	718
Depth	[mm]	678	678	678	678	678	678	753	753	753	753	753	753	678	678	678
Height	[mm]	668	668	668	668	668	668	1.257	1.257	1.257	1.257	1.257	1.257	668	668	668
Weight	[kg]	82	85	88	92	95	100	235	240	245	255	255	255	92	95	100
Tank capacity - Option	[dm³]	25	25	25	25	25	25	90	90	90	90	90	90	25	25	25
P3 Input pump power- Option	[kW]							1,60	1,60	1,60	1,60	0,75	0,75			
P3 Absorbed pump current - Option	[A]							1,90	1,90	1,90	1,90	2,5	2,5			
P5 Input pump power - Option	[kW]		0,55	0,55	0,55	0,55	0,55	0,75	0,75	0,75	0,75	0,9	0,9	0,55	0,55	0,55
P5 Absorbed pump current - Option	[A]		6,2	6,2	6,2	6,2	6,2	2,5	2,5	2,5	2,5	2,6	3	6,2	6,2	6,2

(1)Data referred to following conditions: water temperature in/out: 20/15°C - ambient air temperature: 25°C – (2) Data referred to unit with pump P3 – (3) Data related to most heavy condition allowed by safety devices fitted on the unit – (4) Referred at 10 m and at an height of 1,5 m in free field – (5) Data referred to unit with pump P2 – (6) Maximum room temperature 45 °C – (7) Maximum inlet temperature 30 °C. – (8) Minimum water outlet temperature - 10°C (with 30% ethylene glycol) at 5°C according to the model. Friulair S.r.l. reserves the right to make technical changes without prior notice, errors and omissions execepted.

OWT SERIES

AIR-COOLED WATER CHILLERS WITH ROTARY AND SCROLL COMPRESSORS

7 to 128 kW
cooling capacity

1" to 2"
water connections diameter

R410A
refrigerant

DESCRIPTION

The OWT water chiller range is intended for the air conditioning and industrial processes cooling sector.
The range is designed for outdoor installation and specifically designed to meet the industry application requirements, to provide accurate control of the chilled water temperature with continuous operation and absolute reliability. The range is air cooled with axial fans. It is composed of 16 basic models, covering cooling capacities from 7 to 128 kW.
All units are equipped with:
• hermetic rotary or scroll compressors;
• R410A ecological refrigerant gas;
• plate evaporator;
• aluminium micro channel finned coils;
• fans with continuous speed control;
• microprocessor controller;
• ventilated electrical panel;
• integrated storage tank;
• hydraulic pump;
• stainless steel condensers filters;
• filter and shut-off valves for water;

APPLICATIONS

• Air conditioning and industrial processes cooling sector.

REFRIGERANT CIRCUIT
This is manufactured from top quality materials by skilled personnel according to strict procedures of brazing, compliant with Directive 97/23. It is composed of:
• rotary (OWT007 and OWT010 models) and scroll compressors designed for use with R410A;
• evaporator assembled from AISI 316 stainless steel brazed plate,
• condenser assembled from micro channel aluminium ;
• filter dryer;
• flow sight glass with moisture indicator
• external equalisation thermostatic expansion valve. The thermostatic expansion valve regulates the injection of liquid refrigerant into the evaporator. The injection is a response to the refrigerant overheating. The range of thermostatic valves that we use are designed for specific applications and are connected to the circuit via bi-metal brazing;
• unidirectional valves (only for multi-compressor units);
• high pressure switch with manual reset and low pressure switch with automatic reset;
• high and low pressure manometers;
• pressure connections for checks and maintenance.

HYDRAULIC CIRCUIT
This consists of an evaporator and interior piping to the machine, it also includes:
• an storage tank made of carbon steel and thermally insulated;
• an electric stainless steel, thermally insulated pump;
• a water bypass to prevent incidents
• caused by the erroneous closure of the stop valves;
• expansion vessel;
• safety valve;
• automatic vent valve;
• water-level sensor
• water differential pressure switch;
• stop ball valves;
• inlet unit water filter;
• manometer;
• drain valve.

Model **OWT**		007	010	015	018	020	025	030	038	040	045	055	065	075	090	110	130
Cooling capacity (1)	[kW]	7	10,31	14,54	18,9	21,31	23,3	28,11	37,8	42,7	45,1	56,7	64	75,61	89,79	113,41	128,11
Compressors power input (1)	[kW]	1,45	2,26	3,54	4,11	4,69	5,22	6,92	7,92	9,16	10,00	12,79	14,49	15,47	17,71	24,19	27,81
Total power input (1) (2)	[kW]	2,51	3,32	4,6	5,71	6,29	6,82	8,52	10,82	12,06	12,9	15,55	17,25	21,27	23,51	30,69	35,31
Total absorbed current (1) (2)	[A]	5,08	6,48	8,7	11,30	12,75	13,06	16,07	20,30	23,29	23,96	28,19	32,55	37,26	42,72	54,22	64,88
EER (pump excluded) (1)	---	3,76	3,86	3,68	3,93	3,96	3,94	3,69	4,06	4,04	3,96	4,03	4,06	3,96	4,21	4,1	4,09
Water flow (1)	[l/h]	1.204	1.773	2.501	3.251	3.665	4.008	4.834	6.502	7.345	7.758	9.753	11.009	13.004	15.444	19.506	22.035
Available pressure (1)	[kPa]	252	246	315	323	324	311	302	327	331	335	278	259	227	227	263	307
Maximum power input (total) (2) (3)	[kW]	3,3	4,4	5,9	7,7	8,5	9,4	11,4	15,1	16,8	17,5	21,1	23,6	30,3	33,5	43,2	49,1
Maximum absorbed current (total) (2) (3)	[A]	6,7	8,1	10,9	14,7	16,3	17,3	20,8	27,7	30,8	31,5	37,9	42,6	52,5	58,7	75,8	86,9
Starting current (2) (3)	[A]	35,6	47,6	55,6	74,3	94,3	49,8	65,5	87,2	108,8	76,3	97,5	120,6	112	136,7	135,3	164,9
Fan power	[kW]	0,41	0,41	0,41	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,63	0,63	1,8	1,8	1,75	1,75
Fan current	[A]	1,8	1,8	1,8	2,9	2,9	2,9	2,9	2,9	2,9	2,9	2,7	2,7	3	3	3,3	3,3
Number of fans	[#]	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
P3 Pump power input	[kW]	0,65	0,65	0,65	0,9	0,9	0,9	0,9	1,5	1,5	1,5	1,5	1,5	2,2	2,2	3	4
P3 Pump absorbed current	[A]	1,6	1,6	1,6	2,6	2,6	2,6	2,6	3,4	3,4	3,4	3,4	3,4	4,6	4,6	6,3	8,1
Power supply	[V/Ph/Hz]	400/3/50															
IP protection degree	---	IP44															
Refrigerant	---	R410A															
Compressor type	---	Rotary		Screw													
Evaporator type	---	Brazed plates															
Condenser type	---	Microchannel															
N° of compressors	[#]	1	1	1	1	1	2	2	2	2	3	3	3	4	4	6	6
N° of refrigerant circuits	[#]	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Air flow	[m^3/h]	4.346	4.346	4.531	8.179	8.179	8.049	8.049	15.399	15.399	15.399	18.791	18.791	32.931	32.931	44.185	44.185
Sound pressure level (4)	[dbA]	43	43	43	50	50	50	50	53	53	53	49,5	49,5	58,5	58,5	52	52
Water connections diameter	[inch]	1"	1"	1"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"
Width	[mm]	662	662	662	662	662	662	662	752	752	832	832	832	1.110	1.110	1.210	1.210
Depth	[mm]	991	991	991	1.305	1.305	1.305	1.305	1.635	1.635	1.850	1.850	1.850	2.025	2.025	2.230	2.230
Height	[mm]	1.335	1.335	1.335	1.425	1.425	1.425	1.425	1.535	1.535	1.700	1.700	1.700	1.900	1.900	2.255	2.255
Weight	[kg]	210	215	260	265	275	315	325	400	410	500	500	515	720	770	980	1000
Tank capacity - Option	[dm^3]	95	95	95	95	95	95	95	135	135	135	135	135	205	205	205	205
Expansion vessel capacity	[dm^3]	5	5	5	5	5	5	5	8	8	8	8	8	12	12	12	12
P5 Input pump power- Option	[kW]	0,75	0,75	0,75	1,3	1,3	1,3	1,3	2,2	2,2	2,2	2,2	2,2	4	4	4	4
P5 Absorbed pump current - Option	[A]	2,5	2,5	2,5	3,5	3,5	3,5	3,5	4,6	4,6	4,6	4,6	4,6	8,1	8,1	8,1	8,1
Available pressure (1) (5)	[kPa]	452	445	415	521	518	502	483	530	527	532	452	421	432	424	426	372

(1) Data referred to following conditions: water temperature in/out: 20/15°C - ambient air temperature: 25°C – (2) Data referred to unit with standard P3 pump – (3) Data related to most heavy condition allowed by safety devices fitted on the unit – (4) Referred at 10 m and at an height of 1,5 m in free field – (5) Data referred to unit with P5 pump (optional) – (6) For models from OWT007 to OWT065 with additional loading tank, length increases by 300mm.

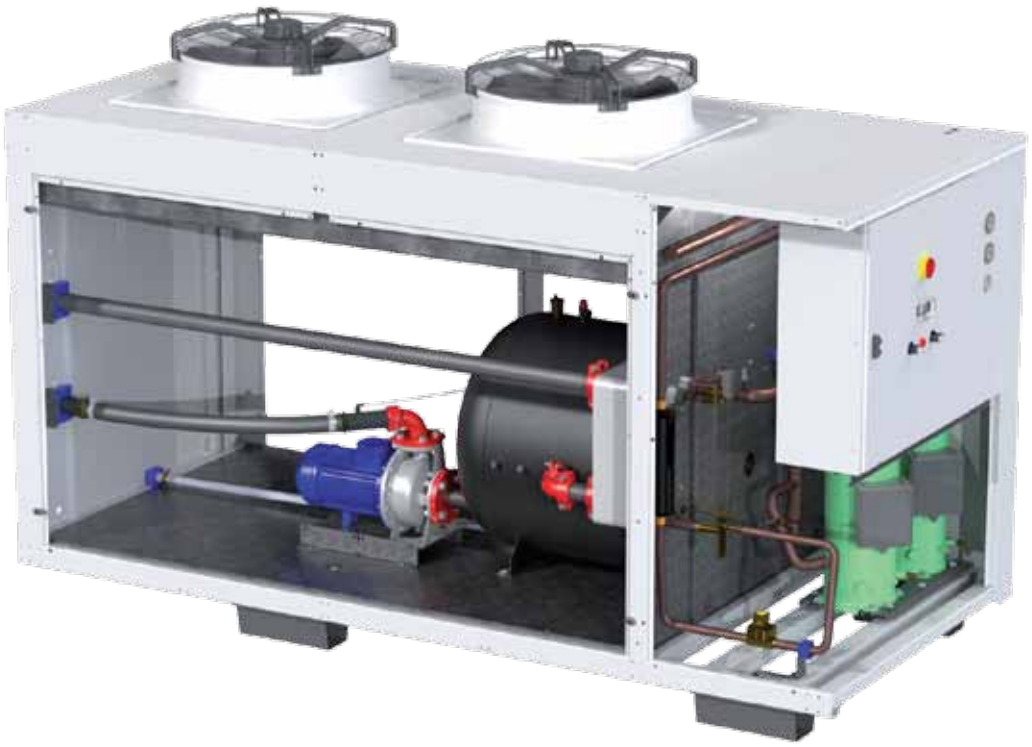
OWE/HWE SERIES

AIR-COOLED WATER CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS

14 to 135 kW
cooling capacity

1" to 2" VIC
water connections diameter

R410A
refrigerant



DESCRIPTION

The new range of OWE/ HWE water chillers and heat pumps are air-cooled with axial fans and consist of 19 basic models, with cooling capacities from 13 to 141 kW each designed for outdoor installation.
They are designed to specifically meet industry application requirements and provide accurate control of chilled and hot water temperatures with absolute reliability of continuous operation.

All units are equipped with:
- hermetic scroll compressors;
- ecological R410A refrigerant;
- Plate evaporator;
- finned tubes condensers;
- fans with step control;
- microprocessor controller;
- stainless steel filters for condensers;
- water inlet filter for the evaporator

APPLICATIONS

- Industrial cooling processes

REFRIGERANT CIRCUIT
Manufactured from top quality materials by skilled personnel according to strict procedures of brazing, and conforms to Directive 97/23. It comprises:
- Scroll compressors designed for R410A;
- Evaporator made from AISI 316 stainless steel brazed plate,
- copper and aluminium condensers;
- Filter dryer;
- Flow sight glass with moisture indicator;
- External equalisation thermostatic expansion valve which regulates the injection of liquid refrigerant into the evaporator. The injection is a response to the refrigerant overheating. The range of thermostatic valves that we use are designed for specific applications and are connected to the circuit via bi-metal brazing;
- High pressure switch with manual reset;
- Low pressure transducer with semi-automatic reset;
- Gauges for high and low pressure;
- Pressure connections for checks and maintenance.

HYDRAULIC CIRCUIT
The hydraulic circuit consists of an internal evaporator and pipework. It features a differential pressure monostat that protects the evaporator in case of a no water flow. All units can be equipped with an optional multi stage centrifugal pump with steel impeller. All parts which are in contact with the fluid are AISI 304 stainless steel with mechanical seals in carbon/ceramic/ EPDM (standard) which makes it possible to use water containing up to 30% ethylene glycol. The motor is asynchronous 2 poles ventilated with insulation class F, and IP55 protection. It is possible to select pumps with three different levels of pressure head (P2, P3 and P5). Double circulation pumps are also available. The water tank is available for all models in both atmospheric and pressurised versions and with the option of stainless steel.

Model OWE/HWE		013	021	026	036	041	046	053	068	075	076	085	086	100	110	111	125	126	140	141
Cooling capacity (1)	[kW]	13,77	19,68	25,58	4,28	39,49	49,32	52,50	65,97	72,41	70,05	78,29	82,31	92,11	106,18	109,86	123,87	124,12	134,82	134,91
Compressors power input (1)	[kW]	3,48	5,01	7,12	0,86	10,05	10,34	12,70	17,22	16,05	15,49	18,65	21,68	20,71	23,89	26,62	27,98	29,10	33,21	33,68
Total power input (1) (2)	[kW]	3,75	5,28	7,74	1,36	11,99	12,28	14,64	19,16	17,29	16,73	19,89	22,92	21,95	25,77	28,50	29,86	30,98	35,09	35,56
Total absorbed current (1) (2)	[A]	6,74	9,77	15,18	7,22	20,09	20,73	24,98	31,85	28,37	27,98	32,84	36,93	36,30	43,49	46,47	49,70	52,83	57,57	58,66
EER (pump excluded) (1)	---	3,67	3,73	3,31	4,32	3,29	3,77	3,58	3,44	4,19	4,19	3,94	3,59	4,20	4,12	3,85	4,15	4,01	3,84	3,79
Water flow (1)	[l/h]	2.368	3.385	4.400	736	6.792	7.968	9.030	11.346	12.454	12.049	13.466	14.157	15.843	18.263	18.896	21.306	21.348	23.189	23.204
Pressure drop (1)	[kPa]	47	64	62	248	62	84	75	84	55	52	64	70	49	64	68	43	43	50	50
Maximum power input (total) (2) (3)	[kW]	5,1	7,2	9,7	14,8	16,3	19,6	18,6	24,1	24,1	23,4	26,9	31,8	29,9	35,1	39,9	40,7	44,8	46,2	48,3
Total absorbed current(2) (3)	[A]	9,0	12,7	17,7	24,2	26,6	30,7	30,7	39,2	38,4	37,8	43,1	50,6	48,1	57,0	64,3	65,5	73,7	74,1	78,3
Starting current (2) (3)	[A]	53,8	90,8	100,4	144,9	148,9	179,9	179,9	215,9	144,5	214,5	163,8	212,5	170,3	206,2	290,4	244,5	270,4	250,7	301,4
Fan power	[kW]	0,14	0,14	0,31	0,97	0,97	0,97	0,97	0,97	0,62	0,62	0,62	0,62	0,62	0,94	0,94	0,94	0,94	0,94	0,94
Fan current	[A]	0,38	0,38	1,20	1,93	1,93	1,93	1,93	1,93	1,25	1,25	1,25	1,25	1,25	1,70	1,70	1,70	1,70	1,70	1,70
Number of fans	[#]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Power supply	[V/Ph/hz]	400/3/50																		
IP protection degree	-	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP44	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Refrigerant	---	R410A																		
Compressor type	---	Scroll																		
Evaporator type	---	Brazed plates																		
Condenser type	---	Tube&fins																		
N° of compressors	[#]	1	1	1	1	1	1	1	1	2	1	2	1	2	2	1	2	1	2	1
N° of refrigerant circuits	[#]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Air flow	[m3/h]	5.100	4.800	4.800	14.000	17.300	17.300	15.900	14.800	19.500	19.500	19.500	19.500	18.950	23.000	18.950	27.000	23.000	27.000	27.000
Sound pressure level (4)	[dbA]	43,5	43,5	43,5	55,0	55,0	55,0	55,5	56,0	54,0	53,0	54,0	51,0	55,0	59,5	59,0	60,0	59,0	60,0	59,5
Water connections diameter	[inch]	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC	2" VIC
Width	[mm]	680	680	680	925	925	925	925	925	1.380	1.380	1.380	1.380	1.380	1.380	1.380	1.380	1.380	1.380	1.380
Depth	[mm]	1.550	1.550	1.550	1.890	1.890	1.890	1.890	1.890	2.590	2.590	2.590	2.590	2.590	2.590	2.590	3.090	2.590	3.090	3.090
Height	[mm]	1.405	1.405	1.405	1.580	1.580	1.580	1.580	1.580	1.960	1.960	1.960	1.960	1.960	1.960	1.960	1.960	1.960	1.960	1.960
Weight	[kg]	250	270	270	380	380	400	420	420	650	650	670	670	700	730	730	820	820	850	850
Tank capacity - Option	[dm³]	110	110	110	200	200	200	200	200	400	400	400	400	400	400	400	400	400	400	400
Expansion vessel capacity - Option	[dm³]	8	8	8	12	12	12	12	12	18	18	18	18	18	18	18	18	18	18	18
P2 Pump power input - Option	[kW]	0,68	1,00	1,00	1,60	1,60	1,60	1,45	1,45	2,22	2,22	2,22	2,22	2,22	2,22	2,22	2,87	2,87	2,87	2,87
P2 Pump absorbed current - Option	[A]	1,40	2,00	2,00	1,90	1,90	1,90	2,60	2,60	4,30	4,30	4,30	4,30	4,30	4,30	4,30	5,00	5,00	5,00	5,00
P3 Pump power input - Option	[kW]	1,60	1,45	1,45	2,09	2,09	2,09	2,87	2,87	2,87	2,87	2,87	2,87	2,87	2,87	2,87	6,70	6,70	6,70	6,70
P3 Pump absorbed current - Option	[A]	1,90	2,60	2,60	4,00	4,00	4,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00	11,80	11,80	11,80	11,80
P5 Pump power input - Option	[kW]	0,75	1,30	1,30	2,20	2,20	2,20	2,20	2,20	3,00	3,00	3,00	3,00	4,00	4,00	4,00	11,00	11,00	11,00	11,00
P5 Pump absorbed current - Option	[A]	2,50	3,50	3,50	4,60	4,60	4,60	4,60	4,60	6,30	6,30	6,30	6,30	8,10	8,10	8,10	18,80	18,80	18,80	18,80

(1) Data referred to: water temp. in/out: 20/15°C – Ambient air temp. 25°C – (2) Data referred to unit without pump – (3) Data related to most heavy condition allowed by safety devices – (4) Referred at 10 m and at an height of 1,5 m in free field.

OWB SERIES

AIR-COOLED WATER CHILLERS WITH AXIAL FANS AND SCROLL COMPRESSORS

142 to 574 kW
cooling capacity

2 1/2" to 3"
water connections diameter

R410A
refrigerant

DESCRIPTION

The OWB range consists of Air cooled water chillers with axial fans for outdoor installation. The OWB family comprises of 12 basic models with cooling capacities ranging from 140 to 570 kW. This allows flexibility of the unit selection, its accessories and the final installation operating conditions.

OWB units are particularly suitable for installations where continuous chilled water production is required even for applications in low external ambient temperatures. In this case, it is necessary to use the option of EC condenser fans.

The optional free-cooling feature, available in the 160-280 kW models, allows the free cooling of the water using a coil cooled by the ambient air.

APPLICATIONS

- Continuous chilled water production
- Applications in low external ambient temperatures

REFRIGERANT CIRCUIT
The cooling circuit is manufactured by skilled technicians using quality materials and brazing procedures that comply with Directive 97/22/EC. This applies to all models and includes the following components (except those listed above): dehydrating filter, sight glass and humidity indicators, high and low pressure manostats (fixed setting), the high and low pressure gauges, pressure taps for checks and maintenance, evaporation and condensation pressure transducers, refrigerant temperature probes and air / water probes.
For the models from OWB270 to OWB570, the evaporator has a double refrigerant circuit and a single water circuit. Compared to solutions with independent evaporators, this configuration is particularly effective for partial load applications.

HYDRAULIC CIRCUIT
The hydraulic circuit consists of an internal evaporator and pipework. It features a differential pressure monostat that protects the evaporator in the event of a loss of water flow.

Model OWB		140	160	190	220	270	300	320	380	420	450	510	570
Cooling capacity (1)	[kW]	142,37	166,11	193,06	224,25	270,55	293,84	318,38	386,82	423,69	458,07	526,44	574,08
Compressors power input (1)	[kW]	31,93	43,53	38,45	50,98	52,67	62,54	74,26	73,30	87,75	103,02	105,15	122,70
Total power input (1) (2)	[kW]	36,05	47,65	44,63	57,16	60,91	70,78	82,50	85,66	100,11	115,38	121,63	139,18
Total absorbed current (1) (2)	[A]	59,90	76,72	74,60	94,16	103,14	117,93	134,65	140,93	164,73	189,89	212,16	232,79
EER (pump excluded) (1)	---	3,95	3,49	4,33	3,92	4,44	4,15	3,86	4,52	4,23	3,97	4,33	4,12
Water flow (1)	[l/h]	24.488	28.570	33.207	37.571	46.535	50.541	54.761	66.532	72.874	78.789	90.547	98.742
Pressure drop (1)	[kPa]	55	73	51	67	53	62	71	51	60	70	67	79
Maximum power input (total) (2) (3)	[kW]	54,4	65,2	69,4	82,2	85,8	97,0	113,6	134,5	149,6	164,5	188,0	202,0
Total absorbed current (2) (3)	[A]	88,1	103,8	112,6	133,3	139,5	156,5	181,6	215,2	241,0	266,6	311,5	332,6
Starting current (2) (3)	[A]	257,8	265,7	349,0	359,3	318,4	333,2	352,0	377,1	473,5	492,6	508,2	555,0
Fan power	[kW]	20,6	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06
Fan current	[A]	3,80	3,80	3,80	3,80	3,80	3,80	3,80	3,80	3,80	3,80	3,80	3,80
Number of fans	[#]	2	2	3	3	4	4	4	6	6	6	6	6
Power supply	[V/Ph/hz]	400/3/50											
IP protection degree	-	IP54											
Refrigerant	---	R410A											
Compressor type	---	Scroll											
Evaporator type	---	Brazed plates											
Condenser type	---	Microchannel											
N° of compressors	[#]	2	2	2	2	4	4	4	4	4	4	4	4
N° of refrigerant circuits	[#]	1	1	1	1	2	2	2	2	2	2	2	2
Air flow	[m3/h]	44.000	44.000	66.000	66.000	88.000	88.000	88.000	132.000	88.000	132.000	176.000	176.000
Sound pressure level (4)	[dbA]	58,0	56,6	58,0	58,0	60,5	60,5	59,5	59,5	60,5	60,5	59,5	61,5
Water connections diameter	[inch]	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"	3"	3"	3"	3"	3"	3"	3"
Width	[mm]	1.104	1.104	1.104	1.104	2.204	2.204	2.204	2.204	2.204	2.204	2.204	2.204
Depth	[mm]	3.004	3.004	4.002	4.002	3.004	3.004	3.004	4.004	4.004	4.004	5.004	5.004
Height	[mm]	1.977	1.977	1.977	1.977	1.977	1.977	1.977	1.977	1.977	1.977	1.977	1.977
Weight	[kg]	1.170	1.180	1.290	1.300	1.810	1.830	1.850	2.250	2.270	2.290	2.650	2.650
Tank capacity - Option	[dm³]	470	470	470	470	600	600	600	600	600	600	600	600
Expansion vessel capacity - Option	[dm³]	18	18	18	18	18	18	18	18	18	18	18	18
P2 Pump power input - Option	[kW]	3,75	3,75	3,75	3,75	5,10	5,10	5,10	6,70	6,70	6,70	9,10	9,10
P2 Pump absorbed current - Option	[A]	6,50	6,50	6,50	6,50	9,20	9,20	9,20	11,80	11,80	11,80	15,70	15,70
P3 Pump power input - Option	[kW]	6,70	6,70	6,70	6,70	9,10	9,10	9,10	9,10	9,10	9,10	13,10	13,10
P3 Pump absorbed current - Option	[A]	11,80	11,80	11,80	11,80	15,70	15,70	15,70	15,70	15,70	15,70	22,00	22,00
P5 Pump power input - Option	[kW]	11,00	11,00	11,00	11,00	16,58	16,58	16,58	17,50	17,50	17,50	13,10	13,10
P5 Pump absorbed current - Option	[A]	18,80	18,80	18,80	18,80	27,20	27,20	27,20	30,00	30,00	30,00	22,00	30,00

(1) Data referred to: water temp. in/out: 20/15°C – Ambient air temp. 25°C – (2) Data referred to unit without pump – (3) Data related to most heavy condition allowed by safety devices – (4) Referred at 10 m and at an height of 1,5 m in free field.

INDUSTRIAL ENGINEERING

Industrial engineering is a branch of engineering which deals with the optimization of complex processes, systems or organizations. Industrial engineers find the most effective way to turn the basic factors of production – people, materials, machines, time, energy, and money – into almost every product and service we consume. The best engineers also optimize the organization of a business.

To maximize efficiency, industrial engineers study product requirements carefully and then design manufacturing and information systems to meet those requirements. They also design or improve systems for the physical distribution of goods and services and determine the most efficient plant locations.

OMEGA AIR customers need high quality and long-lived products. Good products do not arise by chance. They result from a harmony between the departments of marketing, development, and production controlling.
Team work of highly motivated development engineers ensures excellent execution of projects and meet even the most demanding customers' orders.
The relevant safety procedures to avoid irregularities are already built in development and production stages, so the highest product quality is guaranteed.

- Biogas plants
- Air jet system
- Gas generators: N_2, O_2
- Moulds for plastic injection moulding
- Moulds for aluminium die casting
- Cogeneration
- CNG filling station

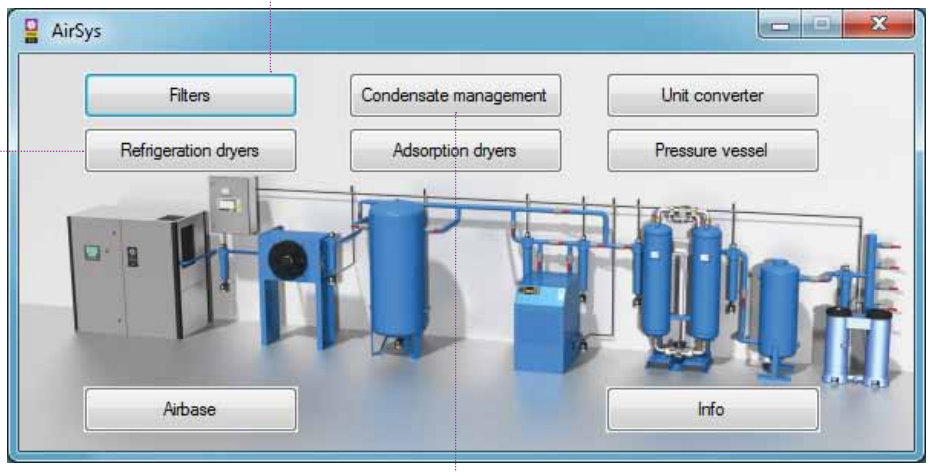

CTXU

AirSys

COMPRESSED AIR TREATMENT SIZING SOFTWARE

APPLICATIONS

Filters tool: ..... is application for selection of a proper filter housing and filter element.
Condensate management: ..... everything you need for the condensate treatment.
Refrigeration dryers:..... select the right refrigeration dryer.
Adsorption dryers: ..... select the right adsorption dryer.
Pressure vessel: ..... calculate volume for a pressure vessel.
Unit converter: ..... convert to a unit you understand.
Piping: ..... select the right pipe for your application.
.....
Aditional modules coming soon!



DESCRIPTION

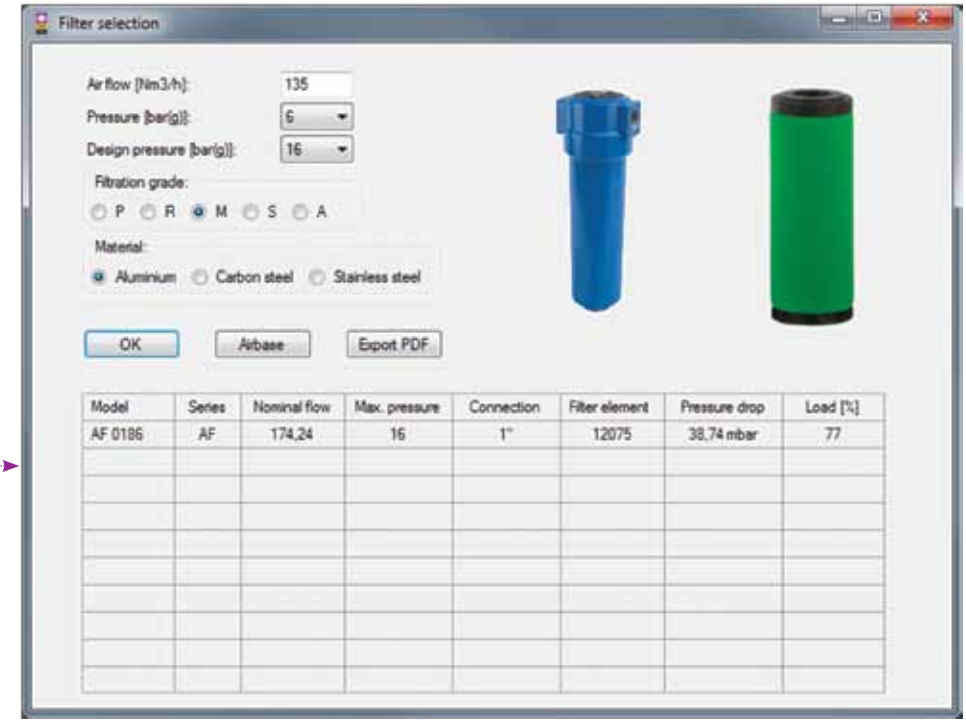
The **AirSys** is selection software designed by Omega Air.

It is being developed for fast and user friendly selection of Omega Air products.

The **AirSys** software provides suggestions for components which enables the user to select the best suited component based on several deciding parameters such as operating pressure, operating temperature, flow capacities...

With **AirSys** you can easily select proper filters, filter elements, drains, dryers etc.

AirSys is available at our Airbase. Additional information is available at our sales staff.


Filter selection
Air flow [Nm3/h]: 135
Pressure [bar(g)]: 6
Design pressure [bar(g)]: 16
Filtration grade:
P R M S A
Material:
Aluminium Carbon steel Stainless steel
OK
Airbase
Export PDF
Model Series Nominal flow Max. pressure Connection Filter element Pressure drop Load [%]
AF 0186 AF 174,24 16 1" 12075 38,74 mbar 77

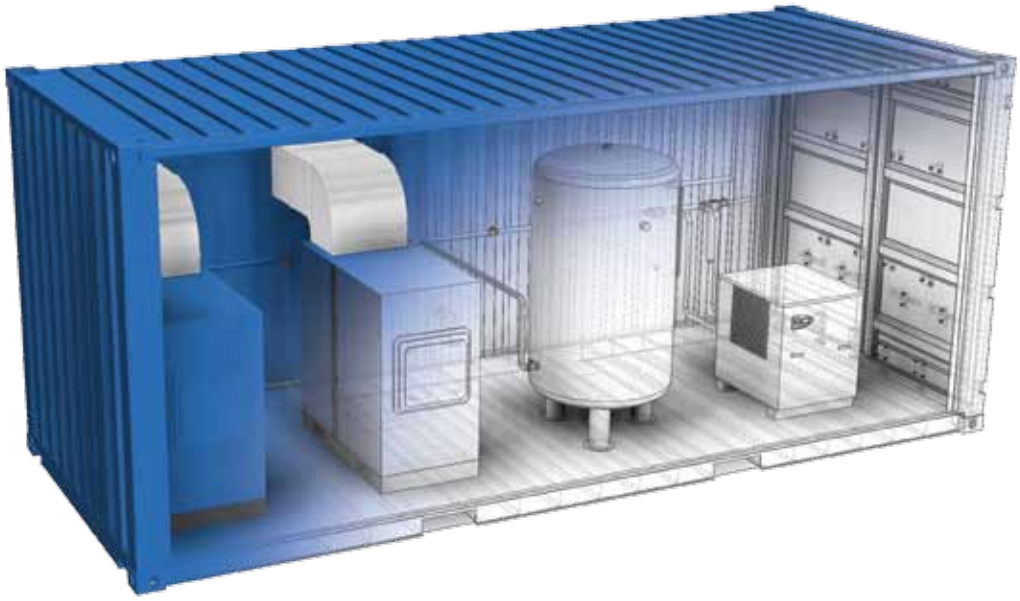

Condensate management
Refrigerated air dryer
Outlet temperature [°C]: 40
Water vapour [g/m3]: 50,672
Condensate [l/h]: 0,0
Automatic controlled
Electronic controlled
Manual controlled
Timer controlled
Filter 2 (downstream refrigerated air dryer)
Outlet temperature [°C]: 37
Water vapour [g/m3]: 43,508
Condensate [l/h]: 0,0
Water oil separator
Condensate [l/h]: 0
OK
Airbase
Export PDF


Condensate management
Aftercooler
Pressure vessel
Filter 1
Refrigerated air dryer
Filter 2
Water oil separator


AIRBASE

COMPRESSED AIR STATIONS

CUSTOM MADE SOLUTIONS



DESCRIPTION

Our speciality is the design and construction of compressor stations according to specific requirements of our customers.

We carry out measurements of production process requirements on the basis of which the compressed air station project is made.

Professional approach to the project ensures reliable operation, maximum space utilization and high energy performance. Only high quality devices and materials are used.

APPLICATIONS

- General industrial applications
- Automotive
- Electronics
- Food and beverage
- Petrochemical
- Plastics
- Paint
- Packing industry
- Biotechnology
- Breweries
- Chemical industry
- Dairies
- Fermentation processes
- Pharmaceutical industry
- Hospitals...

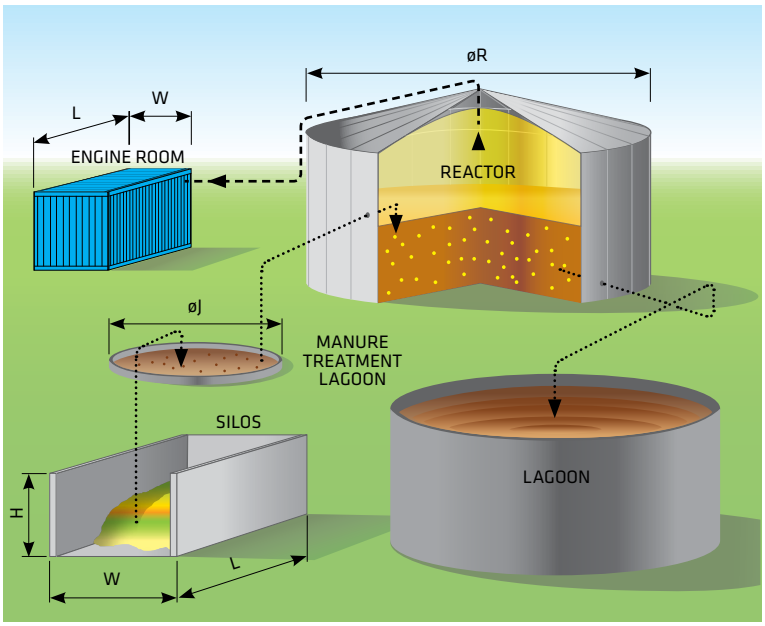
MIBP and BP

BIOGAS PLANTS

Type *	Electrical power	Heat power	Number of large livestock	Volume part of maize silage	Annual production of electrical energy
	kW	kW	pcs	%	MWh
MiBP 5	5	15,5	70	0	38
MiBP 10	7	18	90	0	49
MiBP 15	16	33	110	8	105
MiBP 20	22	43	110	12,5	139
MiBP 30	30	65	150	14,5	227
MiBP 40	43	63	180	16	305
MiBP 50	50	79	230	15,9	442
MiBP 60	64	103	270	15,6	524
MiBP 75	70	109	300	15,7	606
BP 100	105	138	400	15,7	820
BP 150	143	207	600	13,9	1144
BP 250	252	321	1000	14,2	1990
BP 300	307	360	1500	11,3	2441
BP 375	375	421	2000	9,3	2970

* Each biogas plant is a specific project which is adjusted according to the type and size of farm. OMEGA AIR is designer and producer of biogas plants to size 375 kW.

DIMENSIONS OF TYPICAL BIOGAS PLANTS		
	Type of biogas plant	
Dimensions [m]	MiBP 30 (30 kW)	MiBP 50 (50 kW)
L	6 m	6 m
B	2,5 m	2,5 m
øJ	4 m	5 m
øR	12,8 m	14,6 m
reactor height	4,4 m	4,4 m
gas storage height	1,5 m	1,5 m
end lagoon diameter	19,2 m	23,8 m
end lagoon height	7,3 m	5,8 m
silos (L×W×H)	6×30×3 m	8×30×3,5 m



DESCRIPTION

The slurry and other organic waste produced on livestock farms can be prepared in preparation tank for pumping into the bioreactor.

Bioreactor is a tank in which a process of anaerobic degradation takes place. Anaerobic digestion is a microbiological process of decomposition of organic matter, in the absence of oxygen. At this process a gas mixture - biogas is produced, which is stored in biogas storage before used.

Cogeneration unit combust clean biogas for electricity and heat production. Heat as a side product of electricity production is send trough heat exchanger coolant/water and stored in heat storage. Heat is used for heating bioreactor and for domestic hot water.

Produced electricity is used for powering the electrical equipment on the farm. The excesses of electrical energy are sold to electricity distributor.

The substrate mixture continuously flows into the bioreactor and the same volume digestate flows through the outlet to the end lagoon. During spreading of processed digestate to the fields there are significantly less unpleasant odors as in the case of the slurry.

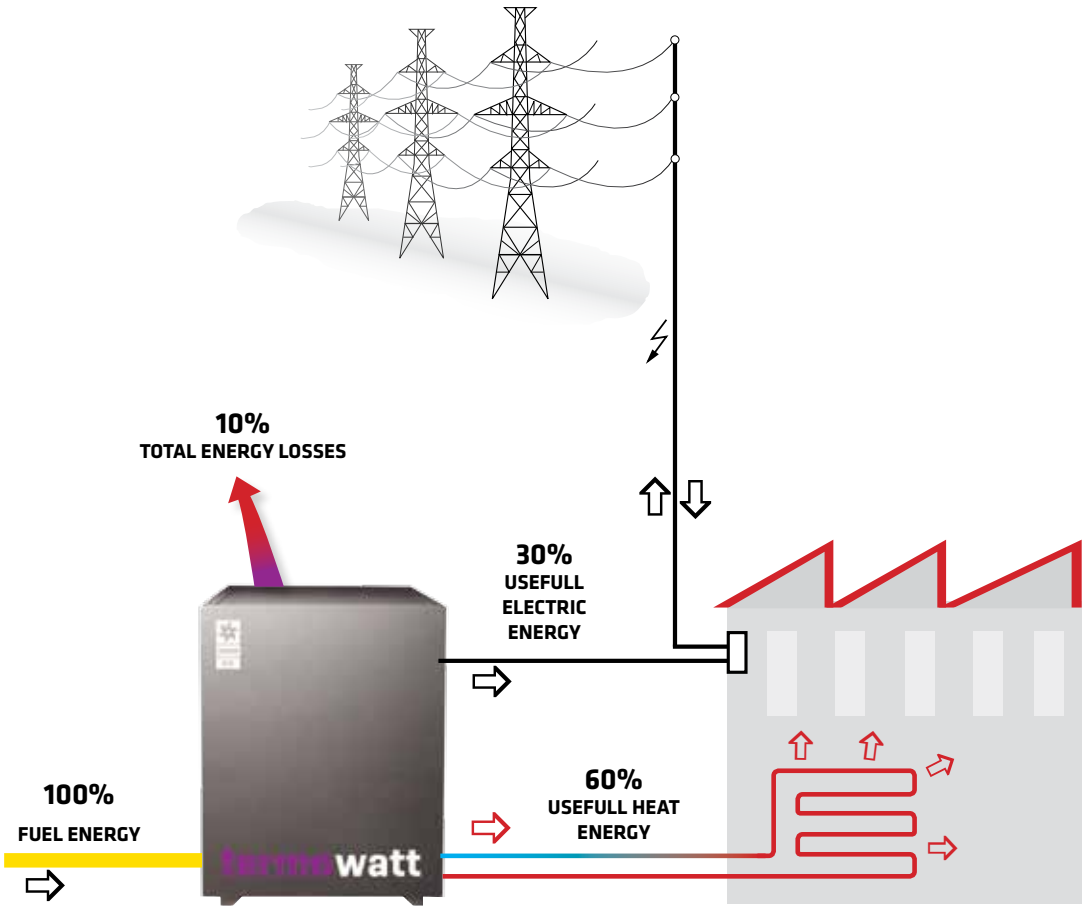
The engine room (cogeneration unit, heat storage tank, heat exchangers, automatics...) is closed in heat and sound proof ISO container. Only bioreactor tank is installed separately near to the engine room.

TERMOWATT

MICRO COGENERATION STATIONS

47 to **1500** kW
electric power

63 to **1848** kW
heat power



DESCRIPTION

- Low electricity and heat energy costs,
- Low operating costs,
- Greater energy efficiency,
- Increased reliability of energy supply,
- Use of energy independent of the public network,
- Large primary energy savings,
- Production of environmental friendly energy,
- Reducing of greenhouse gas emissions (CO_2) and emissions of other harmful gases (CO, SO_2, NO_x),
- Ecological resources fuels (natural gas, liquefied petroleum gas, fuel or vegetable oil, biodiesel, biomass).

APPLICATIONS

- Simultaneous production of electric and heat energy

TECHNICAL DATA

Type	Fuel power	Electric power	Heat power	Electric efficiency	Thermal efficiency	Total efficiency
Termowatt 5G	22 kW	5,5 kW	15,5 kW	25 %	70,5 %	>90 %
Termowatt 7G	26 kW	7,0 kW	18 kW	27 %	69,3 %	>90 %
Termowatt 15G	51 kW	16 kW	33 kW	31 %	64,7 %	>90 %
Termowatt 22G	68 kW	22 kW	43 kW	32 %	63,2 %	>90 %
Termowatt 30G	99 kW	30 kW	65 kW	30 %	65,6 %	>90 %
Termowatt 50G	145 kW	50 kW	90 kW	34 %	62,1 %	>90 %
C-LGE 70 MAN	204 kW	69 kW	109 kW	33,8 %	53,3 %	90 %
C-LGE 105 MAN	282 kW	105 kW	138 kW	37,1 %	49,1 %	88,1 %
C-LGE 200 MAN	538 kW	200 kW	263 kW	37,1 %	48,9 %	87,9 %

MJ SERIES
MICRO CNG STATIONS

5 to 70 Nm³/h
capacity

280 to 3360 l
storage capacity

	MJ Compact 05	MJ Variant	MJ Variant Plus	MJ Compact Plus	MJ SAT
Intended use	Slow filling	Fast filling	Fast filling	Fast filling	Public filling station
Number of compressors	1 x MJ05	1 - 4 x MJ05	1 - 4 x MJ05	1-2	1-4
Compressors capacity	5 m³/h	5 - 20 m³/h	5 - 20 m³/h	20 - 60 m³/h	> 70 m³/h
Annual capacity	15.000 m³/year	20 - 60.000 m³/year	20 - 60.000 m³/year	60 - 270.000 m³/year	200.000 m³/year
Annual mileage	20.000 - 200.000 km	200.000 - 800.000 km	200.000 - 800.000 km	800.000 - 3.600.000 km	-
Vehicle filling time	Overnight	2 - 3 min	2 - 3 min	2 - 3 min	2 - 3 min
Max. number of simultaneously filled cars	2	1	1	1	1
CNG storage tanks	Option	280 - 1260 l	840 - 1680 l	up to 3360 l	> 3360 l
Max. CNG storage tanks pressure	235 bar	250 bar	250 bar	250 bar	250 bar
Installed motor power	2,2 kW	2,2 - 8,8 kW	2,2 - 8,8 kW	7,5 - 15 kW	Depends on version
Dispenser (option)	No	Yes	Yes	Yes	Yes
Paying terminal (option)	No	Yes	Yes	Yes	Yes
Size of vehicles fleet	1 - 5	5 - 20	5 - 20	20 - 80	Public filling station
Equipment	- integrated gas meter with pulse counter, - gas leakage sensor, - integrated gas dryer and filter, - automatic filling process (B&R control unit), - safety alarms, - breakaway coupling, - one or two NGV1 filling terminals, depends on version,	- 2 pressure sections of CNG storage tanks, - manual filling control or automatic filling control (with integrated dispenser), - safety coupling, - NGV 1 filling terminal, - pressure overload protection, - pressure manometers	- gas leakage sensor, - integrated gas dryer - 2 pressure sections of CNG storage tanks, (low/high pressure), - manual filling control or automatic filling control (with integrated dispenser), - safety coupling, - NGV 1 filling terminal	- gas leakage sensor, - integrated gas dryer, - 2 pressure sections of CNG storage tanks, (low/high pressure), - manual filling control or automatic filling control (with integrated dispenser), - safety coupling, - NGV 1 filling terminal	- CNG temperature sensors, - integrated CNG storage tank, 3 pressure sections, - steel or concrete container, - intake pressure control (min. and max.), - humidity control, - gas leakage sensor, - stainless steel pipes and fittings on high pressure sections, - integrated gas dryer, - control panel heating, - oil preheating, - open door detection, - many other options

DESCRIPTION

CNG (compressed natural gas) filling stations are used for filling of CNG powered vehicles. In CNG filling station compressor compresses the natural gas from pressure of 0,02-0,2 bar (domestic gas supply system) to 200-250 bar which is used to fill a storage tank in vehicle.
There are two different technologies used in CNG filling stations.
Slow filling station use compressor to compress the natural gas directly into the car CNG tank. This technology is used in small fleet of vehicles that are not used constantly.
In fast filling station the compressor compresses the natural gas to pressure storage tank. Compressing of natural gas to storage tank is made before filling of the car therefore storage tank is constantly full and available for filling. This technology is used in a larger fleet of vehicles and in public filling stations.

SKIDS

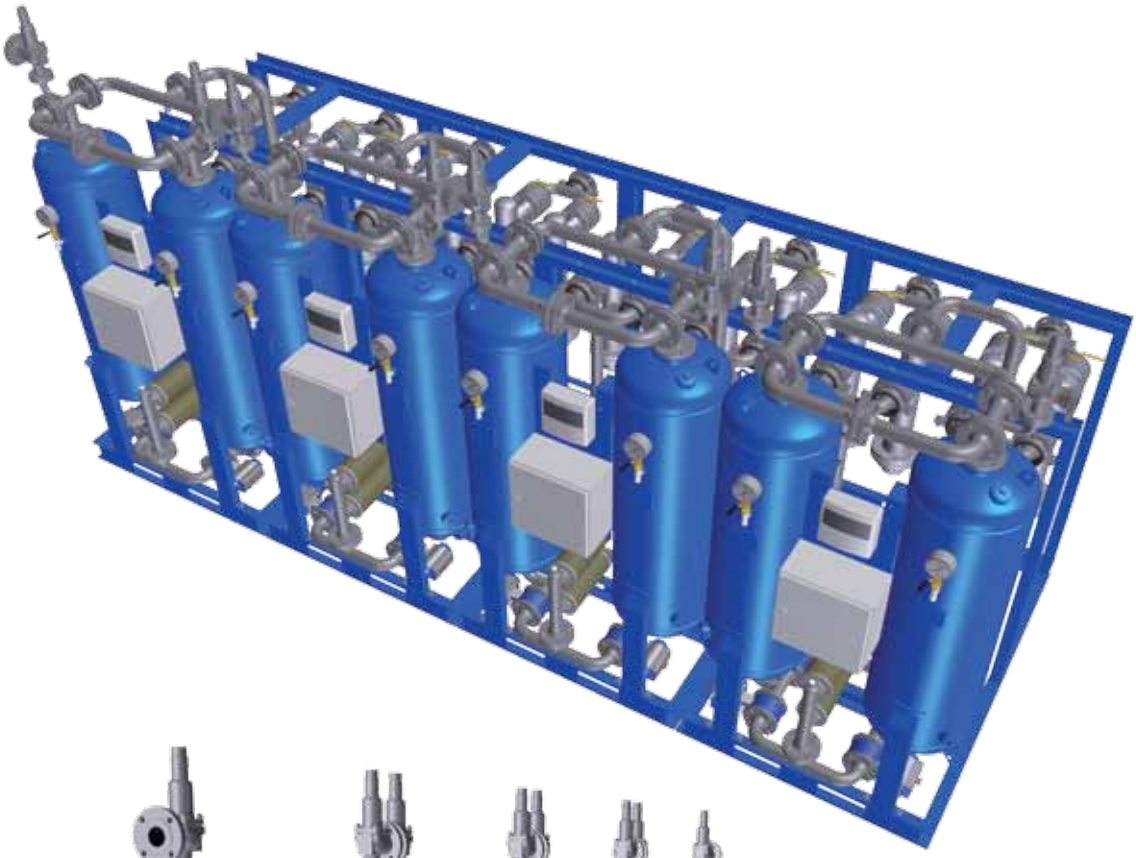
SKID/CONTAINER BASED PACKAGES

0 - 400 bar
operating pressure

on request
operating temperature range

on request
connections

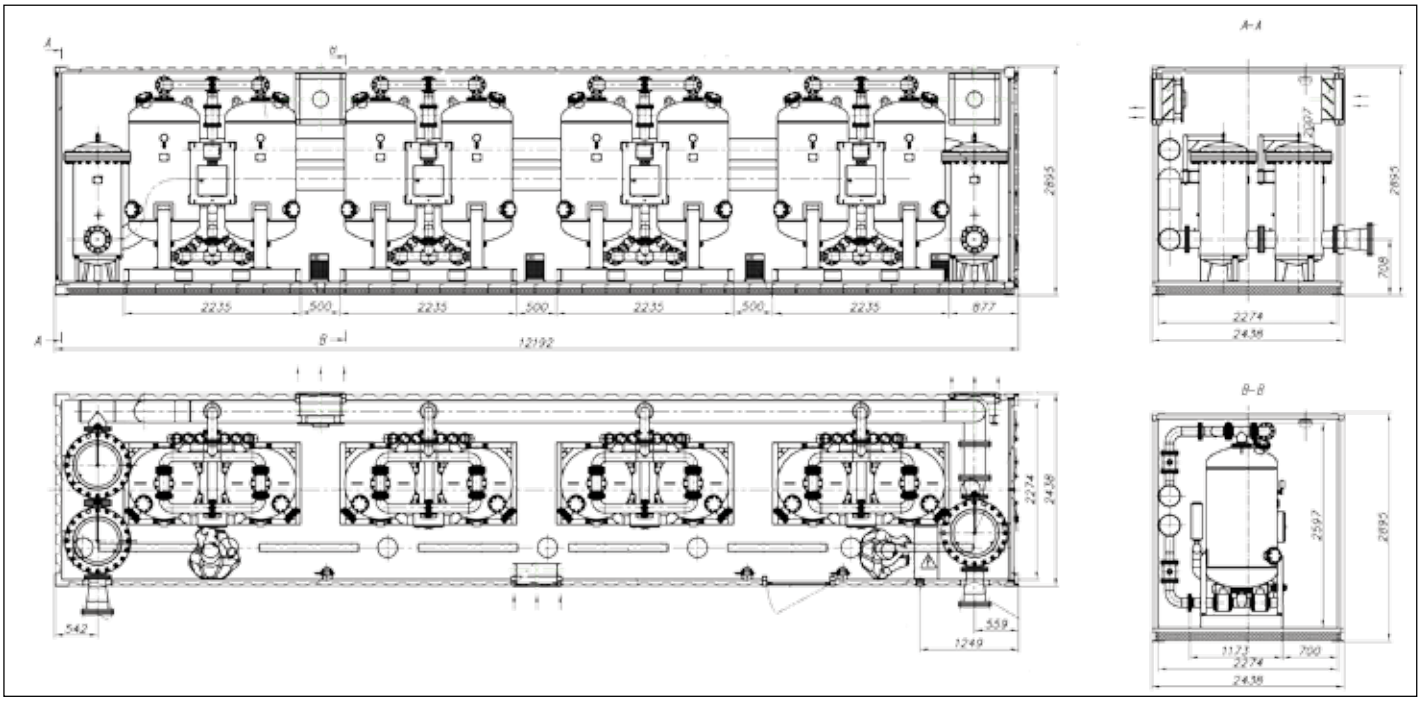
on request
flow capacity

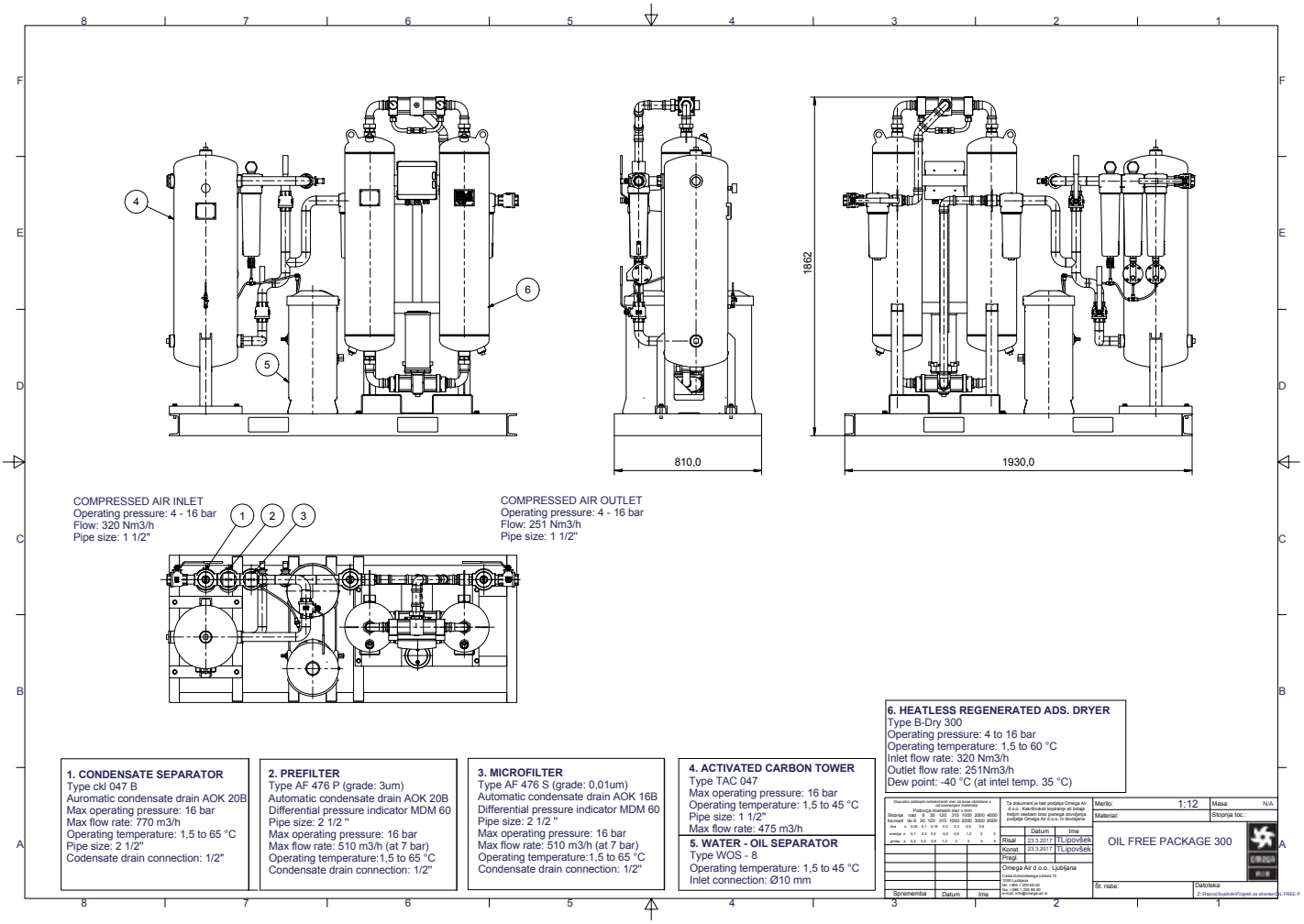


DESCRIPTION

Omega Air manufactures wide range of compressed air and gas treatment products (cyclone separators, filters, dryers, condensate drains, gas generators, pressure vessels...).

Our industrial engineering division is able to integrate standard or custom made products into a skid/container based packages according to specific project requirements. Skids can be designed according to variety of design codes (PED, ASME, DNV, ABS, NR13, AS1210 ...).





COMPRESSED AIR INLET
Operating pressure: 4 - 16 bar
Flow: 320 Nm3/h
Pipe size: 1 1/2"

COMPRESSED AIR OUTLET
Operating pressure: 4 - 16 bar
Flow: 251 Nm3/h
Pipe size: 1 1/2"

1. CONDENSATE SEPARATOR
Type ckl 047 B
Auromatic condensate drain AOK 20B
Max operating pressure: 16 bar
Max flow rate: 770 m3/h
Operating temperature: 1,5 to 65 °C
Pipe size: 2 1/2"
Codensate drain connection: 1/2"

2. PREFILTER
Type AF 476 P (grade: 3um)
Automatic condensate drain AOK 20B
Differential pressure indicator MDM 60
Pipe size: 2 1/2 "
Max operating pressure: 16 bar
Max flow rate: 510 m3/h (at 7 bar)
Operating temperature:1,5 to 65 °C
Condensate drain connection: 1/2"

3. MICROFILTER
Type AF 476 S (grade: 0,01um)
Automatic condensate drain AOK 16B
Differential pressure indicator MDM 60
Pipe size: 2 1/2 "
Max operating pressure: 16 bar
Max flow rate: 510 m3/h (at 7 bar)
Operating temperature:1,5 to 65 °C
Condensate drain connection: 1/2"

4. ACTIVATED CARBON TOWER
Type TAC 047
Max operating pressure: 16 bar
Operating temperature: 1,5 to 45 °C
Pipe size: 1 1/2"
Max flow rate: 475 m3/h

5. WATER - OIL SEPARATOR
Type WOS - 8
Operating temperature: 1,5 to 45 °C
Inlet connection: Ø10 mm

6. HEATLESS REGENERATED ADS. DRYER
Type B-Dry 300
Operating pressure: 4 to 16 bar
Operating temperature: 1,5 to 60 °C
Inlet flow rate: 320 Nm3/h
Outlet flow rate: 251Nm3/h
Dew point: -40 °C (at intel temp. 35 °C)

	Datum	Ime
Risal	23.3.2017	TLipovšek
Kontr.	23.3.2017	TLipovšek
Preg.		

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Cesta Dolomitskega odreda 10
1000 Ljubljana
Tel.: +386 1 200 69 00
Fax: +386 1 200 69 20
E-mail: info@omegair.si

Merilo: 1:12 | Masa: N/A | Material: | Stopnja toc.:

OIL FREE PACKAGE 300

Št. risbe: | Datoteka: Z:\Risanje\Sustini\Projekti za stranke\OIL FREE P

OMEGA AIR

PRODUCTION

OMEGA AIR

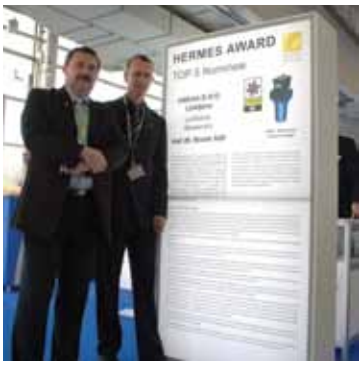
Modern production, contemporary CNC machining centres, strict internal control, external quality assessment system and prescribed procedure compliance monitoring, ensures that production lines produce only products of the highest quality.

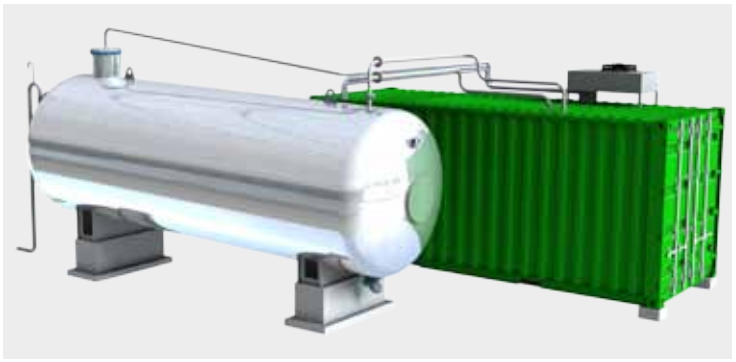
We also manage all the product's phases, from its concept to final production. Only a small fraction is made by contractors which strictly follows demands of services and supply of materials

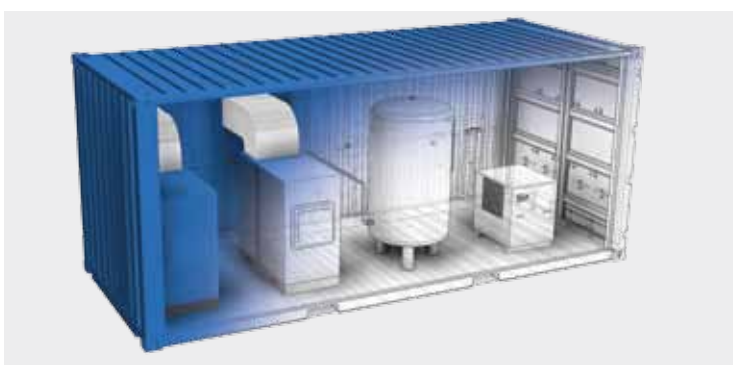
- Toolroom dept.
- Plastics dept.
- Machining dept.
- Welding dept.
- Filtration dept.
- Assembly dept

RESEARCH AND DEVELOPMENT

OMEGA AIR







Our experts develop tailored solutions for our clients, no matter how demanding their requirements are. Wide range of experiences, technical know-how and innovations are key features, making the best solutions possible. Introducing new technologies and permanent investing in development give optimal solutions.

Our people work closely with the business to develop solutions that enable them and their clients to stay ahead of their game. Technology is a place where communication and innovation allow us to provide an unbeatable service to our clients.

Our team works closely with our clients to invent, develop and build real-world technology solutions to some of their hardest problems, as well as providing professional support services for those solutions throughout their operational lives. Through the system testing and optimization we try to achieve the reduction of device operating costs.

SERVICE

OMEGA AIR

The service centre is at a separate location in Logatec. It is responsible for servicing all equipment purchased in our company. The wide range of spare parts ensures the shortest possible downtime of your production plant. The replacement equipment - as much as the entire mobile compressor station - is available in case of major annual servicing.

Every member of service staff has their own service vehicle equipped with spare parts for the implementation of basic services, as well as all the necessary.

Customer service provides 24/7 customer support.

Service covers the following areas:
- Compressors and compressor equipment
- Air conditioning and industrial cooling processes
- Humidifiers and air heaters
- Pneumatic tools

FAIRS, QUALITY, CERTIFICATES

OMEGA AIR

Obtained quality certificates and standards compliance are proof that we know how to produce quality products. We are proudly introducing these at the most prestigious fairs all over the World.

We are satisfied that knowledge about our products and systems from our product range is not hidden behind a wall. Our training centre provides all necessary information about our product programme.

Certificates
- ISO 9001:2008
- ASME U code
- CE-PED-H1
- CE-PED-H1D
- GOST

Fairs
- ComVac, Hannover (D)
- ITFM, Moscow (RUS)
- PCV Expo, Moscow (RUS)
- HPS, Katowice (PL)
- PTC Asia, Shanghai (PRC)
- MDA India (IN)
- PLOVDIV FAIR (BG)
- Energetics, Celje (SLO)
- MOS, Celje (SLO)
- AGRA, Gornja Radgona (SLO)
- Formatool, Celje (SLO)
- Car and maintenance, Celje (SLO)

TRANSPORT AND LOGISTICS

OMEGA AIR

Good flow of raw materials and products is provided with our own transport capacities, as well as contractual partners and services for fast delivery.

- 2 heavy goods vehicles (26t and 12t)
- Cargo trailer (8,5t)
- 11 vans
- 15 company cars
- 10 forklifts (10t, 6t, 3.5t 3 x 1.7t, 3 x 1.2t)
- 2000 m² of warehouses
- Logistics centre in Logatec

OMEGA AIR SHOP

OMEGA AIR

On the store shelves you can find a wide range of quality products for compressed air.

Professionally trained staff will help you to find the perfect choice.

Products selection can also be reached through a sales catalogue and online store.

- Sales catalogue
- Web catalogue
















NOTES

CUSTOMISED PRODUCTS

A large part of our manufacturing capacity is suited for customized products. We take part in the developing of the products together with our customers.
If you have a project in our range of products and need a co-operating partner do not hesitate to contact us.

GENERAL TERMS OF SALES

General conditions:	Exclusively valid "The general sales conditions" of company Omega Air d.o.o. Ljubljana.
Terms of delivery:	Incoterms EXW Ljubljana, Slovenia, packing included.
Terms of payment:	Payment in advance if not otherwise agreed. Currency is EUR.
Warranty:	One year from date of delivery. Warranty valids only if the product is used in accordance with its instruction manual. Other costs such as labour costs are not included.
Changes:	We reserve the right for typing errors and right to change the prices, conditions and technical specifications of the products without previous announcement.
Packing and packing waste:	The customer in the recipient country is responsible for the recycling of packaging and disposal of waste electrical equipment in accordance with local directives.
Right of ownership:	Delivered products remain in our possession until full payment has been settled.

The above mentioned sales terms and conditions are only for information and are published on our website www.omega-air.si.
All other details are defined in written agreement between contract parties.

CONTACTS

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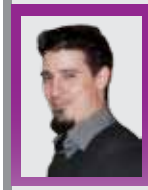
AREA SALES MANAGER



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Languages:

Due to constant technology development the manufacturer reserves the right to change specifications without prior notice. The data in this catalogue is of general nature. For detail technical information please ask for Product data sheet.

OMEGA AIR

Air and Gas Treatment

OMEGA AIR d.o.o. Ljubljana

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