COMPRESSED AIR TREATMENT

- Basic Principals
- Air Filters
- Cyclone Separators
- Refrigeration Dryers
- Adsorption Dryers
- Air Receiver Tanks
- Condensate Drains
- Oil / Water Separators
- Nitrogen Generators

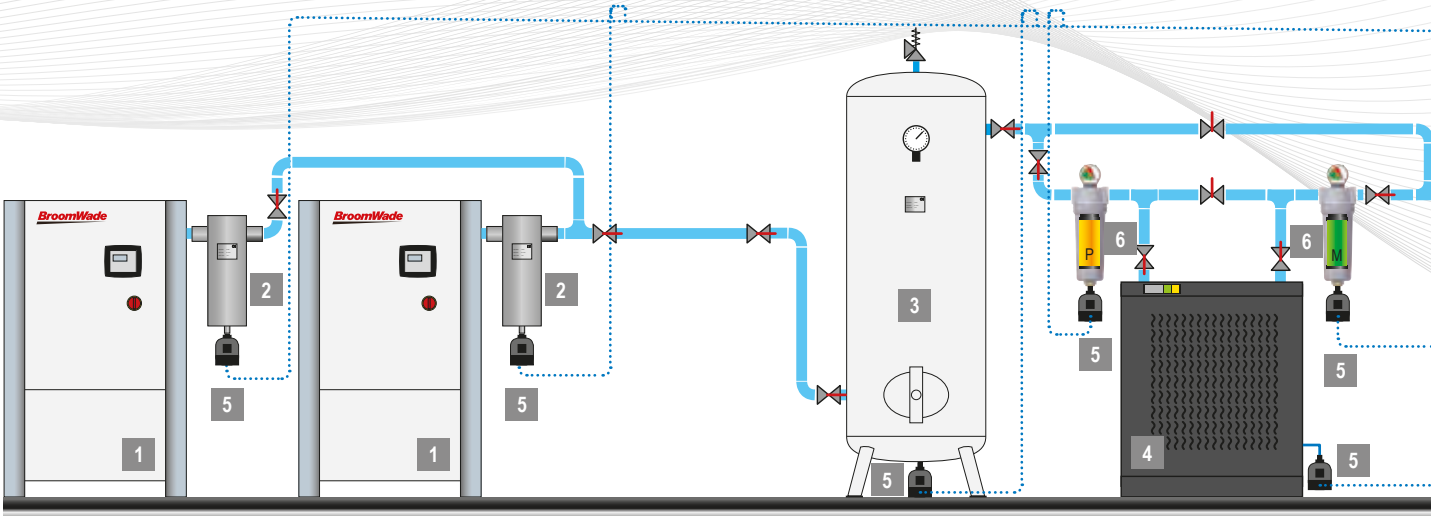
Compressed air quality classes according to ISO 8573-1:2010

CLASS	SOLID PARTICLES MAXIMUM NUMBER OF PARTICLES PER CUBIC METER AS A FUNCTION OF PARTICLE SIZE, D[2]			HUMIDITY AND LIQUID WATER PRESSURE DEW POINT		OIL 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 [mg/m³]	LIQUID WATER CONTENT[2] - C_W [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.

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.

BroomWade can provide many types of compressor to suit your needs.

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

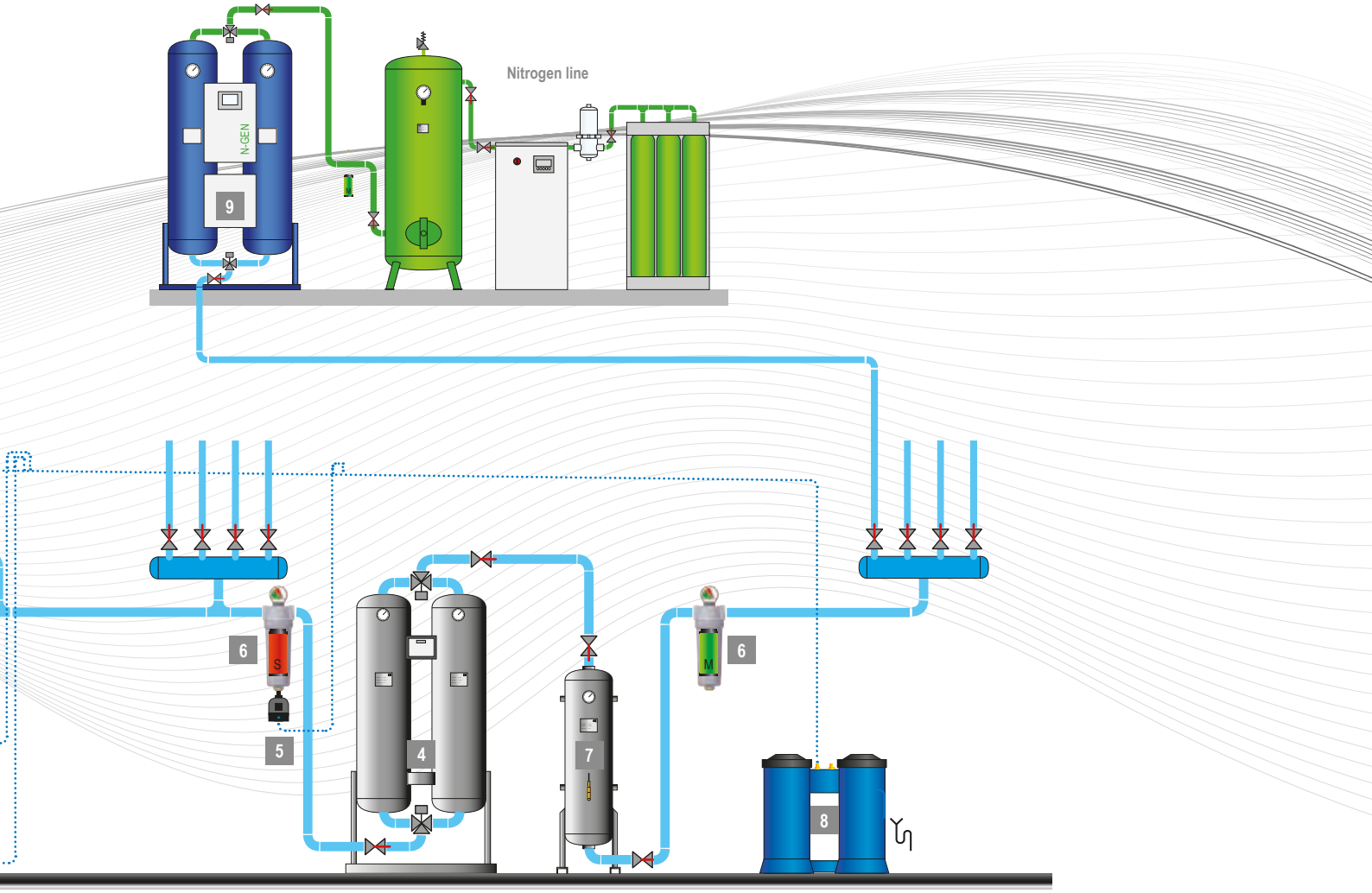
4. Compressed air dryer : Compressed air leaving the compressor aftercooler and moisture separator is normally warmer than the ambient air and fully saturated with moisture. As the air cools the moisture will condense in the compressed air lines. Excessive entrained moisture can result in undesired pipe 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.

Common types:

- Refrigerant
- Dessicant
- Membrane



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.

They are able to absorb oil carry-over (both liquid and vapour) to provide the plant with technically oil-free compressed air.

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 efective and economical solution. Multi-stage separation process using oleophilic filters and activated carbon, ensures exceptional performance and trouble free operation.

9. Nitrogen generator: 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.

End user advice

- 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

F SERIES ALUMINUM COMPRESSED AIR FILTERS

Applications

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

At a glance…

Operating Pressure
16 bar

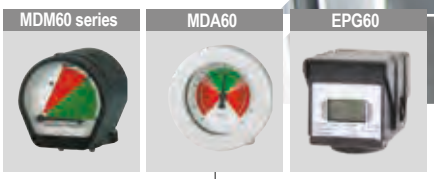
Volume Flow
60 - 2760 Nm³/h

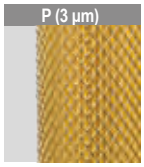
Connections
3/8" - 3"

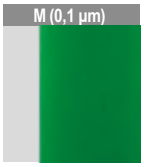
Operating Temp. Range
1.5 - 65°C

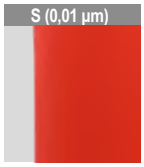
F filter housings are designed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air[1] systems. To meet the required compressed air quality appropriate filter element (P, M S, A) must be installed into filter housing.

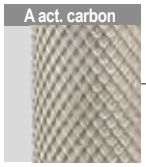
[1] For any other technical gas please contact producer or your local distributor.











Float drain provided as standard

P PREFILTER [3 µm]										
FILTER HOUSING[1)]	PART NUMBER	MAX. OPERAT. PRESSURE [bar / psi]	FLOW RATE AT 7 bar(g), 20 °C [Nm³/h]	[scfm]	DIMENSONS [mm] A	B	C	D	WEIGHT [kg]	FILTER ELEMENT
F 005 P	**223051A**	16 / 232	60	35	187	88	20	60	0.7	**223171**
F 007 P	**223052A**	16 / 232	78	46	187	88	20	60	0.7	**223172**
F 010 P	**223053A**	16 / 232	120	70	257	88	20	80	0.8	**223173**
F 018 P	**223054A**	16 / 232	198	116	263	125	32	100	1.8	**223174**
F 030 P	**223055A**	16 / 232	335	197	363	125	32	120	2.5	**223175**
F 047 P	**223056A**	16 / 232	510	300	461	125	32	140	2.5	**223176**
F 070 P	**223057A**	16 / 232	780	459	640	125	32	160	3.2	**223177**
F 094 P	**223058A**	16 / 232	1000	588	684	163	43	520	5.1	**223178**
F 150 P	**223059A**	16 / 232	1500	882	935	163	43	770	7.1	**223179**
F 200 P	**CC1182427**	16 / 232	2160	1270	795	240	59	630	12.9	**CC1183012**
F 240 P	**223060A**	16 / 232	2760	1620	1,000	240	59	780	14.0	**223180**

QUALITY CLASS - SOLIDS [ISO 8573-1]	RESIDUAL OIL CONTENT [mg/m³]	QUALITY CLASS - OILS [ISO 8573-1]	PRESSURE DROP - NEW ELEMENT [mbar/psi]	CHANGE FILTER ELEM. AT PRESS. DROP [mbar/psi]	FILTER MATERIAL	PLEATED VERSION	WRAPPED VERSION	SINTERED VERSION	OPERATING TEMPERATURE MIN	MAX
6	-	-	10 / 0.145	350 / 5.07	acrylic fibres, cellulose	✓	-	-	1.5 / 35	65 / 149

[1)] Standard filters with screw connections. Flange version only upon request.

COMPRESSED AIR FILTERS

R MICROFILTER [1 µm]										
FILTER HOUSING	PART NUMBER	MAX. OPERAT. PRESSURE [bar/psi]	FLOW RATE AT 7 bar(g), 20 °C [Nm³/h]	[scfm]	DIMENSONS [mm] A	B	C	D	WEIGHT [kg]	FILTER ELEMENT
F 005 R	**CC1185088**	16 / 232	60	35	187	88	20	60	0.7	**CC1185073**
F 007 R	**CC1185089**	16 / 232	78	46	187	88	20	60	0.7	**CC1185074**
F 010 R	**CC1185090**	16 / 232	120	70	257	88	20	80	0.8	**CC1185075**
F 018 R	**CC1185091**	16 / 232	198	116	263	125	32	100	1.8	**CC1185076**
F 030 R	**CC1185092**	16 / 232	335	197	363	125	32	120	2.5	**CC1185077**
F 047 R	**CC1185093**	16 / 232	510	300	461	125	32	140	2.5	**CC1185078**
F 070 R	**CC1185094**	16 / 232	780	459	640	125	32	160	3.2	**CC1185079**
F 094 R	**CC1185095**	16 / 232	1000	588	684	163	43	520	5.1	**CC1185080**
F 150 R	**CC1185096**	16 / 232	1500	882	935	163	43	770	7.1	**CC1185081**
F 200 R	**CC1185097**	16 / 232	2160	1270	795	240	59	630	12.9	**CC1185082**
F 240 R	**CC1185098**	16 / 232	2760	1620	1000	240	59	780	14	**CC1185083**

QUALITY CLASS - SOLIDS [ISO 8573-1]	RESIDUAL OIL CONTENT [mg/m³]	QUALITY CLASS - OILS [ISO 8573-1]	PRESSURE DROP - NEW ELEMENT [mbar/psi]	CHANGE FILTER ELEM. AT PRESS. DROP [mbar/psi]	FILTER MATERIAL	PLEATED VERSION	WRAPPED VERSION	SINTERED VERSION	OPERATING TEMPERATURE MIN	MAX
2	<0.01	2	50/0.725	350/5.07	borosilicate micro fibres	✓	-	-	1.5 / 35	65 / 149

M MICROFILTER [0.1 µm]										
FILTER HOUSING	PART NUMBER	MAX. OPERAT. PRESSURE [bar/psi]	FLOW RATE AT 7 bar(g), 20 °C [Nm³/h]	[scfm]	DIMENSONS [mm] A	B	C	D	WEIGHT [kg]	FILTER ELEMENT
F 005 M	**223061A**	16 / 232	60	35	187	88	20	60	0.7	**223181**
F 007 M	**223062A**	16 / 232	78	46	187	88	20	60	0.7	**223182**
F 010 M	**223063A**	16 / 232	120	70	257	88	20	80	0.8	**223183**
F 018 M	**223065A**	16 / 232	198	116	263	125	32	100	1.8	**223184**
F 030 M	**223066A**	16 / 232	335	197	363	125	32	120	2.5	**223185**
F 047 M	**223067A**	16 / 232	510	300	461	125	32	140	2.5	**223186**
F 070 M	**223068A**	16 / 232	780	459	640	125	32	160	3.2	**223187**
F 094 M	**223069A**	16 / 232	1000	588	684	163	43	520	5.1	**223188**
F 150 M	**223081A**	16 / 232	1500	882	935	163	43	770	7.1	**223189**
F 200 M	**CC1182428**	16 / 232	2160	1270	795	240	59	630	12.9	**CC1183034**
F 240 M	**223064A**	16 / 232	2760	1620	1,000	240	59	780	14.0	**223190**

QUALITY CLASS - SOLIDS [ISO 8573-1]	RESIDUAL OIL CONTENT [mg/m³]	QUALITY CLASS - OILS [ISO 8573-1]	PRESSURE DROP - NEW ELEMENT [mbar/psi]	CHANGE FILTER ELEM. AT PRESS. DROP [mbar/psi]	FILTER MATERIAL	PLEATED VERSION	WRAPPED VERSION	SINTERED VERSION	OPERATING TEMPERATURE MIN	MAX
2	<0.1	2	50 / 0.725	350 / 5.07	borosilicate micro fibres	✓	-	-	1.5 / 35	65 / 149

S MICROFILTER [0.01 µm]										
FILTER HOUSING	PART NUMBER	MAX. OPERAT. PRESSURE	FLOW RATE AT 7 bar(g), 20 °C		DIMENSONS [mm]				WEIGHT	FILTER ELEMENT
		[bar/psi]	[Nm³/h]	[scfm]	A	B	C	D	[kg]	
F 005 S	**223070A**	16 / 232	60	35	187	88	20	60	0.7	**223191**
F 007 S	**223071A**	16 / 232	78	46	187	88	20	60	0.7	**223192**
F 010 S	**223072A**	16 / 232	120	70	257	88	20	80	0.8	**223193**
F 018 S	**223073A**	16 / 232	198	116	263	125	32	100	1.8	**223194**
F 030 S	**223074A**	16 / 232	335	197	363	125	32	120	2.5	**223195**
F 047 S	**223075A**	16 / 232	510	300	461	125	32	140	2.5	**223196**
F 070 S	**223076A**	16 / 232	780	459	640	125	32	160	3.2	**223197**
F 094 S	**223077A**	16 / 232	1000	588	684	163	43	520	5.1	**223198**
F 150 S	**223078A**	16 / 232	1500	882	935	163	43	770	7.1	**223199**
F 200 S	**CC1182429**	16 / 232	2160	1270	795	240	59	630	12.9	**CC1183035**
F 240 S	**223079A**	16 / 232	2760	1620	1,000	240	59	780	14.0	**223200**

QUALITY CLASS - SOLIDS [ISO 8573-1]	RESIDUAL OIL CONTENT [mg/m³]	QUALITY CLASS - OILS [ISO 8573-1]	PRESSURE DROP - NEW ELEMENT [mbar/psi]	CHANGE FILTER ELEM. AT PRESS. DROP [mbar/psi]	FILTER MATERIAL	PLEATED VERSION	WRAPPED VERSION	SINTERED VERSION	OPERATING TEMPERATURE	
									MIN	MAX
1	<0.01	1	80 / 1.160	350 / 5.07	borosilicate micro fibres	✓	-	-	1.5 / 35	65 / 149

A ACTIVATED CARBON										
FILTER HOUSING	PART NUMBER	MAX. OPERAT. PRESSURE	FLOW RATE AT 7 bar(g), 20 °C		DIMENSONS [mm]				WEIGHT	FILTER ELEMENT
		[bar/psi]	[Nm³/h]	[scfm]	A	B	C	D	[kg]	
F 005 A	**223090A**	16 / 232	60	35	187	88	20	60	0.7	**223211**
F 007 A	**223091A**	16 / 232	78	46	187	88	20	60	0.7	**223212**
F 010 A	**223092A**	16 / 232	120	70	257	88	20	80	0.8	**223213**
F 018 A	**223093A**	16 / 232	198	116	263	125	32	100	1.8	**223214**
F 030 A	**223094A**	16 / 232	335	197	363	125	32	120	2.5	**223215**
F 047 A	**223095A**	16 / 232	510	300	461	125	32	140	2.5	**223216**
F 070 A	**223096A**	16 / 232	780	459	640	125	32	160	3.2	**223217**
F 094 A	**223097A**	16 / 232	1000	588	684	163	43	520	5.1	**223218**
F 150 A	**223098A**	16 / 232	1500	882	935	163	43	770	7.1	**223219**
F 200 A	**CC1182430**	16 / 232	2160	1270	795	240	59	630	12.9	**CC1183036**
F 240 A	**223099A**	16 / 232	2760	1620	1,000	240	59	780	14.0	**223220**

QUALITY CLASS - SOLIDS [ISO 8573-1]	RESIDUAL OIL CONTENT [mg/m³]	QUALITY CLASS - OILS [ISO 8573-1]	PRESSURE DROP - NEW ELEMENT [mbar/psi]	CHANGE FILTER ELEM. AT PRESS. DROP [mbar/psi]	FILTER MATERIAL	PLEATED VERSION	WRAPPED VERSION	SINTERED VERSION	OPERATING TEMPERATURE	
									MIN	MAX
1[2]	<0.005	1	60 / 0.870	6 months[1]	borosilic. micro fibres, act. carbon	-	✓	-	1.5 / 35	65 / 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] 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.

NOTE: For port sizes please refer to pages 135 and 136.

F-W SERIES ALUMINIUM CYCLONE CONDENSATE SEPARATORS

At a glance…

Operating Pressure
16 bar

Volume Flow
60 - 2160 Nm³/h

Connections
3/8" - 3"

Operating Temp. Range
1.5 - 65°C

F-W 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 F-W cyclone separator it is essential to install automatic or electronic condensate drain.

FILTER HOUSING	PART NUMBER	MAX.OPER. PRESSURE	FLOW RATE AT 7 bar(g), 20 °C		TEMPERATURE OPERATING RANGE		DIMENSIONS [mm]				WEIGHT	FILTER ELEMENT
		[bar/psi]	[Nm³/h]	[SCFM]	[°C]	[°F]	A	B	C	D	[kg]	
F 05 W	**CC1177720**	16 / 232	60	35	1.5 - 65	35 - 149	187	88	20	60	0.7	**CC1188141**
F 07 W	**CC1177721**	16 / 232	78	46	1.5 - 65	35 - 149	187	88	20	60	0.7	**CC1188142**
F 010 W	**223101A**	16 / 232	120	70	1.5 - 65	35 - 149	257	88	20	80	0.8	**CC1183037**
F 030 W	**223102A**	16 / 232	198	116	1.5 - 65	35 - 149	263	125	32	100	1.8	**CC1183038**
F 070 W	**223103A**	16 / 232	510	300	1.5 - 65	35 - 149	461	125	32	140	2.5	**CC1183039**
F 094 W	**CC1181853**	16 / 232	1000	588	1.5 - 65	35 - 149	684	163	43	520	5.1	**CC1183040**
F 150 W	**223104A**	16 / 232	1500	882	1.5 - 65	35 - 149	684	163	43	520	5.1	**CC1183041**
F 200 W	**CC1182432**	16 / 232	2160	1270	1.5 - 65	35 - 149	795	240	59	630	12.9	**CC1183042**

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

Differential pressure indicators & accessories

MDA60 DIFFERENTIAL PRESS. INDICATOR

OPERAT. PRESS RANGE	0 - 20 bar [0 - 290 psi]
OPERAT. TEMP. RANGE	1.5 - 65°C [35 - 149°F]
MASS	0.36 kg
MEASURING RANGE	2 bar [29 psi]
DIMENSIONS [LxBxH]	84 x ø80 x 78 mm
PART NUMBER	**CC1151396**

SG SIGHT GLASS

TYPE	SG
OPERATING PRESSURE	0 - 16 bar [0 - 232 psi]
OPERATING TEMPERATURE	1.5 - +65°C [35 - 149°F]
OPERATING FLUID	Air, water, oil
MATERIAL	PA12
DIMENSIONS [mm]	59.0 x 20.5 x 11.0
PART NUMBER	**CC1183816**

EPG 60 DIFFERENTIAL PRESS. INDICATOR

	EPG
SERVICE NETWORK CONNEC.	no
SYSTEM PRESS. RANGE	0 - 16 bar [0 - 232 psi]
DIFFERENTIAL PRESS. RANGE	0.07 - 1.00 bar
MAX. DIFFERENTIAL PRESS.	1 bar [14.7 psi]
AMBIENT OPER. TEMP.	1.5°C - 40°C
COMPR. AIR OPER. TEMP.	1.5°C - 65°C
MASS	130 g (without batt.)
DIMENSIONS [LxBxH]	61.5 x 81 x 62 mm
PART NUMBER	**CC1183799**

WS/WM WALL MOUNTING KIT FOR FILTERS

TYPE	WS	WS
FITS TO FILTER HOUSINGS	F005 – F010	F018 – F070
OPERATING TEMP.	-20 - +120°C [-4 - 248°F]	
MAX. LOAD/CONSOLE	6 kg	15 kg
MASS [kg]	0.35	0.6
MATERIAL	Stainless steel	
PART NUMBER	**CC1183818**	**CC1183820**

MDM 60 DIFFERENTIAL PRESS. INDICATOR

OPERAT. PRESS. RANGE	0 - 16 bar [0 - 232 psi]
OPERAT. TEMP. RANGE	1.5 - 65°C [35 - 149°F]
MASS	0.15 kg
MEASURING RANGE	0.9 bar [13 psi]
DIMENSIONS [L x B x H]	72 x 64 x 68 mm
PART NUMBER	**CC1032412**

AK ASSEMBLY KIT FOR FILTERS

TYPE	CONNEC.	OPERAT. TEMP.	OPERAT. PRESS.	MAX. LOAD/ CONSOLE	PART NUMBER
AK 3/8"	3/8"	1.5 - 65°C	0 - 20 bar	0.47	**CC1183821**
AK 1/2"	1/2"	1.5 - 65°C	0 - 20 bar	0.47	**CC1169902**
AK 3/4"	3/4"	1.5 - 65°C	0 - 20 bar	0.47	**CC1151673**
AK 1"	1"	1.5 - 65°C	0 - 20 bar	0.47	**CC1166431**
AK 1 1/2"	1 1/2"	1.5 - 65°C	0 - 20 bar	0.47	**CC1183822**
AK 2"	2"	1.5 - 65°C	0 - 20 bar	0.47	**CC1166432**
AK 2 1/2"	2 1/2"	1.5 - 65°C	0 - 20 bar	0.47	**CC1183824**
AK 3"	3"	1.5 - 65°C	0 - 20 bar	0.47	**CC1166433**

PDI 16 DIFFERENTIAL PRESS. INDICATOR

OPERAT. PRESS. RANGE	0 - 16 bar [0 - 232 psi]
OPERAT. TEMP. RANGE	1.5 - 65°C [35 - 149°F]
MASS	0.33 kg
MEASURING RANGE	0 - 0.9 bar [0 - 13 psi]
DIMENSIONS [L x B x H]	φ40 x 35 mm
PART NUMBER	**CC1183801**

2S, 3S, 2M, 3M ASSEMBLY KIT FOR FILTERS

CONSOLE TYPE	FOR FILTER TYPE	PART NUMBER
2S	2 x F005 to F010	**CC1183802**
3S	3 x F005 to F010	**CC1183803**
2M	2 x F018 to F070	**CC1183814**
3M	3 x F018 to F070	**CC1183815**

CT SERIES REFRIGERATION AIR DRYERS

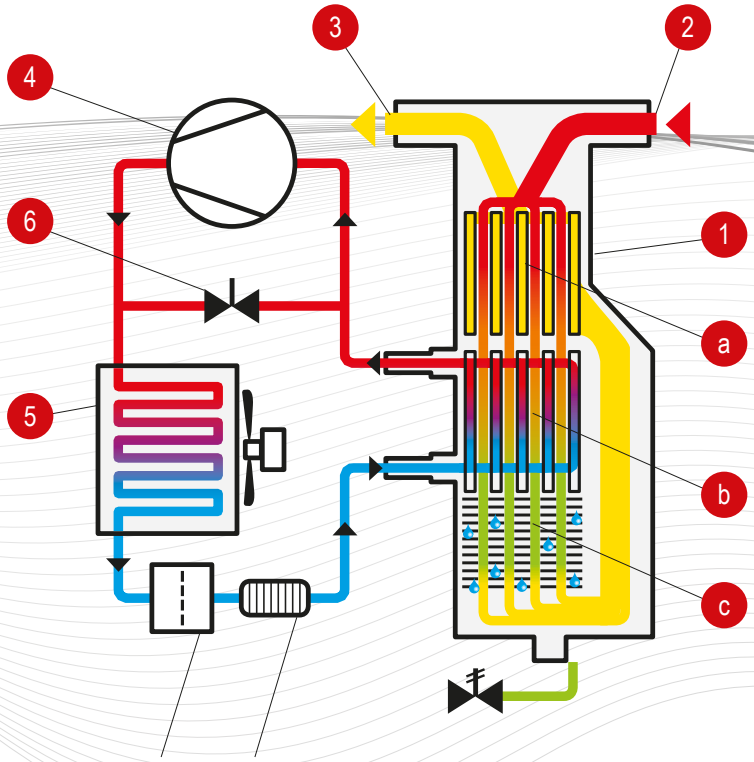
CT dryers achieve excellent performance even in instances of high ambient and high inlet temperatures. The highly efficient and ultra compact heat exchanger is able to operate effectively in ambient temperatures up to 45°C and inlet temperatures of 55°C, ensuring a reduced compressed air pressure drop.

Functionality

Operation of the CT dryer is monitored by DMC15 electronic controller which indicates the DewPoint temperature digitally, controls the condensate drain valve via a timer and the condenser fan via a probe. From model CT 43 the fan is activated by a pressure switch.

A hot gas by-pass valve allows the dryer to operate at part load and prevent the evaporator from freezing. The ALU-DRY aluminium Module has a vertical flow layout ensuring the wet compressed air flows down to the automatic drain.

The circulation of the refrigerant in the system is by high efficiency piston and rotary refrigerant compressors which, thanks to their innovative construction, have reduced energy consumption and high reliability levels.



Main components

1. Heat exchanger module
a. Heat exchanger air/air - pre-cooler
b. Evaporator air/refrigerant
c. Demister
2. Compressed air input - wet
3. Compressed air output - dry
4. Compressor
5. Condenser
6. Hot gas by-pass valve
7. Gas filter
8. Expansion valve or capillary tube
9. Electronic condensate drain
10. Controller

TYPE	PART NO	AIR FLOW			AIR CONNECTIONS IN/OUT	POWER SUPPLY	DIMENSIONS			WEIGHT [kg]
		[l/min]	[m³/h]	[scfm]			A [mm]	B [mm]	C [mm]	
CT 3	**CMP1162865**	318	19	11	3/8"	230V / 1f / 50-60Hz	310	345	435	21
CT 6	**CMP1162867**	546	33	19	1/2"	230V / 1f / 50-60Hz	370	515	475	25
CT 9	**CMP1162868**	864	52	31	1/2"	230V / 1f / 50-60Hz	370	515	475	26
CT 12	**CMP1162869**	1,100	66	38	1/2"	230V / 1f / 50-60Hz	370	515	475	28
CT 18	**CMP1177081**	1,633	98	58	1/2"	230V / 1f / 50-60Hz	370	515	475	32
CT 25	**CMP1177082**	2,283	137	80	1"	230V / 1f / 50-60Hz	345	420	740	34
CT 32	**CMP1177083**	2,917	175	103	1 1/4"	230V / 1f / 50Hz	345	445	740	39
CT 43	**CMP1162872**	3,917	235	138	1 1/4"	230V / 1f / 50Hz	345	445	740	40
CT 52	**CMP1162873**	4,733	284	167	1 1/4"	230V / 1f / 50Hz	485	455	825	49
CT 61	**CMP1162874**	5,550	333	197	1 1/2"	230V / 1f / 50Hz	555	580	885	54
CT 75	**CMP1162875**	6,833	410	241	1 1/2"	230V / 1f / 50Hz	555	580	885	56
CT 105	**CMP1162876**	9,555	573	338	2"	230V / 1f / 50Hz	555	625	975	94
CT 130	**CMP1162877**	11,833	710	418	2"	230V / 1f / 50Hz	555	625	975	96
CT 168	**CMP1162878**	15,283	917	541	2 1/2"	230V / 1f / 50Hz	665	725	1,105	144
CT 190	**CMP1162879**	17,283	1,037	611	2 1/2"	400V / 3f / 50Hz	646	920	1,100	189
CT 220	**CMP1162880**	20,020	1,201	707	2 1/2"	400V / 3f / 50Hz	645	920	1,100	212

CORRECTION FACTOR FOR OPERATING PRESSURE								
OPERATING PRESSURE [bar(g)]	4	5	6	7	8	10	12	14
CORRECTION FACTOR K1	0.77	0.86	0.93	1.00	1.05	1.14	1.21	1.27

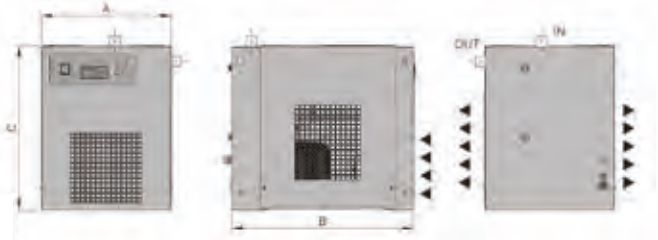
CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES					
TEMPERATURE [°C]	25	30	35	40	45
CORRECTION FACTOR K3	1.09	0.95	0.88	0.79	0.68

CORRECTION FACTOR FOR DEW POINT CHANGES				
TEMPERATURE [°C]	3	5	7	10
CORRECTION FACTOR K4	1.00	1.099	1.209	1.385

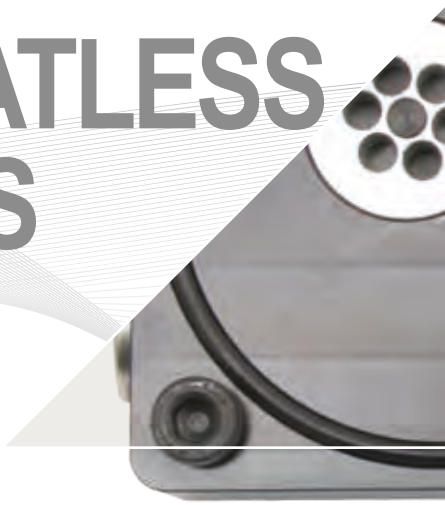
CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES						
OPERAT. PRESSURE [bar(g)]	30	35	40	45	50	55
CORRECTION FACTOR K2	1.11	1.00	0.81	0.67	0.55	0.45

Data refer to the following nominal condition: Ambient temperature of 25°C, with inlet air at 7 barg and 35°C and 5°C pressure Dew Point (-20.5°C atmospheric pressure Dew Point).

Max. working condition: Ambient temperature 45°C, inlet air temperature 55°C and inlet air pressure 14 barg (16 barg for CT 3...18).



CHA-DRY SERIES HEATLESS ADSORPTION DRYERS



Applications

- Compressed air systems

At a glance…

Operating Pressure
4 - 16 bar

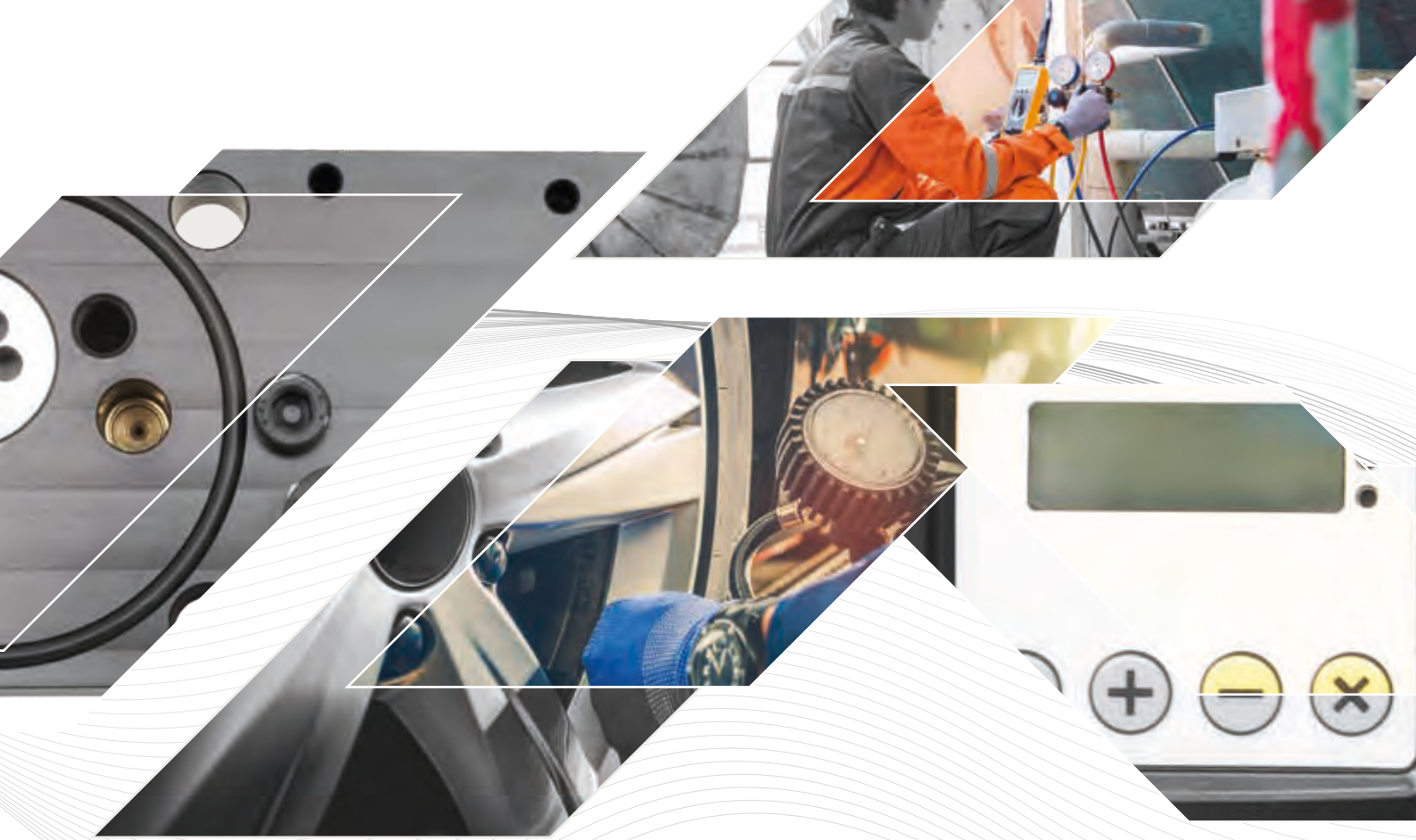
Flow Rate
6 - 600 Nm³/h

Pressure Dew Points
-40°C (-25°C / -70°C)

Operating Temp. Range
1.5 - 50°C

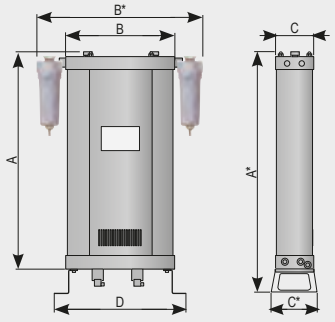
CHA-DRY desiccant adsorption dryer has been designed to separate water moisture from compressed air thus reducing the dew point in the system.
CHA-DRY is a range of products offering our customers a wide array of dried air solutions with volumetric flow rates ranging from 6 to 600 Nm³/h. An innovative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

Filtration included as standard



TYPE	PART NO	CONNECTION IN/OUT	NOMINAL VOLUME FLOW		DIMENSIONS							WEIGHT
			INLET[1] [Nm³/h]	OUTLET[2] [Nm³/h]	A [mm]	A* [mm]	B [mm]	B* [mm]	C [mm]	C* [mm]	D [mm]	[kg]
CHA-DRY 06	**CC1148763**	G3/8"	6	4.7	339	520	280	480	100	130	354	10.5
CHA-DRY 12	**CC1148765**	G3/8"	12	9.5	573	715	280	480	100	130	354	13.5
CHA-DRY 24	**CC1148766**	G3/8"	24	19.0	1,041	1,105	280	480	100	130	354	19.0
CHA-DRY 36	**CC1148767**	G3/8"	36	28.4	1,509	1,495	280	480	100	130	354	27.5
CHA-DRY 60	**CC1148768**	G3/4"	60	47.4	972	1,105	370	570	148	170	434	45.0
CHA-DRY 75	**CC1148769**	G3/4"	75	59.3	1,167	1,300	370	570	148	170	434	53.0
CHA-DRY 105	**CC1148770**	G3/4"	117	83	1,567	1,700	370	570	148	170	434	70.0
CHA-DRY 150	**CC1148771**	G1"	150	118	1,345	1,440	440	725	198	240	570	170.5
CHA-DRY 200	**CC1148772**	G1"	200	158	1,538	1,655	440	725	198	240	570	182.2

OPERATING PRESS. RANGE	4 to 16 bar[g] [CHA-DRY 06-200]; 4 to 10 bar[g] [CHA-DRY 250-600]
OPERATING TEMP. 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



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

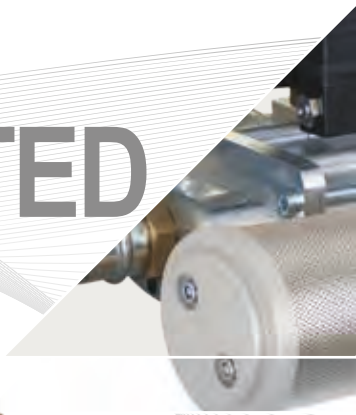
DEW POINT			
[°C]	-25	-40	-70
C_D	1.1	1	0.7

[1] Refers to 1 bar(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.

CHB-DRY SERIES
HEATLESS REGENERATED ADSORPTION DRYERS



Applications

- Compressed air systems

At a glance…

Operating Pressure
4 - 16 bar

Flow Rate
110 - 1000 Nm^3/h

Pressure Dew Points
-40°C [-25°C / -70°C]

Operating Temp. Range
1.5 - 60°C

CHB-DRY adsorption dryers are designed for continuous separation of water vapour from the compressed air thus reducing the pressure dew point. CHB-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.

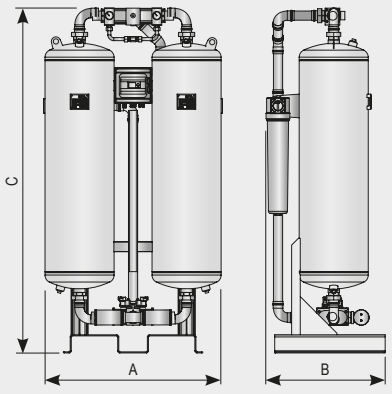
When the first column is saturated to a certain level column switch-over is carried out and the process of adsorption continues in the second column without any drop of pressure at the outlet of the dryer. Regeneration of saturated desiccant is possible because a small portion of already dry compressed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

Pre and Post Filtration included as standard.

TYPE	PART NO	CONNECTION IN/OUT	NOMINAL VOLUME FLOW INLET[1] [Nm³/h]	NOMINAL VOLUME FLOW OUTLET[2] [Nm³/h]	DIMENSIONS A [mm]	DIMENSIONS B [mm]	DIMENSIONS C [mm]	WEIGHT [kg]
CHB-DRY 110	**CC1148781**	G 1"	110	86.0	719 ±5	422	1,647	140
CHB-DRY 150	**CC1148782**	G 1"	150	117.5	707 ±5	422	1,897	156
CHB-DRY 200	**CC1148783**	G 1"	200	157.0	707 ±5	471	1,664	196
CHB-DRY 250	**CC1148784**	G 1"	260	204.0	707 ±5	471	1,914	236
CHB-DRY 300	**CC1148785**	G 1 1/2"	320	251.0	860 ±5	535	1,742	274
CHB-DRY 400	**CC1148786**	G 1 1/2"	410	321.5	854 ±5	535	1,989	295
CHB-DRY 600	**CC1148787**	G 1 1/2"	590	462.5	854 ±5	671	2,051	392
CHB-DRY 800	**CC1148788**	G 2"	770	603.5	1051 ±10	701	2,080	507
CHB-DRY 1000	**CC1148789**	G 2"	1000	784.0	1051 ±10	701	2,140	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
FILTER (OUTLET)	Dust filter; 1 µm

DEW POINT - CORRECTION FACTORS - C_D			
OPERAT. TEMP. [°C]	-25	-40	-70
OPERAT. TEMP. [F]	-13	-40	-94
CORRECTION FACTOR C_D	1.1	1	0.7



OPERATING TEMPERATURE - CORRECTION FACTORS - C_{OT}								
OPERAT. TEMP. [°C]	25	30	35	40	45	50	55	60
OPERAT. TEMP. [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 PRESS. [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OPERATING PRESS. [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.

CHX-DRY SERIES HEATLESS REGENERATED MODULAR ADSORPTION DRYERS

At a glance…

Operating Pressure
4 - 16 bar

Flow Rate
300 - 1050 Nm³/h

Pressure Dew Points
-40°C [-25°C/ -70°C]

Operating Temp. Range
1.5 - 60°C

CHX-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 dicplay, 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.

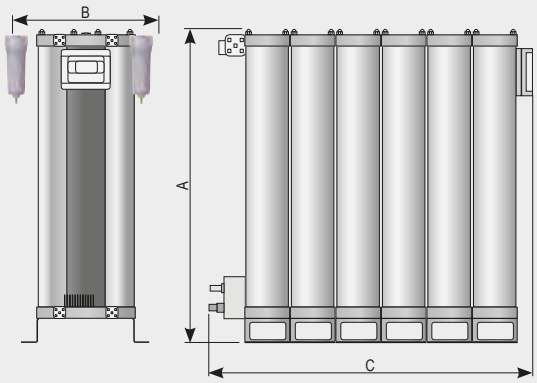
TYPE	PART NO	CONNECTION IN/OUT[3]	NOMINAL VOLUME FLOW INLET[1] [Nm³/h]	NOMINAL VOLUME FLOW OUTLET[2] [Nm³/h]	DIMENSIONS A [mm]	DIMENSIONS B [mm]	DIMENSIONS C [mm]	WEIGHT [kg]
CHX-DRY 300	**CC1148774**	G 2"	300	237	1,515	674	686	350
CHX-DRY 450	**CC1148775**	G 2"	450	255.5	1,515	674	886	520
CHX-DRY 600	**CC1148776**	G 2"	600	474	1,515	674	1,086	690
CHX-DRY 750	**CC1148778**	G 2"	750	592.5	1,515	674	1,286	860
CHX-DRY 900	**CC1148779**	G 2"	900	711	1,515	674	1,486	1030
CHX-DRY1050	**CC1148780**	G 2"	1,050	829.5	1,515	674	1,686	1200

OPERATING PRESS. RANGE	4 to 16 bar
OPERATING TEMP. 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

[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.



CORRECTION FACTORS - F1															
OPERATING PRESS. [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OPERATING PRESS. [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

CHM-DRY SERIES
MEMBRANE DRYERS

At a glance…

Operating Pressure
12 bar

Flow Rate
0.05 - 3 m³/min

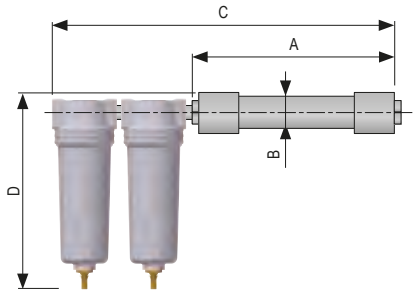
Pipe Size
¼ - 1"

Operating Temp. Range
1.5 - 60°C

Applications[1]

- Automotive painting
- Industrial "Point-Of-Use" drying
- Low dew point instrument air
- Pneumatics
- Medical air
- Analytical Equipment
- Pressurising electrical cabinets

CHM-DRY membrane air dryers have been developed for high efficient removal of water vapours from compressed air.



TYPE	PART NO	PIPE SIZE	OPERATING PRESSURE	FLOW RATE *		DIMENSIONS			
		[inch]	[bar]	[m³/min]	[cfm]	A [mm]	B [mm]	C [mm]	D [mm]
CHM-DRY 3	**CC1189577**	¼	12	0.05	1.8	224	43.7	325	175
CHM-DRY 6	**CC1189578**	¼	12	0.1	3.5	325	43.7	453	175
CHM-DRY 9	**CC1189579**	¼	12	0.15	5.3	427	43.7	555	175
CHM-DRY 12	**CC1189580**	¼	12	0.2	7.1	503	43.7	611	175
CHM-DRY 18	**CC1189581**	½	12	0.3	10.6	312	61	476	208
CHM-DRY 24	**CC1189582**	½	12	0.4	14.1	376	61	540	208
CHM-DRY 32	**CC1189583**	½	12	0.6	21.2	465	61	661	208
CHM-DRY 44	**CC1189584**	½	12	0.8	28.3	592	61	788	208
CHM-DRY 63	**CC1189585**	½	12	1.05	37.1	411	89	607	208
CHM-DRY 90	**CC1189586**	½	12	1.5	53.0	551	89	755	284
CHM-DRY 123	**CC1189587**	½	12	2.05	72.4	551	89	577	284
CHM-DRY 180	**CC1189588**	1	12	3	106.6	607	114	1.805	290

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

Prices includes complete kit.

OPERATING PRESSURE - CORRECTION FACTORS - C									
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	0.41	0.56	0.76	1	1.22	1.48	1.76	1.86	2.22

CHACA SERIES
AIR COOLED AFTERCOOLERS

At a glance…

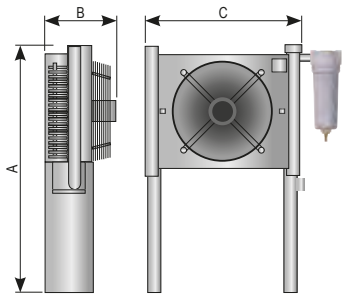
Operating Pressure
7 - 15 bar

Flow Rate
1.1 - 75 m³/min

Operating Temp. Range
25 - 120°C

Pipe Size
1 - 2½"

Air cooled aftercoolers series CHACA have been designed to reduce compressed air temperature and water vapour dew point in compressed air system. A 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. CHACA aftercoolers ensures the maximum performance and protection of all equipment, such as refrigeration dryers, adsorption dryers and filters, positioned downstream of this unit.



TYPE	PART NO	FLOW RATE		PIPE SIZE	POWER SUPPLY	FAN	DIMENSIONS			WEIGHT
		[m³/min]	[cfm]		[ph/V/Hz]	[ø mm/ W]	A [mm]	B [mm]	C [mm]	[kg]
CHACA 3	**CC1189498**	1.1	39	G 1"	1/230/50	ø250-45W	850	300	715	19
CHACA 7	**CC1189499**	2.1	74	G 1"	1/230/50	ø250-45W	850	300	715	20
CHACA 10	**CC1189500**	3.7	131	G 1 1/2"	3/400/50	ø350-110W	990	310	845	27
CHACA 18	**CC1189501**	4.9	173	G 1 1/2"	3/400/50	ø400-130W	990	310	845	29
CHACA 30	**CC1189504**	6.5	230	G 2"	3/400/50	ø500-750W	1175	440	980	44
CHACA 47	**CC1189505**	8.7	307	G 2"	3/400/50	ø500-750W	1175	440	980	48
CHACA 70	**CC1189506**	12.9	456	G 2"	3/400/50	ø600-370W	1325	490	1130	61
CHACA 94	**CC1189507**	16.5	583	G 2 1/2"	3/400/50	ø600-370W	1325	490	1130	66
CHACA 150	**CC1189508**	21	742	DN100	3/400/50	ø800-1470W	1800	660	1590	127
CHACA 175	**CC1189509**	26	918	DN100	3/400/50	ø800-1470W	1800	660	1590	143
CHACA 240	**CC1189510**	31.5	1112	DN100	3/400/50	ø800-1470W	1800	790	1560	148
CHACA 300	**CC1189511**	42	1483	DN100	3/400/50	ø800-1470W	2000	795	1740	166
CHACA 450	**CC1189512**	51.5	1819	DN125	3/400/50	2x ø800-1470W	2090	830	1850	212
CHACA 600	**CC1189513**	75	2649	DN125	3/400/50	2x ø800-1470W	2300	850	2010	315

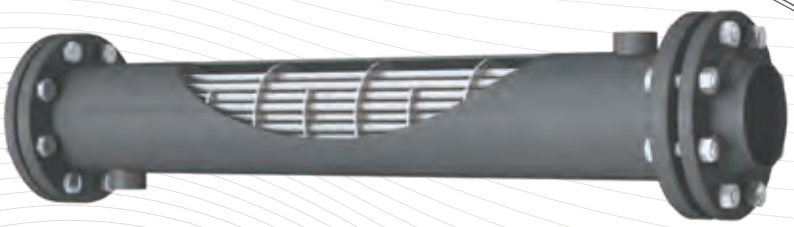
CHACW SERIES
WATER COOLED AFTERCOOLERS

At a glance…

Operating Pressure
0 - 16 bar

Flow Rate
2.2 - 759.5 m^3/min

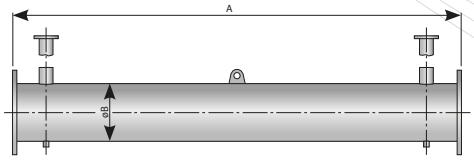
Operating Temp. Range
1.5 - 200°C



Applications

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

Water-cooled aftercoolers series CHACW have 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. CHACW aftercooler ensures the maximum performance and protection of all equipment, such as refrigeration dryers, adsorption dryers and filters, positioned downstream of this unit.



TYPE	PART NO	CONNECTIONS		OPERATING PRESSURE	FLOW RATE		DIMENSIONS	
		[Air]	[Water]	[bar]	[m^3/min]	[cfm]	A [mm]	B [mm]
CHACW 10	**CC1189520**	DN50	DN20	0 - 16	2.2	78	806	60.3
CHACW 18	**CC1189521**	DN50	DN20	0 - 16	3.92	138	816	60.3
CHACW 30	**CC1189522**	DN50	DN20	0 - 16	6.12	216	816	60.3
CHACW 47	**CC1189523**	DN50	DN20	0 - 16	11.02	389	870	60.3
CHACW 70	**CC1189534**	DN50	DN20	0 - 16	15.92	562	870	60.3
CHACW 94	**CC1189535**	DN80	DN20	0 - 16	22.05	779	1500	88.9
CHACW 150	**CC1189536**	DN80	DN20	0 - 16	36.75	1298	1510	88.9
CHACW 200	**CC1189537**	DN100	DN40	0 - 16	44.17	1560	1500	114.3
CHACW 240	**CC1189538**	DN125	DN32	0 - 16	51.45	1817	1300	139.7
CHACW 300	**CC1189539**	DN125	DN32	0 - 16	66.15	2336	1300	139.7
CHACW 375	**CC1189540**	DN150	DN65	0 - 16	86.67	3060	1300	168.3
CHACW 450	**CC1189541**	DN200	DN50	0 - 16	117.6	4153	1300	219
CHACW 600	**CC1189542**	DN200	DN65	0 - 16	149.45	5278	1300	219
CHACW 900	**CC1189543**	DN250	DN80	0 - 10	183.75	6489	1300	273
CHACW 1200	**CC1189544**	DN300	DN80	0 - 10	269.5	9517	1300	323.9
CHACW 1500	**CC1189545**	DN400	DN100	0 - 10	367.5	12978	1300	406
CHACW 1800	**CC1189546**	DN400	DN150	0 - 10	441	15574	1300	406
CHACW 2500	**CC1189547**	DN450	DN200	0 - 10	563.5	19900	1300	457
CHACW 3000	**CC1189548**	DN500	DN200	0 - 10	759.5	26821	1300	508

ACTIVATED CARBON TOWER
CH-TAC SERIES

At a glance…

Operating Pressure
16 bar

Flow Rate
0.1 - 108.33 m^3/min

Operating Temp. Range
1.5 - 45°C

Pipe Size
⅜ - 2"

Applications

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

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

CH-TAC is made from high quality carbon steel. CH-TACm series is made from aluminium. 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.

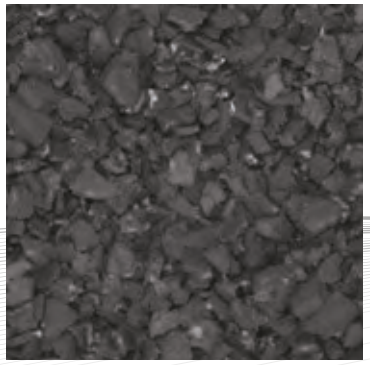
Stainless steel version available on request.

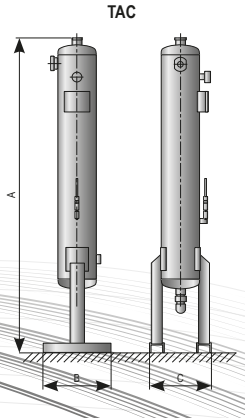
High pressure version is available on request.

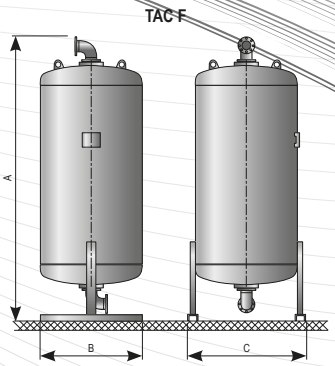
QUALITY CLASS - SOLIDS (ISO 8573-1)	-
QUALITY CLASS - WATER (ISO 8573-1)	-
QUALITY CLASS - OILS (ISO 8573-1)	0/1
PRESSURE DROP - NEW ELEMENT-DRY [MBAR / PSI]	20 / 0,29
FILTER MEDIA	act. carbon
RESIDUAL OIL VAPOUR CONTENT (NOMINAL) [MG/M³]	<0,003

TACm

TAC







TAC SERIES

TYPE	PART NO	PIPE SIZE	OPERATING PRESSURE	FLOW RATE AT 7 BAR(G), 20 °C		DIMENSIONS			WEIGHT
			[bar]	[m³/min]	[cfm]	A [mm]	B [mm]	C [mm]	[kg]
CH-TACm 6	**CC1189549**	3/8"	16	0.1	3.5	404	188	100	3.5
CH-TACm 12	**CC1189550**	3/8"	16	0.2	7.0	638	188	100	5.3
CH-TACm 23	**CC1189551**	3/8"	16	0.4	14.1	1106	188	100	6.5
CH-TACm 35	**CC1189552**	3/8"	16	0.6	21.1	1574	188	100	12
CH-TACm 56	**CC1189553**	1/2"	16	1	35.3	1106	270	148	15
CH-TACm 70	**CC1189554**	1/2"	16	1.25	44.1	1340	270	148	18
CH-TACm 105	**CC1189555**	1/2"	16	1.75	61.8	1808	270	148	22
CH-TAC 110	**CC1189556**	1"	16	1.83	86	1522	350	252	45
CH-TAC 150	**CC1189557**	1"	16	2.5	117	1766	350	252	52
CH-TAC 200	**CC1189558**	1"	16	3.33	157	1532	400	303	71
CH-TAC 250	**CC1189559**	1"	16	4.33	204	1784	400	303	83
CH-TAC 300	**CC1189560**	1 1/2"	16	5.33	251	1551	450	357	97
CH-TAC 400	**CC1189561**	1 1/2"	16	6.83	321	1798	450	357	114
CH-TAC 600	**CC1189562**	1 1/2"	16	9.83	462	1893	650	424	160
CH-TAC 800	**CC1189563**	2"	16	12.83	603	1877	650	468	201
CH-TAC 1000	**CC1189564**	2"	16	16.67	784	1961	650	506	242
CH-TAC 1200	**CC1189565**	DN50	16	20	936	2170	550	550	280
CH-TAC 1500	**CC1189566**	DN65	16	25	1170	2210	620	620	355
CH-TAC 2000	**CC1189567**	DN65	16	33.33	1560	2330	700	700	420
CH-TAC 2500	**CC1189568**	DN80	16	41.67	1950	2260	760	760	510
CH-TAC 3000	**CC1189569**	DN80	16	50	2340	2400	800	800	595
CH-TAC 3750	**CC1189570**	DN100	16	62.5	2925	2490	920	920	745
CH-TAC 5000	**CC1189571**	DN100	16	83.33	3900	2600	1050	1050	960
CH-TAC 6500	**CC1189572**	DN125	16	108.33	5070	2730	1150	1150	1300

TAC Service Kits

TYPE	PART NO
CH-TACm 6	**CC1189474**
CH-TACm 12	**CC1189475**
CH-TACm 23	**CC1189476**
CH-TACm 35	**CC1189477**
CH-TACm 56	**CC1189478**
CH-TACm 70	**CC1189479**
CH-TACm 105	**CC1189480**
CH-TAC 110	**CC1189481**
CH-TAC 150	**CC1189482**
CH-TAC 200	**CC1189483**
CH-TAC 250	**CC1189484**
CH-TAC 300	**CC1189485**
CH-TAC 400	**CC1189486**
CH-TAC 600	**CC1189487**
CH-TAC 800	**CC1189488**
CH-TAC 1000	**CC1189489**
CH-TAC 1200	**CC1189490**
CH-TAC 1500	**CC1189491**
CH-TAC 2000	**CC1189492**
CH-TAC 2500	**CC1189493**
CH-TAC 3000	**CC1189494**
CH-TAC 3750	**CC1189495**
CH-TAC 5000	**CC1189496**
CH-TAC 6500	**CC1189497**

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.

CH-PP SERIES
PAINTING AIR FILTRATION

At a glance…

Operating Pressure
16 bar

Flow Rate
0.1 - 108.33 m³/min

Operating Temp. Range
1.5 - 65°C

Pipe Size
½"

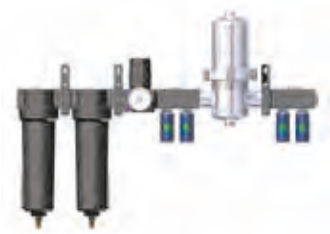
Applications

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

CH-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)



TYPE	PART NO	PIPE SIZE	FLOW RATE AT 7 BAR(G), 20 °C		DIMENSIONS			SEPARATOR CKL-PP	MICROFILTER M 0,1MM	MICROFILTER S 0,01MM	ACTIVE CARBON A	STERILE FILTER WITH ACTIVE CARBON SFA	ADSORPTION DRYER A-DRY 105	PRESSURE REGULATOR	QUICK COUPLING NO.
		[inch]	[m^3/min]	[cfm]	A [mm]	B [mm]	C [mm]								
CH-PP-107	**CC1189591**	1/2"	1.3	46	270	135	276	✓						✓	2
CH-PP-110	**CC1189592**	1/2"	2	71	270	135	345	✓						✓	2
CH-PP-207	**CC1189593**	1/2"	1.3	46	380	135	276	✓	✓					✓	2
CH-PP-210	**CC1189594**	1/2"	2	71	380	135	345	✓	✓					✓	2
CH-PP-307	**CC1189595**	1/2"	1.3	46	490	135	276	✓	✓	✓				✓	2
CH-PP-310	**CC1189596**	1/2"	2	71	490	135	345	✓	✓	✓				✓	2
CH-PP-407	**CC1189597**	1/2"	1.3	46	580	135	276		✓	✓	✓			✓	4
CH-PP-410	**CC1189598**	1/2"	2	71	580	135	345		✓	✓	✓			✓	4
CH-PP-507	**CC1189599**	1/2"	1.3	46	612	135	370		✓	✓		✓		✓	4
CH-PP-510	**CC1189600**	1/2"	2	71	612	135	440		✓	✓		✓		✓	4
CH-PP-607	**CC1189601**	1/2"	1.3	46	1150	335	917		✓	✓		✓	✓	✓	4
CH-PP-610	**CC1189602**	1/2"	2	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

0.1 MICRON MICROFILTER	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007M	**223182**
	Filter Cartridge F010M	**223183**

0.1 MICRON FINEFILTER	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007S	**223192**
	Filter Cartridge F010S	**223193**

0.1 MICRON A ACTIVATED CARBON	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007A	**223212**
	Filter Cartridge F010A	**223213**

CKL-PP SEPARATOR	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007-CKL-PP	**CC1189457**
	Filter Cartridge F010-CKL-PP	**CC1189458**

CHB-AIR
BREATHING AIR FILTER

At a glance…

Operating Pressure
16 bar

Flow Rate
1.3 - 13 m^3/min

Operating Temp. Range
1.5 - 45°C

Pipe Size
½ - 1½"

Applications

- Breathing air

CHB-AIR point of use filter set has been specifically developed for high efficient preparation of top quality breathing air. On request CHB-AIR filter set can be supplied with wall mounting brackets, pressure regulator and quick couplings.

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

TYPE	PART NO	PIPE SIZE	FLOW RATE AT 7 BAR(G), 20 °C		DIMENSIONS				WEIGHT	FILTER ELEMENT TYPE
		[inch]	[m³/min]	[cfm]	A [mm]	B [mm]	C [mm]	D [mm]	[kg]	
CHB-AIR 76	**CC1189704**	1/2"	1.3	46	187	88	20	60	1.41	F007 M/H2/A2
CHB-AIR 106	**CC1189705**	3/4"	2	70	257	88	20	80	1.8	F010 M/H2/A2
CHB-AIR 186	**CC1189706**	1"	3.3	116	263	125	32	100	4.71	F018 M/H2/A2
CHB-AIR 306	**CC1189707**	1"	5.58	197	363	125	32	120	6.6	F030 M/H2/A2
CHB-AIR 476	**CC1189708**	1 1/2"	8.5	300	461	125	32	140	8.4	F047 M/H2/A2
CHB-AIR 706	**CC1189709**	1 1/2"	13	459	640	125	32	160	11.7	F070 M/H2/A2

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

Prices are for complete set.

- Set includes 3 filter housings, 3 filter elements, 2 AOK16B condensate drains, 1 MCD drain and 1 PDI 16 di%erential pressure indicator.

FM	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007M	**223182**
	Filter Cartridge F010M	**223183**
	Filter Cartridge F018M	**223184**
	Filter Cartridge F030M	**223185**
	Filter Cartridge F047M	**223186**
	Filter Cartridge F070M	**223187**

FH²	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007H2	**CC1189441**
	Filter Cartridge F010H2	**CC1189442**
	Filter Cartridge F018H2	**CC1189443**
	Filter Cartridge F030H2	**CC1189454**
	Filter Cartridge F047H2	**CC1189455**
	Filter Cartridge F070H2	**CC1189456**

FA²	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007A2	**CC1189354**
	Filter Cartridge F010A2	**CC1189434**
	Filter Cartridge F018A2	**CC1189435**
	Filter Cartridge F030A2	**CC1189437**
	Filter Cartridge F047A2	**CC1189438**
	Filter Cartridge F070A2	**CC1189439**

CHB-AIR PLUS
BREATHING AIR FILTER

At a glance…

Operating Pressure
16 bar

Flow Rate
1.3 - 13 m^3/min

Operating Temp. Range
1.5 - 45°C

Pipe Size
½"

Applications

- Breathing air

CHB-AIR PLUS system has been specifically designed for applications where high quality breathing air and monitoring of breathing air supply are needed. CHB-AIR PLUS is a combination of our CHB-AIR PLUS 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 CHB-AIR PLUS can safely provide high quality breathing air for up to 5 people[1].

Small dimensions and low weight enable the use of CHB-AIR PLUS in many applications as it can be transported and set up with ease.

Advantages

- High quality breathing air for up to 5 people
- Air quality monitoring (EN 12021, BS 4275:1997)
- Compact & light weight

TYPE	PART NO	PIPE SIZE	FLOW RATE AT 7 BAR(G), 20 °C		DIMENSIONS			WEIGHT	FILTER ELEMENT TYPE
		[inch]	[m³/min]	[cfm]	A [mm]	B [mm]	C [mm]	[kg]	
CHB-AIR PLUS	**CC1189710**	1/2"	2	71	508	460	160	12	

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

Prices are for complete set.

FM	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007M	**223182**

FH²	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007H2	**CC1189441**

FA²	FILTER ELEMENT TYPE	PART NO
	Filter Cartridge F007A2	**CC1189354**

CH-AIRWATT SERIES
HEAT RECOVERY UNITS

At a glance…

Operating Pressure
1 - 16 bar

Flow Rate
1.3 - 13 m³/min

Operating Temp. Range
5 - 120°C

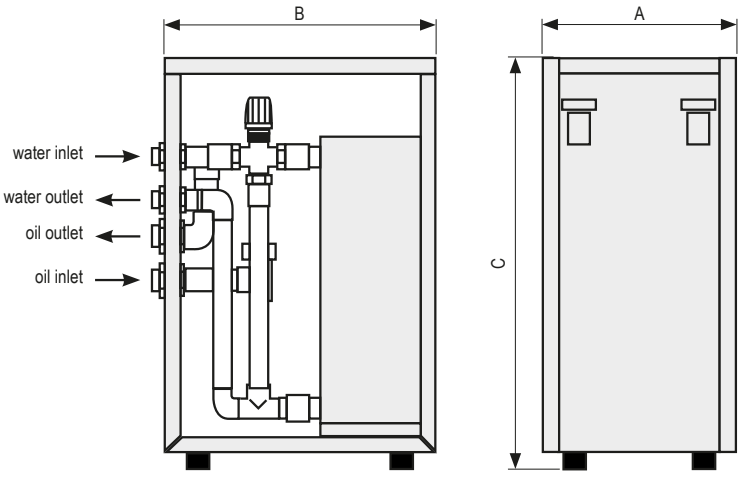
Ambient Air Temp. Range
5 - 45°C

Applications

- Heat recovery in oil lubricated rotary screw compressors

External heat recovery unit - CH-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.



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	PART NO	MOTOR POWER [kW]	HEAT CAPACITY [kW]	OIL CONNECTION [G]	WATER CONNECTION [G]	DIMENSIONS A [mm]	B [mm]	C [mm]	WEIGHT [kg]
CH-AIRWATT 22	**CC1189573**	15 - 22	12 - 17.6	1 1/4"	1"	360	500	760	33
CH-AIRWATT 37	**CC1189574**	26 - 37	20.8 - 29.6	1 1/4"	1"	360	500	760	35
CH-AIRWATT 75	**CC1189575**	45 - 75	36 - 60	1 1/4"	1"	360	500	760	42
CH-AIRWATT 100	**CC1189576**	90 - 132	72 - 100	2"	2"	450	600	860	58

VERTICAL AIR RECEIVERS

At a glance…

Operating Pressure
11 - 15 bar

Capacity
270 - 3000l

Air receivers are an important part of the compressed air system, evening out peaks and troughs in air demand, minimising pulsations from piston compressors and protecting your air compressor from over frequent load/ unload or start stop cycles.

VERTICAL TANKS[1]	Ø X H [mm]	WEIGHT [kg]	IN / OUT	MAXIMUM PRESSURE [bar]	REG.	PACKING	CODE
TANK 270 L	490 x 1,664	70	1" / 1"	11	CE 87 / 404	+ 2 %	**220662K**
TANK 500 L	600 x 2,055	125	1" / 1"	11	CE 87 / 404	+ 2 %	**220663K**
TANK 500 L 15 BAR	600 x 2,055	145	1" / 1"	15	CE 87 / 404	+ 2 %	**220749K**
TANK 720 L	750 x 2,030	195	1"/ 1"	11	CE 87 / 404	+ 2 %	**220713K**
TANK 1000 L	800 x 2,335	270	2" / 2"	12	CE 97 / 23	+ 1.5 %	**220664K**
TANK 2000 L	1,100 x 2,485	360	2" / 2"	12	CE 97 / 23	+ 1.5 %	**220665CK**
TANK 3000 L	1,200 x 2,980	530	2" / 2"	12	CE 97 / 23	+ 1.5 %	**220668CK**

[1] Including paint, support legs, pressure gauge, safety valve and inlet and outlet nozzles.

NOTE: Further receiver types available on request.

CONDENSATE DRAINS

IED SERIES
ELECTRONIC CONDENSATE DRAINS

TECHNICAL DATA	IED	
VOLTAGE	230 VAC	115 VAC
FREQUENCY	50-60 Hz	50-60 Hz
INTERNAL FUSE	5 x 20 1A T	
POWER	10 VA	
OPERATING PRESSURE RANGE	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]	
OPERATING TEMPERATURE RANGE	1.5-65 °C [35-149°F]	
INLET CONNECTION	G 1/2" parallel thread	
PROTECTION CLASS	IP54	
MASS [kg]	0.3	
OPERATING TEMPERATURE RANGE	1.5 to 65°C	
DIMENSIONS [L x B x H]	61 x 60 x 161 mm	
SERVICE NETWORK CONNECTION	-	-
ALARM OUTPUT	-	-
PART NUMBER	**CC1182025**	

EMD SERIES
ELECTRONIC CONDENSATE DRAINS

TECHNICAL DATA	EMD12 230 V
SERVICE NETWORK CONNECTION	-
ALARM OUTPUT	-
VOLTAGE	230 VAC, 50-60 Hz
INTERNAL FUSE	5 x 20 1A T
POWER	10 VA
OPERATING PRESS. RANGE	0-16 bar [0-232 psi]
DRAIN CAPACITY [AT 7 bar/101 PSI]	12 l/h [0.007cfm]
OPERATING TEMP. RANGE	1.5-65°C [35-149°F]
INLET CONNECTION	G 1/2"
OUTLET CONNECTION	Push connection for tube ø8
PROTECTION CLASS	IP54
MASS [kg]	0.55
DIMENSIONS A x B x C [mm]	133 x 76 x 147
PART NUMBER	**CC1112242**

ECD-B SERIES
ELECTRONIC CONDENSATE DRAINS

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	40 l/h	90 l/h	150 l/h
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 x 0.75 mm^2	3 x 0.75 mm^2	3 x 0.75 mm^2	3 x 0.75 mm^2
PROTECTION CLASS		IP54	IP54	IP54	IP54
MASS [kg]		0.9	0.9	1.05	1.15
DIMENSIONS A x B x C [mm]		120 x 82 x 125	120 x 82 x 125	120 x 82 x 135	120 x 82 x 150
PART NUMBER		**CC1150763**	**CC1164401**	**CC1183827**	**CC1183828**

SAC 160 SERIES
TIME CONTROLLED CONDENSATE DRAINS

TECHNICAL DATA	SAC 160		SAC 160 cr	
SUPPLY VOLTAGE	115V	230V	115V	230V
OPERATING TEMP. RANGE	1.5 - 65 °C [35-149 °F]		1.5 - 65 °C [35-149 °F]	
OPERATING PRESSURE	16 bar [232 psi]		16 bar [232 psi]	
PROTECTION CLASS	IP65		IP65	
COIL POWER	18VA (holding), 36 VA (inrush)		18VA (holding), 36 VA (inrush)	
MASS [cable + valve]	0.35 kg		0.35 kg	
TIME ON	0.5 s - 10 s		0.5 s - 10 s	
TIME OFF	0.5 min - 45 min		0.5 min - 45 min	
DRAIN CAPACITY [AT 7 bar]	95 l/h		95 l/h	
FLOW RATE Kvs	2.4 l/min		3.4 l/min	
INLET CONNECTION	R 1/2"		R 1/2"	
OUTLET CONNECTION	R 1/4"		R 1/4"	
DIMENSIONS L x B x H [mm]	77 x 79 x 93	87.5 x 90.5 x 123	77 x 79 x 93	87.5 x 90.5 x 123
MEDIUM	Air, water, oil		Agressive fluids	
OPTION STRAINER	Yes		No	
PART NUMBER	**CC1032411**		**CC1183829**	

SAC 120
AUTOMATED CONDENSATE DRAINS

TECHNICAL DATA	
OPERATING TEMP. 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 x B x C	135 x 110 x 130 mm
MEDIUM	Condensate (air, water, oil)
PART NUMBER	**222394**

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 generation of air bubbles. Nipple is screwed on inlet connection.

SAC 70
AUTOMATED CONDENSATE DRAIN

TECHNICAL DATA	
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 x D	90 x ø38.5 mm
MEDIUM	Condensate (air, water, oil)
PART NUMBER	**223120**

MCD
MANUAL CONDENSATE DRAIN

TECHNICAL DATA		
OPERATING TEMP. RANGE		1.5 - 65 °C [35-149 °F]
OPERATING PRESSURE		0-20 bar [290 psi]
MASS		0.06 kg
CONNECTION		G 1/2"
DIMENSIONS	H	38.2 mm
	E	24.0 mm
MEDIUM		Condensate [air, water, oil]
MATERIAL		Brass
PART NUMBER		**CC1183830**

CHWOSM SERIES
WATER - OIL SEPARATORS

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 agresive; Not suitable for emulsion
RESIDUAL OIL CONTENT	< 20ppm
SERVICE INTERVAL	When first of following parametres 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] H	DIMENSIONS [mm] φ	PART NO
CHWOSm1	MAX OIL ADSORPTION [g]	740	650	370	483	106	CC1148194
	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			
CHWOSm2	MAX OIL ADSORPTION [g]	1520	1340	770	816	106	CC1148195
	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).

CHWOS SERIES
WATER - OIL SEPARATORS

TECHNICAL DATA	
OPERATING TEMPERATURE	1.5 - 45 °C [max 65 °C]; 35 - 113 °F [max. 149 °F]
OPERATING MEDIA	Condensate (air, water, oil); Non agresive; Not suitable for emulsion
RESIDUAL OIL CONTENT	< 10ppm
SERVICE INTERVAL	When first of following parametres appears:
	- 4000 operating hours of compressor
	- 12 months regardless of compressor operating hours
	- Outlet oil concentration reaches conc. 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	PART NO
CHWOS4	MAX OIL ADSORPTION [kg]	2.89	2.43	1.23	416	243	411	CC1148196
	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				
CHWOS8	MAX OIL ADSORPTION [kg]	6.01	5.04	2.55	730	343	680	CC1148197
	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				
CHWOS20	MAX OIL ADSORPTION [kg]	14.64	12.28	6.22	820	366	940	CC1148198
	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				
CHWOS35	MAX OIL ADSORPTION [kg]	25.4	21.31	10.79	960	386	1,137	CC1148199
	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				

CHNP SERIES NITROGEN GENERATORS

At a glance…

Operating Pressure
6 - 10 bar

Ambient Air Temp. Range
up to 40°C

Capacity
3 - 442.5 Nm³/h

Operating Temp. Range
5 - 35°C

The CHNP 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 NP nitrogen generators use two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

TYPE	PART NO	FLOW RATE AT 7 BAR(G), 20 °C		DIMENSIONS			WEIGHT
		[m³/min]	[cfm]	A [mm]	B [mm]	C [mm]	[kg]
CHNP 03	**CC1182437**	Variable / Depending on purity		635	530	1650	110
CHNP 05	**CC1182024**			635	530	1650	130
CHNP 10	**CC1182307**			685	530	1650	190
CHNP 15	**CC1182438**			795	545	1650	230
CHNP 20	**CC1182439**			795	585	1920	295
CHNP 25	**CC1182440**			845	660	1975	410
CHNP 35	**CC1182441**			1040	780	2005	585
CHNP 50	**CC1182442**			1040	795	2250	740
CHNP 65	**CC1182443**			1150	795	2335	835
CHNP 100	**CC1182444**			1425	945	2480	1,260
CHNP 150	**CC1182445**			1650	1100	2550	1,590
CHNP 200	**CC1182446**			1805	1160	2615	1,905
CHNP 250	**CC1182447**			2020	1190	2780	2,430
CHNP 300	**CC1182448**			2255	1280	2780	2,810
CHNP 400	**CC1182449**			2720	1470	2880	3,640

Notes