



# GAS TREATMENT

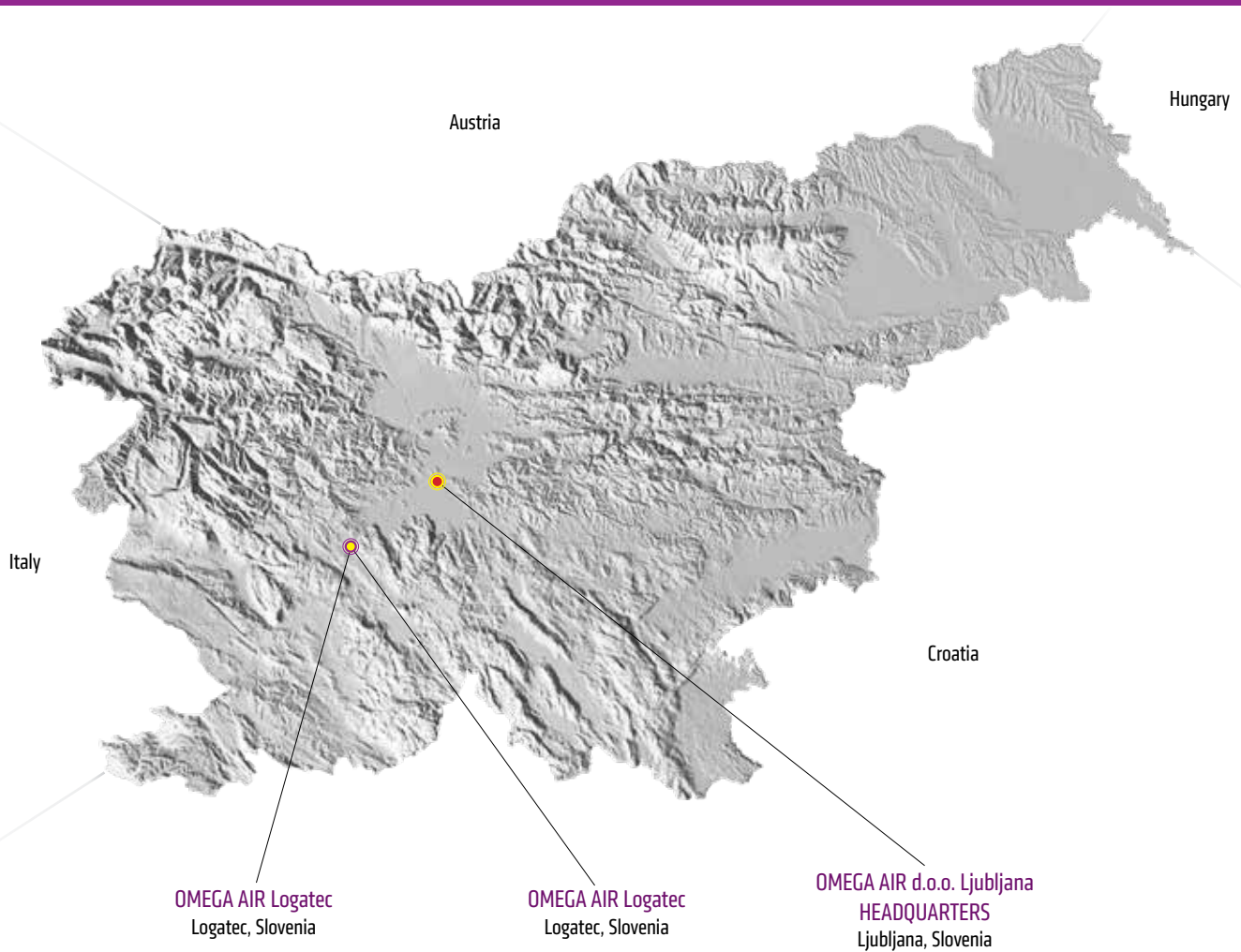
## Product overview



**OMEGA AIR d.o.o. Ljubljana**  
Cesta Dolomitskega odreda 10  
SI-1000 Ljubljana, Slovenia

**T +386 (0)1 200 68 00**  
[info@omega-air.si](mailto:info@omega-air.si)  
[www.omega-air.si](http://www.omega-air.si)

GPS: 46°2'27.13" 14°27'59.46"



Main warehouse  
Area: 4000 m<sup>2</sup>



Compressors and technique dept.  
Service centre  
Welding department  
Dryers production  
Land: 31.500 m<sup>2</sup>  
Facilities: 4.100 m<sup>2</sup>



Head office  
Production halls  
Sales office  
R & D  
Area: 6.600 m<sup>2</sup>

## OMEGA AIR Group

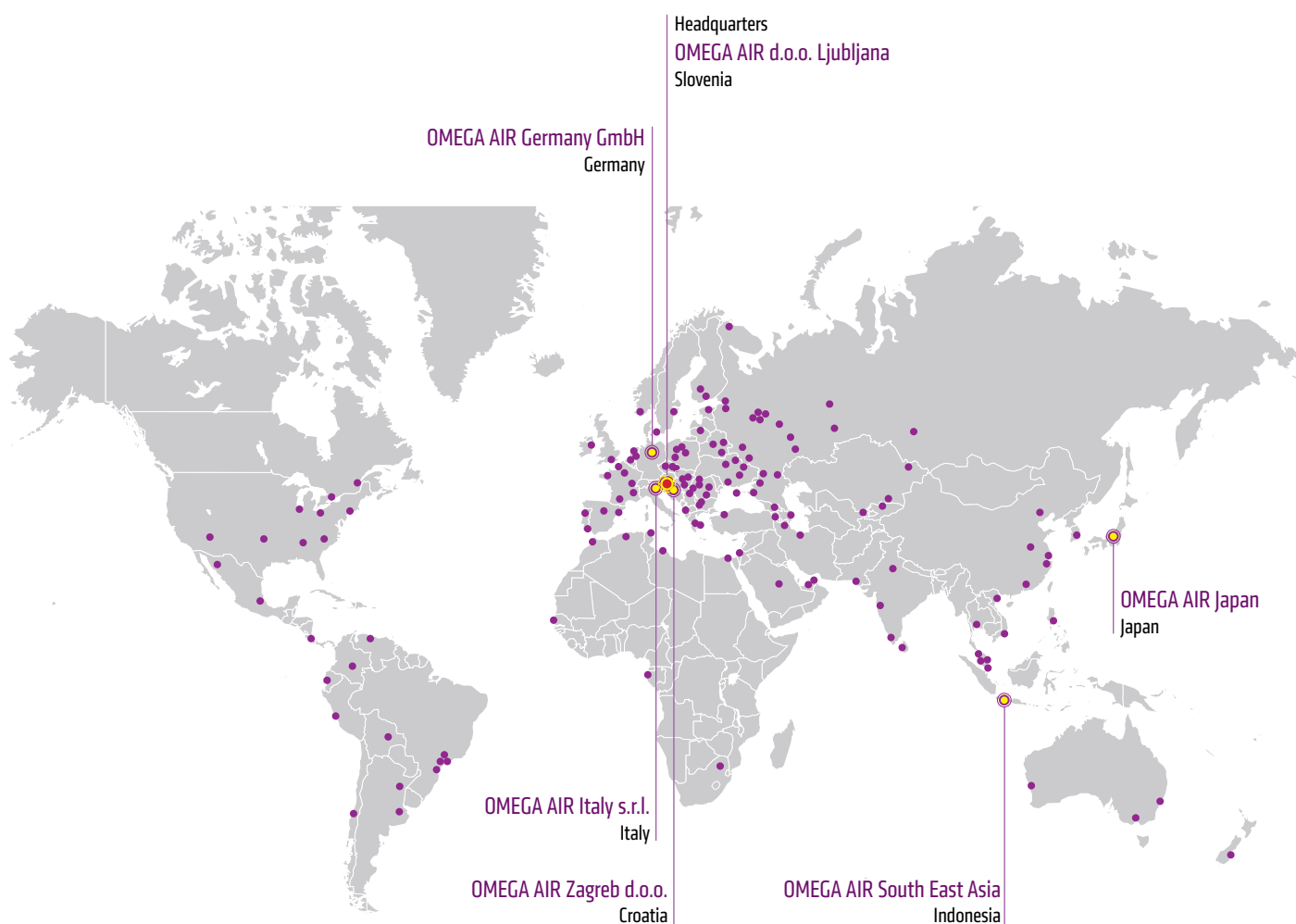
6 companies in OMEGA AIR group

37 distributors (2022)

80+ states

With companies in its group and carefully selected distributors, OMEGA AIR is present in all global markets.

This ensures a reliable sales network, easier communication with local customers regarding their detailed requirements, more reliable distribution of our products to all continents, fast after-sales support, service and maintenance of our products, customer training and spare parts supply at individual distributors.



- OMEGA AIR Headquarters
- OMEGA AIR Subsidiary/ Representative office
- OMEGA AIR Customers

# OMEGA AIR

## *Air and Gas*

### EXPERIENCES

With its 35+ years of experience in Gas Treatment manufacturing, Omega Air is one of the most experienced producer of Engineered Solutions for Gas Treatment facilities or applications.

### INDEPENDENCE

Working from our proper funds and with our own R&D, Welding, Logistics, Moulding/Machining and Mounting departments, we are proud of our independence and of our ability to control the totality of the production line in-house. The total workforce of our company is now close to 400.

### QUALITY

Thanks to the above, we are the proud owners of some of the most prestigious certifications of the business, such as ISO 8573-1, ISO 9001, ISO 13485, PED, CE, ASME U, ASME UM, TRCU, ATEX, etc.





# Gas classification

COMMON GAS CLASSIFICATION according to PED 97/23 and ATEX 94/9 directives				
Gas	Chemical formula	Fluid group	Atex zone	Temp. class
Acetylene	$C_2H_2$	1	II C	T2
Hydrochloric acid	HCl	1		
Compressed Air		2		
Ammonia	$NH_3$	1	II A	T1
Argon	Ar	2		
Nitrogen	$N_2$	2		
Butadiene	$C_4H_6$	1	II B	T2
Butane	$C_4H_{10}$	1	II A	T2
Bromine	$Br_2$	1		
Chlorine	$Cl_2$	1		
Chloroethylene	$CH_2=CHCl$	1	II C	
Nitrogen dioxide	$NO_2$	1		
Carbon dioxide	$CO_2$	2		
Sulphur dioxide	$SO_2$	1		
Ethane	$C_2H_6$	1	II A	
Ethylene	$CH_2=CH_2$	1	II B	T2
Fluor	$F_2$	1		
Freon (R11, R22)		1		
Natural gas		1	II A	
Coke gas		1	II A	
Helium	He	2		
Hydrogen	$H_2$	1	II C	T1
Methane	$CH_4$	1	II A	T1
Methylamine	$CH_3-NH_2$	1	II A	T1
Carbon monoxide	CO	1		
Neon	Ne	2		
Oxygen	$O_2$	1		
Ozone	$O_3$	1		
Phosgene	$COCl_2$	1		
Propane	$CH_3-CH_2-CH_3$	1	II A	T1
Steam		2		

Note:

- above classification of each gas as well as their zone, class and degree of dangerosity/corrosion also depend on the environment in which they are used
- for each application or project, please give us the inlet pressure, inlet temperature, ambient temperature, gas composition, inlet dew point or humidity rate and flow rate of the gas at given pressure

Classification of fluids according to PED	
Group 1 Fluids	Group 2 Fluids
Explosive	All other fluids
Extremely flammable	
Highly flammable	
Flammable	
Very toxic	
Toxic	
Oxidizers	



Hydrogen is a colourless, odourless, tasteless, flammable (over a wide range of vapor/air concentrations) gaseous substance that is the simplest member of the family of chemical elements. It is also the lightest element on the periodic table. Under ordinary conditions, hydrogen gas is a loose aggregation of hydrogen molecules, each consisting of a pair of atoms, a diatomic molecule,  $H_2$ . The earliest known important chemical property of hydrogen is that it burns with oxygen to form water,  $H_2O$ .

Group ( $H_2$ ):	1
Boiling point ( $H_2$ ):	-252,879 °C
Melting point ( $H_2$ ):	-259,2 °C
Density ( $H_2$ , at STP):	0,08988 g/L

#### APPLICATIONS

- Petroleum refining
- Glass purification
- Semiconductor manufacturing
- Aerospace
- Welding
- Pharmaceuticals
- "Green mobility" (Fuel Cell Vehicles)

## HYDROGEN (H) or DIHYDROGEN ( $H_2$ )

Fluid Group 1



Carbon dioxide appears as a colourless odorless gas at atmospheric temperatures and pressures. Relatively nontoxic and noncombustible. It is also heavier than air but soluble in water. However, it can become quite corrosive when mixed with humidity/water and cause physical damages if placed under prolonged exposure to heat or fire.

Group:	2
Boiling point:	-78,46 °C
Melting point:	-56,6 °C
Density (at STP):	1977 kg/m <sup>3</sup>

#### APPLICATIONS

- Bottling (soda, beer, etc)
- Biogas
- Market gardening
- Fire reduction (dry ice)
- Chemicals (agricultural non-pesticidal)
- Refrigeration (used to freeze food, to control chemical reactions)
- Propellants and blowing agents

## CARBON DIOXIDE ( $CO_2$ )

Fluid Group 2



Compressed Natural Gas (CNG) is essentially a methane gas mixture that has been compressed to a higher pressure than the atmospheric one. It is typically used at 4 to 250 bar. It is one of the most widespread energy used nowadays in the world and its sources can be multiple (fossil, produced as biomethane or RNG by anaerobic digestion, or through thermochemical processes such as gasification).

Group:	1
Boiling point:	-161,6°C
Melting point:	-182,5°C
Density (at STP):	0,717 kg/m <sup>3</sup>

#### APPLICATIONS

- Fuel for CNG vehicles
- Power generation
- Water heating
- Air conditioning

## COMPRESSED NATURAL GAS (CNG)

Fluid Group 1



Methane is a colourless, odourless, non-toxic (in limited quantity) but flammable gas. Methane can be flammable when mixed with air between certain concentrations (4,5 % to 15 %) and where there is an ignition source. It has a role of a fossil fuel and a bacterial metabolite, and is a member of the greenhouse gases group. Most of the time, it is the main component of natural gas and refrigerated liquid (cryogenic liquid).

Group:	1
Boiling point:	-161,6 °C
Melting point:	-182,5 °C
Density (at STP):	0,657 kg/m <sup>3</sup>

#### APPLICATIONS

- Fuels and fuel additives
- Functional fluids (open systems)
- Laboratory chemicals
- Processing aids
- Plastic and rubber products

## METHANE (CH<sub>4</sub>)

Fluid Group 1



Helium is a colourless, odourless, noncombustible gas. If inhaled in smaller quantity it will alter the voice but can asphyxiate in inhaled in bigger quantities. It is a noble (or rare) gas, practically inert, the first of the family of noble gases in the periodic table of the elements. Its boiling and melting point are the lowest among all the elements. It is the second lightest and second most abundant element in the observable universe.

Group:	2
Boiling point:	-268,9 °C
Melting point:	-272,2 °C
Density (at STP):	0,1785 g/L

#### APPLICATIONS

- Manufacturing of semiconductors
- Leak detection (refrigerated systems)
- Lifting
- Breathing (Heliox)
- Cooling
- Inerting

## HELIUM (He)

Fluid Group 2



Argon is a colourless, odourless, noncombustible gas. Heavier than air, it can asphyxiate by displacement of air. It is inert and part of the family of noble gases, also called "rare gases", which also includes helium, neon, krypton, xenon and radon. Argon is the third most abundant constituent of the Earth's atmosphere.

Group:	2
Boiling point:	-185,8 °C
Melting point:	-189,4 °C
Density (at STP):	1,784 g/L

#### APPLICATIONS

- Food processing (preservation)
- Gas metal-arc welding (as a shield)
- Gas filler in incandescent light bulbs
- Lasers
- Ionization chambers
- Fire extinguishers

## ARGON (Ar)

Fluid Group 2



Neon is a colorless, odorless, inert monatomic gas under standard conditions, with about two-thirds the density of air. It is a noble gas and was discovered (along with krypton and xenon) as one of the three residual rare inert elements remaining in dry air, after nitrogen, oxygen, argon and carbon dioxide were removed. Neon is a rare element and, as liquid or gas, is therefore relatively expensive. And unlike helium, it can only be obtained in usable quantities by filtering it out of the atmosphere.

Group:	2
Boiling point:	-246 °C
Melting point:	-248,6 °C
Density (at STP):	0,89990 g/L

#### APPLICATIONS

- Signing
- Vacuum tubes
- Lasers
- Refrigeration

## NEON (ne)

Fluid Group 2



Nitrogen Dioxide is part of the generic nitrogen oxide pollutants NO<sub>x</sub>, highly reactive gases. Concentrated, it appears as a suffocating poisonous red-brown gas. Elevated levels of nitrogen dioxide can cause damage to the human respiratory tract and increase a person's vulnerability to, and the severity of, respiratory infections and asthma.

Group:	1
Boiling point:	21 °C
Melting point:	21 °C
Density (at STP):	1,880 g/L

#### APPLICATIONS

- Production of nitric acid (fertilizers)
- Manufacturing of chemical explosives
- Sterilization
- Polymerization (inhibitor)

## NITROGEN DIOXIDE (NO<sub>2</sub>)

Fluid Group 1



Ammonia is a colourless gas with a distinct pungent smell. It is a chemical compound emitted by animal waste and nitrogen fertilizers used for crop fertilization as it is a source of nitrogen. Its excessive deposition in the natural environment can lead to the acidification and eutrophication of environments.

Group:	1
Boiling point:	-33,34 °C
Melting point:	-77.73 °C
Density (at STP):	0,769 kg/m <sup>3</sup>

#### APPLICATIONS

- Solvent
- Fertilizer
- Fermentation
- Fuel component
- Refrigeration

## AMMONIA (NH<sub>3</sub>)

Fluid Group 1



# FILTERS and FILTER ELEMENTS

## AAF series - Aluminium filters



### Fluid Group 2

**16 bar**  
operating pressure

**10 to 2.760 Nm³/h**  
volume flow rate

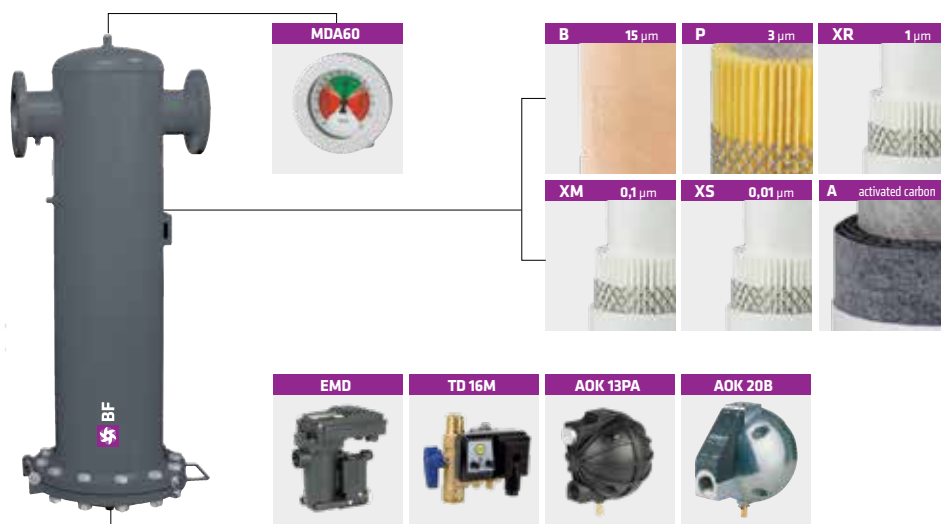
**1/8" to 3"**  
connections

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

**aluminium**  
material

**RAL 7021**  
standard colour

## BF series - Welded carbon steel filters



### Fluid Group 2

**16 bar**  
operating pressure

**1.680 to 31.400 Nm³/h**  
volume flow rate

**DN80 to DN300**  
connections

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

**RAL 7021**  
standard colour  
**carbon steel**  
material

## BF HP series - Welded carbon steel high pressure filters



### Fluid Group 2

**25 bar**

operating pressure

**1.680 to 31.400 Nm<sup>3</sup>/h**

volume flow rate

**DN80 to DN300**

connections

**1,5 to 65 °C**

operating temperature range

**RAL 7021**

standard colour

**Carbon steel**

material

## HF series - Cast aluminium high pressure filters



### Fluid Group 2

**50 bar**

operating pressure

**71 to 2760 Nm<sup>3</sup>/h**

volume flow rate

**1/2" to 3"**

connections

**1,5 to 65 °C**

operating temperature range

**RAL 7021**

standard colour

**aluminium**

material

## CHP series - Carbon steel high pressure filters



### Fluid Group 2

**100, 250, 420 bar**

operating pressure

**40 to 715 Nm<sup>3</sup>/h**

volume flow rate

**1/4" to 2"**

connections

**1,5°C to 65°C**

operating temperature range

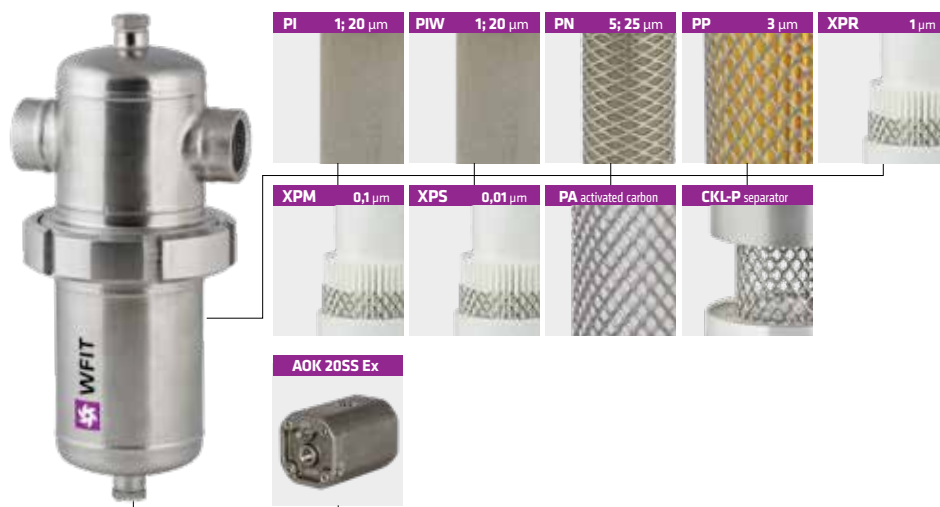
**Nickel plated 15 µm**

surface protection

## WFIT series - Welded stainless steel filters - threaded connection



### Fluid Group 1



**14 bar**  
operating pressure

**75 to 3600 Nm³/h**  
volume flow rate

**1/4" to 3"**  
connections

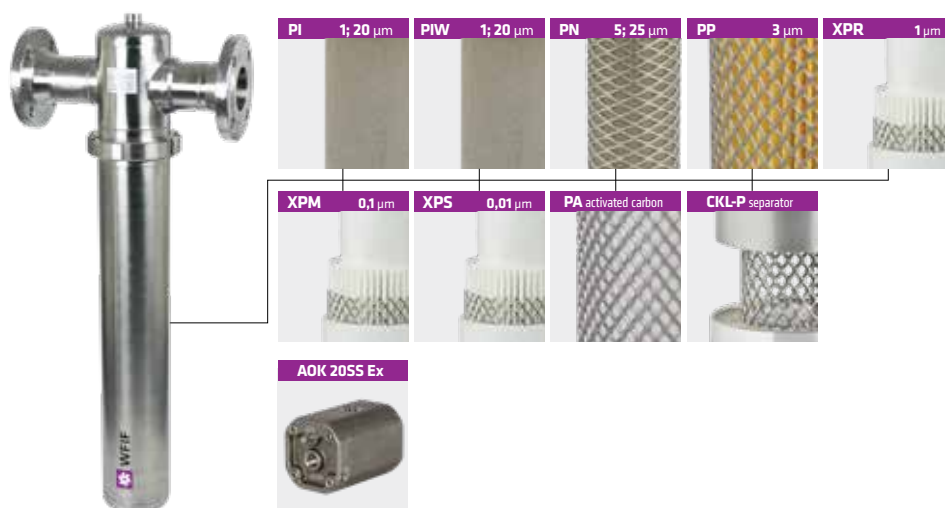
**-20 to +150 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material

## WFIF series - Welded stainless steel filters - flanged connection



### Fluid Group 1



**14 bar**  
operating pressure

**150 to 21.120 Nm³/h**  
volume flow rate

**DN15 to DN200**  
connections

**-20 to +150 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material

## WFIW series - Welded stainless steel filters - welding end connection



### Fluid Group 1



**14 bar**  
operating pressure

**75 to 3.600 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

## WHFIT series - High pressure stainless steel filters



### Fluid Group 1

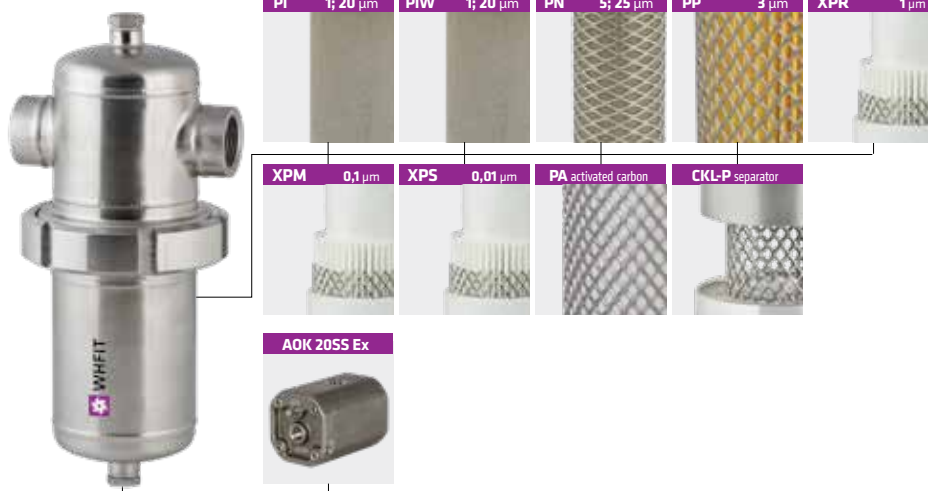
**50 bar**  
operating pressure

**150 to 2400 Nm<sup>3</sup>/h**  
volume flow rate

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

**0 to 120 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material



## SPF series - Stainless steel sterile filters



### Fluid Group 1

**14 bar**  
operating pressure

**75 to 3600 Nm<sup>3</sup>/h**  
volume flow rate

**1/4" to 3"**  
connections

**-20 to +150 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material



## SF series - Stainless steel sterile filters



### Fluid Group 1

**10 bar**  
operating pressure

**75 to 21.120 Nm<sup>3</sup>/h**  
volume flow rate

**DN10 to DN80 TC ISO**  
**DN100 to DN200 EN**  
connections

**1,5°C to 150°C**  
operating temperature range

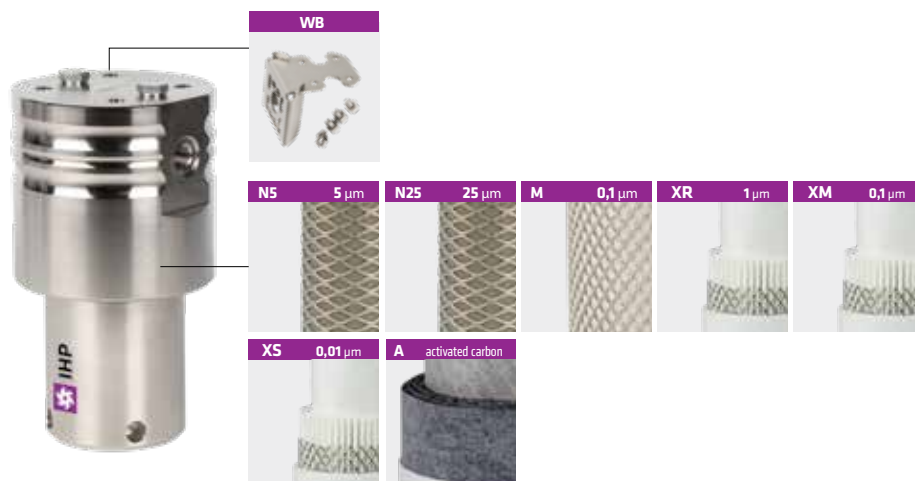
**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material



## IHP series - High pressure stainless steel filters



### Fluid Group 1



**100, 250, 420 bar**  
operating pressure

**40 to 715 Nm<sup>3</sup>/h**  
volume flow rate

**1/4" to 2"**  
connections

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

**stainless steel 1.4301** - option  
**stainless steel 1.4404** - standard  
material

## ACTIVATED CARBON TOWERS

### TAC series - Activated carbon towers



#### Fluid Group 1

**2 - 420 bar**  
operating pressure

**50 to 6.500 Nm<sup>3</sup>/h**  
volume flow rate

**3/8" to DN125**  
connections

**+ 50°C**  
max. inlet temperature

**stainless steel 1.4404**  
material



### TAC and HP TAC series - Activated carbon towers



#### Fluid Group 2

**2 - 420 bar**  
operating pressure

**50 to 6.500 Nm<sup>3</sup>/h**  
volume flow rate

**3/8" to DN125**  
connections

**+ 50°C**  
max. inlet temperature

**carbon steel**  
**stainless steel 1.4404**  
material





## CONDENSATE SEPARATORS

### AAF CKL series - Aluminium condensate separator



#### Fluid Group 2

**16 bar**  
operating pressure  
**10 to 2.760 Nm<sup>3</sup>/h**  
volume flow rate  
**1/8" to 3"**  
connections  
**1,5 to 65 °C**  
operating temperature range  
**RAL 7021**  
standard colour  
**aluminium**  
material

### CS series - Welded condensate separator



#### Fluid Group 2

**16 (13) bar**  
operating pressure  
**840 to 14.280 Nm<sup>3</sup>/h**  
volume flow rate  
**DN65 to DN300**  
connections  
**1,5 to 120 °C**  
operating temperature range  
**carbon steel**  
material

## SFH series - Welded condensate separators



### Fluid Group 2

**16 (13) bar**

operating pressure

**840 to 14.280 Nm³/h**

volume flow rate

**DN65 to DN300**

connections

**1,5 to 120 °C**

operating temperature range

**carbon steel**

material

## SFH HP series - Welded high pressure condensate separators



### Fluid Group 2

**50 bar**

operating pressure

**1.760 to 12.550 Nm³/h**

volume flow rate

**DN80 to DN350**

connections

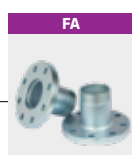
**1,5 to 65 °C**

operating temperature range

**carbon steel**

material

## HF CKL series - Aluminium condensate separators



### Fluid Group 2

**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

**aluminium**

material

**CHP CKL series** - Carbon steel high pressure condensate separators**Fluid Group 2**

**100, 250, 420 bar**  
operating pressure

**40 to 715 Nm<sup>3</sup>/h**  
volume flow rate

**1/4" to 2"**  
connections

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

**Nickel plated 15 µm**  
surface protection

**WFIT CKL series** - Welded stainless steel cyclone sep. - threaded connection**Fluid Group 1**

**14 bar**  
operating pressure

**75 to 3600 Nm<sup>3</sup>/h**  
volume flow rate

**1/4" to 3"**  
connections

**-20 to +150 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material

**WFIF CKL series** - Welded stainless steel cyclone sep. - flanged connection**Fluid Group 1**

**14 bar**  
operating pressure

**150 to 21.120 Nm<sup>3</sup>/h**  
volume flow rate

**DN15 to DN200**  
connections

**-20 to +150 °C**  
operating temperature range

**stainless steel 1.4404**-standard  
**stainless steel 1.4301**-option  
material

**WFIW CKL series** - Welded stainless steel cyclone sep. - welding end conn.**Fluid Group 1**

**14 bar**  
operating pressure

**75 to 3.600 Nm<sup>3</sup>/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

**CS SS series** - Welded stainless steel condensate separator**Fluid Group 1**

**16 (13) bar**  
operating pressure

**840 to 14.280 Nm<sup>3</sup>/h**  
volume flow rate

**DN65 to DN300**  
connections

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

**CS SS: stainless steel 1.4404**  
material

**SFH SS series** - Welded stainless steel condensate separator**Fluid Group 1**

**16 (13) bar**  
operating pressure

**1760 to 12550 Nm<sup>3</sup>/h**  
volume flow rate

**DN80 to DN350**  
connections

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

**SFH SS: stainless steel 1.4404**  
material

**SFH SS HP series** - Welded stainless steel high pressure cond. separator**Fluid Group 1**

**50 bar**  
operating pressure

**1.760 to 12.550 Nm<sup>3</sup>/h**  
volume flow rate

**DN80 to DN350**  
connections

**1,5 to 150 °C**  
operating temperature range

**SFH SS: stainless steel 1.4404**  
material

**IHP CKL series** - Stainless steel high pressure condensate separator**Fluid Group 1**

**100, 250, 420 bar**  
operating pressure

**40 to 715 Nm<sup>3</sup>/h**  
volume flow rate

**1/4" to 2"**  
connections

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

**stainless steel 1.4301**-standard  
**stainless steel 1.4404**-option  
material



# ADSORPTION DRYERS

## CNG adsorption dryers

Compressed natural gas dryers (CNG dryers) are designed for continuous separation of water vapour from compressed natural gas thus lowering the dew point.

Three types of dryers are available:

- Heatless regenerated: expanded natural gas used for regeneration. Purged gas released to torch and/or guided to compressor inlet.
- Heat regenerated: hot natural gas used for regeneration. Purged gas to torch and/or guided to compressor inlet.
- Without regeneration (single or double column): replacement of adsorbent at each maintenance interval or external regeneration unit to be connected.

For any new project, we require the following data to be able to prepare a quotation:

- Inlet pressure
- Inlet temperature
- Inlet water content
- Preferred dryer type (AUTOMATIC / MANUAL)
- Preferred type of regeneration (HEATLESS / HEAT / REPLACEMENT OF ADSORBENT / EXTERNAL REGENERATION UNIT)
- Availability of water cooling water (YES/NO). If yes temperature of cooling water.
- Possibility to guide regeneration gas to the suction side of the compressor (YES/NO)



**4-40 bar**

operating pressure

**100 to 12.550 Nm<sup>3</sup>/h**

volume flow rate

**DN80 to DN350**

connections

**-20 to -70 °C**

outlet pressure dew point



## CO<sub>2</sub> adsorption dryers

Compressed Carbon Dioxide Dryers (CO<sub>2</sub> Dryers) are designed for continuous separation of water vapour from compressed carbon dioxide, thus lowering its pressure dew point.

Carbon Dioxide is an inert gas which can be highly corrosive, depending on its level of humidity. Compressed Carbon Dioxide Dryers (CO<sub>2</sub> Dryers) are therefore normally custom made, to meet specific project requirements. Several versions are available, based on operating pressure, temperature, requested pressure dew point and level of humidity. Depending on this last criteria, the dryer's materials will need to be modified.

The type of regeneration is Heat Regenerated. Depending on the existence and type of available fluids to conduct this regeneration/cooling, we then adapt the components of the CO<sub>2</sub> Dryer, to ensure that a strict minimum of gas will be lost during the regeneration phase.

For any new project, we require the following data to be able to prepare a quotation:

- Inlet pressure
- Inlet flow rate
- Inlet temperature
- Inlet water content
- Outlet required Pressure Dew Point (PDP)
- Availability of external dry gas for regeneration/cooling. If yes temperature and dew point of the gas.
- Availability of water for regeneration/cooling. If yes temperature of cooling water.



**4-40 bar**

operating pressure

**100 to 12.550 Nm<sup>3</sup>/h**

volume flow rate

**DN80 to DN350**

connections

**1,5 to 65 °C**

operating temperature range



## HELIUM adsorption dryers



Compressed Helium Dryers (He Dryers) are designed for continuous separation of water vapour from compressed helium, thus lowering its pressure dew point.

Since many industries can benefit from its unique properties to optimize their performance and productivity, to reduce labor costs and to make their operations safer, it is very important to determine in advance the technology which will best fit your Helium application.

For any new project, we require the following data to be able to prepare a quotation:

- Application
- Inlet pressure
- Inlet flow rate
- Inlet temperature
- Outlet required Pressure Dew Point (PDP)

**4-420 bar**  
operating pressure

**on request**  
volume flow rate

**1,5 to 50 °C**  
operating temperature range

**-25 to -70 °C**  
pressure dew point

## HYDROGEN adsorption dryers



Compressed Hydrogen Dryers (H<sub>2</sub> Dryers) are designed for continuous separation of water vapour from compressed hydrogen, thus lowering its pressure dew point.

Hydrogen is a highly combustible gas to be cautious about and Compressed Hydrogen Dryers are normally custom made, to meet specific project requirements. Provided that the level of Oxygen (or any other reactive component) is reduced to a minimum in the gas mix, several versions are available, based on operating pressure, temperature and requested pressure dew point.

The type of regeneration is Heat Regenerated. Depending on the existence and type of available fluids to conduct this regeneration/cooling, we then adapt the components of the Hydrogen Dryer, to ensure that a strict minimum of gas will be lost (1-2% maximum when external dry gas is available for regeneration/cooling for instance).

For any new project, we require the following data to be able to prepare a quotation:

- Inlet pressure
- Inlet flow rate
- Inlet temperature
- Inlet water content
- Outlet required Pressure Dew Point (PDP)
- Availability of external dry gas for regeneration/cooling. If yes temperature and dew point of the gas.
- Availability of water for regeneration/cooling. If yes temperature of cooling water.

**4-420 bar**  
operating pressure

**on request**  
volume flow rate

**1,5 to 40 °C**  
operating temperature range (inlet)

**-25 to -70 °C**  
pressure dew point

# PRESSURE TANKS

## PV PED - pressure vessels PED



**11 bar**  
operating pressure

**-10 to +120 °C**  
operating temperature range

**Pressure vessels are designed and manufactured according to the European Directive and International Standard:**

STANDARD:

- Directive 2014/68/EU PED Pressure Equipment

OPTION:

- Directive 2014/29/EU Simple Pressure Vessel
- ASME "U" Designator (The American Society of Mechanical Engineers (section VIII div. 1)
- NATIONAL BOARD REGISTRATION (Boiler and Pressure Vessel)
- CRN Canadian Registration Number
- EAC - REGULATIONS Customs Union "On the safety equipment of high pressure" (TR TC 032/2013)
- EAC - REGULATIONS Customs Union "On the safety on machines and equipment" (TR CU 010/2011)
- Lloyd's Register for ship - Fusion Welded Class 2.1
- SII - The Standards Institutions of Israel
- DGM / DPP Algeria (ex ARH)
- Tunisia
- UKR Ukraine
- MHLW Japan
- DOSH Malaysia
- AS 1210 Australian Standard
- MOM Singapore
- NR13 Brazil
- Serbia AAA
- TUV
- Bureau Veritas
- Rina
- SGS
- DNV - GL
- ABS American Bureau of Shipment

## HPV PED - high pressure vessels PED



**up to 48 bar**  
operating pressure

**-10 to +120 °C**  
operating temperature range

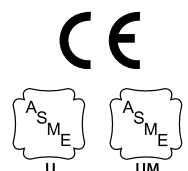
## Custom made PV - custom made pressure vessels



**on request**  
operating pressure

**on request**  
operating temperature range

**on request**  
design



## REFERENCES

### High pressure filters 300 bar



Quantity: 150 pcs  
 Project: LNG project  
 End client: PSN Kazstroy  
 Country: Kazakhstan  
 Design code: ASME Sec.VIII Div.1  
 Approval: ASME-U  
 Year of production: 2014-2016  
 Operating pressure: 300 bar  
 Nominal flow: 1560 Nm<sup>3</sup>/h  
 Temp. operating range: -36 to +65°C  
 Connections: 1/2" NPT  
 Material: Stainless steel SA-479 gr. 304

### Stainless steel process filters



Quantity: 4 pcs  
 Project: Hassi Messaoud Project  
 End client: Sonatrach  
 Design code: ASME Sec.VIII Div.1  
 Approval: ASME-U; ARH  
 Year of production: 2015  
 Operating pressure: 11 bar  
 Nominal flow: 1890 Nm<sup>3</sup>/h  
 Temp. operating range: -10°C to +93°C  
 Connections: DN80  
 Material: SS SA-312 TP316L

### Carbon steel filters



Quantity: 8 pcs  
 Project: Midyan gas processing facilities  
 End client: Saudi Aramco  
 Design code: ASME Sec.VIII Div.1  
 Approval: ASME-U  
 Year of production: 2015  
 Operating pressure: 9 bar  
 Nominal flow: 2100 Nm<sup>3</sup>/h  
 Temp. operating range: -5°C to +90°C  
 Connections: DN80  
 Material: Carbon steel SA-106 Gr. B

### FILTER SFH 62 / WHFIF 600 DN100 DUAL SS304 - ASME-U



Quantity: 1 pc SFH 62 and 2 pcs WHFIF 600  
 Project: Big run  
 End client: DMT  
 Design code: ASME Sec.VIII Div.1  
 Approval: ASME-U; National Board  
 Year of production: 2018  
 Operating pressure: 25 bar  
 Temp. operating range: -10°C to +100°C  
 Connections: DN100  
 Material: Stainless Steel 304/304L (316/316L)

### Custom Heat Regenerated Adsorption Dryer for Hydrogen



Quantity: 2  
 Application: Drying of pure hydrogen coming from electrolysis  
 Country: UK  
 Design code: PED  
 Approval: PED, CE, ATEX  
 Year of production: 2021  
 Operating pressure: 34 barg  
 Nominal flow: 48 m<sup>3</sup>/h  
 Dew point: -60°C  
 Gas loss (average): < 1,5 % (0 % during heating)

### Dryer CO<sub>2</sub> for water bottling plant



Quantity: 1  
 Application: CO<sub>2</sub> dryer  
 End client: Bru  
 Country: Belgium  
 Design code: PED  
 Approval: ISO, CE, PED  
 Year of production: 2021  
 Operating pressure: up to 25 bar  
 Max. inlet flow: 50 kg/h or 28 Nm<sup>3</sup>/h  
 Inlet temperature: 35 °C  
 Ambient temperature: 35 °C  
 Dew point: -60 °C

### G-DRY 1000 M - CNG dryer for filling of buses



Quantity:	1
Application:	CNG dryer for filling buses
End customer:	Transdev Chartres
Country:	France
Design code:	PED
Approval:	PED, CE, ATEX
Year of production:	2021
Operating pressure:	4 barg
Nominal flow:	1000 m <sup>3</sup> /h
Dew point:	-70°C

### CO<sub>2</sub> dryer for biogas application



Quantity:	1
Application:	Biogas
Country:	France
Year of production:	2020
Operating pressure:	25 bar
Nominal flow :	200 Nm <sup>3</sup> /h
Max. inlet temperature:	40 °C
Gas composition:	99% CO <sub>2</sub> , 1% CH <sub>4</sub>

### Pressure tank 2100 TP 1300 V3



Quantity:	2 pcs
Project:	YAMAL LNG Plant
End client:	Yamgaz SNC
Country:	Russia
Design Code:	ASME Code Sec.VIII Div.1 + GOST-R 52630
Approval:	ASME-U + EAC
Year of production:	2017
Operating pressure:	3 bar
Fluid:	Glycolated water
Connections:	DN15, DN20, DN40, DN50, DN600
Material:	ASME Code Sec.II; Carbon steel

### Tank for turbo washing unit



Quantity:	4 pcs
Project:	YAMAL LNG Plant
End client:	Yamgaz SNC
Country:	Russia
Design Code:	ASME Code Sec.VIII Div.1 + GOST-R 52630
Approval:	ASME-U + EAC
Year of production:	2017
Operating pressure:	7 bar
Temp. operating range:	-50°C to +100°C
Connections:	DN25, DN40, DN50
Material:	ASME Code Sec.II; Stainless steel Grade 304

### Lube oil service tank unit 5000 I



Quantity:	2
Project:	YAMAL LNG Plant
End client:	Yamgaz SNC
Country:	Russia
Year of production:	2017
Operating pressure:	Hydrostatic
Capacity:	5000 Litres
Temp. operating range:	-50°C to +80°C
Design code:	ASME Code Sec.VIII Div.1; GOST-R 52630
Approval:	EAC
Material:	Stainless steel 304 (ASME)

### Drainage tank unit



Quantity:	2
Project:	YAMAL LNG Plant
End client:	amgaz SNC
Country:	Russia
Year of production:	2017
Operating pressure:	Hydrostatic
Temp. operating range:	-50°C to +80°C
Design code:	ASME Code Sec.VIII Div.1; GOST-R 52630
Approval:	EAC
Connections:	DN50, DN100, DN150, DN800
Material:	Stainless steel 304 (ASME)





**N<sub>2</sub>**



**O<sub>2</sub>**



**Air**



**H<sub>2</sub>**



**CO<sub>2</sub>**



**He**



**B-Air**



**CNG**



OMEGA AIR d.o.o. Ljubljana

T +386 (0)1 200 68 00

info@omega-air.si

Cesta Dolomitskega odreda 10  
SI-1000 Ljubljana, Slovenia  
[www.omega-air.si](http://www.omega-air.si)

950463 - 03/2022

