

AIR REGENERATION SYSTEM

ARC CO2 SCRUBBERS



ARC CO2
1500L

ARC CO2
6000/12000/18000L

ARC CO2
4800L

ARC CO2
18000L

When CO2 Scrubber is required

Many civil defence shelters, command and control rooms, refuge chambers and other facilities which need to be operated in emergencies include the option for complete isolation from the external environment for some periods of time.

Such mode used also in submarines, space shuttles and other applications that must operate independently in dangerous environments or where no breathable air is available.

After some time, which depends on the size of the isolated area, number of people and other factors, the CO2 levels will start to grow and can reach dangerous levels. The CO2 scrubber will provide a solution for removal of the carbon dioxide from the air and maintain safe and control environment along with other systems that may be required in such type of facilities.

Illustration of ARC CO2 1500L scrubber in the shelter



ARC CO2 1500L stand-alone CO2 scrubber for carbon dioxide removal and air regeneration in civil defence shelters, bunkers and isolated spaces with limited fresh air supply and potentially high concentration of CO2. The scrubber designed to remove the CO2 from the air, which is released during human respiration.



Specifications	
Airflow range	50-70 m3/h
Power supply AC	230 / 115 V
Power supply DC	12 / 24 V DC
Weight blower unit	14 kg
Weight with cartridge	29 kg

The replaceable **AFU CO2 1500L filter** designed for use with **ARC CO2 1500L** scrubber. The cartridges designed to absorb the CO2 from the air, which is released during human respiration or other sources.

The cartridge case is made of metal and filled with the chemical component Soda lime.

The AFU CO2 1500L filter are supplied in a hermetically sealed package for longer storage time. After opening of the sealed package and start of the scrubber operation, the regeneration process starts immediately.



Specifications	
Dimensions (L×W×H)	400x300x180 mm
Weight	15 kg
CO2 absorption capacity	>1500 liters
Nominal airflow rate	60 m3/h
Operating airflow rate	50-70 m3/h
Pressure drop @ nominal airflow	140 Pa
Storage time (factory package)	3 years

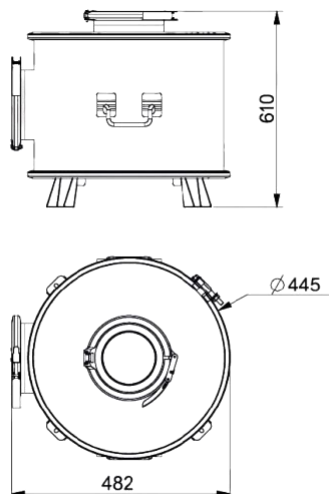
ARC CO2 4800L is a stand-alone CO2 scrubber for carbon dioxide removal and air regeneration in civil defence shelters, bunkers and isolated spaces with limited fresh air supply and potentially high concentration of CO2. The scrubber designed to remove the CO2 from the air, which is released during human respiration.



Specifications	
Airflow	150 / 180 / 200 m3/h
Power supply	230 / 115V AC
Phase	1-phase
Frequency	50/60 Hz
Manual backup	yes

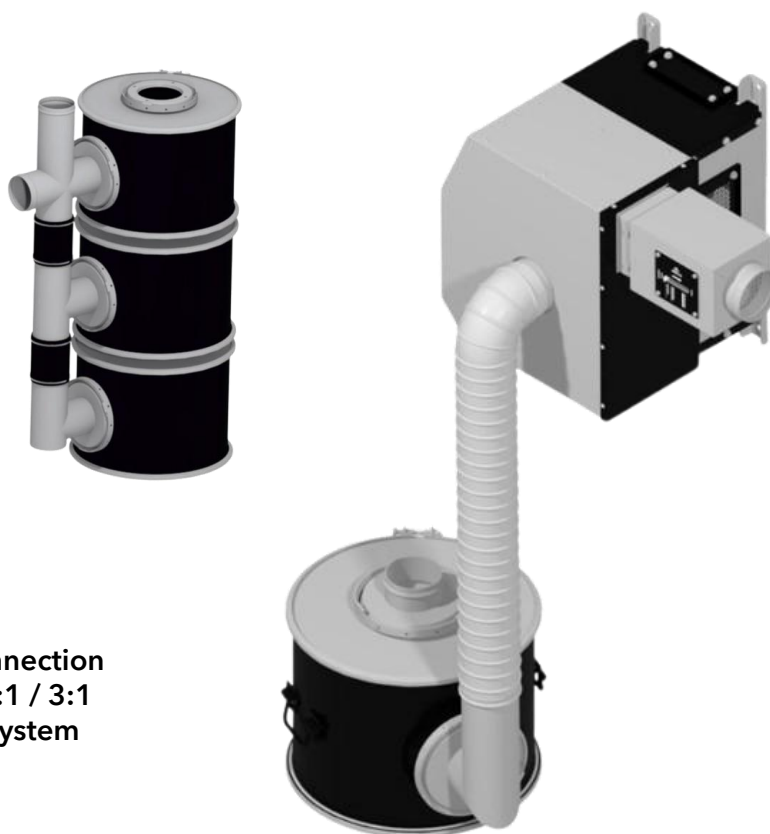
The replaceable **AFU CO2 4800L filter** designed for use as part of **AFU CO2 4800L scrubber** or with other blowers which comply with required pressure and airflow specifications. The filter is designed to absorb the CO2 from the air, which is released during human respiration or other sources.

The filter case is made of metal and filled with the chemical component Soda lime. The AFU CO2 4800L filters are supplied hermetically sealed for longer storage time. After opening of the seal and start of the scrubber operation, the regeneration process starts immediately.



Specifications	
Dimensions (L×W×H)	As per drawing
Weight	45 kg
CO2 absorption capacity	>4800 liters
Nominal airflow rate	150 / 180 / 200 m3/h
Pressure drop @ nominal airflow	350 / 420 / 500 Pa
Storage time (factory package)	3 years

ARC CO2 6000L is a stand-alone CO2 scrubber for carbon dioxide removal and air regeneration in civil defence shelters, bunkers and isolated spaces with limited fresh air supply and potentially high concentration of CO2. The scrubber designed to remove the CO2 from the air, which is released during human respiration.

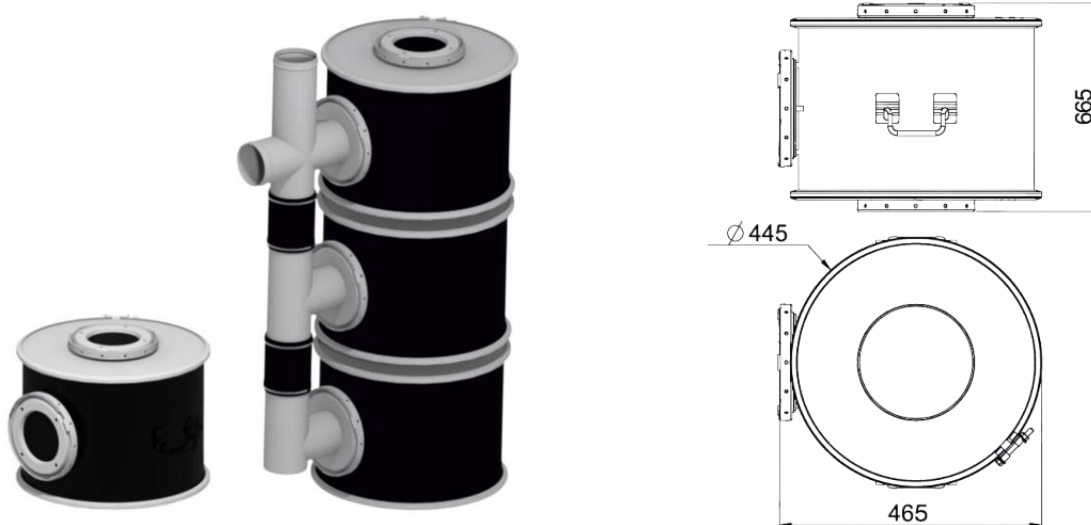


Modularity allows connection of the filters in 1:1 / 2:1 / 3:1 configuration in one system

Specifications	
Airflow	190 / 230 / 250 m3/h
Power supply	230 / 115V AC
Phase	1-phase
Frequency	50/60 Hz
Manual backup	yes

The replaceable **AFU CO2 6000 filter** designed for use in **columns of 3, 2 or 1 units** designed for use as part of **AFU CO2 6000L scrubber** or with other blowers which comply with required pressure and airflow specifications. The filter is designed to absorb the CO2 from the air, which is released during human respiration or other sources.

The filter case is made of metal and filled with the chemical component Soda lime. The AFU CO2 6000L filters are supplied hermetically sealed for longer storage time. After opening of the seal and start of the scrubber operation, the regeneration process starts immediately.



Specifications	
Dimensions (L×W×H)	As per drawing
Weight	55 kg
CO2 absorption capacity (per filter)	>6000 liters
Nominal airflow rate	190 / 230 / 250 m3/h
Pressure drop @ nominal airflow	440 / 530 / 630 Pa
Storage time (factory package)	3 years

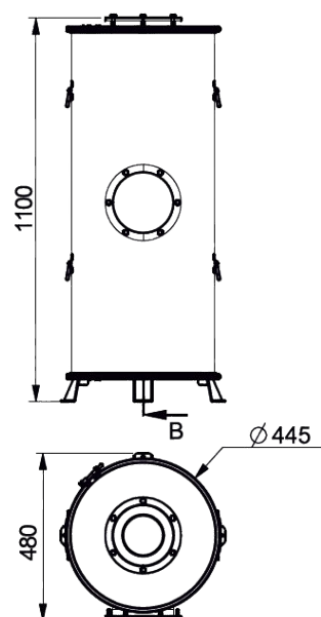
ARC CO2 18000L is a stand-alone CO2 scrubber for carbon dioxide removal and air regeneration in civil defence shelters, bunkers and isolated spaces with limited fresh air supply and potentially high concentration of CO2. The scrubber designed to remove the CO2 from the air, which is released during human respiration.



Specifications	
Airflow	570 / 680 / 760 m3/h
Power supply	230 / 115V AC
Phase	1-phase
Frequency	50/60 Hz
Manual backup	yes

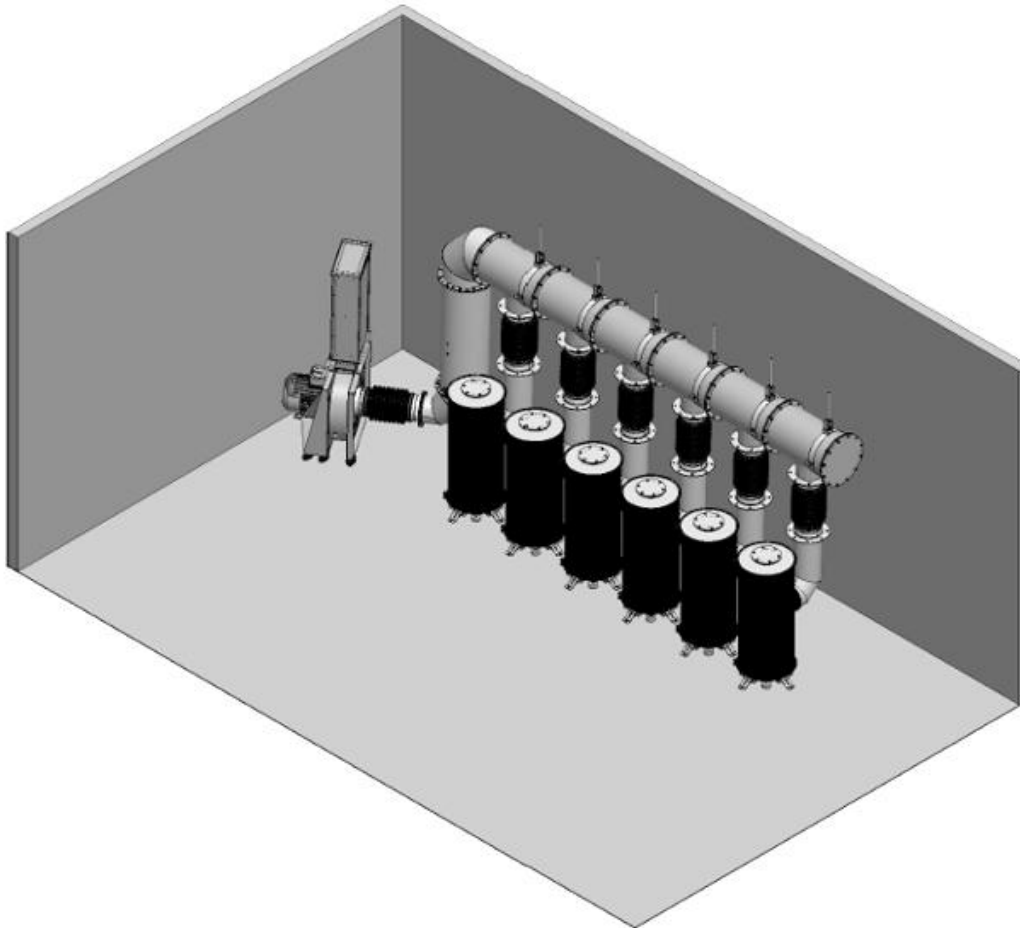
The replaceable **AFU CO2 18000L filter** designed for use as part of **AFU CO2 18000L scrubber** or with other blowers which comply with required pressure and airflow specifications. The filter is designed to absorb the CO2 from the air, which is released during human respiration or other sources.

The filter case is made of metal and filled with the chemical component Soda lime. The AFU CO2 18000L filters are supplied hermetically sealed for longer storage time. After opening of the seal and start of the scrubber operation, the regeneration process starts immediately.

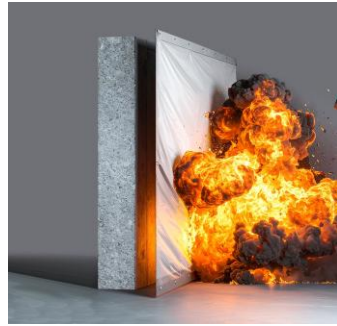


Specifications	
Dimensions (L×W×H)	As per drawing
Weight	90 kg
CO2 absorption capacity (per filter)	>18000 liters
Nominal airflow rate	570 / 680 / 760 m3/h
Pressure drop @ nominal airflow	1320 / 1580 / 1890 Pa
Storage time (factory package)	3 years

CO2 Filtration batteries are large multifilter CO2 scrubbers for carbon dioxide removal and air regeneration in civil defence shelters, bunkers and isolated spaces with limited fresh air supply and potentially high concentration of CO2. The scrubber designed to remove the CO2 from the air, which is released during human respiration.



Specifications	
Number of filters	up to 10 in line
Power supply	400 / 240V AC
Phase	3-phase
Frequency	50/60 Hz
Manual backup	No



Atmas Group is a Finland-based global supplier of products, technologies, project support services and complete solutions in the areas of civil defense shelters and protected spaces, facilities reinforcement against CBRN, blast, ballistic, forced entry and EMP threats, as well as security, safety and emergency response.

Atmas is trusted by customers and partners around the world providing a unique combination of solutions “under one roof”, with a focus on advanced technologies, product customization, uncompromised service and comprehensive project support.

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