

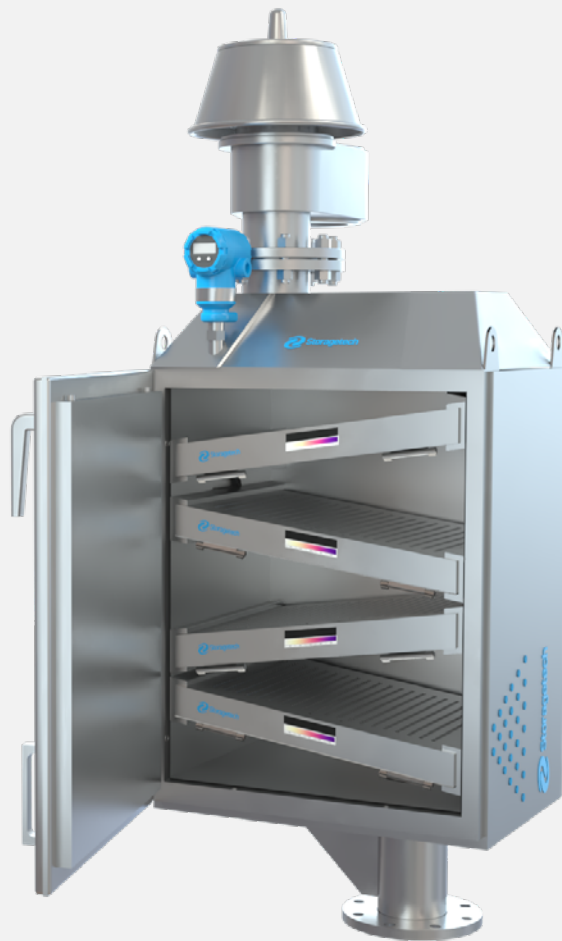
Äaager



Air/Gas Absorber &
Scrubber Systems



CO₂ ABSORBER



YouTube



Certificates & Standards





Prevent Corrosion Effects

Corrosion is a serious danger for the systems, it might cause serious deficiencies. Unwanted elements in the flow are prevented with our absorber and that contributes the duration and long lifetime of your systems. Our CO₂ Storage Tank Vent Absorber absorbs harmful gas into the tank and helps to prevent corrosion.



Protection Against High Humidity And Evaporation

Tanks these are exposed to high humidity and steaming may start to aging and lose their durability. Storagetechnik CO₂ Storage Tank Vent Absorber is designed to protect your products against harmful effects that also include high humidity and steaming. After the process is applied by our absorber, you can be sure that you will obtain higher resistant products.



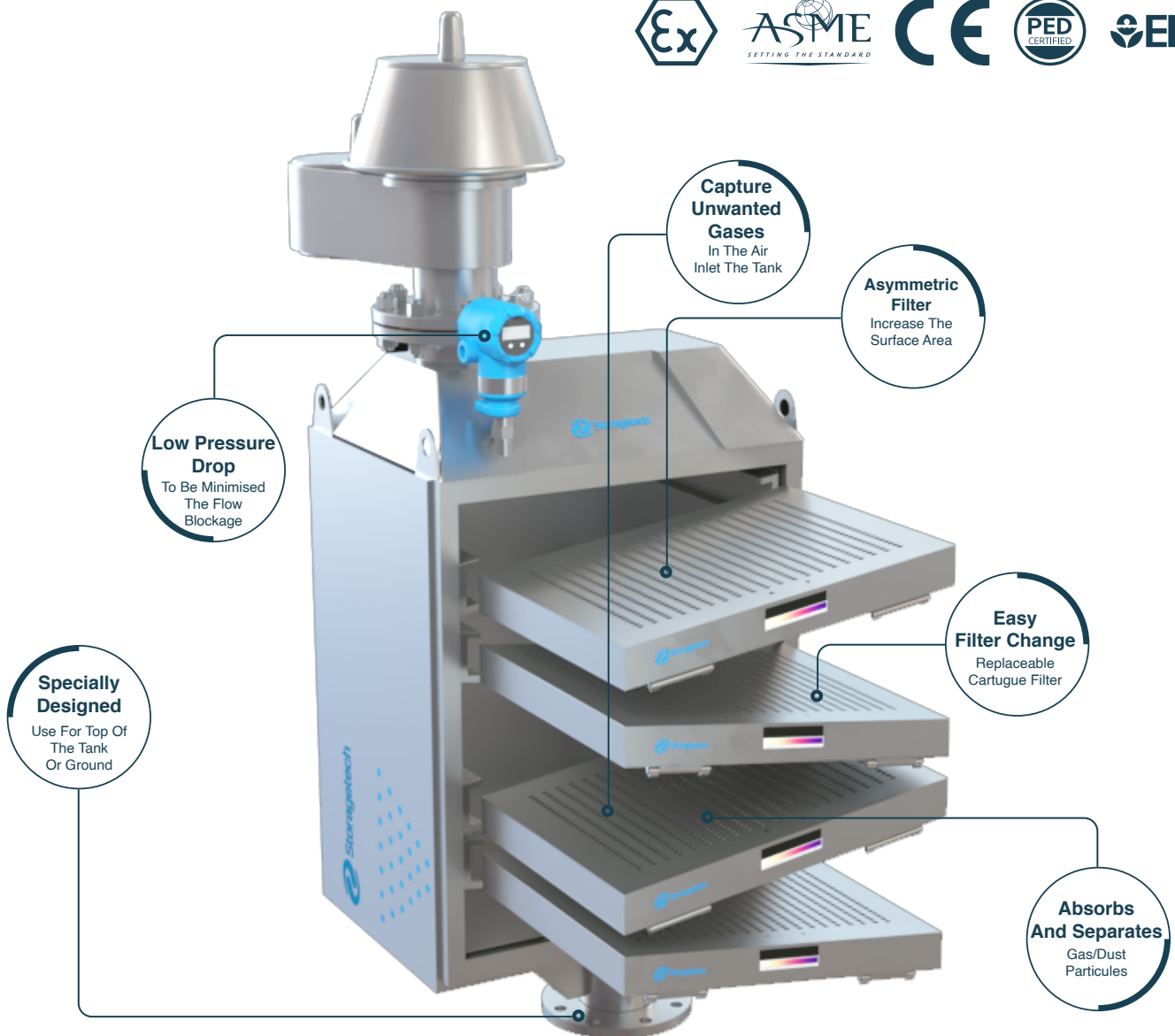
Specialising

Each request is specially evaluated and applicable methods are presented. Filtration process is carried out by both physical and chemical methods. Absorbent must be chosen truly. Based on the correct definition of the unwanted gas or content, appropriate absorbent method can be chemical, physical or both which shall be applied to provide maximum effectiveness.

Additional Equipment

Utilizing combined ATEX certified flame arrester for flammable liquids, system protection can be achieved successfully. Specially designed flame arresters can be certified both IIA/IIB Gas Groups.

Certificates & Standards



Key Features

- Prevents humidity and unwanted gas or content.
- Prevent corrosion effects.
- Absorbent color can be change.
- Change can observed with sight glass.
- Can be follow by automation from the control center.
- Easy filter change.
- Specially designed for use top of the tank or ground usage.
- Absorb gases in the air inlet the tank.
- To be increase gas contact surface area by the asimet-ric filter placement.
- Low pressure drop.

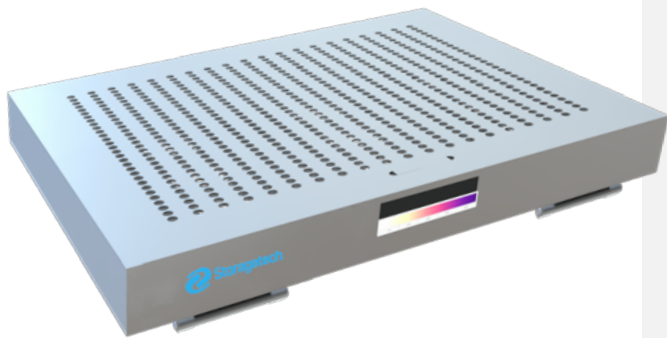
Product Benefits

The absorption effect of the filters are maximized by specially designed increased geometry to slowing down the flow as much as possible to increase contact time of the molecules with absorbent.

By increasing the surface area with asymmetrically placed filter cartridges, unwanted gases are absorbed providing longer route and area to find enough time to contact with absorbent particles, thereby completely removal action is achieved successfully.

Thanks to the inclined roof design, issues that may arise due to atmospheric effects on the product are minimized and product life is extended any issue.

It has already have own Pressure-Vacuum breathing vent which shall be delivered to site already set for operation pressure.



Different Option for Filter: HEPA

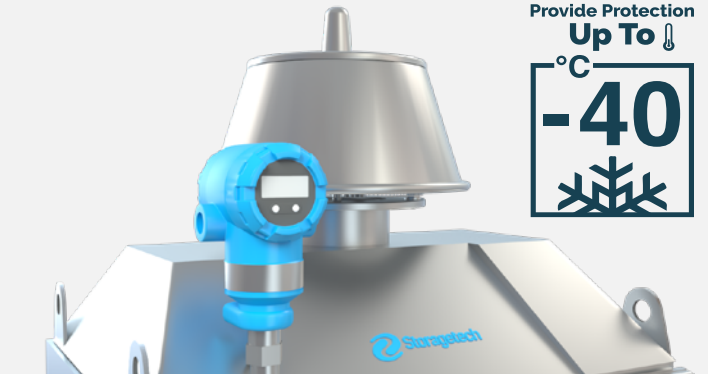
Model 1200 work with a specially designed HEPA filter for maximum filtration efficiency. HEPA, which stands for High Efficiency Particulate Air, is a designation used to describe filters that are able to trap 99.97 percent of particles that are 0.3 microns.

This HEPA filters can also be easily extracted for cleaning and replacement.

Particules following a line of flow in the air stream come within one radius of a fiber and adhere to it. Mid side particules are being captured by this process. Particules below 0.3 microns are captured by diffusion in HEPA filter. An enhancing mechanism that is a result of the collision with gas molecules by the smallest particules, especially those below 0.1 microns in diameter, which are thereby impeded and delayed in their path through the filter; this behavior is similar to Brownian motion and raises the probability that a particle will be stopped by either interception or impactation; this mechanism becomes dominant at lower air flow.

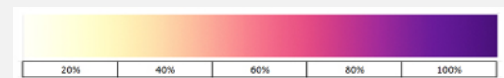
Custom - Made Designing

Winter protection systems are specially designed for extreme cold areas, offered with self regulating heaters and insulation systems are provide protection up to -40C.

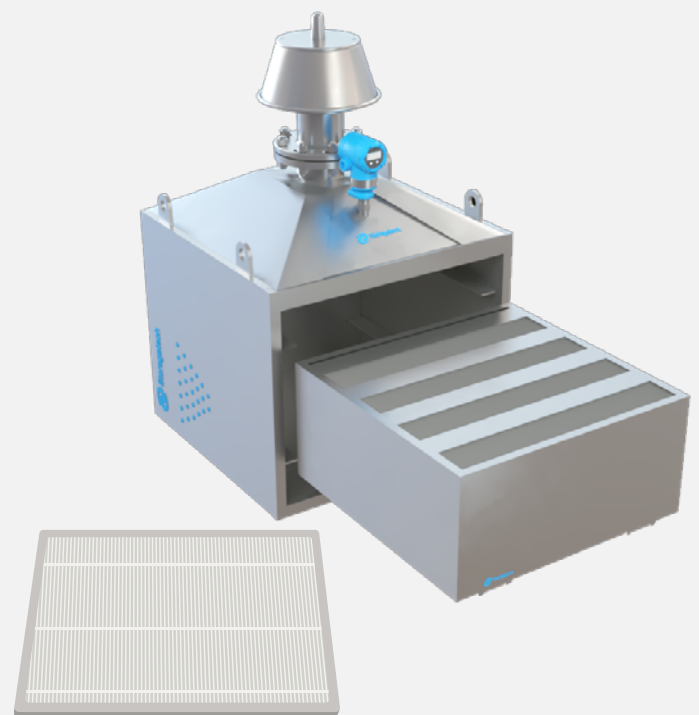


Pressure transmitter has the 4-20mA and having HART protocol. All activities can be monitored from the Control Center. The blockage of high, low or both impulse lines can be determined.

Pressure drops can be monitored utilizing differential pressure meter in the filter so that filter depletion that occurs before the planned product period or volumetric changes causing blockage issues are monitored effectively.



Color indicators are showing the depletion rate of the cartridges. Cartridge change can be achieved in a minutes with its user-friendly design.





Can Be Used

Unpredictable Pressure Changes

Loading or unloading the tank may cause unpredictable pressure changes in the system and it may cause serious damages. Storagetech CO₂ Storage Tank Vent Absorber is resistant to this kind of effects with Pressure Vacuum Vent and it can be used also under the unpredictable pressure changes conditions.



Can Be Used

In Storage Tank Farms

Tank Farms implies the group of tanks that consists more than one tank. Storagetech CO₂ Storage Tank Vent Absorber can be used also for the tank farms instead of using different absorbers for each tanks and that brings a serious cost reduction for the companies. It works perfectly for the tank farms and comes out with the same performance such as using it for the one tank.

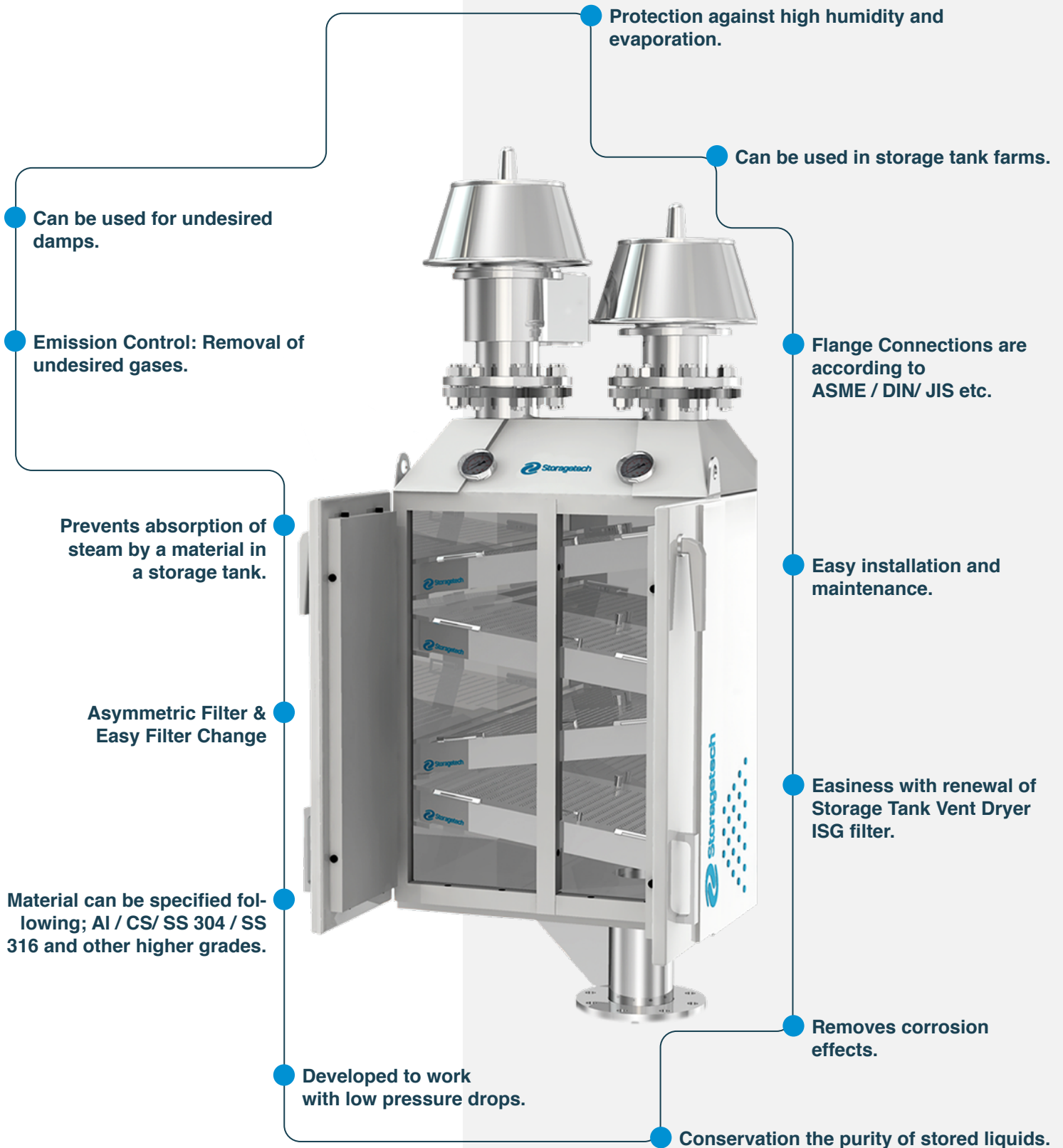


Asymmetrically

Increase The Surface Area

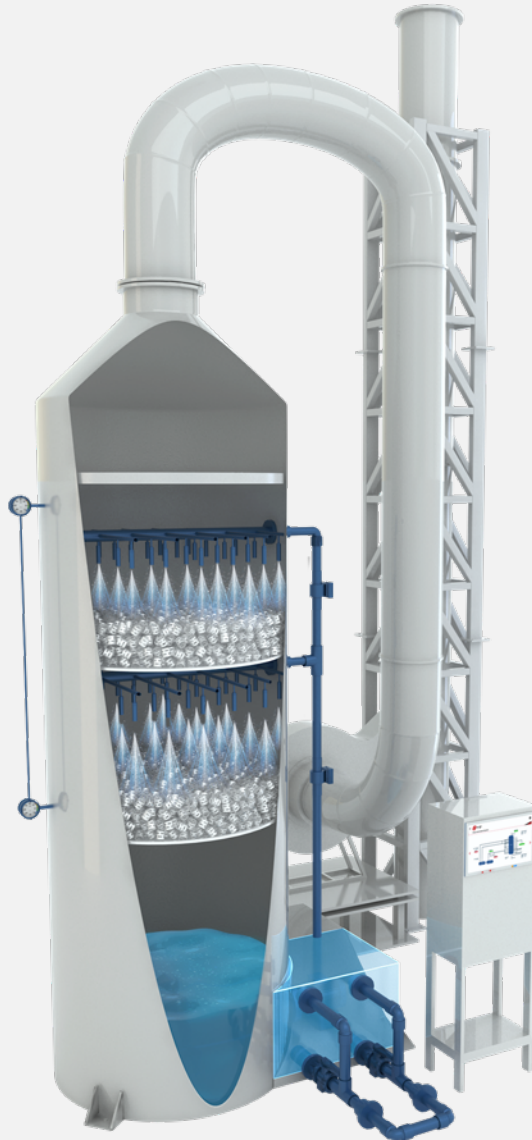
Storagetech CO₂ Storage Tank Vent Absorber has its unique design to optimize the surface area and increase the effect of cartridges to make them absorb maximum harmful elements. Its perfect asymmetric design helps to obtain optimum result. By increasing the surface area with asymmetrically placed filter cartridges, unwanted gases are absorbed providing longer route and area to find enough time to contact with absorbent particules, thereby completely removal action is achieved successfully.

Advantages & Technical Details



ergil[®]

SCRUBBER SYSTEMS



YouTube



Certificates & Standards



Scrubbers

Chemical Gas Washing Systems

The harmful gases and odors caused by the activities of industrial facilities and enterprises pose a great threat to human and environmental health. It is necessary to develop some systems to protect our environment from these harmful substances.

Gas purification systems installed in this direction contribute significantly to ensuring environmental safety. Ergil Scrubber prevents the formation of acid rain by purifying the acidic gases from the exhaust before being released into the sky.

Clean Air is a Basis Of a Healthy Life



In the gas treatment system, the working principle of which is to wash the waste gases under raschig rings, the principle of absorption of gases by liquids is applied.

The gases coming out of the “scrubber” chimney are free of harmful contents.

The pH value of the liquid phase, which is acidic, is increased to be basic or neutral with the dosing system during the cycle.

Ergil Scrubbers help to provide safer systems and environment. Ergil Scrubber Systems protects the environment, workers and surrounding communities by removing harmful acid gases even in harsh tank conditions and extreme temperatures.



Why Choose A Scrubber?

The scrubber can handle high-temperature streams and very moist streams. It also provides smaller space requirements.

In some cases, scrubbers can be retrofitted into current equipment. Also, they can provide cooling of heated gases. The scrubber, which has a higher desulfurization capacity compared to other equipment, has a low purchase cost. It can cool the heated gases and neutralize highly corrosive gases and dust.

On the other hand, it can remove gases and particles in a single unit. When properly designed and operated, it can handle highly flammable dust with a very low risk of explosion. Depending on the specific output and applications, it has several customizable features that usually allow a cost reduction. Depends on customer demand IoT can be addable.

With the use of the Ergil scrubbers' heat reduction options, the temperature limit is eliminated. Ergil scrubbers eliminate as much or more than 99% of dangerous gases, which meets all EPA requirements for RACT, BACT, and LAER.



Scrubber Systems

Ergil wet scrubbers are used to treat or clean the following lists of chemicals from a process exhaust air stream, with ammonia being the most popular:

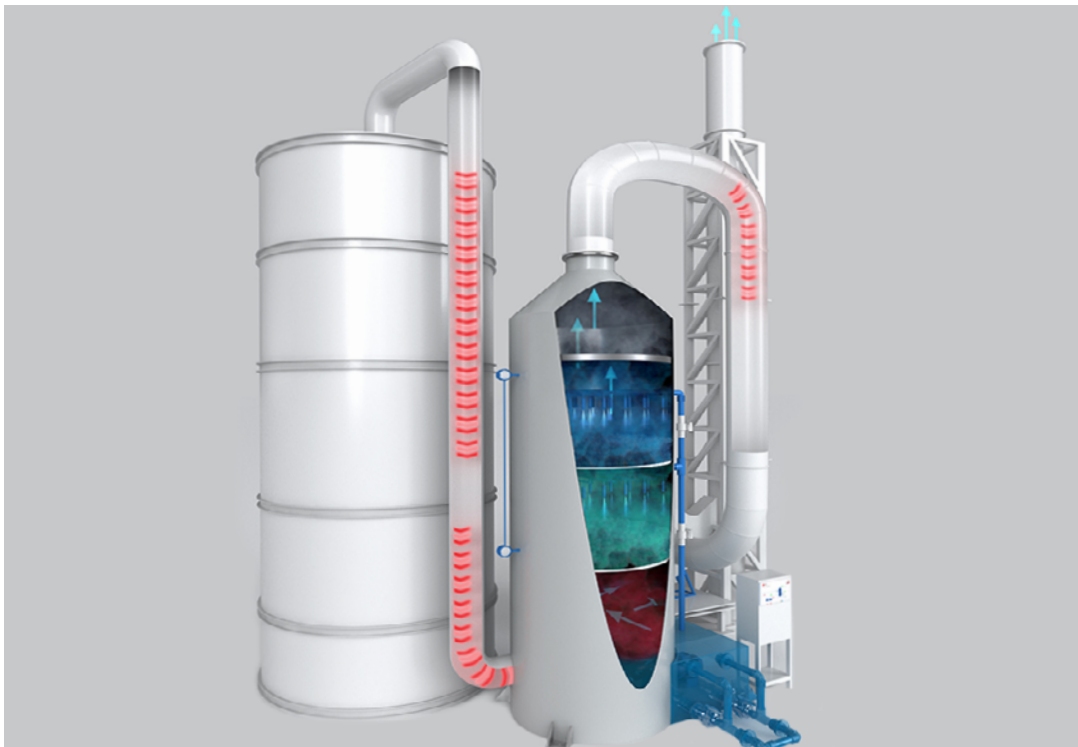
- Ammonia
- Chlorine
- Hydrochloric Acid
- Chlorinated Silanes
- Sulfur Oxides
- Nitrogen Oxides
- Hydrogen Sulfide
- Boron Trifluoride
- Amines

They Provide Treatment
With Efficiency Rates Of

Up To
%
99

With its 40 years of experience, Ergil has developed solutions for these industries:

- Asphalt Processing
- Pharmaceuticals
- Oil & Gas
- Landfills and Biogas
- Textile Processing
- Tar Removal
- Curing Ovens
- Vinyl Manufacturing
- Acid Mist Control
- Fertilizer Manufacturing
- Wastewater Treatment
- Steel Processing
- Electronics
- Food Processing
- Cocoa Processing
- Nuclear Waste Filtration
- Printing
- Precious Metal Recovery
- Wood Products



The Air We Breathe Sustains Us

Where Scrubber Systems Are **Not** Present:

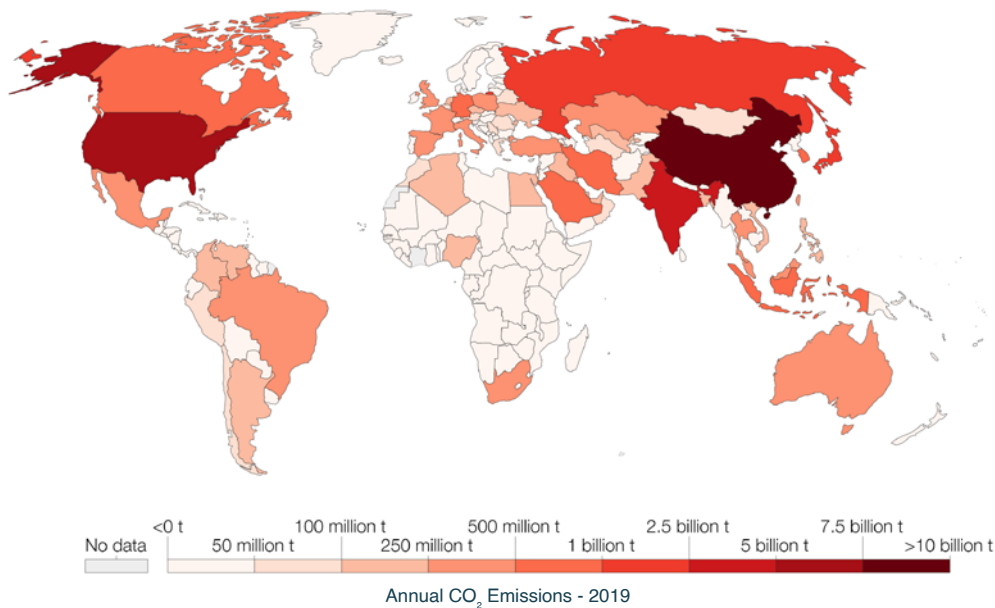


- Inhaling the acidic gasses present in the environment is a great danger to human life and may lead to respiratory problems.
- The toxic gasses that rise from the facility can turn into acid rains which is a serious threat to the people living in the area.
- The formation of acid rains damage buildings and pieces of equipment in the area and increases the maintenance costs.
- Absence of Scrubber Systems leads to the destruction of wildlife and agricultural activities in the area.

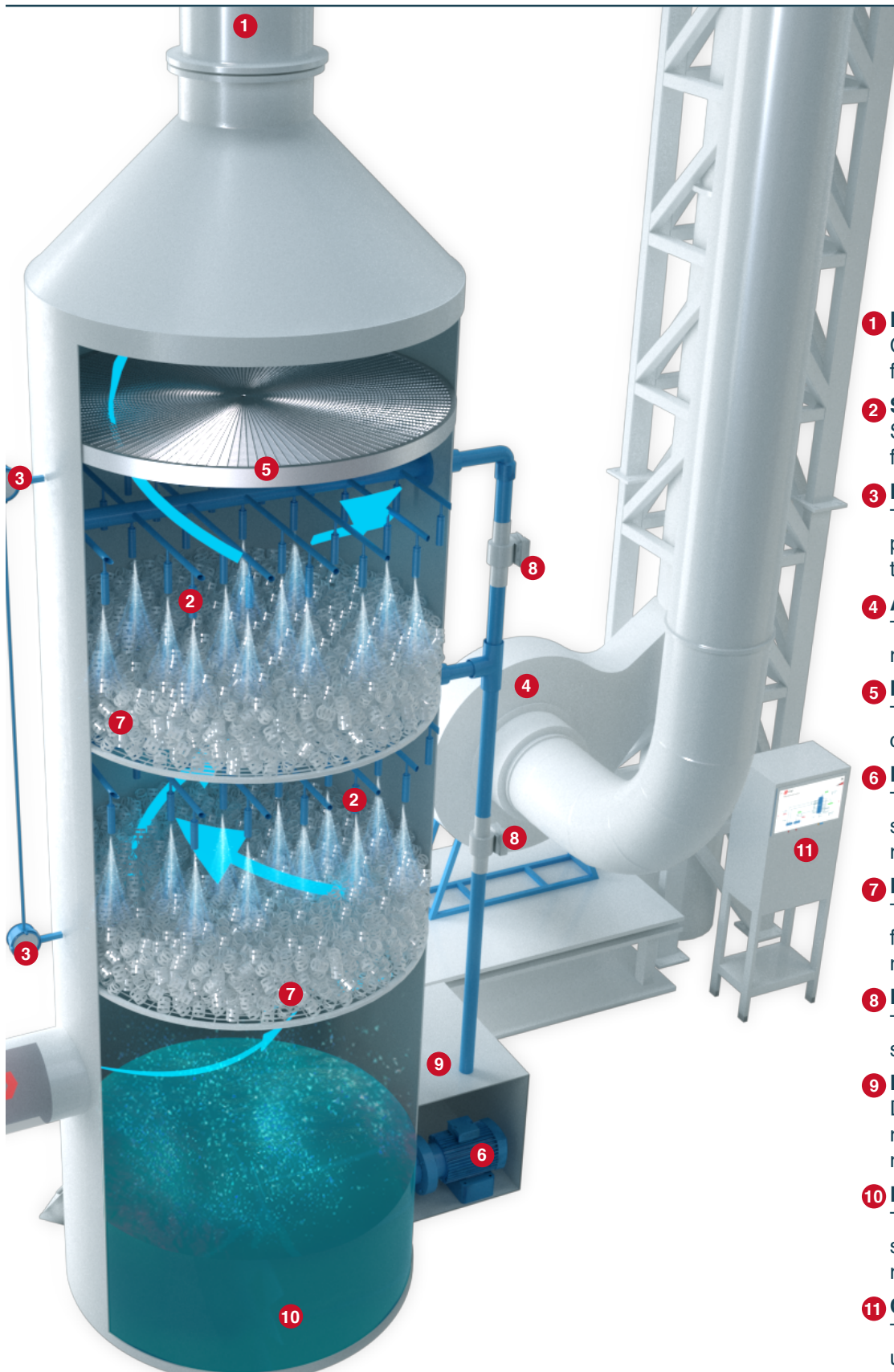
Where Scrubber Systems Are Present:



- Ergil Scrubber Systems encapsulates acidic gasses and prevents people in the area from getting affected by its dangers.
- In places where Scrubber Systems are present, the formation of acid rains is prevented.
- Installing Scrubber Systems decreases corrosion-related damage and maintenance costs.
- Scrubber Systems prevents the soil, water, air pollution which stems from industrial wastes.
- They provide treatment with efficiency rates of up to 99%.



What is **Wet Scrubber** ?



- 1 Process Outlet**
Check the outlet air for system feedback.
- 2 Spray Nozzles**
Spraying the chemical solution for better distribution.
- 3 Differentiation Pressure Sensor**
To check the inlet and outlet gas pressure for feedback to system work.
- 4 Aspiration Pump**
To feed the scrubber with the required polluted gas.
- 5 Mist Eliminator**
To keep the pulverised chemical solution inside the scrubber.
- 6 Recirculation Pump**
To recirculate the chemical solution at the scrubber until reach the setted pH value.
- 7 Pall Ring (Rashing)**
To distribute the polluted gas for better contact to chemical neutralisation solution(CNS).
- 8 Flow Control Valves**
To supply required CNS to scrubber with correct flow rate.
- 9 Dosing System**
Dosing the scrubber with the required chemical when the pH reached the setted value.
- 10 Recirculation Tank**
To collect the CNS inside the scrubber for reused until pH reached the setted value.
- 11 Control Panel**
To ensure the whole process is under control.

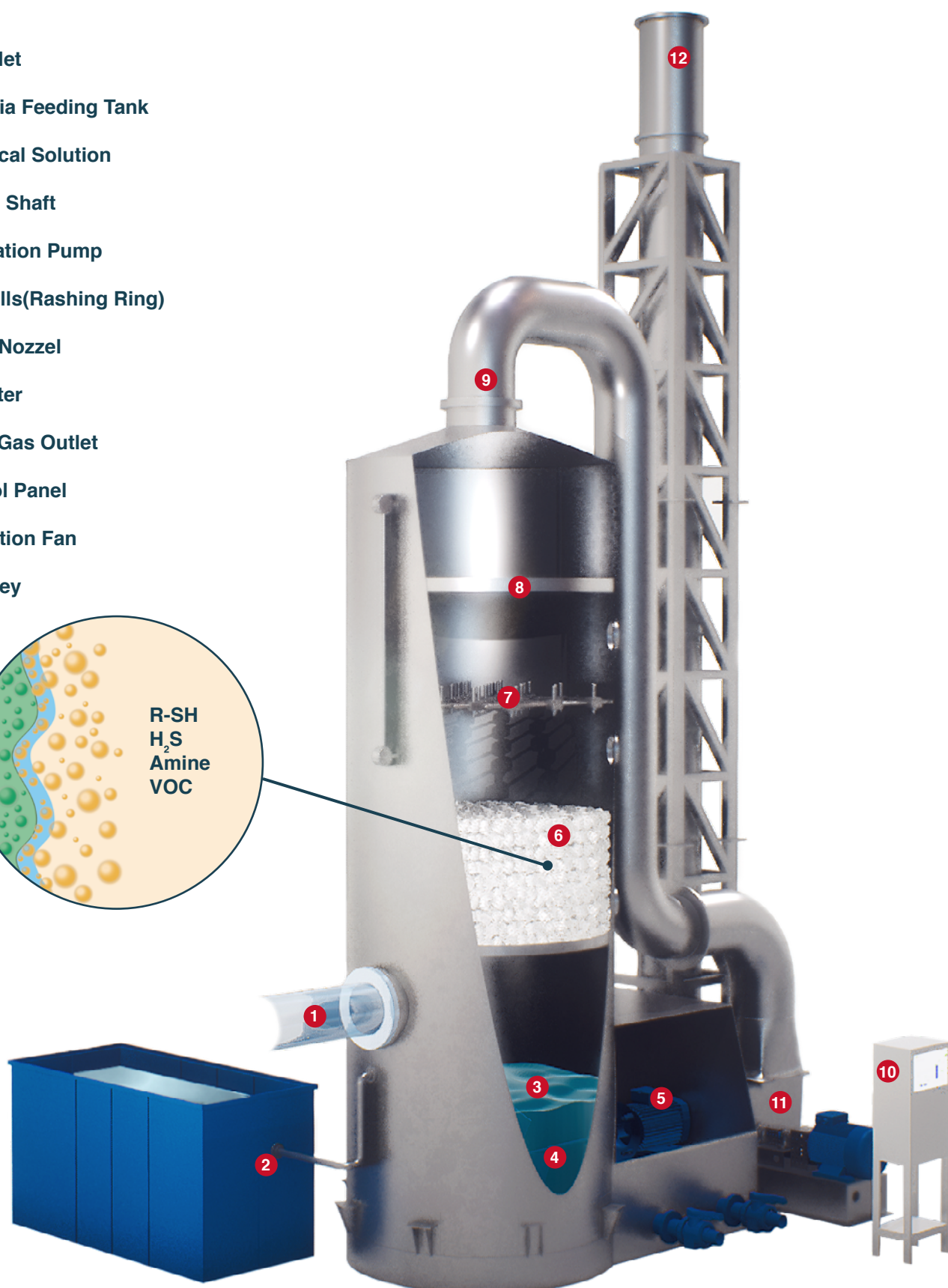
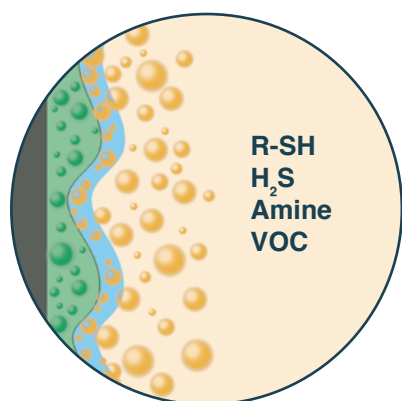
What Is **Dry Scrubber** ?

- 1 Process Outlet**
Check the outlet air for system feedback.
- 2 Chemical Filters**
To keep the polluted chemicals.
- 3 Differentiation Pressure Sensor**
To check the inlet and outlet gas pressure for feedback to system work.
- 4 Aspiration Pump**
To feed the scrubber with the required polluted gas.
- 5 Control Panel**
To ensure the whole process is under control.

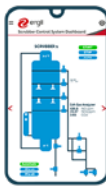
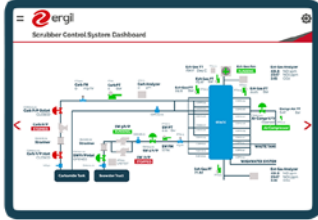


What Is **Bio Scrubber** ?

- 1 Gas Inlet
- 2 Bacteria Feeding Tank
- 3 Chemical Solution
- 4 Mixing Shaft
- 5 Circulation Pump
- 6 Bio Balls(Rashing Ring)
- 7 Spray Nozzel
- 8 Demister
- 9 Clean Gas Outlet
- 10 Control Panel
- 11 Aspiration Fan
- 12 Chimney

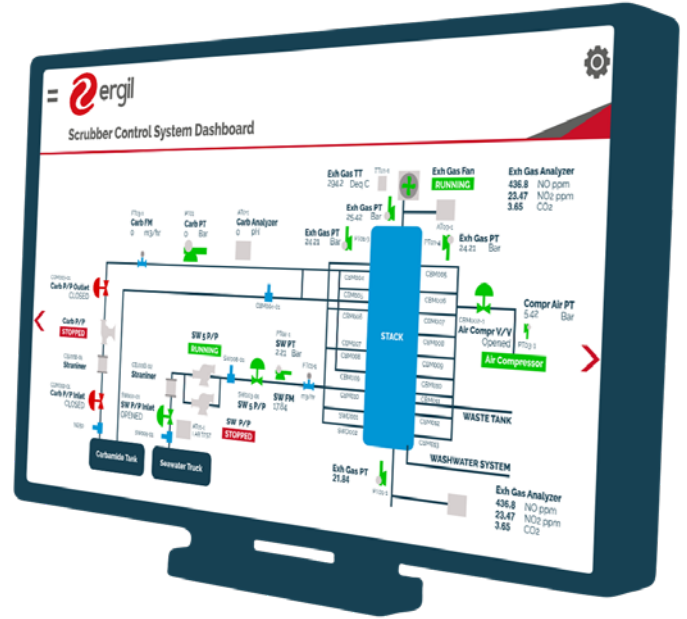


Fully Automated Systems



Are you interested to control your scrubber systems operations automatically and monitor operations from your control room? System can also be monitored and controlled from our smart App and send SMS or e-mail notifications.

Ergil provides full automated scrubber systems that can be integrated into your existing control system. Having an automated system helps you to reduce man power manual help, accident risks and equipment hazards. Behind the all products we produce, there is 40 years engineering expertise and insights we get from hundreds of happy customers around the globe.



R&D Studies Supported by Academic Research

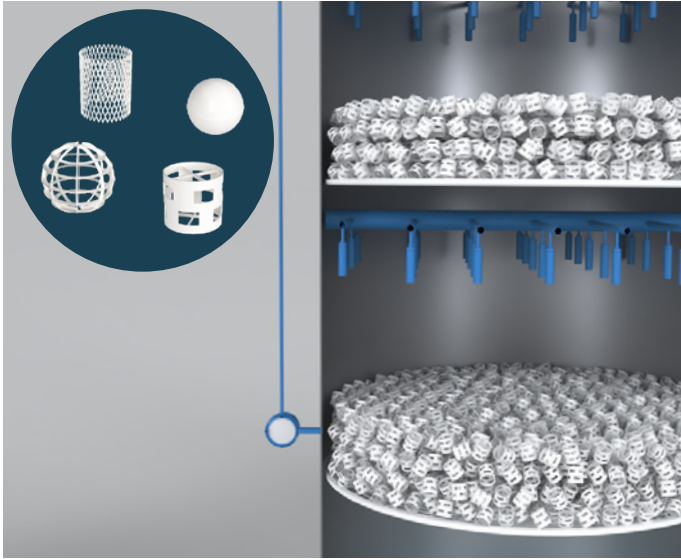
Aager engineers carry out intensive R&D studies on Scrubber Systems. During these studies, support is supplied from institutions such as Çukurova University and joint laboratory studies are carried out. Pollutant gas scrubber tests were carried out at Çukurova University, Faculty of Science and Literature, Department of Chemistry, and patents still continue. In the ongoing experiments, studies are carried out on the chemical solutions that will clean the pollutant gas, the concentration (density) of the dilutions, the amount of chemical solution required depending on the pollutant gas flow rate. According to the experimental results; reaction stoichiometry was deduced, critical pH values of the system were determined. As a result of these studies, Aager Scrubbers are continuously developed to be durable and resistant to more intensive use.



After Sales Support

1 Periodical Maintenance

All industrial products need periodic maintenance after they are used, and this need should be supported by a solid engineering experience. After Ergil provides you with the appropriate solution for your needs, it also provides the necessary periodic maintenance support for you to use your product for many years. Thanks to our advanced CRM system, maintenance days are automatically reminded to you and tracked.



2 Spare Parts Supply

Ergil offers the spare part support you need to continue using your Scrubber system safely and with maximum performance. It is our priority that your production is not interrupted. For this reason, our technical team regularly checks the stocks of spare parts required for your product. When your need arises, Ergil can supply spare parts in the fastest and most trouble-free way.



3 Performance Evaluation

After the supply of your product, we cooperate with you for the performance evaluation of your product as an after-sales service. Periodically, product performance evaluation is made.



4 Capacity Change Consultancy

Production needs change over time. We are with you when you go to increase capacity or when additional processes are added to your system. Our engineers prepare an analysis of your existing Scrubber system and your optimum needs are determined.



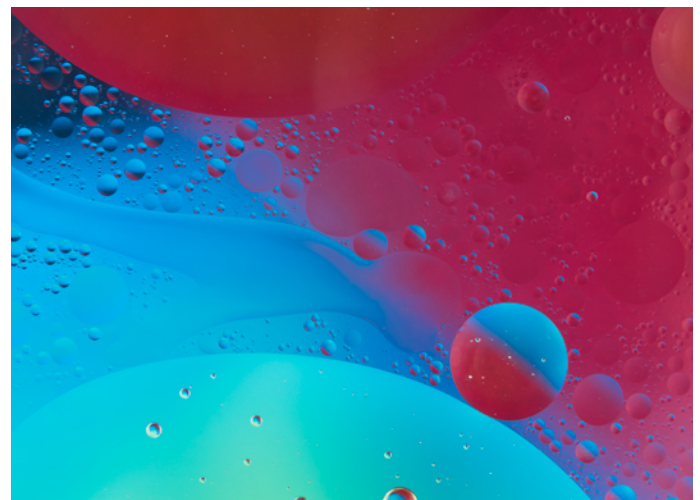
5 Remote Control and Intervention

Our Scrubber System has an advanced automation capability. Thanks to our AI-based Scrubber automation system, 24/7 control and supervision can be done. When necessary and only with your authorization, our software engineers can report on the current status of your system and create a time plan for the required maintenance.



6 Waste Management

Within the framework of the Industrial Waste Management Plan, the most suitable Scrubber model is created for your company. An intensive R&D work is carried out to ensure that the resulting waste has a minimum impact on the environment.



35.000
SQUARE METER
MANUFACTURING
SPACE



300+
EMPLOYEES



40
YEARS
OF EXPERIENCE



4 MAIN
OFFICE



200+
DIVERSE RANGE
PRODUCTS



30+
INTERNATIONAL
REPRESENTATIVES



QUALITY
CERTIFICATES



AT 4
REGIONS



Äger GmbH

Germany Head Office + R&D + Sales

Herzogspitalstraße 24
Munich 80331
Germany
+49 (0) 89 1250 15240
www.aager.de
sales@aager.de

Turkey Head Office + Sales

Ağaoğlu My Office 212
No: 3 B Blok /175
P.K 34218 Güneşli – Bağcılar
Istanbul / Turkey
+90 212 485 40 07
+90 212 485 40 42
www.ergil.com
sales@ergil.com

Turkey Factory + Engineering + R&D + Sales

Mersin Tarsus OSB.13.CD.NO:7
P.K: 33540 Mersin, Turkey
+90 324 676 44 04
+90 324 676 44 03
sales@ergil.com

U.A.E. Sales + Warehouse

Jumeirah Lake Towers, X2 Tower 1906
P.O. Box: 123661 Dubai, U.A.E.
+971 4 450 8051
+971 4 450 8041
sales@ergil.com



brochure series

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