



MAY 2018

VILEDON NEWS

IN FOCUS: SURFACE TREATMENT

MAXIMUM PERFORMANCE, ZERO WATER USE

NEW REGULATION PUTS WATER USE FOR CLEANING EXHAUST AIR IN PAINT SHOPS TO THE TEST

With the introduction of the new version of the German Federal Emission Control Act (42nd BImSchV), the requirements for wet separation have become more stringent. As a result, changing to dry exhaust air cleaning systems makes more sense than ever.



The amendment primarily stipulates stricter testing and documentation requirements for wet separation plants. The aim is to exclude the possibility of process water being polluted by Legionella bacteria. Because even though Legionella infections are very rare, they lead to death in more than 15 percent of cases. The federal government aims to make provision in this area. Within the scope of the new legal requirements, the plant's process water must be examined internally every two weeks as well as every three months by accredited laboratories.

Classic wet separation is too expensive

"Wet separation plants are well established in the industry. They allow stationary operation with constant process parameters", said Jürgen Becker, globally responsible for Surface Treatment at Freudenberg Filtration Technologies. But wet separation is not an ideal process.

High energy consumption due to pressure losses and complex processes, as well as the time-consuming disposal of the environmentally harmful paint sludge, combine to generate high operating costs. In addition, the new amendment has further increased hygiene requirements and the effort needed to achieve them.

Greater efficiency by switching to "dry"

Anyone looking for a resource-saving and hygienically clean paint mist separation system needs to consider modern dry separation. This technology enables overspray to be collected without using any water at all. The technology is not only useful for new investments. Even retrofitting existing paint shops pays off in the long run thanks to reduced energy consumption.



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Time and money-saving filters – with edrizzi® and Freudenberg

The simplest solution is a system using edrizzi® paint mist separators made from fire-retardant corrugated cardboard. The enormous absorption capacity of up to 25 kilograms per edrizzi® guarantees long service life – with a separation efficiency of 97 percent. The installation and replacement of the filters is designed to be particularly efficient. “We have developed solutions to enable filter changes during operation, without the need for system downtime. Handling the edrizzi® filters is also child’s

You can find detailed information on our solutions for dry separation at

- www.freudenberg-filter.com
- > Air Filtration
- > Viledon Products > Filter mats
- > Paint mist arrestors
- > edrizzi

play”, Becker explained. After use, the paint mist separators can be disposed of inexpensively and in an environmentally friendly manner via incineration plants. ■



Example paint shop with edrizzi® dry separators

OUR TEAM FOR THE 2018 FIFA WORLD CUP

A STRONG TEAM. IN EVERY POSITION.

The defensive sweeper has long been out of fashion in soccer. Having just one general defender against all sorts of different attackers is not very effective. This is also true in air filtration. What counts much more is an experienced team. A flexible defensive chain, where each individual position can deliver its specific characteristics with full power, keeps the box efficiently clean.

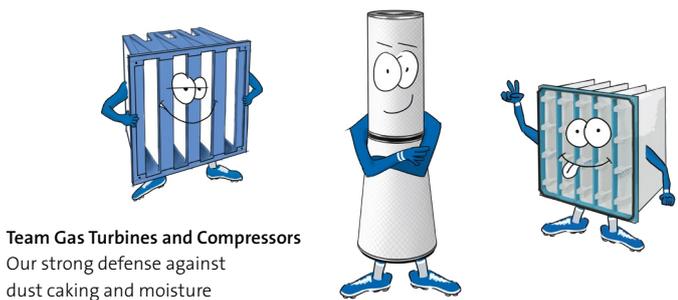
We will be pleased to advise you on selecting the best filter system.

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e.FFECT
electronic Freudenberg Filter Efficiency Calculation Tool

e.FFECT gives you the best possible system

e.FFECT tells you which players you need to break down the toughest opponents. Developed by us, this tool enables you to determine your ideal filter combination in the shortest possible time. In the process, it constantly considers relevant influences such as the ambient air, process requirements and system parameters. ■



HOME IS WHERE YOU CAN BREATHE FREELY

CLOSE COOPERATION WITH STADLER FORM FOR ROOM AIR CLEANERS

Swiss device manufacturer Stadler Form develops beautiful and useful household appliances with a focus on improving the indoor climate. In its latest generation of room air cleaners, the company relies on a powerful filter solution from Freudenberg Filtration Technologies. The goal is to permanently improve indoor air quality.

The air is full of particles and the air quality of many interiors is worse than that of the outside air. Volatile organic compounds are released from furniture and floor coverings. Pollen and dust mites make life hard for allergy sufferers. Fine dusts, viruses and bacteria all accumulate in the room air. Over extended periods of time, the well-being of residents decreases while health risks increase.

“Roger” ensures clean air

Room air cleaners provide a remedy. The Stadler Form solutions are called Roger and Roger Little. At their heart is the Dual Filter™ developed by Freudenberg. This consists of a HEPA filter and an activated carbon filter. The HEPA element filters fine dusts, pollen, allergens, viruses and bacteria from the air. Harmful gases such as formaldehyde, tobacco smoke or

bad odors are adsorbed by the activated carbon filter. In this way, the Dual Filter™ ensures clean and healthy air, whether in the office or at home.

Cooperation pays off

Decisive for the success of the products was close and intensive cooperation. “Technical challenges can best be solved together with our customers”, commented Thorsten Schmitt, Key Account Engineer in the field of Consumer Industrial Filtration. “That’s why we worked closely with Stadler Form at an early stage in the development of the two room air cleaners, Roger and Roger Little.” The same applied to the planning of filter production. This takes place close to where the room air purifiers are manufactured. In this way, it is possible to react quickly and to ensure processes stay coordinated at all times. ■



You can find detailed information about our solutions for office and living spaces at

www.freudenberg-filter.com > Air Filtration > Applications > Offices and living areas

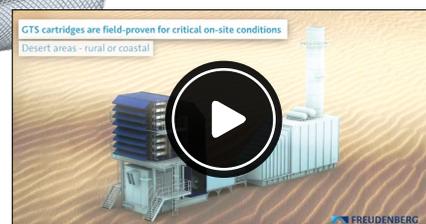
MASTER OF THE DESERT

GTS FILTER CARTRIDGES PROTECT AGAINST HIGH DUST POLLUTION AND MOISTURE

Whether desert dust or tropical humidity, challenging conditions prevail in many places around the world. Effectively protecting gas turbines and compressor plants against wind and weather under these circumstances can be achieved with our GTS filter cartridges.

Different local environmental influences affect the performance and efficiency of the plants. In the desert, the challenge is high dust levels caused by sandstorms. In the tropics or monsoon areas, it is high humidity. In both cases, turbine blades can be damaged by fouling or corro-

sion. In these situations, our GTS filter cartridges – optionally equipped with a water-repellent nonwoven wrapping – provide effective protection. Compared to conventional cellulose-blend media, the synthetic GTS filter medium offers significantly higher separation efficiency with a stronger water-repellent effect. Thanks to their optimal cleaning characteristics, GTS filter cartridges ensure a particularly good filtration outcome, especially in desert areas. The result is that the efficiency of the plant increases while maintenance costs decrease. ■



Find out more about the functionality in our video

www.youtube.com > Freudenberg Filtration Technologies > GTS filter cartridges made of fully synthetic media

You can find detailed information about our GTS filter cartridges at

www.freudenberg-filter.com > Air Filtration > Viledon Products > Filter cartridges for turbomachinery > Filter cartridges Pulse-jet

NEW ARRIVALS

ACHIEVE THE BEST PAINTING RESULTS WITH PAINT POCKETS AND CPACK AXM PANEL FILTERS

The less work that paint mist separation necessitates in paint booths, the better. To achieve the best painting results, tailor-made solutions are required. With Paint Pockets and the CPack AXM Panel Filter, we have expanded our portfolio in surface treatment with two strong products.

You can find detailed information about our new surface treatment products at

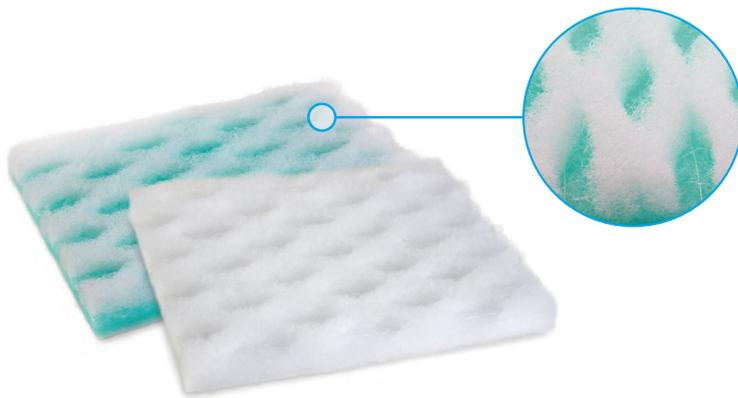
www.freudenberg-filter.com
 > Air Filtration > Applications
 > Surface Treatment

Three-dimensional filter mats for increased performance

The Paint Pockets floor filter mats rely on a diamond-shaped three-dimensional material structure, which prevents premature blocking of the surface. The diamond pattern increases the filter surface, allowing Paint Pockets to last up to four times longer than conventional paint mist separation mats. We have developed a special, cost-optimized version for repair cabins where there are no downstream filters. Both versions are easy to dispose of and fully thermally recyclable.

At home in explosion-endangered areas

Post-filters for the cabin exhaust air determine the degree of purity of the exhaust air. The high-performance CPack AXM panel filter has a particularly long working life thanks to its corrosion- and moisture-resistant design, making it highly economical. With a depth of 145 millimeters, it has been specially designed for installation after the edrizzi® paint mist separator and can be easily inserted into a common mounting frame. CPack filters can also be operated safely in explosion-endangered areas of zones 1, 2, 21 and 22. They are self-extinguishing and meet the strict requirements of fire class F1 according to DIN 53 438. ■



TRADE FAIRS AND EVENTS

November 7–8, 2018

SOLIDS: Trade show for granules, powder & bulk solids technologies, Dortmund, Germany

November 21–22, 2018

EHEDG World Congress: Hygienic Engineering & Design, London, United Kingdom

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