

DECEMBER 2016

# VILEDON NEWS

IN FOCUS: VILEDON FILTERCAIR

## PROCESS RELIABILITY HAS TOP PRIORITY

MORE AND MORE CUSTOMERS ARE BENEFITING  
FROM VILEDON'S COMPREHENSIVE FILTERCAIR SERVICE



Meeting the highest customer requirements means working at night or on the weekend, if necessary. Klaus Spieß belongs to a group of specially trained experts from Freudenberg Filtration Technologies, who look after the customer's filter systems on site. Within the scope of the Viledon® filterCair program, Klaus Spieß works at the Mannheim, Germany, plants of Daimler AG and EvoBus GmbH.

Klaus Spieß's working starts at 6 a.m. After arriving in the office and responding to customer emails, he sets off. On his daily round at Daimler and EvoBus, he inspects the air intake installations of the production halls, the air-conditioning systems of the office buildings and the filter systems of the paint booths and various production facilities. At least once a month, each of the 450 ventilation systems is individ-

ually checked. Critical plants are naturally tested even more often. Viledon® filterCair, Freudenberg Filtration Technologies' service program, offers complete air quality management from a single source.

### Working on site

It is 9 a.m. Before his second coffee of the day, Klaus Spieß draws up a report on the complaint about a ventilation system and initiates its maintenance. He then proceeds to the paint booths. The regular measurement of the particles and sinking speeds reveals no concerns. Shortly after 11 a.m., the Viledon® filterCair service technician can enjoy a relaxed break. Promptly at 11.30 a.m., he is back in action again because the customer's midday production pause gives him the opportunity to carry out hygiene tests on the air-conditioning and production hall ventilation systems, according to VDI 6022. In common with all measurements and activities, the results are clearly documented.

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### Service packages bundled as required

Checking pressure differential values, carrying out particle measurements, determining sink rates or carrying out hygienic tests according to VDI 6022 are just some of the many tasks that the specialists carry out on site. Viledon® filterCair enables each customer to request specific performance packages that precisely meet their needs.

The delivery of high-quality air and liquid filters from Freudenberg Filtration Technologies, the professional handling of filter changes and disposal of used filters, plant cleaning, disposition and storage of filter elements – whatever the customer needs for his filtration equipment can be scheduled at guaranteed fixed costs. With filter commissioning measurements, calibration of pressure difference indicators, regular inspection of the technical condition of the plant and much more, Freudenberg Filtration Technologies provides customers with long-term quality assurance for their filtration systems. Even measurement of dust emissions, filter commissioning measurements and, ultimately, the technical commissioning of the filter and ventilation systems – Viledon® filterCair offers everything necessary for good and stable air quality in filtration systems. Thanks to the regular plant inspections, defects can be avoided and any minor problems quickly remedied. In this way, customers avoid more extensive damage and cost-intensive downtime.

### A link between service providers

Klaus Spieß is now back at his desk. New Viledon® Compact pocket filters F50 and T60 are required in the Daimler production hall. These need to be ordered according to requirement and are no longer stored at the customer's premises. The service technician plans, commissions and coordinates the filter change in consultation with the production department – including organizing the cleaning of the plant by a third-party company. Once everything has been arranged, it is time to head home for the evening to re-fuel before Viledon® filterCair's all-round service continues the next day.



New filters from Freudenberg Filtration Technologies in the Scandic Hamburg Emporio Hotel

### What can we do for you? We offer filter technology from a single source.

More and more customers from different industries and markets are benefiting from the comprehensive and expert knowledge offered by Viledon® filterCair. The most recent example is the Scandic Hamburg Emporio Hotel. In the search for a solution to odors being introduced from the outside, the hotel managers approached Freudenberg Filtration Technologies. They were unhappy with the quality of the existing filters as well as the coordination of the air-conditioning systems. The hotel management also saw even greater savings potential in terms of energy consumption. The Viledon® filterCair service technician began by conducting a system analysis with the aim of optimizing technological design and operational procedures. Thanks to the use of Viledon® filters – partly with activated carbon – room air quality could be quickly optimized.



Satisfied customer: Scandic Hamburg Emporio Hotel employee Florian von Glahn

Since the conversion of the system, service technician Marco Grüger has now assumed responsibility for Viledon® filterCair management. He regularly checks the facilities, monitors the service company and plans when the next filter change is due. The result is that no more odors penetrate the recirculation systems and there are no more blocked filters. The Scandic Hamburg Emporio Hotel now benefits from all-round hygienic ventilation systems. ■

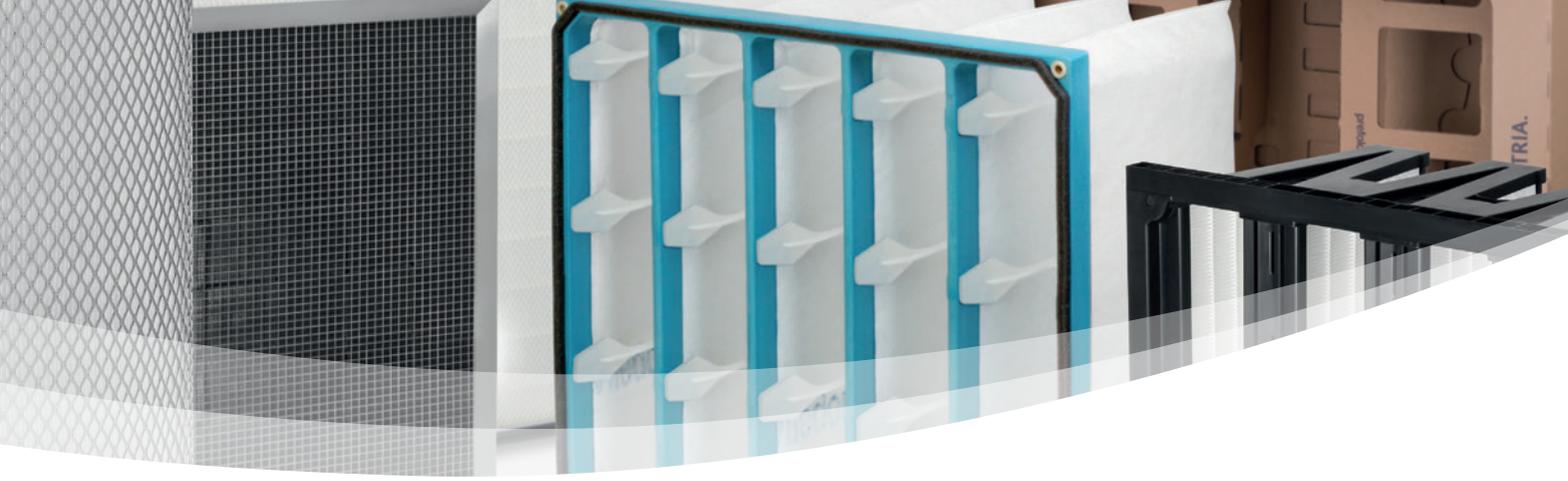
You can find more information on the Viledon® filterCair portfolio at:

[www.freudenberg-filter.com/en/air-filtration/filtercair-services/](http://www.freudenberg-filter.com/en/air-filtration/filtercair-services/)

## viledon® filterCair

Viledon® filterCair – available for different applications and market segments:

- Automotive industry and suppliers
- Corrosion protection
- Clean rooms and pharmaceuticals
- Food and beverage industry
- Hospitals and medical technology
- Air pollution control



INNOVATIONS

# BEST OF 2016: OUR FILTER INNOVATIONS

## A REVIEW OF 365 DAYS OF “INNOVATING TOGETHER”

Even more efficient and even better: that was our ambition this year. 2016 was characterized by exciting filter systems and optimized products, which impressively underline the in-

novation leadership of Freudenberg Filtration Technologies. We have put together a few highlights that you may not have known before – now brand new for you.

BRAND NEW



### Viledon® hydroMaxx reverse

The next generation of coalescent pocket filters is ideal for sites with high humidity. Thanks to the fiber composition of the filter media produced by Freudenberg, they offer optimum protection against penetrating water and salt. The special drainage properties prevent water droplets from passing through the following filter stages. The unique modular plug-in system enables a wide range of 2-in-1 connections. All in all, an innovative filter system with high operational reliability and economy.

BRAND NEW



### Viledon® DryPleat & DryPleat nano

More stable processes and lower operating costs make it well worthwhile to use Viledon® DryPleat or DryPleat nano filter plates. They offer high-quality dry separation of paint overspray using stone powder while their stable design means that they are easy to clean effectively. Their low flow resistance results in reductions of up to 50 percent of energy costs and around 30 percent of compressed air consumption. Users can choose between Viledon® DryPleat and Viledon® DryPleat nano with nanofiber technology and a three-layer construction.



### PJR Pulse-jet Reflectors

- Click & Fix snap hook technology
- Optimized pulse-jet cleaning
- Perfect accessory for filter cartridges



### edrizzi® dry separators

- 97% separation efficiency
- Flexibly interchangeable
- Cost-effective disposal



### Viledon® MVPGT

- Features patented clip-on system
- Burst protection grille on clean air side
- Up to filter class E 11 (21 m<sup>2</sup> variant)

# TALKING SHOP IN WEINHEIM

THE 2016 TURBOMACHINERY DAYS IN WEINHEIM OFFERED THE OPPORTUNITY TO TALK WITH THE EXPERTS



A large number of participants and a wholly successful event

With a record number of participants, the 2016 Turbomachinery Days run in Weinheim by the Viledon® Academy were a complete success. Numerous experts spoke on the subject of “Improving the efficiency of gas turbines and compressors”. New knowledge guaranteed.

Two highly informative days in September 2016. Professional exchange was top of the agenda as experts from the industry and from the Viledon® Academy welcomed participants to the 2016 Turbomachinery Days in Weinheim. Occupational safety in power stations, energy



Exciting presentations for all participants

data acquisition and visualization, maintenance and servicing of generators and, of course, the new ISO 16890 test standard – the topics were varied, the lectures



A complete success for the Viledon® Academy

exciting and the discussions fruitful. Two days of well-invested time at Freudenberg Filtration Technologies. ■

## SURFACE TREATMENT

# EXPERT KNOWLEDGE FROM WEINHEIM

## SPECIALISTS PARTICIPATE IN THE VDMA STANDARD SHEET

The German Mechanical Engineering Industry Association (Verband Deutscher Maschinen- und Anlagenbau, in short VDMA) unifies the testing procedures for paint wetting impairment substances (PWIS) in surface treatment. This topic calls for the expertise of Jürgen Becker and Dr. Christian Ewald, our experts in modern dry separation in wet-coating processes.

Substances that are harmful to paint cross-linking are a major problem in the automotive industry. Parts contaminated with these PWIS cannot be painted with-

out defects – and this can rapidly lead to very high costs in large series production settings such as automobile manufacture. However, because there are not yet any uniform test specifications for PWIS, a remedy needs to be found to ensure that suppliers can guarantee products free of paint wetting impairment substances to a uniform standard. Jürgen Becker and Dr. Christian Ewald are participating in the development of a standardized test method on behalf of Freudenberg Filtration Technologies. At the end of this deployment, a general test procedure will be issued, which will then



be published as a VDMA standard sheet and will take account of the different requirements in the production process of the automotive industry. ■



FOOD AND BEVERAGES

## HIGH-TECH IN THE HIGHLANDS

### SCOTCH WHISKY PRODUCER ARDMORE TRUSTS IN VILEDON WATER SOLUTIONS.

The Ardmore Distillery in Kennethmont, Aberdeenshire has been distilling its famous Scottish single malt whisky since 1898. Because the distillation process produces wastewater that cannot be allowed to enter the environment untreated, Ardmore relies on filtration solutions from Viledon® Water Solutions.

The Ardmore single malt spends up to 30 years in oak barrels. The result is a darkly shimmering whisky with peaty, smoky aromas – a perfect pleasure for connoisseurs and whisky lovers. However, the wastewater generated during production is contaminated with organic substances and copper residues that would cause considerable damage to the natural environment. That is why the Ardmore distillery, owned by the Beam Suntory Group, has chosen to work with the specialists at Freudenberg Filtration Technologies. Our Viledon® Water Solutions with Aquabio technology offer outstanding processing quality.

#### Membrane bioreactors turn wastewater into drinking water quality

The innovative filtration technology is based on Viledon® membrane bioreactors with ultra-filtration tube membranes. These separate the biomass produced in the clarification process from the water and work in an extremely energy- and cost-efficient manner. The result is controlled clean water. "At Ardmore, we separate 99 percent of the organic constituents.

In addition, we filter copper residues from the wastewater and guarantee a copper content of less than 0.5 milligrams per liter at the outlet of the processing plant", explained Jürgen Abt, Director of Viledon® Water Solutions at Freudenberg Filtration Technologies.

#### Clean water and a clear conscience

In addition, Freudenberg Filtration Technologies provides Ardmore with optimized plant operation, including remote monitoring by the company's own experts, thanks to the constant further development of automation. Flushing, backflushing, cleaning, start-up and shut-down can all be carried out as required. Real-time monitoring of all components allows process and quality changes to be quickly identified and countermeasures swiftly introduced in the event of deviations. This guarantees the consistent high quality of the treated water. ■



The whole story of the Ardmore distillery and the solutions provided by Viledon® Water Solutions can be found in an exciting video as well as in our case study at:

[www.freudenberg-filter.com/en/liquid-filtration/wastewater-treatment/](http://www.freudenberg-filter.com/en/liquid-filtration/wastewater-treatment/)

#### Facts about whisky

- the word "whisky" means "water of life"
- Scots drink whisky, Irish and Americans whiskey
- the first documented mention of the "water of life" comes from Scottish tax documents of 1494
- a hogshead barrel, in which the whisky matures, holds around 250 liters
- the drinking strength of whisky is 40–56% by volume alcohol content

THE ARDMORE®



# ONCE AGAIN IN 2016: THANK YOU FOR A GREAT YEAR



It has been a good and successful year for us at Freudenberg Filtration Technologies. Alongside numerous product innovations, we have also been involved in drawing up the new ISO 16890 test standard. I am grateful for the respect our customers show for our work and proud of the enthusiasm with which our employees are constantly looking for new and better solutions. Let us continue in the same way in 2017.

An end-of-year review always presents the challenge of giving correct weight to the events for which we are especially grateful. 2016 is no different in this respect, as I can see one highlight after another. There were product innovations, such as the Viledon® DryPleat and DryPleat nano filter plates or Viledon® hydroMaxx reverse, to name just a few. Then there is our growing portfolio of services, through which we can bundle comprehensive packages for our customers. And there is your confidence in our expertise as we work with you to develop not only high-quality but also perfectly tailored solutions for your filtration requirements. Trust which continues to inspire us and that we worked hard for. I would also like to thank our colleagues, who have accumulated a wealth of knowledge over many years through their tireless efforts. Our outstanding employees are a decisive competitive advantage for us and for our customers. Last but not least, I would

like to acknowledge the efforts we have made to actively influence and shape the new ISO 16890 test standard. I hope we have already prepared you for the ISO 16890 standard. We will continue to offer you our best possible support in 2017 as well.

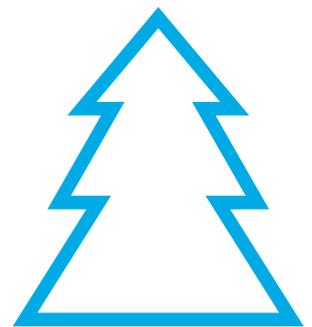


I wish you and your families a peaceful Christmas and look forward to a fruitful cooperation in the New Year. ■

Best wishes,



Dr. Daniel Schmitt  
Global Vice President  
Industrial Filtration



## IN BRIEF

# FOR THE FIRST TIME AS AN APP

## THE NEW PRODUCT CATALOGUE 2017/2018



Available at the end of January 2017, the new Freudenberg Filtration Technologies product catalogue offers you a complete overview of our product portfolio. Printed, electronically as a PDF or, for the first time from February 2017, as a brand new app for smartphones – our new catalogue tells you everything you need to know about industrial filtration and our innovations from Weinheim. ■

## TRADE FAIRS AND EVENTS

### Meet us here in 2017:

March 28–31, 2017

Wasser Berlin International – International trade fair and congress on water and wastewater, Berlin, Germany

May 10–11, 2017

Solids – Trade show for granules, powder and bulk solids technologies, Dortmund, Germany

October, 2017

**MAKE A NOTE!**

Viledon® webinars – New EUROVENT energy classification / ISO 16890 in practice



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