

Driving filtration for a clean world – MANN+HUMMEL at FILTECH 2019

- **Clean air in cities thanks to filter columns by MANN+HUMMEL**
- **Brake dust particle filter – filtration directly at the source of the fine dust**
- **FreciousComfort – HVAC filter with biofunctional coating protects against allergic reactions**
- **E-mobility product range – battery protection against pressure, heat and humidity**
- **System solution increases system service life and efficiency of fuel cells**

Making the world a little cleaner: At Filtech 2019, MANN+HUMMEL will present the products and solutions with which the company is pursuing this ambitious target. In addition to its standard portfolio for automotive original equipment and retrofitting, MANN+HUMMEL will also be exhibiting solutions for combating particulate matter and allergens as well as its e-mobility range.

Filter cubes filter fine dust and nitrogen dioxide

City population suffers more and more from pollution by particulate matter and nitrogen dioxide (NO₂). As a contribution to solving this problem, MANN+HUMMEL has developed filter columns under the name "Public Air Solutions". Said columns bind over 80 percent of nitrogen dioxide and fine dust from the air sucked in. As part of a pilot project supported by the Baden-Württemberg Ministry of Transport, 23 of these columns clean the Stuttgart Neckartor, which is particularly polluted by traffic. Stuttgart is located in southwestern Germany and one of the cities most affected by particulate matters and nitrogen dioxide.

The core of the technology is a combination filter. Said filter includes a highly effective filter layer for fine dust particles, combined with a special activated carbon layer. Due to its large inner surface, the highly porous activated carbon is able to absorb nitrogen dioxide very efficiently. The use of a

combined filter medium enables a particularly high air throughput. This purifies the air with very low energy consumption.

Filtration directly at the source of fine dust: MANN+HUMMEL brake dust particle filters

A large part of fine dust associated with road traffic is generated by the brakes. Every time vehicles brake there is wear on the brake disc and pads and this creates fine dust. The passive brake dust particle filter from MANN+HUMMEL is fitted directly on the brake caliper and retains particle emissions directly at the brake. It fits into many varied types of installation space and can be adapted to different brake sizes and concepts.



FreciousComfort – HVAC filter with biofunctional coating protects against allergic reactions

FreciousComfort is the name of the new filter series from MANN+HUMMEL for air conditioning and ventilation technology. It combines particle filtration with anti-allergenic and anti-microbial functions. The filters block fine dust and free allergens to restrict the growth of mold and bacteria. The advantages for people are less allergic reactions and an increased sense of well-being in rooms.



E-mobility product range

The most valuable component of electric vehicles is without doubt the electric battery. In particular, lithium-ion cells with a high storage capacity can only be operated within a tight temperature range. Increased temperatures, however, lead to a premature loss of performance, considerable overheating and even the destruction of the battery cell. The right heating and cooling strategy during charging and during operation is therefore decisive for the system durability.

Furthermore, electric motors and power electronics have to be cooled. In addition to protection against overheating, for example, a significant pressure difference between the ambient pressure and pressure inside the battery system has to be avoided. Apart from that, condensate from the air humidity must not be allowed to form in the battery system as this can lead to short circuits. MANN+HUMMEL offers numerous filtration solutions here including cooling air particle filters, air dryer cartridges and oil dryer cartridges which are all designed to reliably protect the battery system..

System solution increases system service life and efficiency of fuel cells

Emissions legislation is becoming stricter and accordingly also the search for alternative drives. An important concept here is the fuel cell as a supplier of energy for the electric drive. The core components of fuel cell stacks are highly sensitive to particles, harmful gases and water present in the intake air. In order to ensure trouble-free operation and extend the lifetime of the system, the filtration of particles and the adsorption of harmful gases is therefore equally important as efficient water separation.





Contcat:

Sabine Wagner

sabine.wagner@mann-hummel.com

+49 (0) 6232 53 8151

Henriette Krohn

henriette.krohn@mann-hummel.com

+49 (0) 7141 98-2063

For more information, please visit our Filtech event page:

<https://www.mann-hummel.com/en/the-company/current-topics/event-calendar/mannhummel-at-the-filtech-2019/>

Visit MANN+HUMMEL in Hall 11.1, Stand H1.