# More power Filtration solutions for CHP systems and gensets





# Full speed for your power generation

# High quality

Gensets are used for decentralised power generation in fleets, combined heat and power (CHP) systems, or emergency generators. They are subject to harsh operating environments and have to run reliably up to 24 hours a day.

High quality filter systems from MANN+HUMMEL stand for high reliability, top quality and ensure a long service interval. "Perfect parts. Perfect service." is rightly the claim of MANN-FILTER – our strong brand in the aftermarket.

# Everything from a single source

Our wide range of products covers the filter requirements for diesel and gas gensets. Whether for air cleaners, oil filters, fuel filters or crankcase ventilation, at MANN+HUMMEL you always get a high quality solution for an OEM product and the aftermarket.





# Air cleaners

MANN+HUMMEL filters stand for a long service life, reliability, ease of maintenance and economy. Single-stage air cleaners are the ideal solution for applications with low dust loads. They offer high separation performance, a compact design and low initial flow resistance ( $\Delta p$ ). Two-stage air cleaners are particularly suitable for heavy dust loads, are very robust and offer outstanding pre-separation performance.



### **IQORON-V**

- pre-separation through highperformance multi-cyclone technology
- fine-tuned for extremely dusty conditions with limited installation space
- also available as IQORON-S single-stage air cleaner



### ENTARON XD / MD

- ENTARON MD: very low initial flow resistance with very long service life under stationary conditions
- ENTARON XD: especially suitable for extremely dusty conditions due to high preseparation efficiency



# Europiclon

- flexible modular system
- extensive range of accessories
- high operational reliability through elements with proven radial seal



### Pico-E / Piclon

- long filter service life with low pressure drop
- especially robust filter element with metal centre tube
- metal housing extremely flame-resistant



# **Picolight**

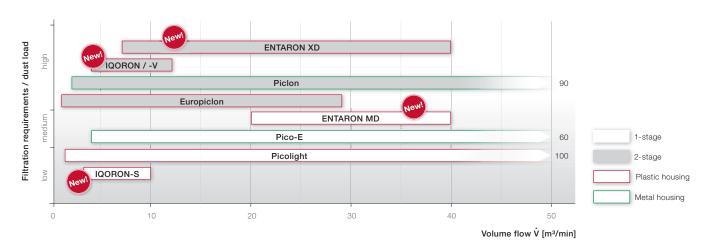
- for stationary applications
- low pressure drop
- compact design



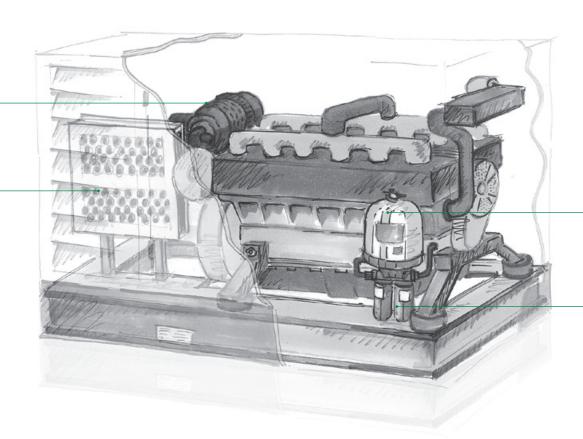
## Electronic Service Indicator

- reduces running costs and indicates when a service is required
- continuous indication of the exact pressure restriction
- applicable for air cleaners in combustion engines

# The right filter for every application



# Flexible filtration solutions Excellent protection for your engines



# Single and two-stage air cleaners

# Basic principle

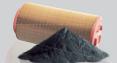
Single-stage air cleaners have a main separation stage and are the ideal solution for applications with low dust loads.

The two-stage air cleaner, however, is the best choice for medium to high dust loads because this type of filter additionally includes high-performance pre-separation. The performance of the pre-filter reduces the load on the main element and extends the service life.



Total separated dust volume with a two-stage air cleaner: 9.2 kg (100%)

(Example: Europiclon 600  $\Delta p = 40$  mbar)



Dust volume separated by the filter element: 1.65 kg (18%)



Dust volume separated by the pre-filter: 7.54 kg (82%)

# Liquid filters and crankcase ventilation



### Oil filters/Fuel filters

- oil filters with efficient media
- · high dirt holding capacity
- long service intervals and high
- I functional reliability
- duplex changeover oil and fuel
- filters where continuous engine
- operation is essential



# Diesel pre-filter – PreLine

- flexible modular system
- optional heater
- perfectly fine-tuned pre-separation efficiency to protect fuel feed pump and the injection system
- water separation acc. to ISO/TR 16 332 > 93%
- 100% FAME fuel compatible



# Lubricating oil centrifuges

- effective separation of contaminants such as particulates and metal abrasion
- longer service intervals
- less engine wear
- reduced servicing costs



### Crankcase ventilation

- efficient oil separation through high-performance media
- integrated safety function against excessively high crankcase pressure
- ease of maintenance through quick access and interchanging protection for replacement elements
- suitable for variable volume flows

# Extend service life with centrifuges

Contamination caused by particulates in the lubricating oil cannot be completely removed by conventional full-flow and partialflow filters as the particles are too small to be reliably retained by the filter media.

A centrifuge on the other hand can be used to even separate ultra-fine particles from the oil. This extends the life of the oil and the service life.

# (industrial diesel engine; 8 litre engine capacity; 250 kW)

Size distribution of particulates in used oil

16 14 8 12 10 8 6 4 2 0 0.172 0.296 0.51 0.877 1.51 2.599 0.389 0.669 1.151 0.131 0.226

Diameter (µm)

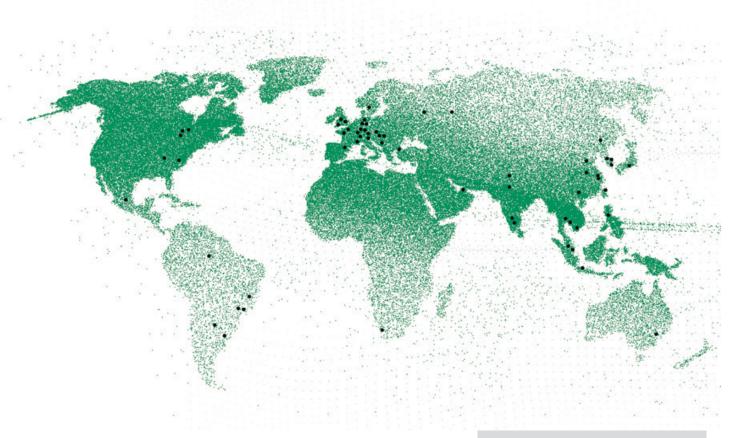
Initial sample

Same sample after 24 hours of cleaning using an oil centrifuge



Cross-section of a contaminated rotor

# MANN+HUMMEL Group



The MANN+HUMMEL Group is a company with international operations and employs more than 14,750 people worldwide at 50 international locations.

The company develops, produces and sells technically complex components and systems for the automotive industry and many other fields. A key area is high quality filtration products for vehicles, engines and industrial applications. The OEM business with global market leaders and producers of vehicles, machines and installations defines the quality and performance of the products. Filters for the international aftermarket are sold under numerous international brands as well as under the group's own MANN-FILTER brand.

# MANN+HUMMEL Industrial filtration

The Industrial Filtration Business Unit with its headquarters in Speyer (Germany) is specialised in meeting the requirements of off-highway vehicle and engine applications, compressed air and vacuum technology, mechanical engineering and plant construction.

For these and other industrial fields MANN+HUMMEL Industrial Filtration offers high performance products for the filtration and separation of air, gases and liquids.

Thanks to an efficient and well-organised partner network and global sales network the products are readily available at almost all locations.

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