

# PEPA-F™ particulate filter

FOR HEATING, VENTILATION AND AIR  
CONDITIONING (HVAC) SYSTEMS



High concentration of fine particles in the air constitutes a risk factor for public health. Our PEPA-F particulate filter protects passengers against the smallest particles, helping to meet current WHO air quality guidelines.

## KEY BENEFITS

- Filtration lower than a micron, up to ePM1 50%
- Optimal air quality
- Safety ensured
- Immediate availability
- Quick installation
- Optimised pressure drop level
- Fire and smoke compliant

## GENERAL DESCRIPTION

PEPA-F™ particulate filter is a smart and efficient solution for rail transportation that captures particles smaller than a micron, supporting the WHO Guidelines and ASHRAE recommendations. It is composed of two separate layers, a pre-filter for larger particles, a further layer for finer particles. Those media ensure compliance toward the railway fire and smoke standards using either the intrinsic characteristic or an additional coating. This makes our passive air filtration solution unique on the market.

## CUSTOMER BENEFITS

### Safety and confidence

Using innovative technology in public and mass transport not only boosts passenger's confidence, but also fosters a long-term healthy alternative to congested and polluted cities, while ensuring the health and safety of operations and maintenance staff.

### Maximised efficiency and effectiveness

Filter solution is sustainably effective as fine filtration with particles lower than a micron (ISO16890 ePM1>50%), compliant toward fire and smoke railway referential EN45545. It has also been optimised on pressure drop level for energy consumption purposes.

### Availability

The particulate filter for HVAC systems is an immediately available solution. The filter is fully scalable and customisable for any existing fleets, therefore, can be quickly & easily implemented into trains.

### Fast and easy to install

The implementation of those filters do not require any additional safety measures for maintenance personnel. It is easy to install (no training hours required) in just 10 minutes installation time per HVAC unit.

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## MAIN CHARACTERISTICS

- Disruptive patented multilayer technology for HVAC systems
- Captures particles smaller than a micron, compliant to the fine filtration norms and has passed the criteria of ISO16890-4 ePM1 >50%
- Design and energy optimised with pressure drop of ~60 Pa @ 2 m/s : ~50% pressure drop less than market solution
- Six weeks lead time for implementation
- Performs well without impact on HVAC systems (HVAC protection) and thermal comfort
- Foam filter has a higher dust holding capacity than paper filters
- Compliant to requirements in rail transportation (fire and smoke compliant to EN45545-2 HL3)
- Fit form and function for HVAC Catalogue, no installation risk (no interface change)

## INSTALLATION

The installation of the antiviral HVAC system is fast, easy and safe. Indeed, you only need 10 minutes to install the HVAC unit on new and existing fleets.

Thanks to their high level of performance, these solutions last up to several months (changing interval is subject to environmental conditions).

The installation and changing processes are safe for the maintenance personnel and do not require any training hours as they are similar to installing or changing basic filters.

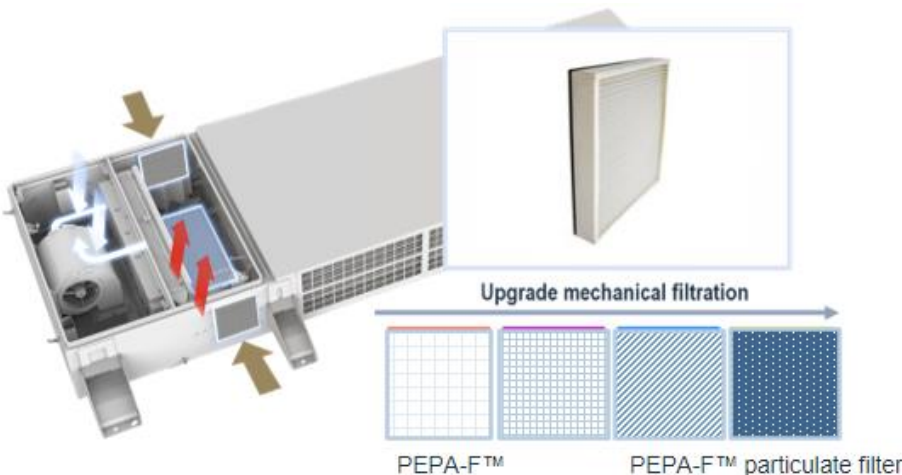
## CONCLUSION

The PEPA-F particulate filter is the most technically advanced and cost-optimised air treatment solution for railways, capturing finest particles with a performance level of ePM10>50% and an optimised pressure drop.



## CUSTOMER REFERENCES

This solution has been implemented and is currently in service on multiple passenger trains, offering our customers enhanced fine filtration on the most harmful particle matters and a healthier environment to everyone.



### FOR MORE INFORMATION:

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