



AIR QUALITY IN ALL CONDITIONS

Air cleaning systems for HVAC units with latest filter technology suitable for all kinds of environmental conditions respond to the need for cleaner air with optimum maintenance cost.

Customer benefits

- Maximum air quality assurance
- Application in HVAC systems in low, medium and high dust environments
- Customized filtration system depending on operating conditions
- Enhanced and/or condition-based filter exchange periods to minimize preventive maintenance needs
- Efficient regardless of the direction of wind and travel

Applications

- High-speed trains
- Light rail vehicles
- Locomotives
- Metros
- Passenger coaches
- Regional and commuter trains



MERAK

KEY FEATURES

Air quality has always been a priority for Merak, due to its vital importance in protecting passengers' health and comfort while bringing optimal maintenance time and better operational efficiency.

One of the main cost factors in HVAC maintenance is the frequency with which the filters need to be changed. Analyzing real field contamination, Merak develops air filtration systems with minimized maintenance needs under all operating conditions, suitable both for new systems and for retrofitting. Amongst others, these include systems specifically designed for operation in desert environments, where dust and sand cause earlier deterioration of the system's components, as well as units equipped with an air hygiene unit, which eliminates the majority of the common bacteria by germicidal irradiation.

Air Filtration Options

Basic Option

- For low dust environment
- Increase of pressure drop during life cycle
- Regular maintenance required

Inertial Grid + Filter

- For medium dust environment
- Separates water and snow
- Inertial grid: no maintenance

Cyclonic Filter

- For high dust environment
- Cyclonic filters separate the sand
- Cleaning by turbofan

Pulse Self Cleaning

- For high dust environment
- Cartridge filters apply F9 degree filtration
- Cleaning by pulses of pressurized air

UV Lamp

- Air disinfection by ultraviolet germicidal irradiation
- Compact unit mounted in the return airflow of the HVAC system



Pulse self-cleaning filter



Air sterilization system

Merak

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