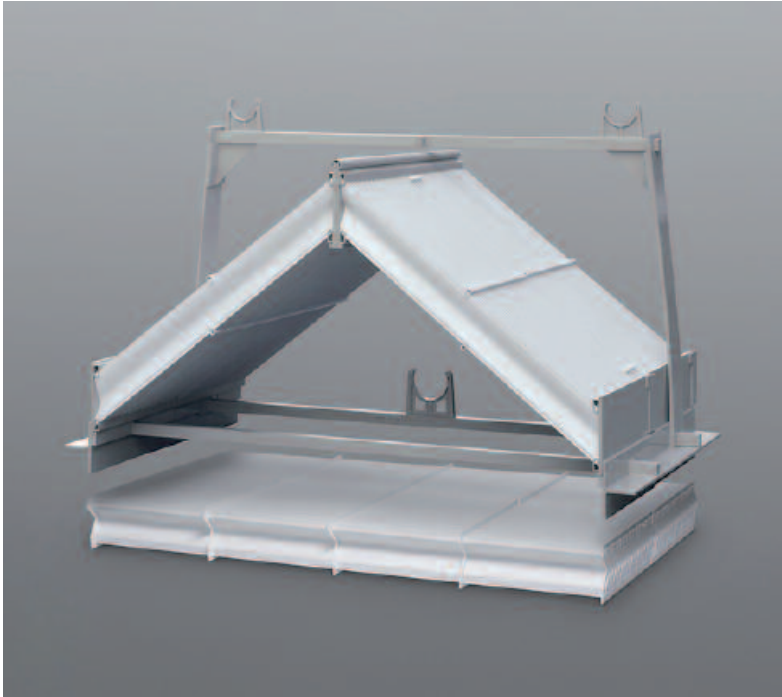


DV210 RF

DV210 RF

Droplet Separator system
(2-stage Mist Eliminator system)



Munters DV210 RF is a new developed mist eliminator system combining a roof and flat type mist eliminator stage used in vertical gas flows.

The system is typically installed in gas cleaning devices such as flue gas desulphurization absorbers and wet scrubbers.

DV210 RF has several functions such as the protection of the downstream gas-gas heat exchanger (GGH) from droplets, the best available elimination of liquid carry-over escaping into the environment and finally the highest retention of liquid solvent avoiding losses during operation.

DV210 RF has been designed to address applications with medium to high liquid loads, medium face velocities and low residual liquid loads behind the mist eliminator.

High efficiency combined with low construction height make this product fitting ideal into the product range of vertical flow mist eliminators.

The intelligent placement of the DV210 RF in the flow vortex area in the top of the absorber reduces the total pressure loss of the mist eliminator system more than 25%.

Functions

- Prevents liquid droplets escaping into the environment
- Protects the downstream gas-gas heat exchanger
- Recovers valuable liquid absorbens

Energy savings

- 25% less pressure loss than any other 2-stage roof design

Process operations

- Handles uneven flow patterns
- On-line cleaning system
- Designed for medium to high gas velocities
- Upgrade option for high gas velocities

Tower design

- Requires minimum installation height for one or two support beam layers
- The configuration III units come with integrated washing systems

Performance

- Best performing mist eliminator at medium to high vertical velocities, meets toughest standards
- Guaranteed rest liquid content <50 mg /Nm³_{dry} for 2-stage systems
- Low pump capacities
- Reduced water consumption

Service

- Installation and supervision
- On-site performance measurement

Available materials

Mist elimination and flushing systems: PPTV, others upon request

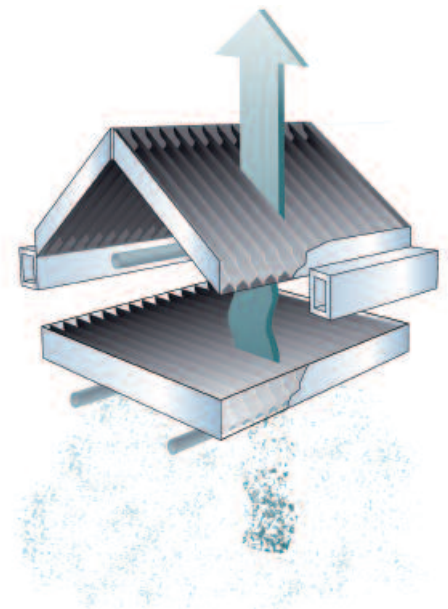
System configurations

The design of the DV210 has been continuously improved over the years. This latest release DV210 RF has significant reductions in pressure loss in comparison to previous versions thus contributing to energy saving operations.

The DV210 RF is available as standard 2-stage version and optional as a retrofit system for future performance increases. This allows the addition of one more fine separator without changing the support structure.

Configuration I

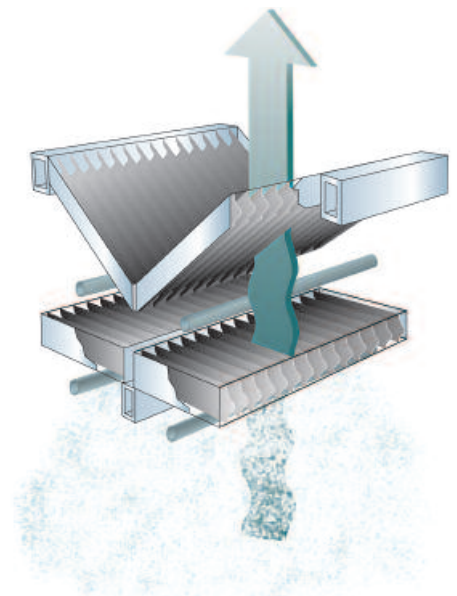
2 superposed units (flat and roof shaped) on 2 support layers. Flushing systems are installed either up- and/ or downstream of the mist eliminators.



Configuration II – Upgrade to higher performance to meet higher future demands

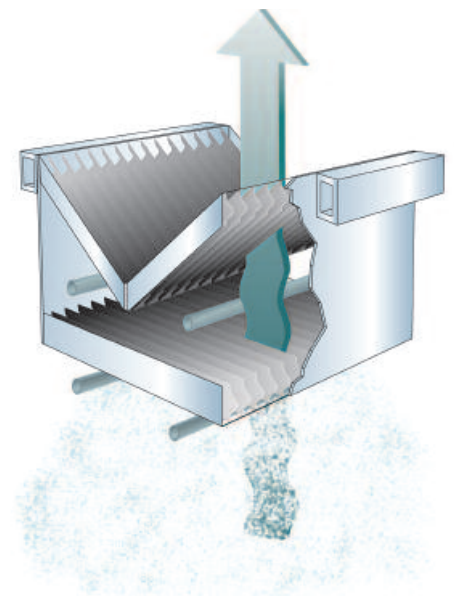
2 superposed units (flat and V-shaped) on 2 support layers. The system can be easily upgraded to a high efficiency system by adding one layer of Configuration I on the 2nd support beam.

Less installation height needed than in Configuration I.



Configuration III – Minimized height and single support beam layer

2 superposed units (flat and V shaped) on one support beam. Process designers have the possibility to extract two benefits from the configuration. First the system requires a single layer of support beams instead of two. Second the total system height is only 2,000 mm. Comparing the total required installation height of configuration I, II and III the absorber height can be reduced up to 1,800 mm compared with standard roof design type I without reducing any comfortable access to the stages for cleaning and inspection purposes.



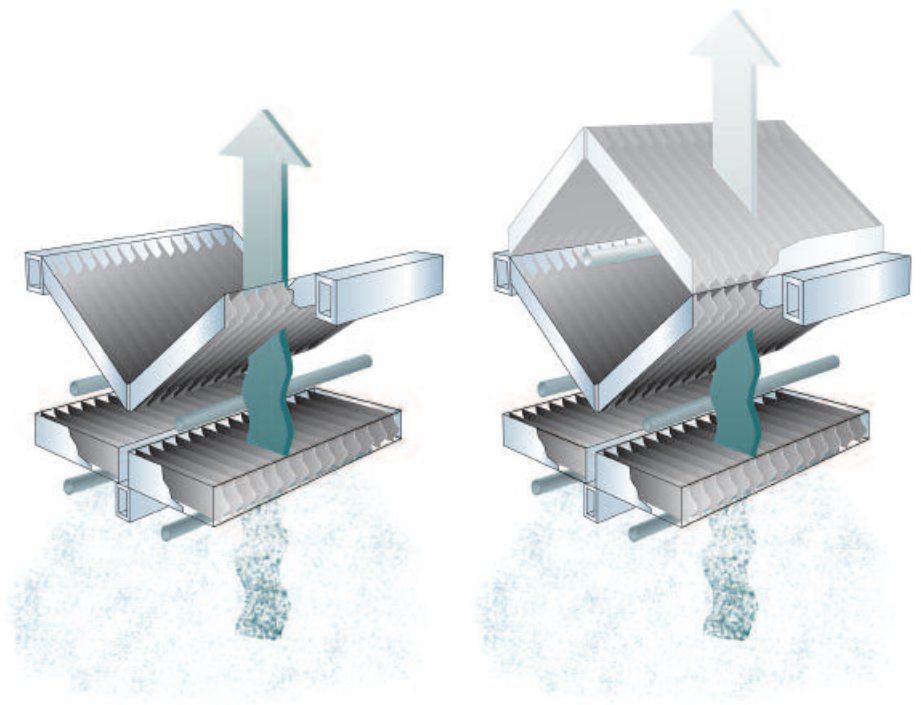
Munters' scope of supply

- Customized engineering and detailed design
- Cost comparison studies to other design types (extractability of benefits)
- Delivery of mist eliminators and cleaning systems
- Onsite installation and supervision services
- Qualified performance measurements

Target applications

- Flue gas desulphurization plants
- Exhaust air treatment plants
- Waste incineration plants

The system comes with an online cleaning system used in processes which could cause plugging and scaling on the vane surface. The system is designed for 2 or 3-stages with several cleaning layers depending on the specified liquid rest content and the operating conditions.



Option for upgrading gas flow and efficiency

The DV210 RF can be upgraded from a 2 into a 3-stage system. It can be equipped with an additional mist eliminator on top of the upper stage. This allows a future increase of gas velocities and a significant reduction of the residual liquid content without changing the entire mist elimination system.

The new mist eliminator system is an ideal tool to upgrade 2-stage flat design mist eliminators for higher demands and for cost effective retrofits.

Guaranteed and measurable performance

Besides performance guarantees Munters supplies data for cleaning cycles, water consumption, nozzle and pump data and peripheral data for integrating the system into the absorbers structure as well as design information for the support structure.

Information for process designers:

- Applicable gas volume can vary 25% from calculated average
- Washing liquids must be aligned to process condition
- The designs have identical performance data.



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