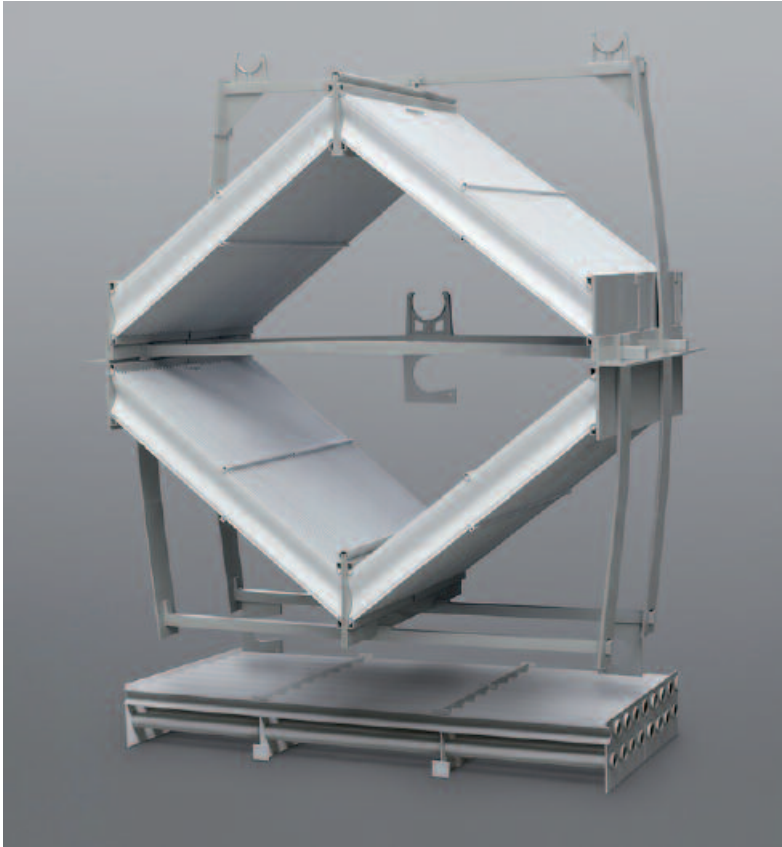


EasyFlow

EasyFlow

The flow optimization module



Munters EasyFlow enables to master critical process conditions where there is either a high solid content in the gas thus a high risk of clogging or where there is a very high variance in the flow conditions leading to local malfunctions in the separation.

This innovative technology concept increases the service life of coarse and fine separators in gas cleaning devices and equalizes uneven gas flow to ensure smoother process operations.

The design of EasyFlow allows it to be incorporated into existing plants as well as into new buildings.

Technology

The concept incorporates an additional stage in the gas cleaning process comprising a series of round rods.

These rods balance out the gas flow, reducing turbulence, and at the same time they actually separate some of the entrained liquids before they reach the coarse or fine separator.

In effect EasyFlow 'pre-cleans' the gas flow, making it particularly well suited for applications with very high levels of solids in both the gas and liquid phase. High solid levels can cause plugging and scaling of the vanes which results quickly in pressure loss and reduced efficiency.

EasyFlow extends the service life of the equipment and also prolongs the

For process upgrades

- Flow optimization gives better process performance and stability
- Increased service life of coarse and fine separators
- Cuts maintenance time
- Eliminates loss of product and downstream wear

For retrofitting

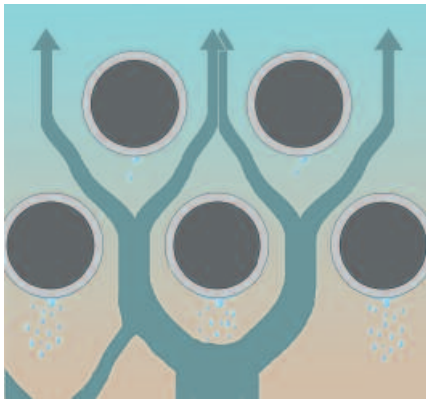
- Reduces liquid loading on coarse separator
- Reduces clogging of nozzles
- Reduces loss in energy output caused by growth in pressure drop
- Reduces maintenance and service costs
- Contributes to overall system efficiency through optimized flow

For new designs

- Allows replacement of a coarse separator stage in medium-duty applications
- Allows reduction of one layer of washing pipes as upstream cleaning requirement is eliminated
- Optimized gas flow contributes to overall process stability and efficiency
- Prolonged service intervals

Materials

- Standard material is PP
Special materials are available upon request



EasyFlow works as a coalescer, a flow equalizer and a pre-separator.

interval between servicing. In doing so it reduces losses in energy output caused by constant growth of pressure drop and also contributes to improved downstream performance and overall process stability. The reduced clogging resulting from optimization of the flow ensures that washing water is used more efficiently for additional cost savings.

EasyFlow also eliminates localized carry-over of limestone-slurry due to high gas velocities and uneven flow, thereby preventing the loss of valuable product and protecting the downstream gas-gas heat exchanger (GGH).

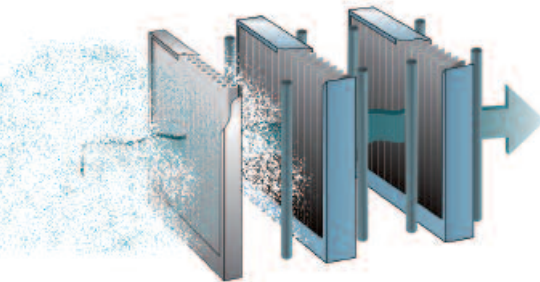


Taylor-made module of EasyFlow.

System Configuration

Horizontal flow

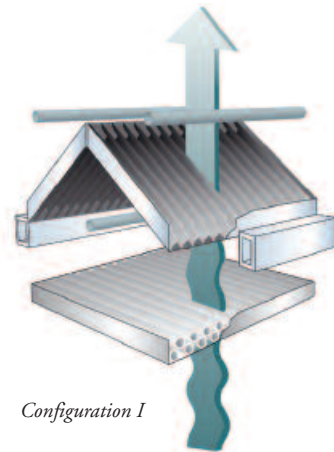
Two units of horizontal flow mist eliminator equipped with one layer of EasyFlow for face velocities up to 8.5 m/s +25% variance. This configuration allows rest liquid contents of lower than 50 mg/Nm³ in the clean gas.



Vertical flow

Configuration I

Two superposed units (EasyFlow and a single stage DV210+) on one or two support layers for gas velocities up to 5.8 m/s +25% variance. This configuration allows rest liquid contents of lower than 50 mg/Nm³ in the clean gas. Up to 50% reduction of washing water.

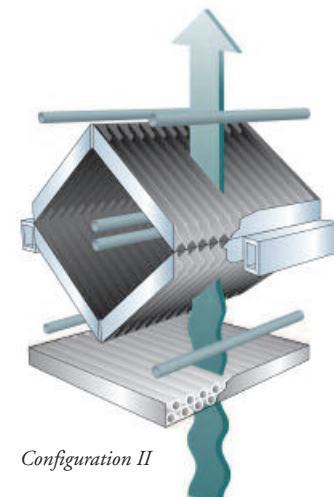


Configuration I

Configuration II

Three superposed units (EasyFlow and a 2-stage DV210+) on one or two support layers for gas velocities up to 5.8 m/s +25% variance. This configuration allows rest liquid contents of lower than 15 mg/Nm³ in the clean gas. Up to 35% reduction of washing water.

Flushing systems are installed up and downstream of the mist eliminator.



Configuration II

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
- On-site installation and supervision services
- Qualified performance measurements

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.



Munters, HumiCool Division, Kung Hans Väg 8, P.O. Box 434, SE-191 24 Sollentuna, Sweden. Phone +46 8 626 63 00, Fax +46 8 754 56 66.

Munters Euroform GmbH, Philipsstrasse 8, P.O. Box 101109, DE-52011 Aachen, Germany. Phone +49 241 89 00 0, Fax +49 241 89 00 5199, mist-elimination@munters.com

Munters Corporation, 210 Sixth Street SE, P.O. Box 6428, 33911 Fort Myers FL, USA. Phone +1 239 936 1555, Fax +1 239 936 8858, moreinfo_me@americas.munters.com

www.munters.com

Australia Munters Pty Limited, Phone +61 2 6025 6422, **Austria** via Munters Euroform GmbH, **Brazil** Munters Brasil Industria e Comercio Ltda, Phone +55 41 3317 5050, **China** via Munters Euroform GmbH, **Denmark** via sales organization in Sweden, **Finland** Munters Oy, Phone +358 9 83 86 030, **France** Munters France S.A., Phone +33 1 34 11 57 50, **Germany** Munters Euroform GmbH, Phone +49 241 89 00 0, **India** via Munters Euroform GmbH, **Indonesia** Munters, Phone +62 21 9105 4467, **Italy** via Munters Euroform GmbH, **Japan** via Munters Euroform GmbH, **Kingdom of Saudi Arabia and Middle East** via Munters Euroform GmbH, **Korea** via Munters Euroform GmbH, **Mexico** Munters Mexico, Phone +52 818 262 54 00, **Norway** via sales organization in Sweden, **Russia** Munters Europe AB, Phone +7 812 448 5740, **South Africa and Sub-Sahara Countries** Munters (Pty) Ltd., Phone +27 11 997 2000, **Spain** via Munters Euroform GmbH, Office Barcelona, Phone +34 93 688 1017, **Sweden** Munters Europe AB, Phone +46 8 626 63 00, **Thailand** Munters Co. Ltd., Phone +66 2 645 2708 12, **United Kingdom** Munters Ltd., Phone +44 845 644 3980, **USA** Munters Corporation Fort Myers, Phone +1 239 936 1555, Munters Corporation **Export & Other countries** Munters Euroform GmbH, Phone +49 241 89 00 0.

Your closest distributor