DPV Vane type separator



Munters DPV is a double pocket type vane type separator for service in high velocity and high liquid removal applications.

It is part of Munters series of high performance vane type separators (DH5000 and DPV) with elevated K-values.

Specially designed drain channels collect the liquid which flows away under the influence of gravity. So-called double pocket vane type separators drain the captured liquid inside separate making it impossible for the liquid to escape.

The requirements of specific applications can be achieved through different configurations. The DPV is available as a vane type separator with 6 or 8 passes.

Typical applications

- Olefin plants
- Ammonia plants
- Natural gas processing plant
- Separation in pulsating gas flows

PRODUCT INFORMATION DPV – double-pocket vane type separator

• Cross Flow Drainage

Collected liquid drains at 90° to the gas flow, to minimize reentrainment and to allow higher operating velocities

• High liquid load & High velocity

DPV drains high amounts of liquid properly functions with greater overall efficiency at higher velocities

• Durability

The standard material for Munters' DPV high- mist eliminator vanes is stainless steel DIN1.4571 (316Ti). Special materials are available upon request. Housings and vessels can be made of stainless and carbon steel and various alloys.





Performance data

All technical performance data apply for a system air / water at 20 °C and 1 bar. The limit drop size represents a performance characteristic of the profile. At the relevant velocity and operating conditions, it is the size of the smallest droplet that is completely separated.

The pressure loss of a mist eliminator should be as low as possible, in order to ensure favourable operating costs.

The separation efficiency specifies how much liquid the mist eliminator removes from the gas flow. It is customary to specify a maximum permissible inlet load and a guaranteed level of residual liquid content downstream of the eliminators.

Materials

- Stainless steel alloys 304,
 316Ti,316L, 321; DIN 1.4301,
 DIN1.4404, DIN 1.4541, DIN 1.4571
- Special material available upon request

Scope of supply

The **DPV** is available as

- 6 pass (DPV-6) or 8 pass (DPV-8) vane type separator
- Framed pack for installation as internal
- Single stage separator in combination with a pressure vessel

Material certificates can be delivered for most materials upon request. Pressure loss, limit drop sizes and fractional efficiency curves for given operating data are delivered upon request.

Order information

Specific shapes and dimensions available on request. For more technical information, please contact your nearest Munters office.



Limit drop size DPV

6

Face velocity [m/s]

8

35

30

Droplet diameter [µm] 10 10

5

0

0

2

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Vertical vessel with a Munters IDM inlet distributor and a DPV-6 vane type separator.

Pressure loss DPV

6

Face velocity [m/s]

10

DPV-6

DPV-8

18

16

14

12

10

8

6

Pressure loss [mbar]

10

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Munters reserves the right to make alterations to specifications, quantities, etc., for production or other reasons, subsequent to publication.

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