DS 8000 Spin vane separator



DS 8000 is a series of spin vane separators removing droplets for both vertical and horizontal gas flow. The equipment has especially been designed for separating larger amounts of coarse droplets at higher gas velocities from the gas stream. A ring of spin vanes set the gas flow in rotation. As a result, the liquid droplets are spun outwards, impinging on the separator wall and are subsequently drained off in an annular compartment. The liquid then flows through a discharge pipe and out of the system. The simple design renders the eliminator insensitive to deposits.

DS 8000 series

DS 8200

- Can be used for both vertical and horizontal flow
- Particularly suitable for coarse particles in flows with plugging risks and extremely high face velocities
- Self cleaning effect through rotation of liquid in drain chamber
- Insensitive to deposits
- Equipped with flushing/cleaning systems for plugging sensitive applications
- Available in PE, PP, PVC, FRP stainless steel, standard steel

Special materials available on request

DS 8300

- Vertical flow spin vane separator
- Reliable construction with drainage at several points
- Particularly suitable for high face velocities
- Insensitive to deposits
- Space saving, lean system design
- Removes droplets larger than 80 microns independent from the size
- Available in PE, PP, PVC, FRP stainless steel, standard steel

Special materials available on request



DS 8200

The DS 8200 is designed for both horizontal and vertical flows. It removes a coarse particle spectrum that contains contaminants, thus it can handle gas flows with a tendency of plugging risks. It is used for gas velocities up to 8 to 12 m/s. Self-cleaning effect through the rotation of liquid in the drain chamber of the equipment. In case the application comprises a risk of plugging the eliminator, the equipment comes with an integrated cleaning device. The equipment can eliminate excessive amount of liquids.



Target applications

Feed gas

containing

and solids

liquid droplets

Chimney fitting to prevent the discharge of condensate droplets, behind wet cleaning facilities involving solid and fibrous fractions, behind exhaust air scrubbers.

Performance

The following points represent the main criteria in assessing a mist eliminator:

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. Typically

Limit drop size of DS 8200 at 8 m/s 120 110 -imit drop size [µm] 80 60 40 20 0 ∟ 0 150 250 50 100 200 Diameter of separator [cm]

either a removal percentage or a rest content of liquid is specified.

Materials

- Polypropylene, PVC, glass-fibre reinforced plastic, stainless steel.
- Special material available upon request.

Pressure drop DS 8200



Scope of supply

The DS 8200 separator is supplied as a complete unit, ready for installation.

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.

DS 8300

The DS8300 provides a high efficiency, because it makes use of several elimination stages. The fixed blade ring collects the majority of liquid and drains it down by gravity. Special channels in the blade structure discharge the remaining liquid through an opening towards the outer drain chamber. Liquid droplets passing this mechanism will be impinged against the surface of the inner ring structure, where open slots drain the remaining liquid away.

The unit is typically used for velocities up to max. 12 m/s. Efficiency is fairly independent from the size and it removes droplets larger than 80 µm.



Target applications

Chimney fitting to prevent the discharge of condensate droplets, behind wet cleaning facilities involving solid and fibrous fractions, behind exhaust air purification.

Performance

The following points represent the main criteria in assessing a mist eliminator:

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. For this eliminator, it is customary to specify a







separation level as a percentage of the inflowing volume of liquid for all droplets that are larger than the limit drop size.

Materials

- Polypropylene, PVC, glass-fibre reinforced plastic, stainless steel.
- Special material available upon request.

Scope of supply

The DS 8300 separator is supplied as a complete unit, ready for installation.

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.



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