

# DF 2800

## Droplet Separator



DF 2800 is a ready-to-install droplet separator for use in many application areas. It is available fit a wide range of operating conditions.

DF 2800 droplet separator provides high efficiency droplet separation and extreme low pressure drop even at medium face velocities giving energy saving operation.

The droplet separator can be configured to most individual performance and installation situations, providing a cost effective solution.

DF 2800 droplet separator is an excellent choice for keeping rain, mist and larger fog water droplets out of building or marine ventilation systems. This helps to reduce corrosion, to increase filter lifetime and to reduce moisture throughout the system.

DF 2800 droplet separator is designed for use in many applications and for an easy integration into the superstructure. The unit is suitable for use at face velocities between 1 and 4 m/s.

### Separation technology

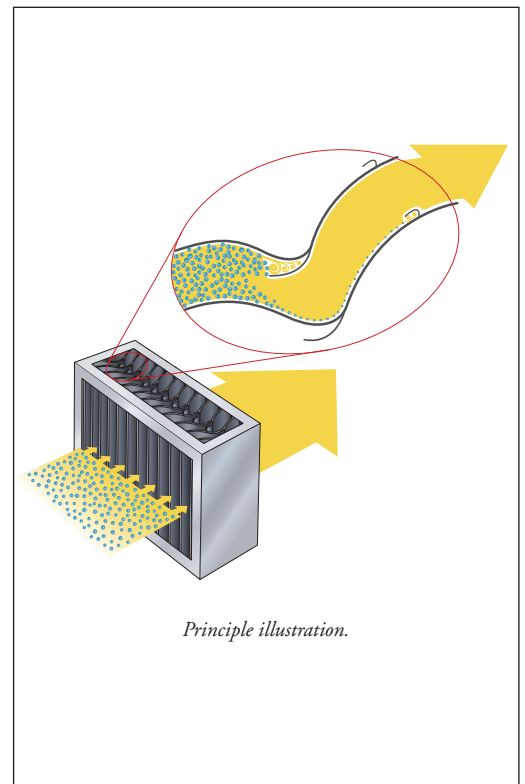
The streamlined separator deflects the droplet laden gas stream, as a result the momentum of the droplets causes them to impinge onto the profile surface. The droplets coalesce together and form a liquid film, the influence of gravity causes the liquid to drain to the bottom of the profiles. Specially shaped separation chambers improve performance by enhancing the separation of finer droplets and ensuring problem free discharge of liquid.

To avoid “flooding” of the profiles and the possibility of re-entrainment of the separated liquid, the height of the profile sections, droplet separators is normally limited to 2,000 mm.

### EQUIPMENT

## DF 2800

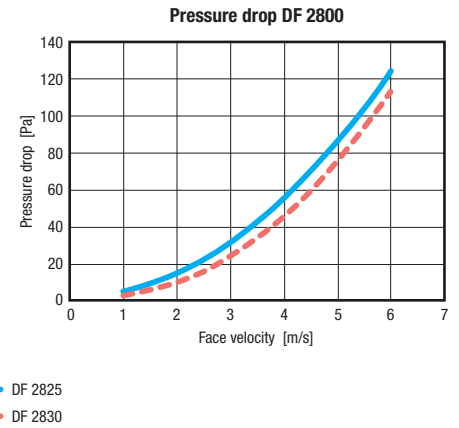
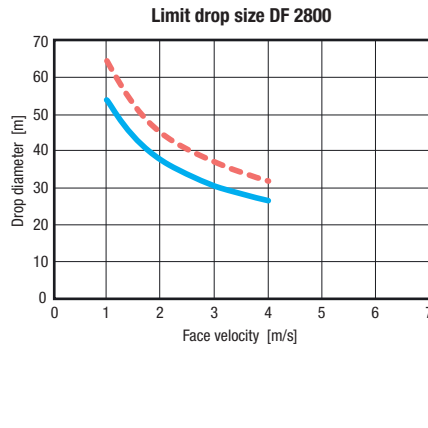
- High separation efficiency
- Extremely thin design (97 mm)
- Very low pressure drop leading to lower operating costs
- Corrosion resistant
- Cost effective due to standardization
- Very easy installation
- Low maintenance cost due to simple operating principle and long lifetime
- Wide face velocity range
- Tailor made sizes and designs
- Hygienic design
- In house ISO 9001 certified manufacturing



## Performance

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 diagram showing limit drop size has been calculated for an air/water system at 20 °C and 1 bar.

The pressure drop is measured at ambient conditions (20 °C and 1 bar) through a number of assembled profiles and under ideal conditions.



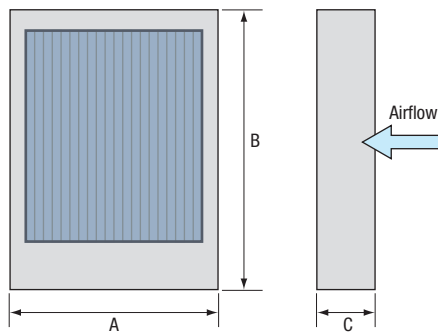
## Liquid load

Maximum liquid load is fully sufficient for removing rain and spray completely, even under harsh weather conditions.

## Type, material and dimension specifications

Type code	Material		Width*** A mm min-max	Height*** B mm min-max	Depth C mm	Operating temp °C min-max
	Frame**	Profile				
7a	AlMg3*	AlMgSi0.5*	300-2,000	300-2,000	97	-

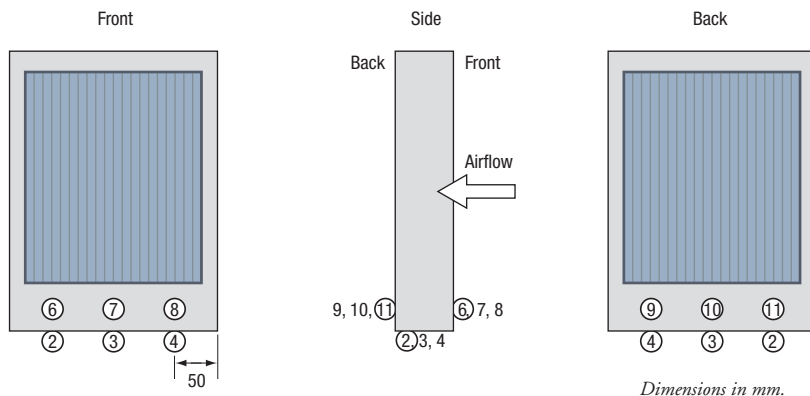
AlMg3 Aluminium alloy  
AlMgSi0.5 Aluminium alloy  
With PPTV spacers.



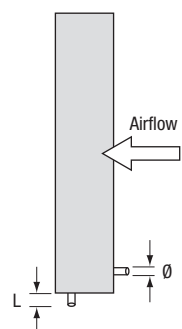
- \* Anodised or coloured material on request.
- \*\* All frames can be painted on request (specify RAL code).  
All frames powder coated on request.
- All frames can be brushed to give a frosted appearance.
- \*\*\* Standard tolerance on width and height: +0, -5 mm.

## Drainage positions

Code for drainage position, put P before the position number, e.g., P9 or P6,8,9,10 if more outlets are to be used.



Drawing for fittings  
(see next page).

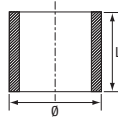


Dimensions in mm.

## Fittings specifications

For aluminium frames  
Tubes

Fitting code	Ø mm	L mm
A1	16	50
A3	30	50
A4	42	50
A6	65	75



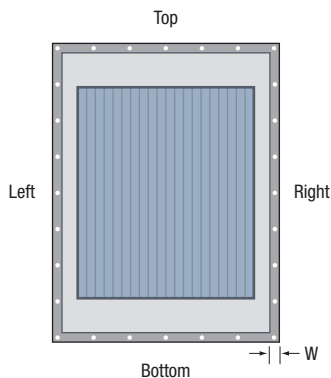
Material *AlMgSi0.5* or *AlMg3*.

*N.B. The required cross-section of the water outflow depends on both application and liquid load. Most frequently used fitting sizes are 30 mm (A3) and 42 mm (A4).*

## Flanges specifications

Flange code	Position
F3	All sides front
F6	All sides back

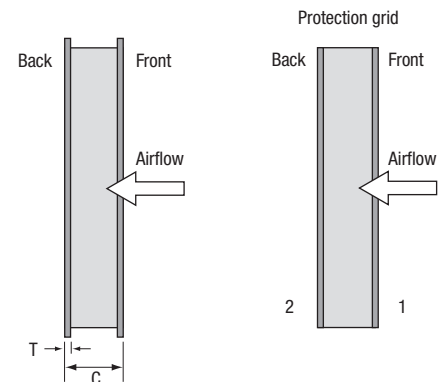
Thickness, T	
code	mm
T4	4
Width, W	
code	mm
W60	60



## Hole configuration

Code	According to
FL0	Without drillings
FL1	DIN24193
FL2	Eurovent
FL3	Norsok
FL4	Munters customized*
FL5	

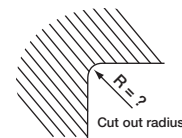
\*Submit information.



## Bird protection grid\*\*

Code	Position
G1	Front
G2	Back

\*\* Openings approx. 12×12 mm  
Wire diameter approx. 2 mm.  
Material *AlMgSi0.5* or *AlMg3*.



Please forward details of the cut out – put R before the dimension in mm.  
e.g. R150

## DF 2800

DF 2800 droplet separator is developed to suit a wide range of applications. The various outfit options cover the most typically occurring installation variations. However, tailor made droplet separators are frequently delivered based on customers' individual specifications.

Material certificates can be delivered for most materials upon request. Fractional efficiency curves for given face velocities are delivered on special request.

For hygienic-proof HVAC equipment DF 2800 droplet separator can be delivered in accordance with the standards VDI 6022, VDI 3803, DIN 1946 (specify H in order code).

## Order information

DF 2800-X-X-X-X-X-X-X-X-X-X

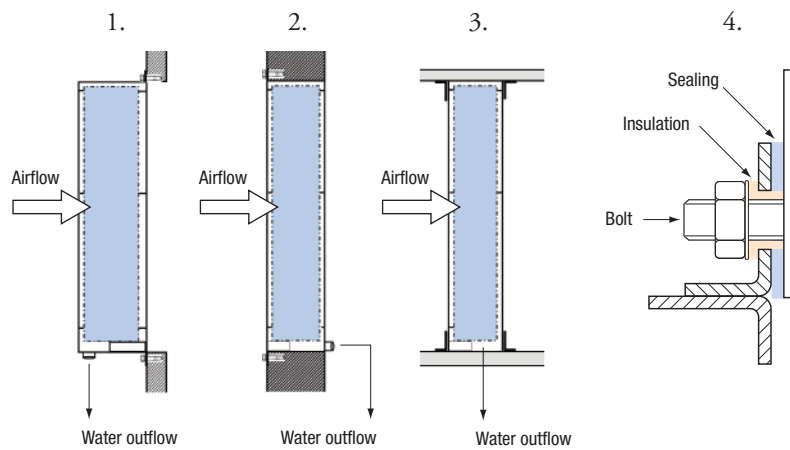
Type code	_____
Width, mm	_____
Height, mm	_____
Drainage position(s) code	_____
Options	Fitting code _____
	Flange position code _____
	Flange thickness code _____
	Flange hole configuration _____
	Flange width code _____
	*Protection grid position(s) code _____
	*Radius code _____

e.g., DF 2800-7a-1820-1200-P6-A4-F3-T4-FL4-W60-G2-R150

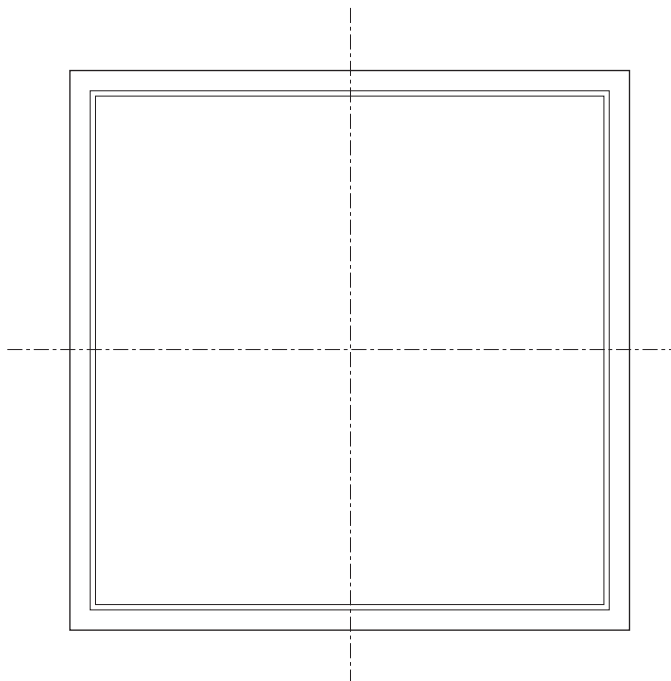
\*Please skip if not applicable

## Examples of installation

1. The droplet separator is flanged onto a wall opening and the water drains vertically outside of the wall.
2. The droplet separator is flanged into a wall opening and the water drains controlled into an internal tray (not shown in the drawing)
3. The droplet separator is installed from inside.
4. Galvanic separation of carbon steel structure from the mist eliminator (made of stainless or aluminium).



## Drill pattern sketch



DF 2800 is developed and produced by Munters Euroform GmbH, Germany.



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