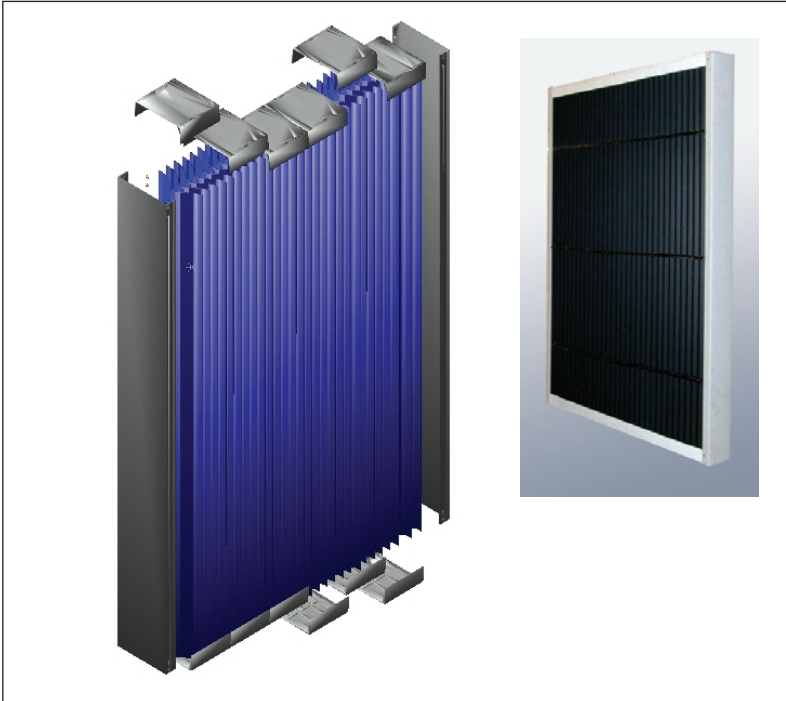


**DFM2100**

# DFM2100

## Modular Droplet Separator



- Modular design
- Very quick and easy assembly
- High separation efficiency
- Wide face velocity range
- Low pressure drop leading to lower operating cost
- Tailor made sizes
- Low maintenance cost due to simple operating principle and long lifetime
- Highest quality material
- In house ISO 9001 certified manufacturing

DFM 2100 is a modular droplet separator system for installation behind cooling coils, in air washers and spray humidifiers. A set of top, bottom and side profiles that are easily connected to each other, build the droplet separator.

The modular system enables assembly and installation of the droplet separator almost without the use of tools.

The cassette-design is ideal for new air duct installations and for retrofitting existing units.

Pitches of both 25 and 30 mm can be accommodated in the same top and bottom profile providing the additional advantage of reduced inventory.

DFM 2100 modular droplet separator provides highly efficient droplet removal combined with low pressure drop, even in high-velocity applications. This means smaller and less cost intensive new equipment installation.

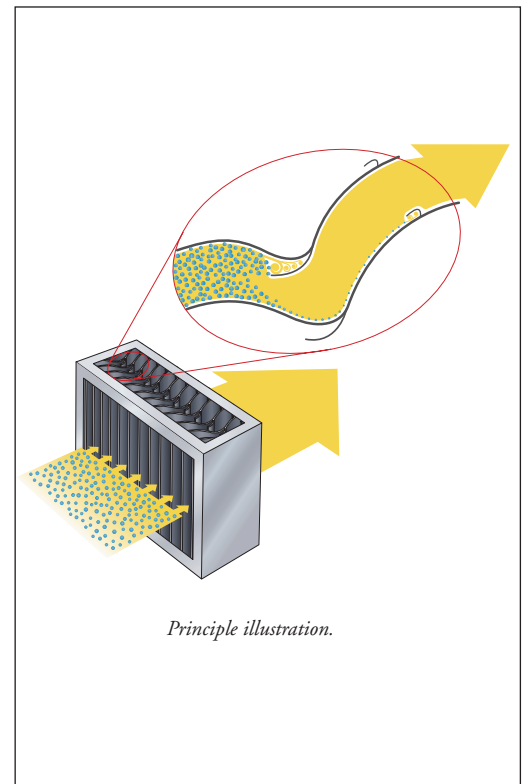
DFM 2100 modular droplet separator pays dividends in reducing corrosion, increasing filter lifetime, and reducing moisture throughout the system.

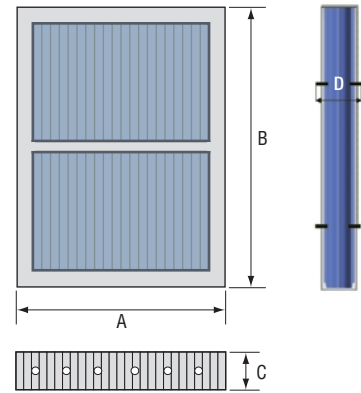
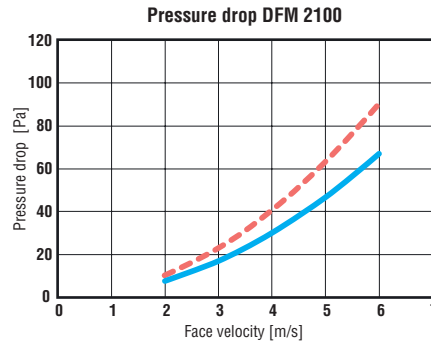
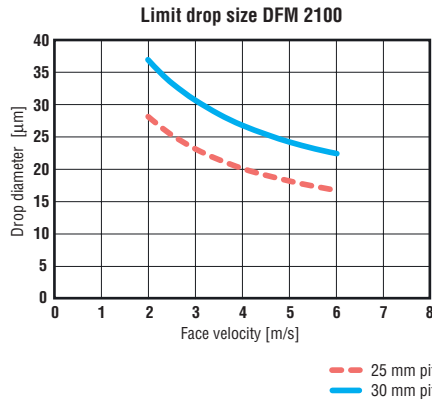
The unit is suitable for use at face velocities between 2 and 6 m/s.

### Separation technology

The streamlined separator profiles deflect 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 drop-lets 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, modular droplet separators is normally limited to 2,000 mm.





## 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 at various pitches/spacing and under ideal conditions.

## Type, material and dimension specifications

Type code	Material		Pitch/spacing between profiles mm	Width* A mm min-max	Height* B mm min-max	Depth mm		Operating temp °C min-max
	Frame**	Profile				C	D	
1b	304/PPTV	PPTV <sub>b</sub>	25, 30	300-1,500	300-2,000	185	200	+5 - +100
1w	304/PPTV	PPTV <sub>w</sub>	25, 30	300-1,500	300-2,000	185	200	+5 - +100

PPTV = Talcum reinforced polypropylene (b = black, w = white)

304 = Stainless steel (AISI 304, DIN 1.4301)

\*Standard tolerance on width and height: ±5 mm. \*\*Top and tray profile = PPTV, side profile = 304.

## Drainage positions



Holes throughout the whole bottom for use with separate housing/tray.

Drainage position	Code
Holes throughout the bottom already cut	P1
No bottom holes	P2

## Order information

### I Ready-to-install unit – R

Ready assembled frames for installation into prepared trays or air ducts.

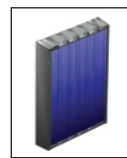
### II Kit for self assembly – K

Cut-to-size components for complete frame – disassembled for small transportation volume – simple and quick assembly, including manual.

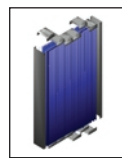
DFM 2100-X-X-X-X-X-X

Version (R or K) \_\_\_\_\_  
 Type code \_\_\_\_\_  
 Pitch/spacing, mm \_\_\_\_\_  
 Width, mm \_\_\_\_\_  
 Height, mm \_\_\_\_\_  
 Drainage code \_\_\_\_\_

e.g., DFM 2100-R-1b-25-650-990-P1



Ready-to-install unit – R



Kit for self assembly – K

### III Volume sales package\*

Standard components – bulk – to be sized and assembled by customer.

\*Top and tray, side and droplet separator profiles form a unique package

#### Droplet separator profile.

DH 2100-PPTV<sub>b</sub>-6000-X

Length, 6,000 mm \_\_\_\_\_  
 Number of profiles \_\_\_\_\_  
 e.g., DH 2100-PPTV<sub>b</sub>-6000-200

#### Top and tray profile.

DFM 2100-TB-X

Number of profiles \_\_\_\_\_  
 Length, 150 mm.  
 e.g., DFM 2100-TB-500

#### Side profile.

DFM 2100-SP-X

Number of profiles \_\_\_\_\_  
 Length, 2,500 mm.  
 e.g., DFM 2100-SP-50

#### Assembly profile (C-profile).

C-X-PPTV<sub>b</sub>-X

Pitch/spacing \_\_\_\_\_  
 25 or 30, mm \_\_\_\_\_  
 Number of profiles \_\_\_\_\_  
 Length, 297 mm.  
 e.g., C-25-PPTV<sub>b</sub>-450

DFM 2100 is developed and produced by Munters Euroform GmbH, Germany.



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