

# FILTERMAX F



Modular dust collector with integrated pre-separator

**FilterMax F** is a complete filter solution for the entire workshop. With its integrated pre-separator the **FilterMax F** is ideal for applications with fume and coarse particles.

**FilterMax F** is an efficient and compact filter with capacity up to 10 000 m<sup>3</sup>/h.

*Improving your workspace*

# With capacity for the entire workshop

**FilterMax F** is a compact and flexible dust collector. With it's integrated pre-separator **FilterMax F** offers the ideal solution for applications where dust and fume are mixed. The wide range of available filter cartridges enables the **FilterMax F** to handle different applications efficiently.

**FilterMax F** contributes to a good working environment and minimizes the environmental impact.

The **FilterMax F** is designed for industrial handling of none explosive dry dust and fume. With it's sturdy design, smooth inner surfaces, optimized angles of repose and digital control system, the filter fulfills stringent demands for continuous operation and effective filtration.

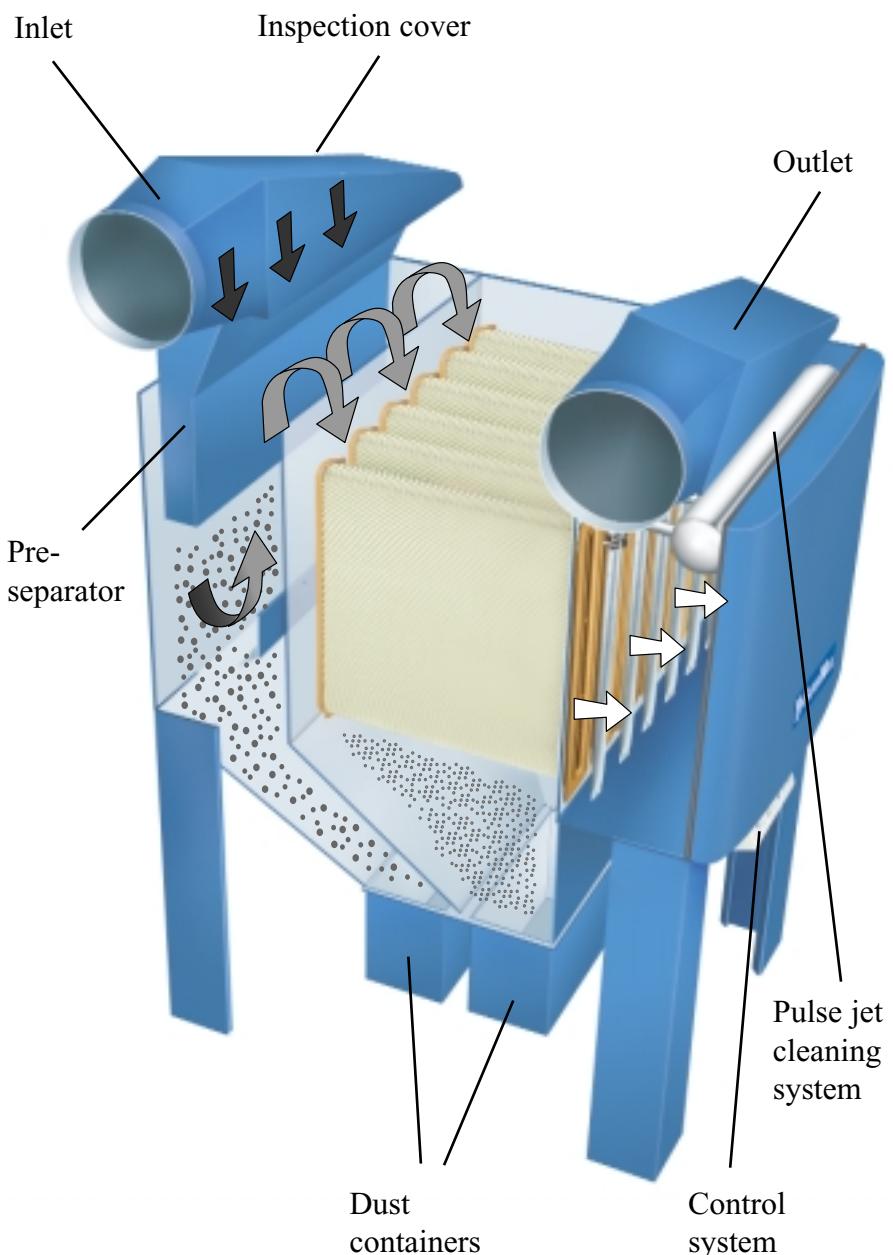
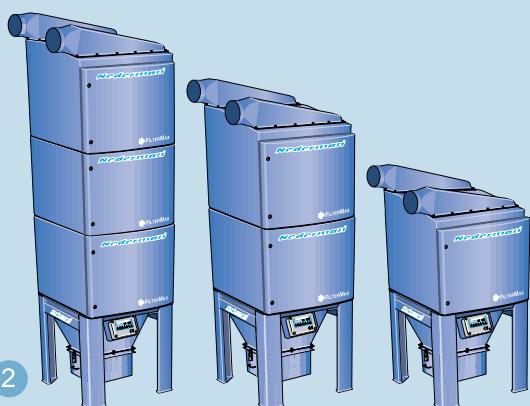
## Automatic cleaning

To simplify use and guarantee optimum performance the **FilterMax F** is equipped with Nederman's automatic control system. The system operates and monitors the cleaning during and after operation.

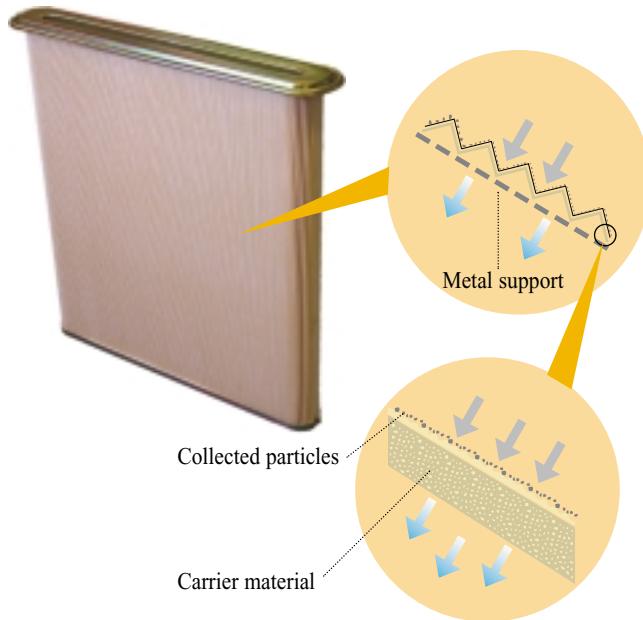
The control system can also function as the central controller in the installation, operating fan, dampers and dust feeding equipment. If the installation fails the FilterMax control system generates different types of alarms depending on the seriousness of the error.

If required it's possible to equip the control system with an additional differential pressure module. The module enables the filter to make optimum use of the compressed air for cleaning.

The control system is built up around a central unit and a 4 wire command and control buss that communicates with the modules.



## Filter cartridge



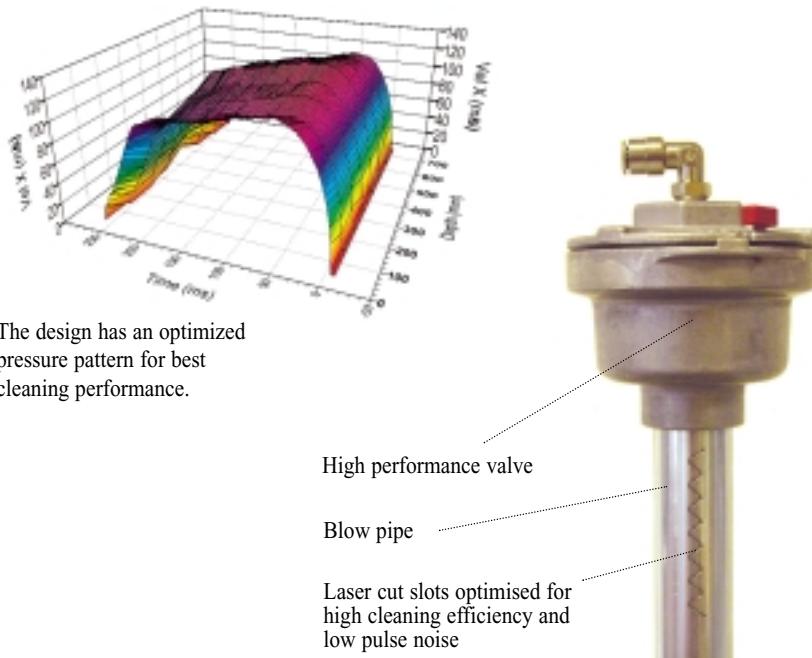
The FilterMax F cartridge is a high performance, compact filter cartridge. The design is optimized for efficient media use and good cleaning properties.

The small inner volume in combination with the air distributing support cage gives efficient cleaning.

Shallow open pleats allows efficient removal of dust. The cartridges are available in different materials.

The flat pocket shaped minimizes the area of the "lost" media on top of the cartridge.

## Pulse-jet cleaning system

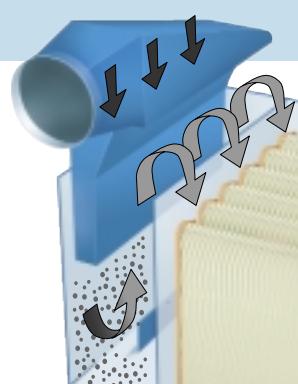


The design has an optimized pressure pattern for best cleaning performance.

A powerful shockwave passes through the filter cartridge during cleaning. The dust is deslodged from the filter surface and the downwards flowing air allows it to fall into the container.

The pulse from the valve is distributed into the cartridge via a unique laser cut zigzag slot along the length of the blow pipe. The effect of the cleaning is further enhanced by the venturi shaped outlet of the cartridge.

The result of the innovative cleaning and cartridge design gives an overall increased efficiency and lower operating costs compared to similar filter units.



## Pre-separator

Compact and efficient integrated pre-separator captures up to 80% of coarse particles and heavy sparks.

# Models

## FilterMax F 30



Model Part No.	FI 30 12603067	FO 30 12603567
No of filter cartridges	6	6
Total filter area	60 m <sup>2</sup>	60 m <sup>2</sup>
Airflow*	1500-3500 m <sup>3</sup> /h	1500-3500 m <sup>3</sup> /h

## FilterMax F 60



Model Part No.	FI 60 12606067	FO 60 12606567
No of filter cartridges	12	12
Total filter area	120 m <sup>2</sup>	120 m <sup>2</sup>
Airflow*	3000-7000 m <sup>3</sup> /h	3000-7000 m <sup>3</sup> /h



## FilterMax F 90

Model Part No.	FI 90 12609067	FO 90 12609567
No of filter cartridges	18	18
Total filter area	180 m <sup>2</sup>	180 m <sup>2</sup>
Airflow*	4500-10000 m <sup>3</sup> /h	4500-10000 m <sup>3</sup> /h

\* Flow capacity depends on the application. Contact your Nederman dealer for further information

FI = Indoor installation  
FO = Outdoor installation

### Please note

Part no. **includes** shut off valve for compressed air and pre-separator.

Does **not include** filter cartridges, inlets, outlets and dust handling system. These items must be ordered separately.

### Technical description

Compressed air pressure	5 (4-6) bar
Compressed air use	70 N-litres/min at 30 sec intervals (35 N-litres/pulse)
Supply voltage	100V, 110V, 230V AC 50/60 Hz
Process air	0° to +60°C, non condensing air
Ambient temperature	-20°C to +40°C
Dimensioned pressure drop	1,200 Pa
Separation efficiency	>99%, weight separation
Pulse noise	50 dB LpAeq, 30s
Protection class	IP54
Working pressure	0 to -5 kPa
Surface treatment **	FI Class 2, primer and top coat 40 + 40 um FO class 4, primer and top coat 40 + 160 um

### Environmental data

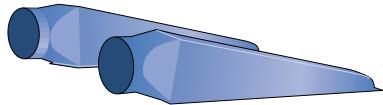
Model	30	60	90
Weight (kg)	630	900	1200
Noise LpAeq			
Pulse	50 dB	50 dB	50 dB
Total	50 dB	63 dB	73 dB
Recovery level, % of weight	94%	93%	93%

\*\* Environmental classes according to EN ISO 12944-2.

# Choose your system parts!

To get a complete system you need to choose your system parts.

## Inlet and outlet



Dim	Inlet		Outlet	
	FI	FO	FI	FO
Part No.				
Ø 250	12372070	12373561		
Ø 315	12372071	12373562	12372057	12373565
Ø 400	12372072	12373563	12372058	12373566
Ø 500	12372073	12373564	12372059	12373567

Inlets are equipped with air distribution vanes and an inspection cover.

## Filter cartridges

### Basic PW, 10 m<sup>2</sup>

#### Part No. 12373161 (6 pack) \*

Dual layer polyester / polypropylene. Suitable for fumes and fine particles. Efficiency 99% at 0.5 µm. With good cleaning properties.



### PolyWeb, 10 m<sup>2</sup>

#### Part No. 12373457 (6 pack) \*

Spun bound polyester.

Suitable for medium to coarse particles.

Washable. Efficiency 99% at 0.5 µm.

### PolyWeb PTFE, 10 m<sup>2</sup>

#### Part No. 12373162 (6 pack) \*

PTFE membrane, laminated to spun bound polyester. Suitable for fine to medium particles. Washable. Efficiency 99.9% at 0.5 µm.



## Dust handling system

Item	FI Part No.	FO Part. No
Container kit, 2 x 40 l	12372140	12373881
Container kit, 2 x 100 l, on wheels, incl. extension legs	12372067	12373897

All container kits contains adapter.

## dP Control kit

Pressure drop controlled cleaning for more efficient operation.

#### Part No. 12373603

\* Only for ordering together with a FilterMax F.  
Part numbers for replacement filters can be found in the manual.

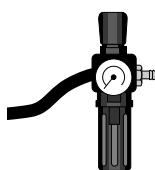
# Accessories

## Filter regulator (compressed air)

Used to set the correct air pressure. Removes both particles and liquid in the compressed air to protect the valves.

Must be placed free from frost.

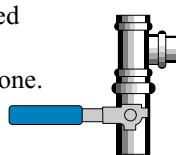
**Part No. 12372064**



## Shut off valve (compressed air)

An air venting type. Should be installed in the compressed air pipe line. Is used to shut off the compressed air supply before any service on the system is done.

**Part No. 12372083**



## Fan Starter / Fan Inverter



A conventional starter for NCF fans.



A modern frequency control for NCF fans in process ventilation systems.

Please contact your Nederman dealer for separate brochure.

## Filter module

Filter module for additional capacity.

**FI**

**Part No. 12373947**

**FO**

**Part No. 12373946**



## Extra dust containers

Item	FI / FO Part No.
Container, 40 l	12373898
Container, 100 l incl lid	12373899

## Pressure switch (compressed air)

Protects the filter from damage during use without compressed air.

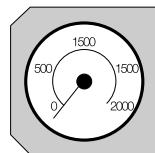
Must not be placed in explosion risk areas.

**Part No. 12372142**



## Pressure gauge kit

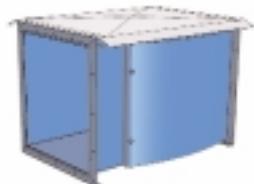
Measures the pressure drop over the filter cartridges. Is mounted on the FILTERMAX stand. Can be combined with a pressure switch to signal LED no. 5, which indicates time to change filter cartridges.



**Part No. 12372063**

## FilterMax SFC - Safety Filter Cabinet

A modular filter cabinet for increased safety and for final filtration.



Please contact your Nederman dealer for separate brochure.

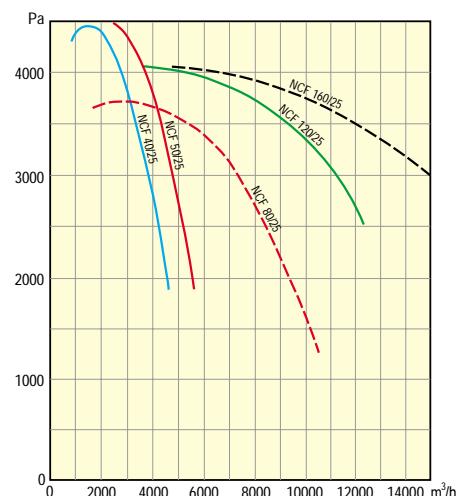
## Fans for FilterMax

Five fans from Nederman NCF range are specially suited for the FilterMax family. NCF 40/25, NCF 50/25, NCF 80/25, NCF 120/25, NCF 160/25.

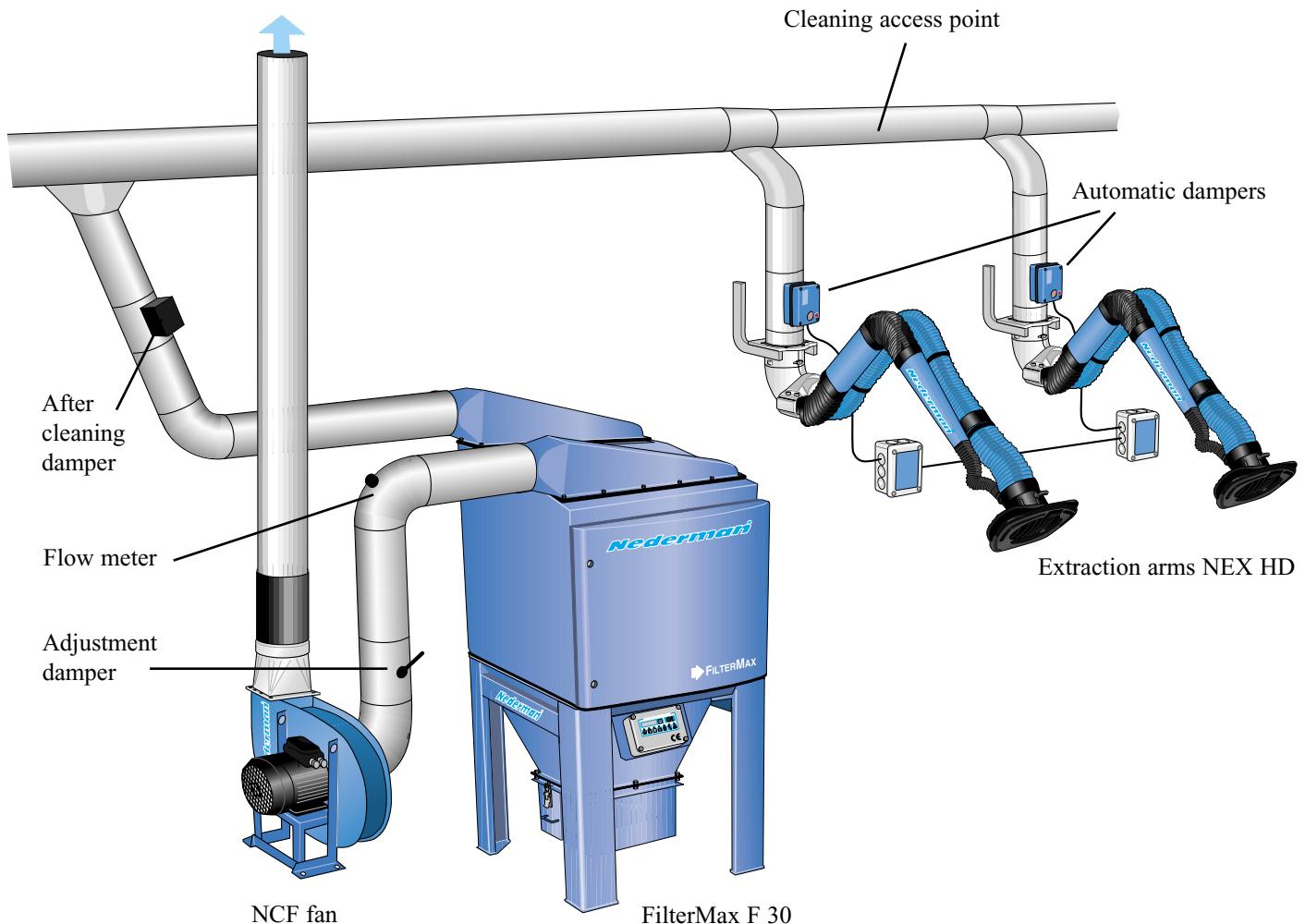


The fans are also available built into a sound absorbing box.

Please contact your Nederman dealer for separate brochure.



# System installation \*



**NB!** To adjust the airflow, a damper in the clean air duct is recommended. As an alternative the airflow can be controlled with Nederman Fan Inverter (accessory).

\* Layout shown for illustration purposes. Individual system parts will vary depending on application.

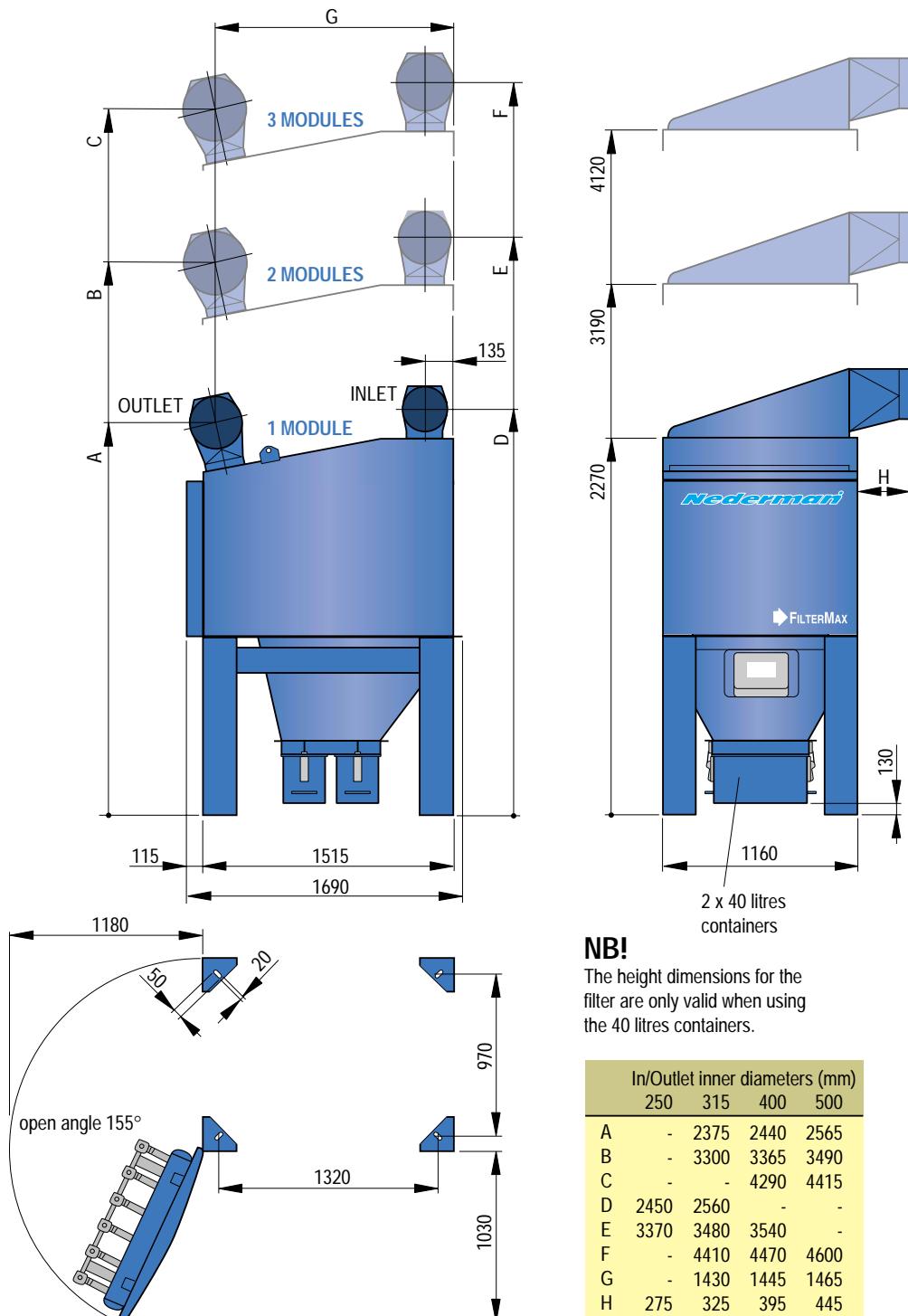
## Recommendations

To avoid pressure losses and dust deposits in the system it is important to use the correct duct diameter. The transport velocity shall be at least 10-12m/s for fume and 15-20 m/s for dust. Take velocity in to account when choosing the duct diameters. The velocity shall never decrease in the system through to the FilterMax. The following duct diameters can be used for the connection to FilterMax.

If the filtered air is to be re-circulated into the facility we recommend that a safety filter is installed.

	Inlet	Outlet
<b>FilterMax F 30</b>	Ø 250/315 mm	Ø 315/400 mm
<b>FilterMax F 60</b>	Ø 315/400 mm	Ø 400/500 mm
<b>FilterMax F 90</b>	Ø 400/500 mm	Ø 500 mm

# Dimensions



The majority of Nederman's products are manufactured within ISO 9001 and ISO 14001-certified system.

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