

# FILTERMAX DF



*Improving your workspace*

**FilterMax DF** is an efficient and compact solution to your dust and fume problems. **FilterMax DF** handles the air pollution from metal industries as well as non explosive

dust from other industries. The filter has the capacity to handle up to 12000 m<sup>3</sup>/h. A wide range of cartridges for different purposes are available.

# FilterMax DF for filtering dust and metal

The **FilterMax DF** is a range of compact, flexible and highly efficient dust collectors. The modular design of the FilterMax DF makes it easy to expand the capacity of an existing installed unit. The modular design makes transport and installation an easy task.

The wide range of available filter cartridges enables the **FilterMax DF** to handle different applications efficiently.

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

The **FilterMax DF** 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 fulfils stringent demands for continuous operation and effective filtration.

## AUTOMATIC CONTROL

To simplify use and guarantee optimum performance the **FilterMax DF** 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 several types of alarms depending on the seriousness of the error.

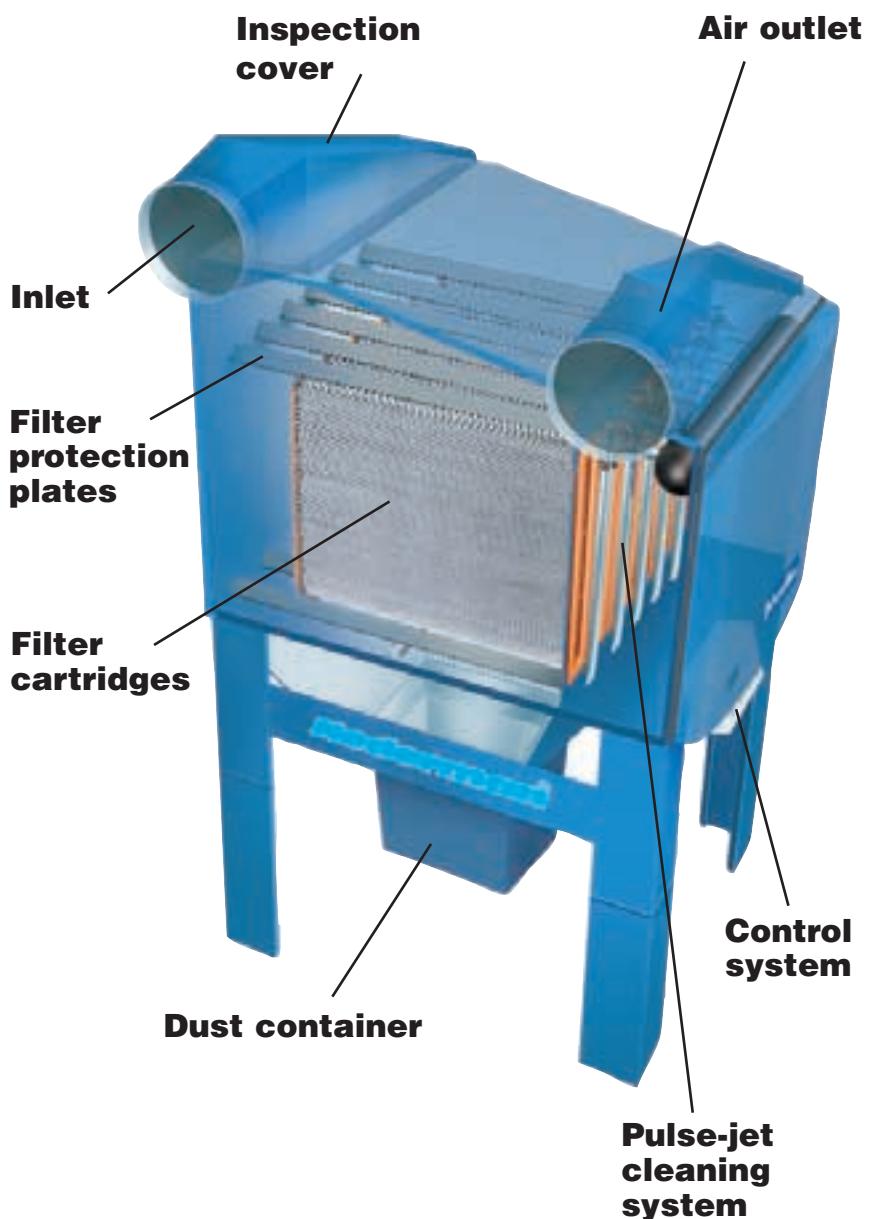
If required it's possible to equip the control system with an additional differential pressure module. The module enables the filter to make optimal use of the compressed air for cleaning. The control system is built up around a central unit and a 4 wire command and control buss that communicates with the modules.



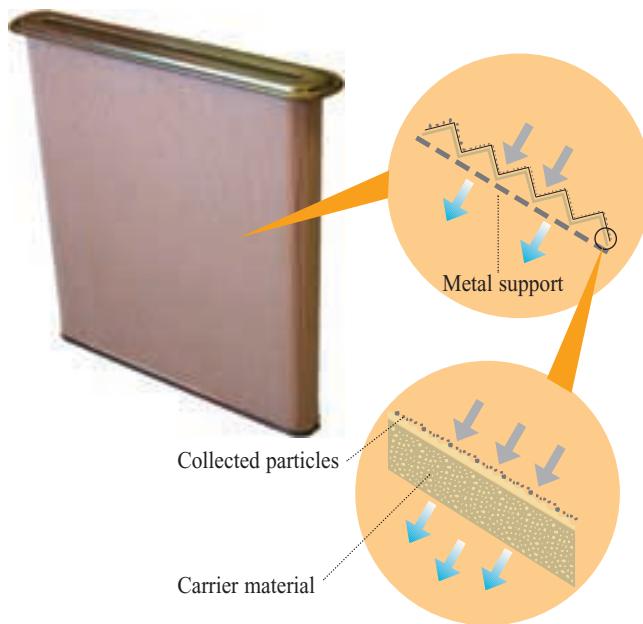
FilterMax DF 120

FilterMax DF 80

FilterMax DF 40



## Filter cartridge



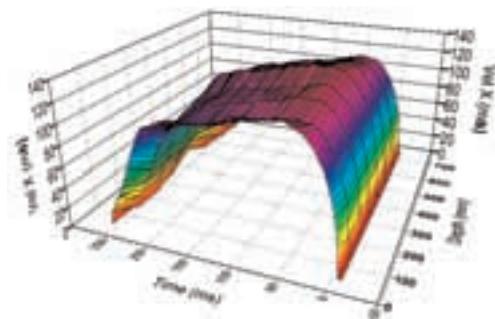
The FilterMax F cartridge is a high performance, compact filter cartridge. The design is optimized for efficient media use and good cleaning properties.

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

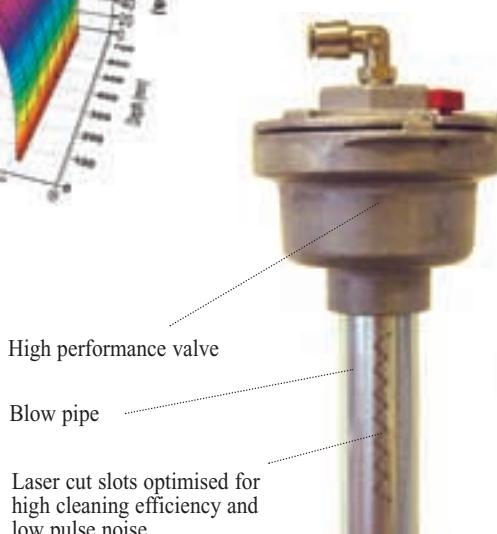
Shallow open pleats allows efficient removal of dust. The cartridges are available in different materials.

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.

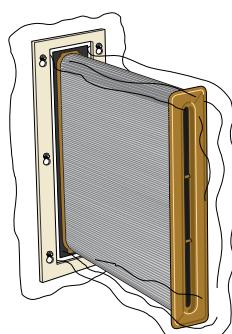


A powerful shockwave passes through the filter cartridge during cleaning. The dust is deslodged from the filter surface and the downwards flowing air allows it to fall into the container.

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.

## Dust-free filter replacement



Waste bags and a sealing flange are supplied with each replacement cartridge pack, for safe and dust-free filter exchange.

# Models

## FilterMax DF 40



Model	DFI 40	DFO 40
Part No.	12620167	12620467
No of filter cartridges	6	6
Total filter area	72 m <sup>2</sup>	72 m <sup>2</sup>
Airflow*	2200-4300 m <sup>3</sup> /h	2200-4300 m <sup>3</sup> /h

## FilterMax DF 80



Model	DFI 80	DFO
Part No.	12620267	12620567
No of filter cartridges	12	12
Total filter area	144 m <sup>2</sup>	144 m <sup>2</sup>
Airflow*	4300-8600 m <sup>3</sup> /h	4300-8600 m <sup>3</sup> /h

## FilterMax DF 120



Model	DFI 120	DFO 120
Part No.	12620367	12620667
No of filter cartridges	18	18
Total filter area	216 m <sup>2</sup>	216 m <sup>2</sup>
Airflow*	6500-13000 m <sup>3</sup> /h	6500-13000 m <sup>3</sup> /h

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

\*\*If antistatic cartridges are used the filter area will be reduced.

**DFI** = Indoor installation

**DFO** = 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 information

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 $^{\circ}$ C to +60 $^{\circ}$ C, non condensing air
Ambient temperature	-20 $^{\circ}$ C to +40 $^{\circ}$ C
Dimensioned pressure drop	1,200 Pa
Separation efficiency	>99%, weight separation (BIA class C)
Pulse noise	50 dB LpAeq, 30s
Protection class	IP54
Working pressure	0 to -5 kPa
Surface treatment ***	DFI Class 2, primer and top coat 40 + 40 um DFO class 4, primer and top coat 40 + 160 um

### Environmental data

Model	40	80	120
Weight (kg)	720	1170	1630
Noise, LpAeq pulse	50 dB	50 dB	50 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	
	DFI	DFO	DFI	DFO
	Part No.	Part No.	Part No.	Part No.
fl 250	12372070	12373561		
fl 315	12372071	12373562	12372057	12373565
fl 400	12372072	12373563	12372058	12373566
fl 500	12372073	12373564	12372059	12373567

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

## Filter cartridges

**Basic PW, 12 m<sup>2</sup>**

**Filter Basic PW-95-12-6**

**Part No. 12373301 (6 pack) \***

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



**PolyWeb, 12 m<sup>2</sup>**

**Filter PW-95-12-6**

**Part No. 12373528 (6 pack) \***

Spun bound polyester.

Suitable for medium to coarse particles.

Washable. Efficiency 99% at 0.5 m.

**PolyWeb PTFE, 12 m<sup>2</sup>**

**Filter PW, PTFE-95-12-6**

**Part No. 12373558 (6 pack) \***

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

**PolyWeb antistatic, 10 m<sup>2</sup>, efficiency 99%**

**Part No. 12372749 (6 pack) \***

**PolyWeb antistatic PTFE, 10 m<sup>2</sup>, efficiency 99.9%**

**Part No. 12373337 (6 pack) \***

Antistatic spun bound polyester. Suitable for ignition sensitive, medium to coarse dust. Washable.

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



## Dust handling system

Item	DFI Part No.	DFO Part. No
Container kit, 50 l	12373549	12373550
Container kit, 100 l, on wheels	12373572	12373571
Rotary air lock dust feeder kit	12373574	12373573

All container kits contains adapter and suitable extension legs.

Rotary air lock dust feeder kit



## dP Control kit

Pressure drop controlled cleaning for more efficient operation.

**Part No. 12373603**

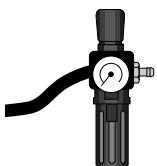
# Accessories

## 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.

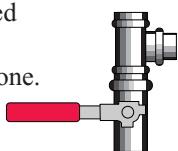
Part No. 12372064



## 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.

DFI

Part No. 12373659

DFO

Part No. 12373660



## Extra dust containers

Item	DFI Part No.	DFO Part No.
Container, 50 l	12373482	12373547
Container, 100 l incl lid	12372655	

## Pressure switch (compressed air)

Protects the filter from damage during use without compressed air.

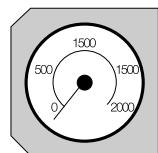
Must not be placed in explosion risk areas.



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 in connection with recirculation.



Please contact your Nederman dealer for separate brochure.

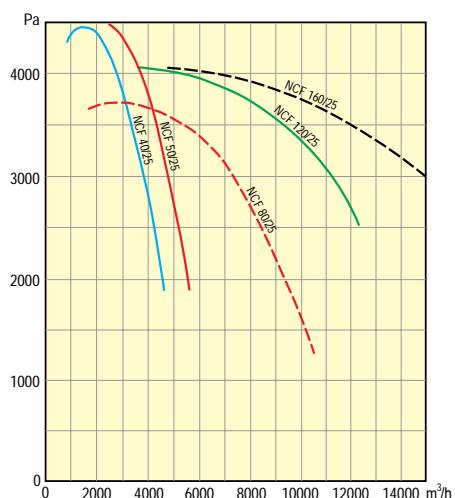
## Fans for FilterMax

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.

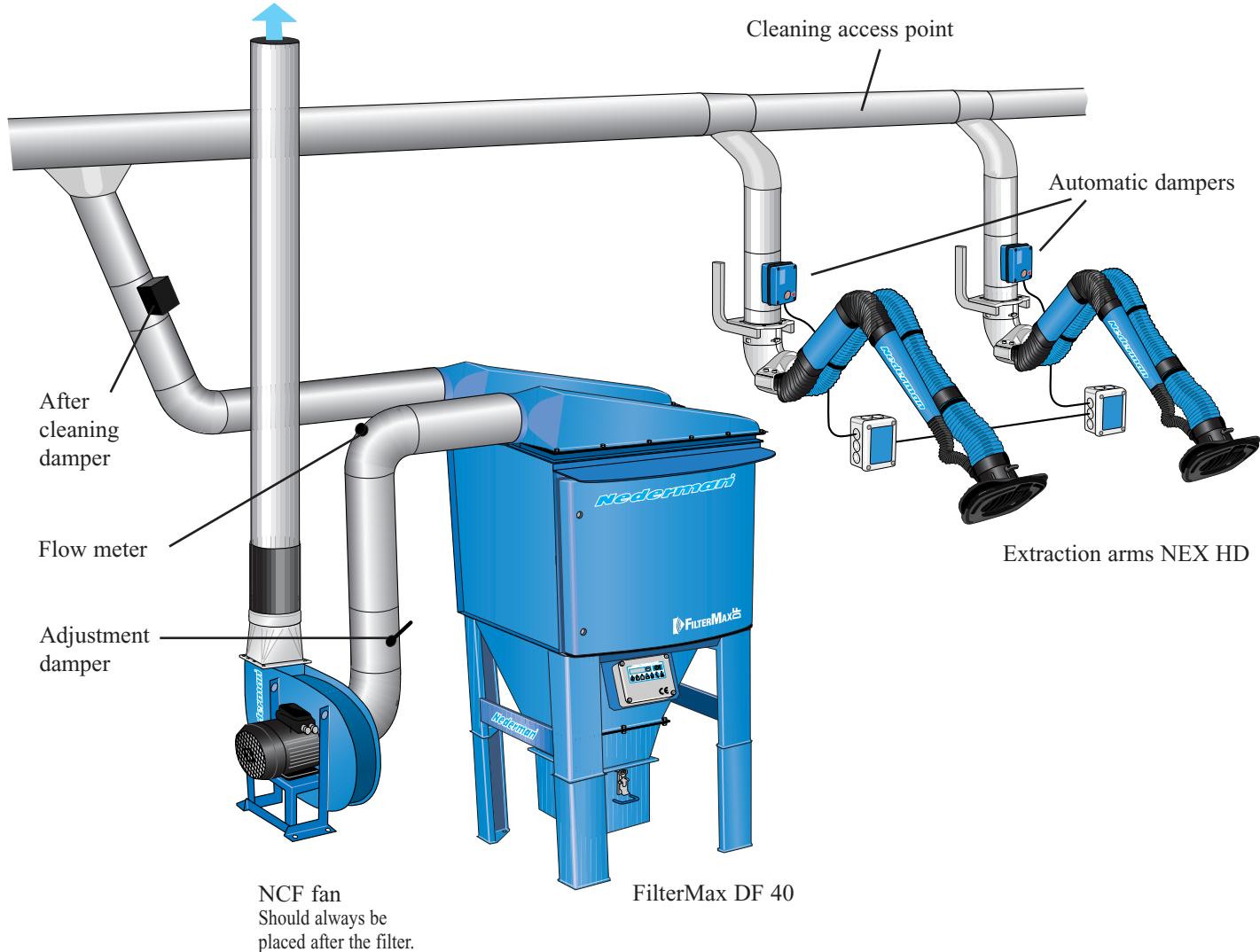


The fans are also available built into a sound absorbing box.

Please contact your Nederman dealer for separate brochure.



# System installation \*



## Recommendations

To avoid pressure losses and dust deposits in the system it is important to use the correct duct diameter. The transport velocity must be, depending on the application, 12-20 m/s. Take velocity into account when choosing the duct diameters. The velocity must never decrease on the way to the FilterMax. Use large radius bends and 30° branches.

If the filtered air shall be recirculated, we recommend that you install a safety filter between the fan and the FilterMax, for example the FilterMax SFC.

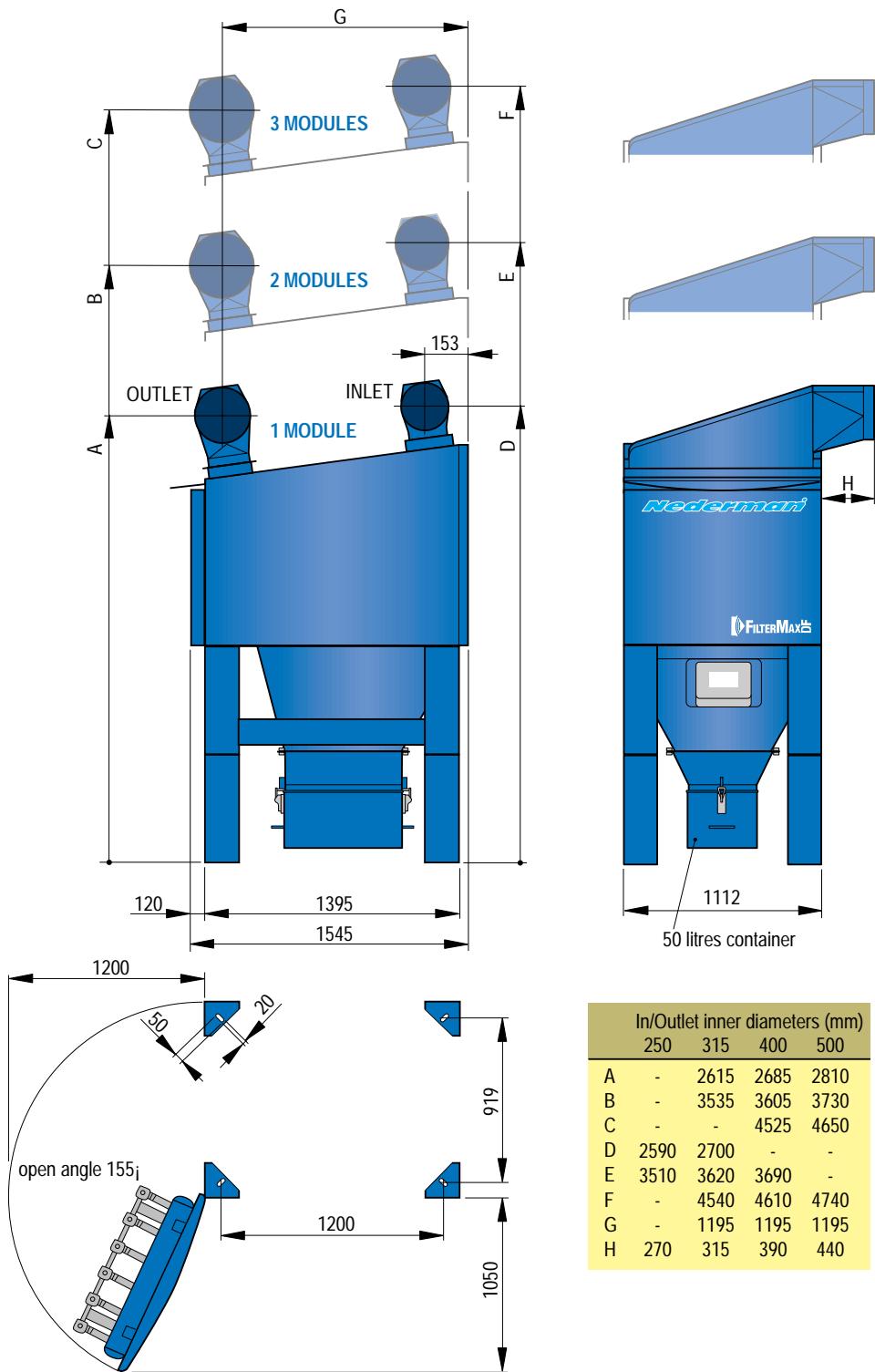
Take the fire risk into account when you are working with oily materials or thermal cutting.

Use a pre-separator/spark trap if there is a risk of sparks reaching the filter (grinding, cutting).

Use pre-coating and install a fire extinguisher system if you are working with a heavily oiled material.

	Inlet	Outlet
<b>FilterMax DF 40</b>	fl 250/315 mm	fl 315/400 mm
<b>FilterMax DF 80</b>	fl 315/400 mm	fl 400/500 mm
<b>FilterMax DF 120</b>	fl 400/500 mm	fl 500 mm

# Dimensions



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

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