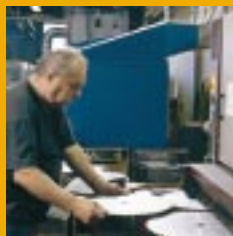


# FILTERMAX



Module filter for extraction systems



 **FILTER MAX**



# FilterMax – a better environment for both work and leisure!

“I don’t want to inhale all the fumes and particles we extract at work during my leisure time!”

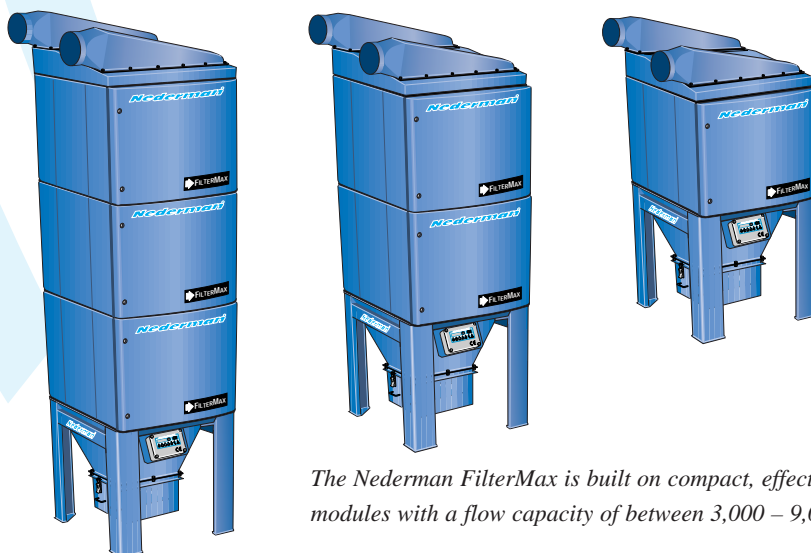
Nederman has been developing products and know-how for improving the work environment for people for many decades. Extracting pollutants such as welding fumes and particles before they reach the respiratory breathing zones is essential within industrial production. It must be just as obvious to filter the air before it is released, otherwise the problem is just passed over to leisure time and future generations.

## FilterMax has enough capacity for the whole workshop

The Nederman FilterMax is a module filter system for the extraction plant of the entire workshop. Each module has a filter surface of 60 m<sup>2</sup> and manages air flow up to 3,000 m<sup>3</sup>/h. Thanks to its compact, effective design, FilterMax takes up only 2 m<sup>2</sup> of floor space.

## Automatic cleaning system

To simplify use and guarantee maximum performance, FilterMax has fully-automatic cleaning. The pulse-jet system injects short, powerful jets of air against the filter cartridges. The dirt is released from the surface of the filter and falls down into the collecting bin. The pulse-jet cleans the cartridges in sequence while the filter is in use, which gives continuous and maximum filtering effect. The only maintenance required is emptying of the collecting bin which comes in 40 and 100 litre sizes.



*The Nederman FilterMax is built on compact, effective modules with a flow capacity of between 3,000 – 9,000 m<sup>3</sup>/h.*

# Effective filtering with u



With FilterMax the user is placed in the centre. Large capacity and high collecting efficiency give a trustworthy and effective filtering plant. The pulse-jet system keeps the plant in optimal condition without troublesome maintenance, and the module system offers great flexibility.

## 1. Inlet air adapter

Inlet air unit with built-in vanes that distribute the air equally over the whole width of the module. There are connectors for 250, 315, 400 and 500 mm diameter ducts.

## 2. Preseparator

The flow speed is increased in the nozzle of the preseparator. The air flow deflects upwards in the chamber and larger particles are separated and fall down into the collecting bin. An ingeniously simple preseparation method without moving parts.

## 3. Filter package

Six replaceable cartridges give a total filter surface of 60 m<sup>2</sup>. You can choose between standard filters or PTFE filters for plasma applications etc. Efficiency: Standard filters 99,0% at 0,3 µm. PTFE-filters 99,9 % at 0,3 µm.

## 4. Pulse-jet system

Nederman's unique pulse-jet system builds up high air pressure which is then injected onto the inside of the filter surface in a fraction of a second. A short counter-pressure then presses out the particles from the surface of the filter and they fall down into the collecting bin. Pulse-jet cleans the filter cartridges in sequence during continual use. You get an optimal, even filtering of the intake air regardless of load and operation time.

## 5. Outlet air adapter

The filtered air is led out via a outlet air adapter connected to the system fan. The air is evacuated out of the building. In some cases the filtered air can be returned to the building where it can give considerable energy savings. Even the outlet air adapter comes in different sizes for connection to 315, 400 and 500 mm diameter ducts.

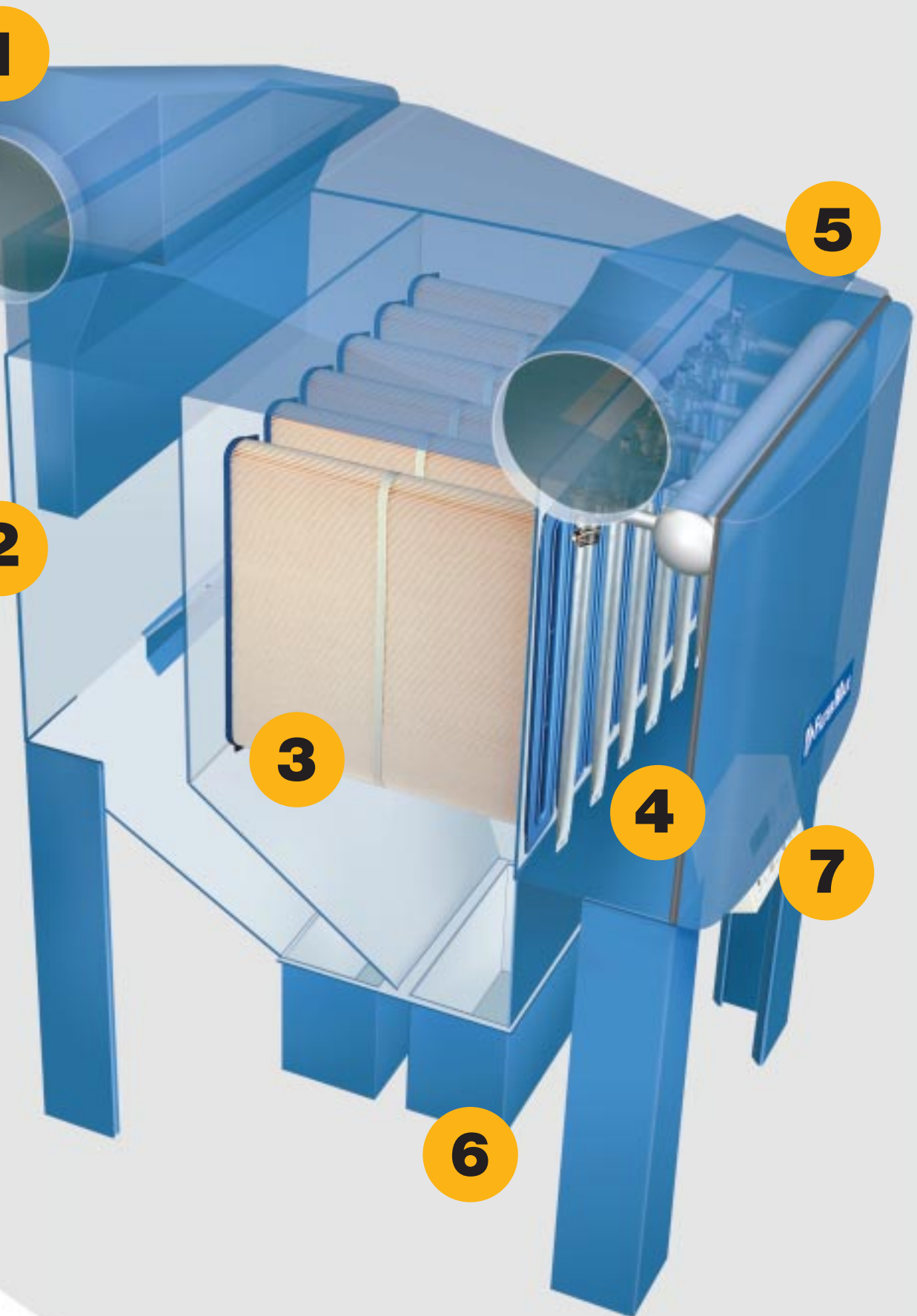
## 6. Collecting bins

The only maintenance FilterMax normally needs is emptying of the collecting bins, which is simple and easy with the help of a hand truck. The collecting bins come in both 40 and 100 litre sizes.

## 7. Control box

All the functions are controlled via the control box, which also gives continuous status reports. Any faults that occur are immediately displayed via the panel. The control box even comes in a more advanced design with a whole host of built-in special functions.

# unique pulse-jet cleaning



# FilterMax – the system so

FilterMax is a complete filtering solution for the entire workshop. Irrespective of whether you extract welding fumes or particles, use the extraction arms or the firm, built-in capturing hoods, FilterMax modules are dimensioned into an effective, well-balanced filter. For smaller workshops you choose 1, 2, or 3 modules for flow up to 9,000 m<sup>3</sup>/h. In larger workshops the extraction points are divided into several ducts, each of which is connected to a FilterMax unit with the correct number of modules. With a large flow, this solution offers cheaper operation than one large filter.

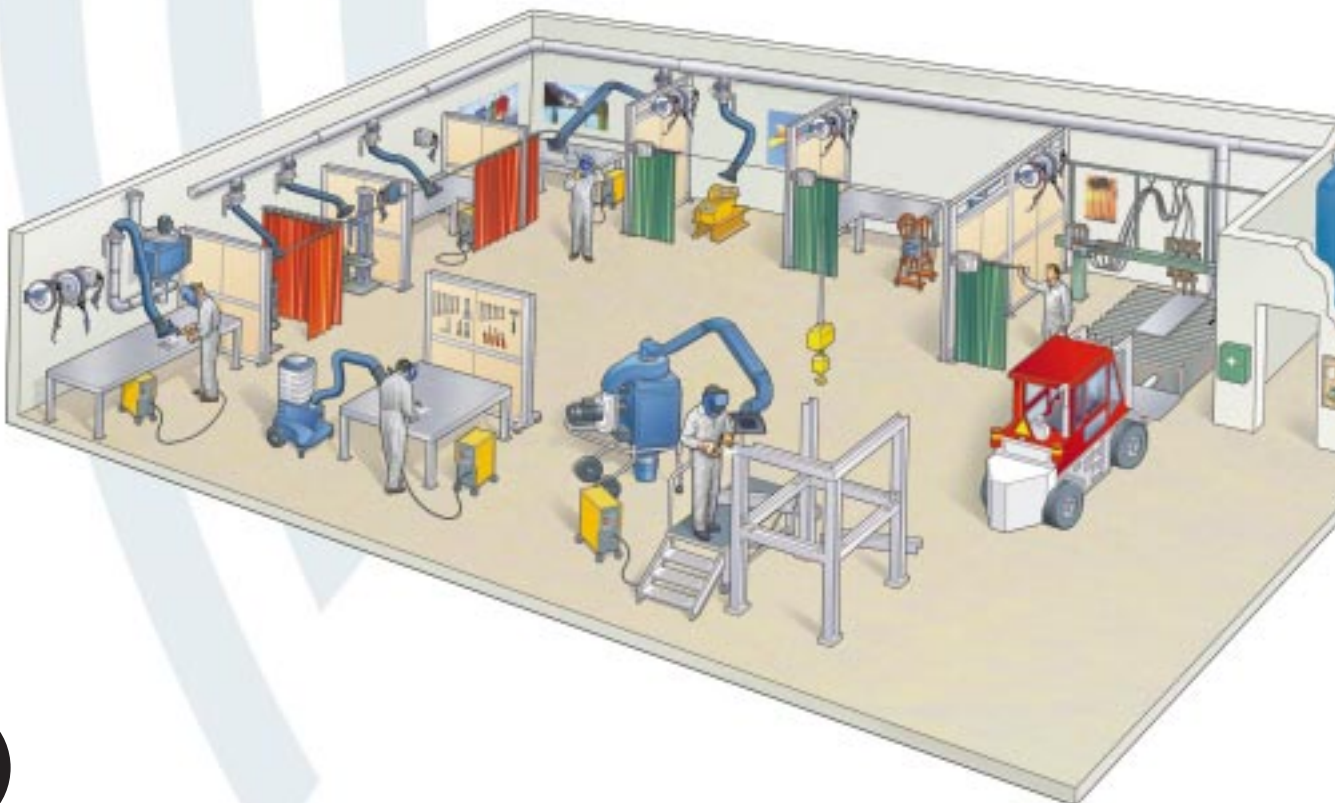
## NCF fans and fan operation

Parallel with the development of FilterMax, three NCF fans have been manufactured which are adapted to the flow of the filter modules. For installation of the fan, starting equipment, such as the Nederman Fan Starter is required.

For plants with many extraction points and alternating flow, the Nederman Fan Inverter is recommended instead of Fan Starter. This measures the under-pressure in the ventilation ducts via a pressure sensor and adapts the rotational frequency of the fan according to the actual flow requirements. This is a solution that reduces wear and tear of the filter cartridges, gives a better sound level at the same time as it reduces operating costs.



*FilterMax is the ideal filtering solution for large metal-working industries. A large number of extraction arms or machines can be connected via the central system. The flow is best controlled via the Nederman Fan Inverter for optimal operating costs and even suction power.*



# Solution for fumes and dust



*Swedish Saw Blades manufacture saw-blades with very high precision. With FilterMax they have managed to eliminate grinding dust on the blades, which had earlier caused problems with distortion at tempering.*

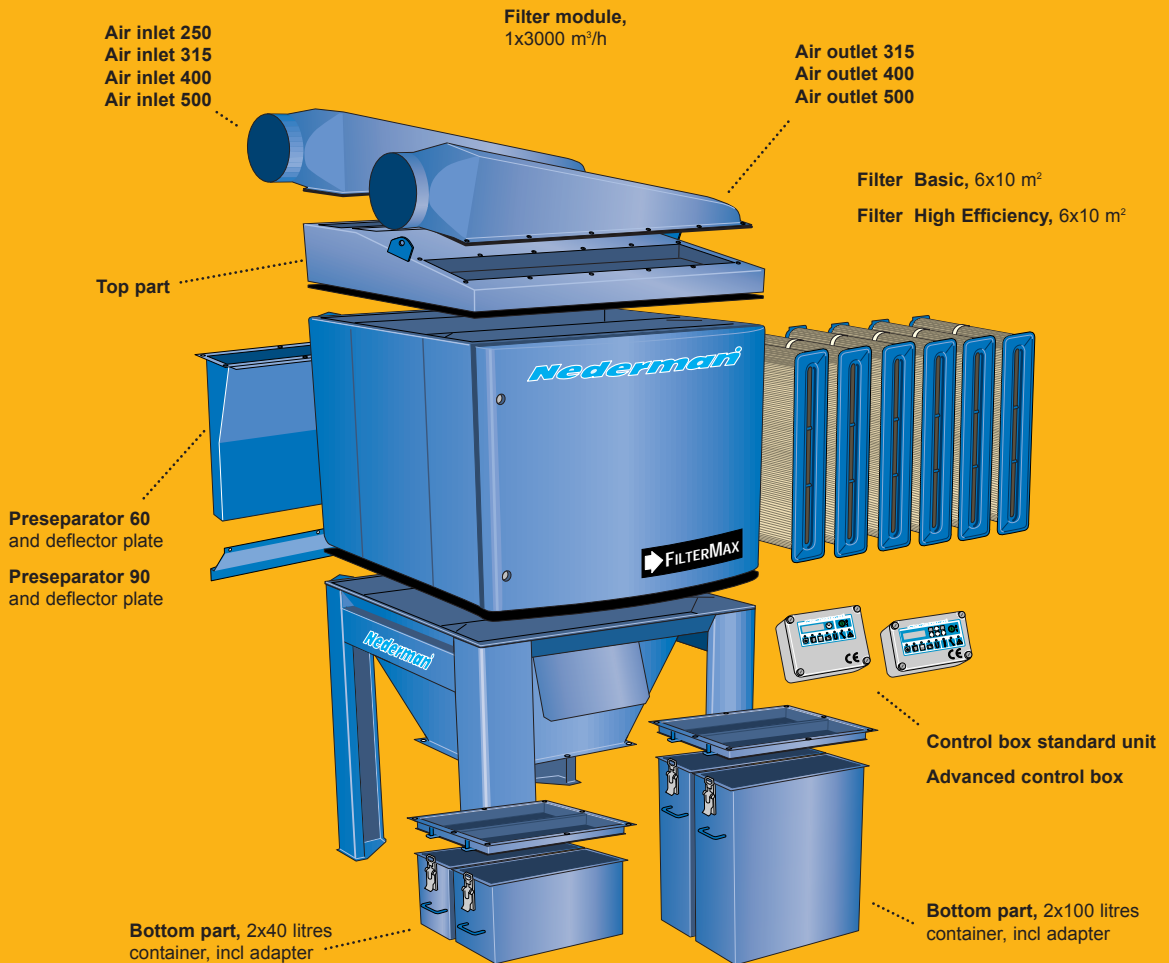


*Laser and plasma cutting tables require high capacity filtering systems and safe operation. FilterMax gives an effective filtering, even for larger flows and longer operation times.*



*Ignabergs Kalk manufactures lime cement and they have problems with dust both in the production plant and outside. With FilterMax they have managed to fulfil the rigorous environmental demands put on their production.*

# The FilterMax System



## Standard Model Range

### Operating data

**Compressed air**  
Min 6 bar Max 8 bar

**Electrical supply**  
100, 110, 230 V 50/60 HZ

**Operating temperature**  
Max +50° C, Min -10° C



### Type of filter unit

### No. of filter cartridges

### Total filter area

### Air flow range

### Noise LpAeq, 30 Sec.

### FilterMax 3000

6

60 m<sup>2</sup>

Up to 3000 m<sup>3</sup>/h

50 dB

### FilterMax 6000

12

120 m<sup>2</sup>

Up to 6000 m<sup>3</sup>/h

63 dB

### FilterMax 9000

18

180 m<sup>2</sup>

Up to 9000 m<sup>3</sup>/h

73 dB

# Nederman®

Improving your workspace