Nederman

Modular Filter System (MFS)

Flexible & versatile filtration solution

Simple, convenient and high performing solution for source capture

Contaminant control where you need it

The Modular Filter System (MFS) offers a simple and efficient clean air solution for light industrial and commercial processes that generate smoke, dust, fume gases and odors. It conveniently mounts to a wall or work station saving valuable floor space and pairs with hoods, extraction arms and fans to capture pollutants right at the source protecting workers breathing zones. The modular design makes it a solution for small or large jobs and it can even be expanded in the field.

- Simple. An easy to install, use and maintain filtration solution.
- Convenient. The filter frame mounts to wall, table, hood or bracket and fully supports the filter, fan and extraction hood.
- Flexible. Wide range of filter media options and endless configurations to adapt to your unique situation.
- Performance. An innovative filter design contains a generous amount of filter media extending filter life.
- Sustainability. Recirculating clean air where regulation allows versus exhausting outside saves energy and reduces HVAC operational costs.

Common Applications

- Weld fume extraction for manual and automated welding including cobots
- Gas, odors and vapors common in additive 3D printing
- Particulate, odors and gases common in general industrial processes
- Education and research laboratories dust, fume and gases
- Dust generated in dental implant labs
- Aerosols generating procedures (AGPs) within dental clinics

The World Health Organization estimates that 7 million people die prematurely from cases related to air pollution.

Whether working in offices, factories, laboratories or at home, exposure to airborne contaminants that may adversely affect our health is constant. Scientific research continues to highlight the increased risk from pollutants that lead to cancer, Parkinson's disease, Alzheimer's and cognitive function. Nederman is committed to protecting people, planet and production from the harmful effects of air pollution.

High performance in a simple design

The heart of the MFS is the unique and innovative and filter design. A simple but robust frame allows the filters to easily adapt to a variety of applications and be installed almost anywhere. The built-in inlet and outlet adapters allow hoods, duct and fans to be easily installed to build complete systems. After installation, the filter remains accessible for easy service and the collected contaminant remains within the filter housing, minimizing worker exposure and mess.

Robust, metal support frame including pre-drilled holes for filter, fan and extraction arm mounting.

Filter shell reduces exposure to collected contaminants during service.

Integral inlet flange for hoods, extraction arms or ducted air inlet.

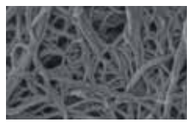
Integral outlet for direct mounting of extraction fans or for duct.

Quick release rubber sleeves on top and bottom that seal filter and allow quick and easy filter replacement.

Metal mesh spark arrestor decreasing risk of fire on welding applications

Filter media for all kinds of contaminant

The MFS is available with (4) filter combinations to maximize flexibility and performance for a wide range of applications.



Nanofiber. For general dust and fume collection and fine particles. Fire retardant filter media adds additional safety.

Carbon. Activated carbon material that adsorbs gases, chemicals, VOCs and odor from the airstream.

HEPA H14. Certified HEPA filter with 99.97% efficient at 0.3 µm particles. Great for labs, aerosols and as a polish filter.

Carbon / HEPA Hybrid. Fine particulate with adsorption that is ideal for lab environments collecting small amounts of particulate and gas.

A solution that is tailored to your needs

Complete clean air solutions

The MFS allows complete filter solutions to be built in industrial and commercial environments. Bespoke solutions can be configured that capture the contaminant at the source, convey the material through flex or clamp-together duct, filter the material with the properly selected media and extraction fans that can exhaust or recirculate the clean air where allowed.

Capture Hoods

Select from Nederman's extensive range of standard extraction arms for industrial or commercial use. Light kits, rectangular hoods, chemical resistant or connect to enclosures to maintain a negative pressure.

Filter Selections

The four available filter medias provide solutions for particulate, gases, odor and more. Banking the filters in parallel increases the airflow capacity and HEPA or Carbon filters can be used as an after filter for particulate applications for where necessary.

Extraction Fans

The outlet flange on the MFS mounting frame allows an integral fan to be installed direction. Ducting can be also used to connect a ground mount or larger fan as required. Silencers that install on the outlet of the fan are available to keep noise levels low.

Accessories

Equipping MFS filtration solutions with Nederman accessories help companies improve performance and reduce cost through automated operation, improved maintenance and ensuring regulatory compliance. Below are a few examples of common accessories

Airflow Alarm. Monitors duct pressure to ensure proper extraction with LED alarm indicator.

Control Box. On/Off controls for extraction fans. Can beequipped with sensors to automate operation or damper open / closing.

Quick Fit Duct. Nordfab Clamp together duct work makes installation quick, reliable and easy to modify in the future.

Extraction Arm Hood Controls. Hood switch to turn system on/off mounted directly to hood. Optional light kit to improve process visibility.

Weld Fume Extraction. Fume extraction solutions for single weld stations with extraction arm. Banks of MFS filters can be built for multiple weld stations.

Pharmaceutical. Source capture over several work stations, ducted to another room with a banked set of MFS filters to clean the air.

Odor control. Source capture of odors generated when opening an industrial tank.

Laboratory. Multiple extraction arms above a work bench to collect contaminants and return clean air to the work space.

ProQuote - Nederman 3D design tool

Nederman utilizes ProQuote, a state-of-the-art 3D design tool, to quickly prepare accurate solutions that meet specifications, are energy efficient, and compliant with local regulations. Visualizing the solutions helps gain a clear understanding of the system, the installation process, operation and maintenance.

Global leaders in filtration solutions

Technical Specifications

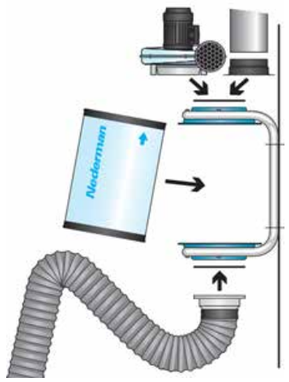
Model	Filter Mode	Filter Area		Filter Efficiency*	Nominal Air Flow Rating**		Nominal Pressure Loss		Weight***	
		m^2	ft^2		m^3/h	ft^3/min	Pa	in w.g	kg	lbs
MFS Nano	Nanofiber surface layer on 80/20 base	17,2	185	MERV 15 ISO 16890: ePM1 80%	1.200	700	750	3.0	7	15.4
MFS HEPA H14	Microfibre glass	14,0	151	99.995% @ 0.2 µm H14 Certified HEPA	1.00	600	430	1.7	7	15.4
MFS HEPA H14 Compact	Microfibre glass	5,0	54	99.995% @ 0.2 µm H14 Certified HEPA	500	300	163	0.7	5	11
MFS Carbon	Activated Carbon	NA	NA	N/A	800	475	257	1.0	14	30.9
MFS HEPA + Carbon	Microfibre glass & activated carbon	3,1	33	99.95% @ 0.2 µm H13 Certified HEPA	500	300	324	1.3	16	35.9

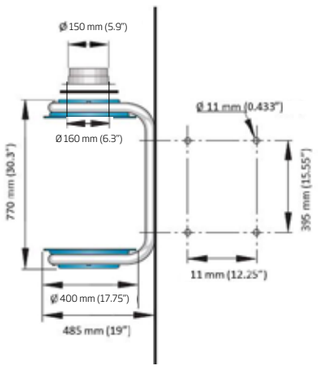
* MERV ratings in accordance with ASHRAE 52.2; HEPA certification in accordance with EN1822

** Recommended airflow based on application, consult local Nederman representative for additional information.

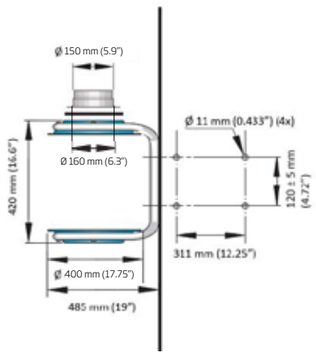
*** Stated weight includes the primary filter and does not include the mounting frame.

Installation arrangement and mounting dimensions





Standard



Compact

Service and replacement parts

With the Nederman myAir service approach, we create service and maintenance plans based on your unique needs. Whether you need spare parts or on-site service and support, our regional sales and service companies are there to respond quickly and keep you running smoothly.

The global leader in complete dust collection solutions

For over 80 years, Nederman has developed products and solutions to reduce the strain on the environment and protect people from the harmful effects of indoor air pollution including dust, smoke, oil mist and gases. We have extensive experience in creating safe working environments, handling combustible dusts, managing turn-key projects and servicing dust collectors. Our innovative, smart solutions including Insight have further strengthened our ability to deliver clean air to our customers throughout the world.

Worldwide presence

Nederman has a strong global presence in both sales and production. We have our own sales companies in 30 countries and distributors in more than 30 countries. Production is performed in 12 countries on five continents. In many countries, we also have a well-established service organization. By offering advanced service with high availability, Nederman helps customers to secure continuous, optimized production.

The Clean Air Company

Nederman is an environmental technology company and a global leader in industrial air filtration dedicated to extracting, transporting and cleaning air to make industrial production more efficient, safe and sustainable. Based on industry leading products, solutions and services in combination with innovative IoT technology, we monitor and optimise performance and validate emissions compliance to protect people, planet and production.

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