MESTORM SOLUTION

We steel the future

PRODUCT CATALOGUE MS-S/M/L

MS-S/M/L

Process liquid aerosol extractor

Mestorm Solution extracts oil mist from the CNC machine, from where it would otherwise enter the open space after the machine is opened, and particles from it would settle on the floor, walls, ceilings and other equipment in your hall.

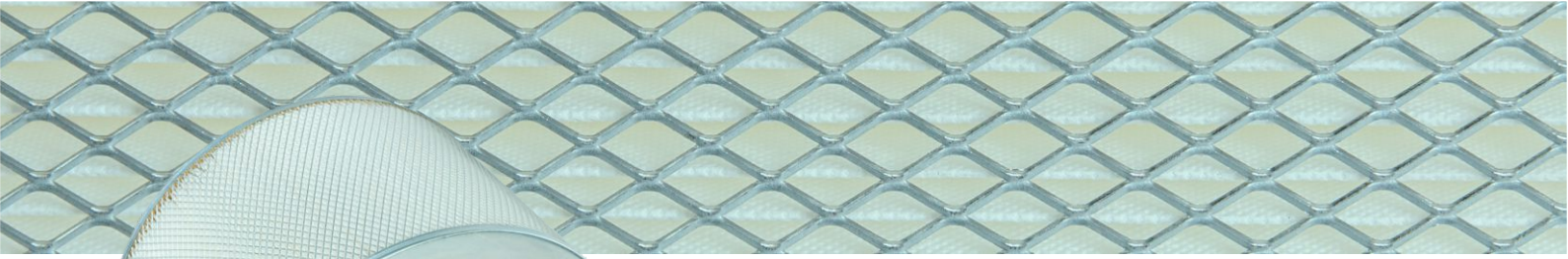
MS-M-0200-0000

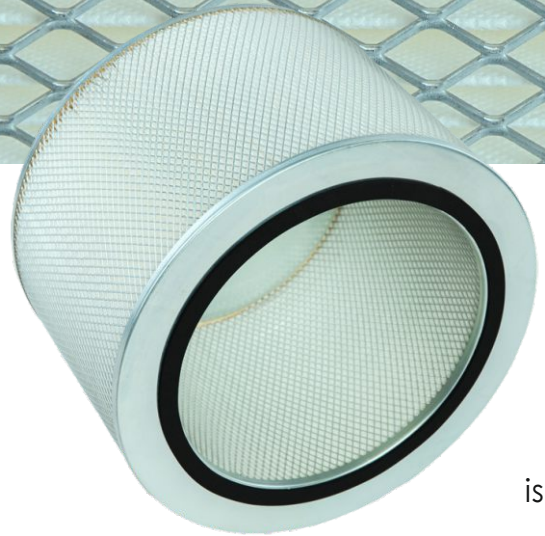
Health protection

Aerosols enter the human body through inhalation or skin contact. The health risk of the process fluid lies in its composition (content of various toxic substances) and in the presence of microorganisms (bacteria, molds and fungi) depending on the water content.

Cutting fluid saving

A significant proportion of the extracted process fluid particles dispersed in the oil mist precipitates on the inner walls of the extractor and the extraction hose, returns to the CNC machine system, and Mestorm Solution saves you costs.





We keep track of filter replacement dates for you

The condition for the proper functioning of the hoods is the replacement of the internal filter I. every 120 days and the external filter II. every 365 days.

The owner of the hoods does not have to monitor these dates in any way. Each hood is registered in the manufacturer's database under its ID number. This contains all data on the production, shipping, assembly, service history of the hood and most importantly, the service life of the installed filters.

Thanks to our database of hoods, we will notify the customer well in advance of the upcoming replacement date and send the filters in a timely manner.

Specific solution for each machine

The Mestorm Solution dust extractor is designed to effectively remove dust and dirt generated during metalworking, ensuring a clean and safe working environment. With three different sizes and variable power, it can be adapted to different types of CNC machines used in the metalworking industry.

MS-S extractor hood
Designed for machines with a working space of less than 1,5 m^3

MS-M extractor hood
Designed for machines with a working space from 1,5 m^3 to 5,5 m^3

MS-L extractor hood
Designed for machines with a working space from 5,5 m^3 to 20,5 m^3

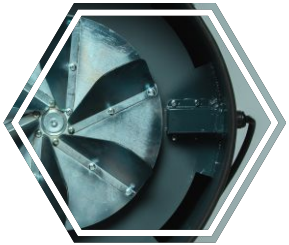
Why MS Solution?

- high efficiency of oil mist extraction
- unbeatable acquisition price and low operating costs
- clean workplace
- increased safety at work
- saving cutting fluid
- elimination of energy losses for heating
- long-term operational reliability
- easy installation
- easy maintenance
- fast delivery time
- all spare parts in stock
- 24 months guarantee

Long-term care

The manufacturer of MS-MD extractors, Metales s. r. o., has equipped all of its compressor rooms and server rooms with MS-MD extractors for several years. Measurements have shown their excellent efficiency in demanding conditions of continuous production.

Mestorm Solution works in three phases



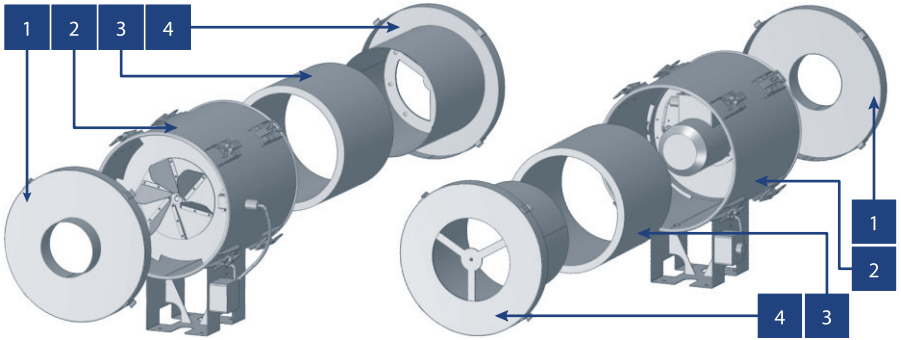
Aerosol is extracted from the work area and fed into the MS device, where the aerosol mist disperses and the liquid droplets flow into a collection container or return to the system.

Thanks to the industrial wheels, you will have no problem handling MS-WASTE.

The third phase is provided by an external filter II. with filtration class F9 (EN 779), or ePM1 ≥ 80% (ISO 16890).

Package dimensions (mm)		
	Extractor packaging (w×h×h)	Filter packaging II. (w×h×h)
MS-S	570×700×610	370×370×270
MS-M	580×810×660	440×460×330
MS-L	680×950×770	520×530×370

Weights (kg)			
	MS-S	MS-M	MS-L
Extractor weight (kg)	20	29	43
Mass of the extractor and its packaging with mounting material (kg)	30	40	57
Filter weight II (kg)	3	5	7
Mass of filter II. and its packaging with mounting material (kg)	4	6	8



1 cover IN
2 hood body
3 filter I.
4 cover OUT

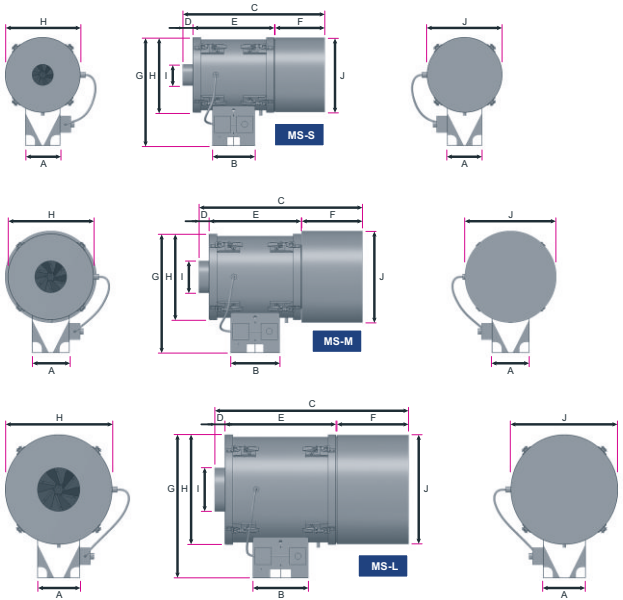
Filtration parameters				
		MS-S	MS-M	MS-L
Filtration class of filter I (internal)		G3 (EN 779:2012) [1]		
		Coarse 55% (ISO 16890) [1]		
Filtration class of filter II. (external)		F9 (EN 779:2012) [1]		
		ePM1 80% (ISO 16890) [1]		
Work area of the machine the extractor is designed for (m3)		1,5	1,5–5,5	5,5-20,5
Air flow A (m3h-1) [2, 4]	average	492	998	2304
	max	509	1070	2458
Air flow B (m3h-1) [3, 4]	average	361	792	2030
	max	432	970	2256

1 - see table Appendix: Filtration classes on the last page of this document

2 - measured at the inlet edge of the extractor suction neck

3 - measured at the inlet edge of the suction spiral hose 1 m long

4 - measured at a temperature of 20 °C

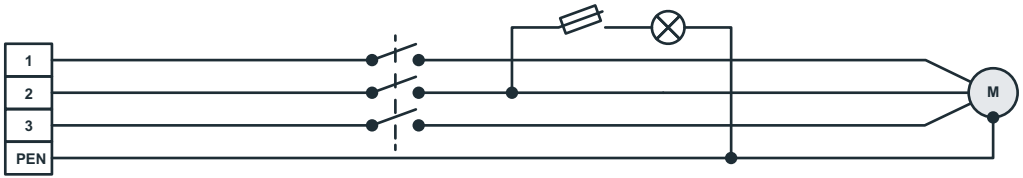


Extractor of aerosols from process liquids (oil mists) from CNC machines

Extractor dimensions (mm)										
	A	B	C	D	E	F	G	H	I	J
MS-S	163	200	669	47	383	234	510	353	100	350
MS-M	175	230	770	47	433	285	558	403	150	429
MS-L	199	260	911	47	523	336	657	503	200	500

Engine parameters			
	MS-S	MS-M	MS-L
Current system, rated voltage, network frequency	3+PEN/50 HZ/TN-C/400 V/AC		
Motor power consumption (kW)	0,25	0,55	1,10
Electric current In (A)	0,70	1,30	2,50
Engine speed (min-1)	2730	2790	2835

Block connection diagram

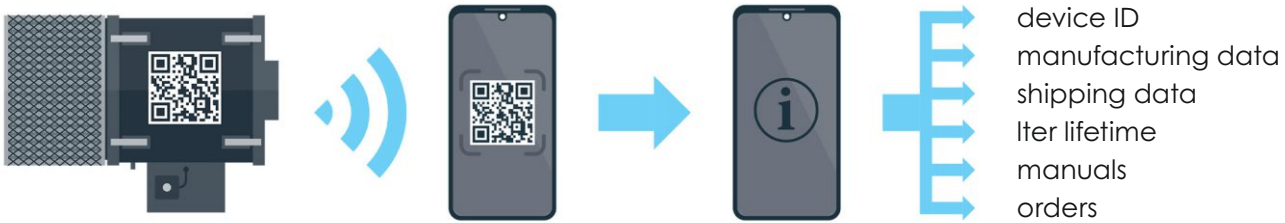


Noise				
		MS-S	MS-M	MS-L
Noise level (dBA)[4, 5]	average	62	63	72
	max	68	70	73
Noise level (dBC)[4, 5]	average	66	72	81
	max	75	78	84

4 - measured at 20 °C
5 - measured at a distance of 2 m from the axis of rotation of the extractor motor

Filter group	max Δp	filtration class (EN 779:2012)	Separation Am_6 efficiency Em_7	Separated substances	Example of use	filtration classes (ISO 16890)
Coarse dust filters (active for particles ≥ 10 µm)	250 Pa	G1	50 % ≤ Am < 65 %	• foliage • insect • textile fibres • sand • ash • hair • pollen • spores	• only the easiest to use (mosquito nets)	
	250 Pa	G2	65 % ≤ Am < 80 %			ISO Coarse 30% ISO Coarse 35% ISO Coarse 40%
	250 Pa	G3	80 % ≤ Am < 90 %		• exhaust air from spray booths and galleys • pollution protection for window air conditioners and fans • pre-filters and circulating air filters for civil protection facilities	ISO Coarse 45% ISO Coarse 50% **ISO Coarse 55%**
	250 Pa	G4	90 % ≤ Am			ISO Coarse 60% --- ISO Coarse 95%
Fine dust filters (active for particles ≥ 1 µm)	450 Pa	M5	40 % ≤ Em < 60 %	• pollen • spores • cement dust • ash • bacteria and microbes on host particles	• outdoor air filters for areas with the lowest requirements (workshop halls, warehouses, garages)	ISO ePM10 50% ISO ePM10 55% ISO ePM10 60%
	450 Pa	M6	60 % ≤ Em < 80 %		• pre-filters and circulating air filters in central ventilation units • end filters for air conditioning of stores, department stores, production premises and offices • exhaust air filters before heat exchangers	ISO ePM10 65% --- ISO ePM10 95% ISO ePM2,5 50% ISO ePM2,5 55% ISO ePM2,5 60%
	450 Pa	F7	80 % ≤ Em < 90 %	• petroleum • vapour • agglomerated carbon black • tobacco smoke • metal oxide smoke		ISO ePM2,5 65% --- ISO ePM2,5 95% ISO ePM1 50% --- ISO ePM1 65%
	450 Pa	F8	90 % ≤ Em < 95 %		• end filters of air conditioners in offices, production premises, control centres • equipment for outdoor air filtration in hospitals • computer technology headquarters • pre-filters in the pharmaceutical industry	ISO ePM1 70% ISO ePM1 75%
	450 Pa	F9	95 % ≤ Em			**ISO ePM1 80%** --- ISO ePM1 95%

6 - values determined by measuring the mass of collected particles of synthetic dust until a final pressure loss of 250 Pa is reached
7 - values determined by counting the collected particles of synthetic dust of fraction 0.4 µm until a final pressure loss of 450 Pa is reached
EPA, HEPA and ULPA filtration classes are determined by EN 1822 and ISO 29463. These filters are designed to filter bacteria, viruses, soot, petroleum vapors, aerosols, radioactive particles, etc. They are used, for example, in end filtration devices of cleanrooms under ISO 14644, in laboratories, hospitals, pharmaceutical industry, food industry, optical industry, electronics industry, in exhaust air filters in nuclear power plants, in end filters of civil protection equipment, etc.

Customer care

The device is registered in our database under its ID number.
This contains all the data on production, shipping, assembly, service history, and most importantly, the lifespan of the installed filters. Thanks to our **Messin application**, you have this data under control at all times. You can access the data from the databases simply by scanning the QR code placed on the appropriate device. In addition to the aforementioned information, you will also gain access to various documents, instructions or order forms.