

Lina™

Lina is one of the smallest oil mist separators on the market. This makes it easy to install - even on small machine tools. If the application creates smoke, the HEPA filter in conjunction with Lina takes care of it.



Technical Data

	EU-standard	NA-standard
Suitable for cabsize	< small (5m ³)	< small (176 CF)
Operating condition	5-50° C	<122 °F
Electric power supply	16 A/400 V/3/50 Hz/30/15 A, 230/460 V/3/60 Hz	
Motor rating	0.55 kW	0.66 kW
Rated current	1,35 A	2.6 A (230V), 1.7 A (460 V)
Weight	30 kg	66 lbs
Height (with HEPA filter)	840 mm	33 "
Diameter	Ø 480 mm	Ø 18.9"
Inlet pipe dimension	Ø 125,5 mm	Ø 4.9"
Sound level	< 65 db (A)	< 65 db (A)

Clara™

Clara is the oil mist separator that suits most users. With its light and compact construction Clara can be fitted to almost every type of machine tool on the market. The advanced separation technology in Clara has been the platform for the other machines in the 3nine product family.



Technical Data

	EU-standard	NA-standard
Suitable for cabsize	< midsize (10 m ³)	< midsize (353 CF)
Operating condition	5-50 °C	<122 °F
Electric power supply	16 A/400 V/3/50 Hz 30/15 A, 230/460 V/3/60 Hz	
Motor rating	1,5 kW	1.5 kW
Rated current	3,2 A	5.6 A (230 V), 3.6 A (460 V)
Weight	70 kg	154 lbs
Height (with HEPA filter)	1 145 mm	45"
Diameter	Ø 640 mm	Ø 25.2"
Inlet pipe dimension	Ø 161 mm	Ø 6.3"
Sound level	< 65 db (A)	< 65 db (A)

Emma™

Emma is the big sister in the 3nine product family. Emma is designed especially for applications where a high air flow is essential. Multiple Emmas can be interconnected using the 3nine modular systems to create a solution for higher capacities.



Technical Data

	EU-standard	NA-standard
Suitable for cabsize	< large (20 m ³)	< large (710 CF)
Operating condition	5-50 °C	<113 °F
Electric power supply	16 A/400 V/3/50 Hz	30/15 A, 230/460 V/3/60 Hz
Motor rating	5.5 kW	5.5 kW
Rated current	11,3 A	11.7 A
Weight	105 kg	231.5 lbs
Height (with HEPA filter)	1 145 mm	45"
Diameter	Ø 670 mm	Ø 26.4"
Inlet pipe dimension	Ø 316 mm	Ø 12.44"
Sound level	< 70 db (A)	< 70 db (A)

Petra™

Petra is specially designed for applications with a high degree of solid particles in the oil mist. Petra is the perfect choice for grinding and polishing applications, machining of cast iron and heat treatment (quench oil) applications.



Technical Data

	EU-standard	NA-standard
Suitable for cabsize	< midsize (10m ³)	< midsize (353 CF)
Operating condition	5-50° C	<122°F
Electric power supply	16 A/400 V/3/50 Hz	30/15 A, 230/460 V/3/60 Hz
Motor rating	1,5 kW	2.2 kW
Rated current	3,2 A	8 A (230 V), 5.2 A (460 V)
Weight	74 kg	166 lbs
Height (with HEPA filter)	1 145 mm	51"
Diameter	Ø 500 mm	Ø 19.7"
Inlet pipe dimension	Ø 160 mm	Ø 6"
Sound level	< 70 dB (A)	< 70 db (A)



Oil smoke and Oil mist separators with high performance

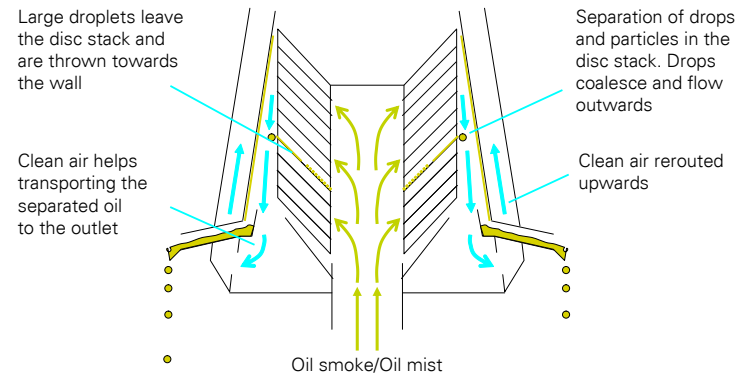
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An oil smoke and oil mist separator

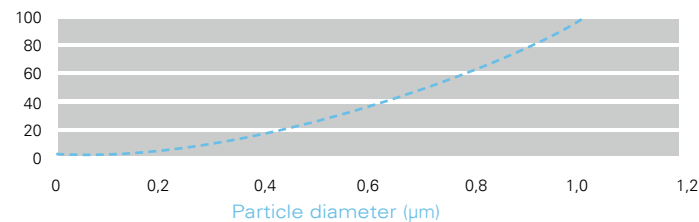
with high purification rate, great flexibility and outstanding operating economy



Intelligent and revolutionary technology

The unique patented technology separates the oil mist and other coolants up to 99.9%* with a particle size down to 1µm by using centrifugal forces without the use of any filter media. This process requires minimal maintenance. A rotating disc stack separates the oil mist more effectively than traditional centrifugal separation technologies like cyclones and rotating filters. The rotor also functions as a fan evacuating the mist making external fans unnecessary.

Separation (%)



The graph shows the separation efficiency, meaning the amount of particles of a certain size to be separated out in the rotor.

Technology for tough applications

3nine machines handle difficult applications where other technologies develop problems and have high maintenance costs. Our patented solution to handle tough applications is the Cleaning-in-Place (CIP), a process that automatically and effectively cleans the disc stack of sticky and solid particles.



Keeping operating cost low

The oil mist is separated and fluid droplets are returned to the machine tool. Recycling saves on cutting fluid, and housekeeping maintenance in the shop. Filter changes are minimal thereby reducing waste disposal.

All 3nine machines are designed for continuous operation as it is critical to keep production running.

Flexible solutions without duct work

3nine machines can be installed on top or the side of the machine tool as close as possible to the source. The air that comes out is so clean there is no need for expensive duct work. This minimizes duct maintenance, decreases the risk of fire and eliminates the risk of bacteria in the air caused by sediment in the ducts.

Compact and direct installation saves on valuable floor space and creates a flexible production environment. Installing the machines is quick and easy.

Secure working environment

Oil mist exposure can cause severe health issues. The air coming out of the 3nine machines is so clean that it can be recycled back into the workshop. This guarantees the operator an optimal working environment.

The high efficiency of the rotor makes it possible to equip 3nine machines with the highest available HEPA filter class, H13, producing 99.995% particle free air. The filter is for the final stage purification. Clean air means have a safe working environment with no oily surfaces in the workshop.

If the application creates smoke, the 3nine machine equipped with a HEPA takes care of this.

A continuous flow of particles and oil eliminates the risk of pressure drop and diminished air flow, caused by clogging.



Why 3nine?

- 99.995* % purification
- No or very little maintenance
- Recycling of cutting fluids
- No fixed pipe installations
- Compact and flexible solution
- Direct installation on the machine
- Extremely reliable

* with HEPA filter (H13)

“Before installing the Emma we had to change filters every two weeks.”

Jim Leach, Okuma Large Body Cell Machine Manager at MOOG Inc. Aircraft Group, New York, USA

2) Based on NIOSH publication: What you Need To Know About Occupational Exposure To Metalworking Fluids

1) According to independent tests by VTT (an official testing body in Finland)



An investment in 3nine's technology is a healthy investment in a better working environment - a clean environment where you can reduce your costs. Thanks to the high purification rate and stable performance, our products demand very little maintenance, allowing you to focus on your production.

