

Mist Collection for Individual Machining Centers

The ENA-S Solution

Our coolant mist separator, ENA-S, removes water soluble aerosols created by coolants during cutting and metalworking processes.

Reusable wire mesh filters effectively separate coolant mist aerosols from the dirty air stream to provide a safe working environment.

Applications

- Machining
- Drilling
- Turning
- Milling
- Grinding
- Broaching
- Honing
- And more...

Air Recirculation

The four-stage filtration (including HEPA stage) cleans the dirty air using a combination of inertia, screening effect, coalescence and diffusion. This multi-stage process creates highly

efficient separation of aerosols, which frequently allows the cleaned air to be re-circulated into the workplace.

Disposal

The separated liquid is collected in the floor basin of the unit and is then reintroduced into the emulsion circulation of the machine via return pipe or removed for reconditioning.

The liquid is drained by p-trap into the sumptank of the machine or into an optional pump-back station for coolant filtration.



Reusable wire mesh filter elements

Pros for the Single-Machine Design

- Airflow range of 600 -1,500 CFM
- Ergonomic maintenance without sacrificing separation efficiency
- Floor accessible filter stages
- Compact footprint of less than 2.5' x 2.5'
- Ability to recirculate the exhaust air (four stages of filtration)
- Integrated fan in sound-insulated chamber (provides quiet operation)
- Integrated differential pressure gauges
- Modular unit with allowance for customization
- Ability to utilize automatic spray cleaning of primary filter stages
 - Ensures the long filter life
 - Reduces the preventive maintenance required

ENA-S	Standard	Metric
Airflow	600-1500 cfm	1000-2500 m ³ /h
Dirty Air inlet diameter	8"	200 mm
Dirty Air inlet location	left/right/top	left/right/top
Clean Air Outlet	left/right/top	left/right/top
HEPA Stage Size	24" x 24" x 12"	610 x 610 x 305 mm
Power Output	5.5 hp, 460V / 60Hz	4 kW, 460V / 60Hz
Sound Pressure Level dB (A)*	< 72	< 72
Unit Dimensions	2.5' x 2.5' x 8.5' adjustable height	740 x 740 x 2,585 mm adjustable height

* measured at a distance of 1m (approx. 3.3 ft) from the unit

Optional Unit Features

- Independent control panel
- Pump-back station
- Automatic spraying valve
- Liquid level sensor
- Fire sprinkler head
- Harting plug
- Motor starter

Automatic cleaning of filter elements

The ENA-S is preconfigured for optional automatic rinsing. Spray nozzles spray the water onto the surface of the filter elements. This type of backwashing preconditions filters for higher efficiencies and helps avoid clogging the filters with high-viscosity oil content.

The cleaning process can be configured individually to fit the specific application. Optionally, it can be activated with an automatic spray valve during operation (short intervals) or after the filter unit has been turned off. Plain water (in some instances an emulsion) serves as the cleaning fluid.

Ask a Keller consultant for a solution that works best for you.

Accessories

ProBox



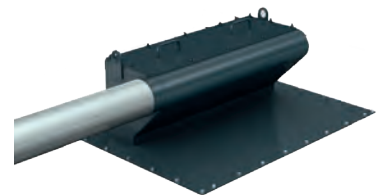
- Solid state flame barrier
- Pre-separation of coolant / oil
- Airflow: max 2,100 cfm

ProFix



- Automatic airflow damper
- Internal airflow balancing
- Adjustable extraction efficiency

ProChip



- Chip separator at machine tools
- Captures mist, not chips
- Airflow: 800-2,000 cfm