

MONROE Spiral Tube Oil Mist Collector

- Mechanical type, requires no filter media
- Oil, mist, smoke and vapor removal
- Efficiencies to 99.9% on 0.3 micron
- Capacities from 500 to 80,000 CFM
- Low energy requirement
- Continuous draining during operation
- Low maintenance
- Ergonomic considerations



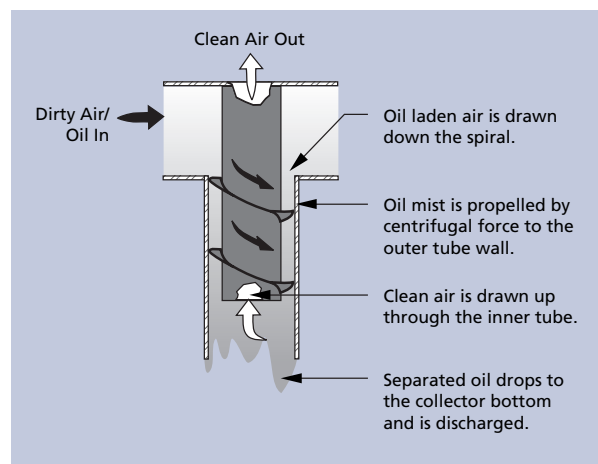
System Design

The Monroe Spiral Tube Oil Mist Collector is a two stage unit and does not require filter media for primary mist removal.

The spiral tubes provide a high level of mist agglomeration and removal without using filters. Centrifugal force and impaction provide the mechanism for mist removal.

Dirty air is propelled down several spiral shaped impaction tubes and a fluid film is created. The oil drains into the collector bottom. Air changes direction 180°, then enters the second stage HEPA type filter typically rated at a minimum 95% efficiency at 0.3 micron particle size.

Ideally suited for production machining operations with water soluble, synthetic or mineral coolants.



Oil Re-entrainment Eliminated

Due to the unique internal design of the Monroe collector, the cleaned air will not re-entrain collected pollutants after the primary stage. This improves the efficiency of the separation process and extends the life of the optional final filters.

High Efficiency

The advanced design of the Monroe Spiral Tube Collector provides maximum mist and oil collection efficiency in a mechanical collector. Air processed by the Monroe Spiral Tube Collector meets air quality standards for in-plant discharge as well as outside exhaust. Discharging clean, filtered air back into the work area can significantly reduce climate control costs.

MONROE Spiral Tube Oil Mist Collector



Slide Out Rack
Tube Removed
Removable Spiral Tube with Ring Gasket at Top

The Monroe Spiral Tube Collector design provides the following advantages and benefits.

- Stainless steel spiral tubes installed on a pull-out style drawer with rollers. No hand tools are required.
- Spiral tubes are positive gasket sealed.
- Easily removable HEPA type filters are accessible from the floor.
- All doors installed with vertical hinges for safety.
- Modular design spiral/HEPA/fan.
- Low energy requirement
- Low horsepower design for reduced operating costs.
- Mechanically fastened gasketing, no special tools or adhesives required.
- Top mounted fan assembly for compact size when required.
- 10 ga. and 7 ga. mild steel or stainless housing construction.
- Typical HEPA filter life of 4,500 hours or more, even under heavy inlet loading.

Materials of Construction

The Monroe Spiral Tube Collector features heavy gauge mild steel and stainless steel construction for years of efficient performance. Welded seams and built-in lifting hooks provide rugged durability.

HEPA Type Filters

The Monroe Spiral Tube Collector is available with specially constructed HEPA type fiberglass filter cartridges as the optional final filter system. These filters are normally supplied with a 95% efficiency rating at 0.3 micron. Final filters have a long service life because the majority of airstream contaminants are removed by the spiral tube stage. Slide-out design for easy filter removal is included.

Special Features

Large, easy to open access doors for all serviceable areas.

An **AMCA rated fan** on the outlet side of the collector with either a direct coupled motor or a "V" belt drive.

Quiet operation. Rubber isolation fan connection and sound attenuators are available if needed. Under 80 dba is typical.

Integral differential pressure gauges are available to indicate when filter maintenance is required.

Complete electrical controls are available to meet customer specific requirements.

Many Configurations Available

Monroe Spiral Tube Collectors can be configured to meet specific needs with numerous options available to provide maximum efficiency in any application.



**MONROE
ENVIRONMENTAL**

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