

# MONROE Multi-Stage Oil Mist Collector



- Multiple stage collection system
- Oil, mist, smoke and vapor removal
- Efficiencies up 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



## Self-Contained, Single Unit Design

The Monroe Multi-Stage Oil Mist Collector is designed to collect and remove airborne oil mist, smoke, and sub-micron vapors generated by operations such as high production machining and cold forming. It is a multiple stage collector that has proven capabilities exceeding 99% efficiency on many installations.



After installation of a Monroe Multi-Stage Oil Mist Collector, high production machining areas using water soluble, synthetic or mineral coolants can discharge clean, filtered air back into the work area, reducing system costs.

## Broad Range of Industrial Capacities

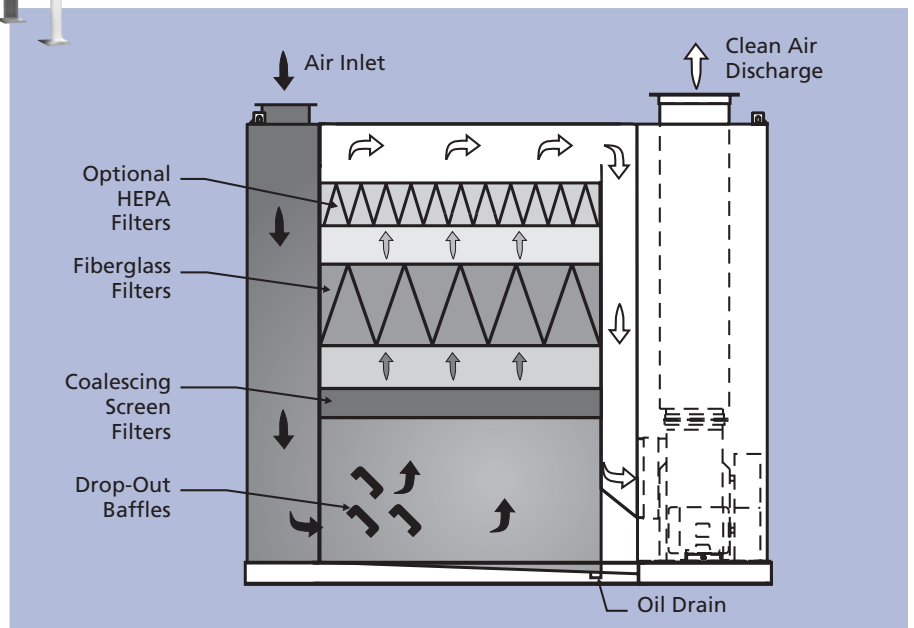
The Monroe Multi-Stage Oil Mist Collector is available in capacities from 500 CFM to over 80,000 CFM in a single unit and may be integrated with existing ductwork and ventilation systems.

## Designed for Minimum Maintenance

Air flow to filter media ratio is held low to prevent saturation blocking. This eliminates down-time due to collector malfunction and

minimizes periodic changing of filter media.

The Monroe Multi-Stage Oil Mist Collector is designed for continuous draining during operation, resulting in typical filter media life of 4,500 hours or more, even under heavy inlet loading.



## MONROE Multi-Stage Oil Mist Collector

### Design Leadership

The Monroe Multi-Stage Oil Mist Collector, with more filter media, longer operating time between filter changes, and higher collection efficiency, outperforms all other collectors in its class. Because of slower internal velocities through the collector, media replacement and maintenance labor costs are reduced. Collected oil mist and solids are continuously drained from the media without shut-down, significantly prolonging filter life and lowering overall operating costs.



*Open door showing separator screen element (bottom), fiberglass bag filter (middle) and HEPA filter (top).*

### Special Features

**Heavy gauge steel** is used for most installations, but special construction materials are available to meet specific applications. Welded seams and built-in lifting hooks provide rugged durability.

**Large, easy to open access doors**, each with air-tight seals, 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.** Flexible duct connections, fan mounting isolators, sound attenuators and fan enclosures are available.

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

**Complete electrical controls** to meet customer requirements are available.

### Monroe's Multiple Stage Collection System



**Optional Stage 4** – HEPA filters rated at 0.3 micron are available for removing sub-micron mist particles and smoke.

**Stage 3** – Specially constructed filter envelopes cause airborne, wet particulate to coalesce into fine droplets and drip to the sloped collector bottom.

**Stage 2** – Washable mesh media causes smaller airborne droplets of oil and other liquids to coalesce and drip to the sloped collector bottom.

**Stage 1** – Direction and velocity changes in the inlet cause larger airborne droplets to fall to the sloped collector bottom.

**FLOW**

\* Optional carbon filters are also available.

### Many Configurations Available

Monroe Multi-Stage Oil Mist Collectors are available in various configurations to meet your needs. Units can be suspended from the ceiling or other supporting structures to conserve floor space.



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