

*Eliminate airborne contaminants  
with air filtration systems from  
**AER Refurbished Systems***



***CME-100 thru 1200 Series  
Collectors  
for  
Mist, Smoke & Gas/Vapors***

**Contaminants:**

**Primary:**

Mist, Mist and Smoke (with HEPA), excellent for straight oil applications.

**Other:**

Chips/metal fines (with prefilter), Smoke & Fumes (with HEPA) & Gas/Vapors (with Carbon/other)

**Capture Approach:** Source Capture

**Unit Mounting:** Horizontal, machine mounted, floor stand & ceiling hung

**Applications:**

Machining, turning, milling, spraying, coating, part washers, oil reservoirs, lube sumps and a variety of other manufacturing and process applications.

**General Design, CME Series Collectors:**

Originally designed for control of mists generated by gearboxes and lube oil reservoirs on nuclear submarines, use of centrifugal mist eliminators quickly spread into process and manufacturing applications. CME series line of Centrifugal Mist Eliminators are compact, high efficiency, four stage, Centrifugal Mist Elimination systems designed to collect, filter and, reclaim liquid mists generated from machine tool, process and lube oil reservoir applications. They are ideally suited to the "chip" generating applications such as screw/bar, CNC machining, turning and milling machines and are ideal for applications involving straight oils. Their compact size allows for direct machine mounting integrating the collection system directly to the mist generating machine or process. They provide in-plant air pollution control by collecting mist, either water-soluble, synthetic or oil. Additional add-on afterfilters (HEPA and carbon) provide for the removal of smokes produced by high speed machining operations and/or gas/vapors/odors from solvent-based coolants.

**CME-100 thru 1200 Series Collectors**

AER Refurbished Systems CME Series Centrifugal Mist Eliminator systems are designed to provide efficient, cost effective control of mist and mist/smoke contaminants generated from a variety of manufacturing and process applications. Direct machine mounting is typical on most installations however, floor mounting pedestal stands and ceiling hung mounting options are available for this small but powerful, highly efficient, compact mist collection system.

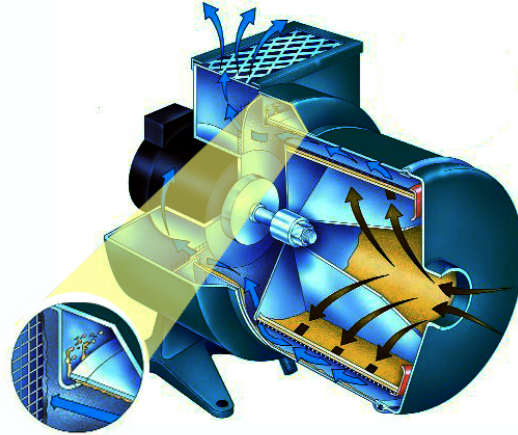
AER Refurbished Systems CME units feature modular design with a variety of pre and post filter options. For removal of chips, metal fines and solid particles, prefilters are available (CMEP units). For control of smoke, HEPA afterfilter modules (H) can be added with a high capacity HEPA version (H2) available on the 300 thru 1200 units for heavier, more severe smoke or continuous duty applications. For control of gas/vapors or odors, gas/vapor modules (carbon and other media) are available. A full line of accessories and options are available for CME collectors allowing for easy unit customization and to simplify system installation.

*CMEPH-500 on  
Screw Machine*



## Technical Product Data Sheet

During operation, the drive motor spins the perforated drum assembly with radial fan blades and filters at a high RPM. As mist-laden air enters the drum of the Centrifugal Mist Eliminator, it is forced to pass through the first, then second stage filter media where mist particles are trapped and coalesce to droplet size. Centrifugal force throws coalesced fluids out of the drum to the inner wall of the main housing. High velocity air drives the liquids along the inner wall of the housing forcing them into the circumferential slot of the primary/main drain chamber and force drains the liquids from the system. Any droplets that bypass the primary/main drain chamber are captured in a third and fourth stage filter where they drain through a secondary drain. Refurbished, clean air is exhausted or returned to the plant environment while cleaned fluids can be reused or disposed of.



### Features and Benefits

#### **Economical**

Cleaned air is returned back into the plant saving heat or cooling energy resulting in rapid equipment payback. Additional savings result from the reclamation and cleaning of collected fluids typically returned back to the operation for reuse. Low cost, quick and simple filter replacement results in low operation and maintenance costs.

#### **Efficient Centrifugal Design with Advanced Forced Drainage**

AER Refurbished Systems CME series collectors can provide 99.9% or higher efficiencies and meet or exceed OSHA requirements resulting in a clean, healthy plant with improved morale and productivity. The high speed rotating drum purges collected fluids from the main filters preventing over saturation and loss of filter efficacy. This combined with the unique, forced drain system allow units to efficiently handle extremely high concentrations of mist and make CME units ideal for continuous duty applications.

#### **Heavy, industrial grade construction**

Heavy duty, industrial grade, 16/14 gauge spun steel housings are coated to provide a durable, long life unit. With only two moving parts, the reliable and efficient direct drive design utilize custom, industrial grade, externally mounted, and permanently lubricated TEFC motors that require no maintenance. External mounting allows for quick electrical hook up and prevents damage to motor should a machine tool or oil fire occur.

#### **Simple maintenance and easy filter access**

Standard maintenance consists of periodic replacement of the first stage throwaway liner and prefilter (if provided). Routine maintenance takes only a few minutes with minimal unit down time.

#### **Compact, simple, safe, machine-mountable configuration**

Compact, but powerful and efficient, CME collection systems are designed for direct machine mounting. Collector and machine become integrated, eliminating cross contamination of reclaimed liquids and move with the machine if layout changes are made in the plant. Machine mounting also eliminates concern of fire spread in ducting throughout the plant should a machine tool fire occur. If machine mounting is not available, floor mounted pedestals and ceiling mount kits are available.

#### **Four to Seven or more filtration stages**

Standard, four stage units consist of a first stage throwaway liner that is an easy to replace, low cost standard replacement filter to keep maintenance costs down. The second stage primary filter is a special, high efficiency coalescing filter that provides optimum performance for collection of fine mists. Both stages are housed in the rotating drum of the unit. Air passes through third and fourth stage filters for removal of droplets and residual contaminants before it is exhausted from the system. Add prefilters, HEPA and Gas/Vapor modules and seven or more filter stages can be provided on systems.

#### **Modular Design with numerous add-on options**

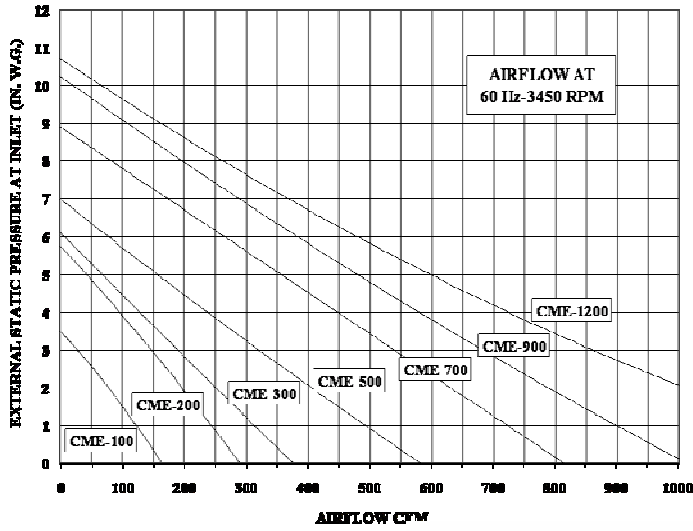
Very flexible, CME units come with a variety of standard and custom filter stages. If requirements change modules with additional stages can be added. Prefilters for removal of chips, solid particles and raw coolant sprays before entering the rotating drum reduce first stage filter loading and unit maintenance. HEPA modules for smoke and gas/vapor modules for gas, vapors and odors are available on new systems or, modules can be added to adapt units in the field to changing conditions.

#### **Quiet Operation**

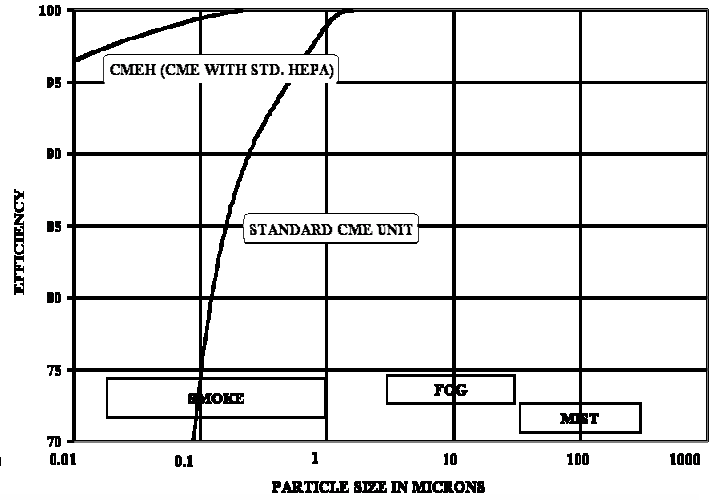
Standard unit noise levels range from 70 to 76 dbA at 3' (note noise levels can vary with area and background noise levels).

# Technical Product Data Sheet

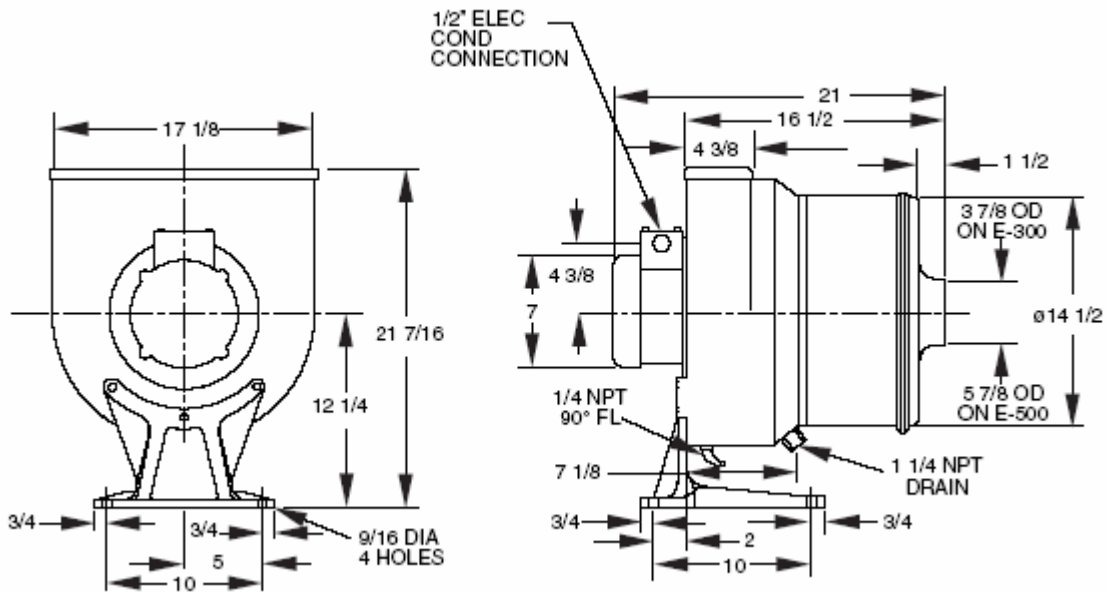
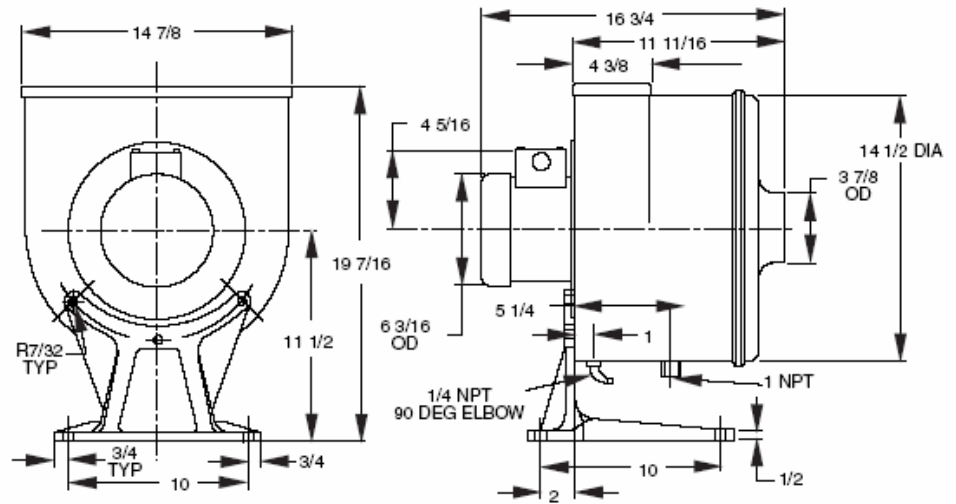
**CME 7AN PERFORMANCE CURVES AT 60 HZ**



**EFFICIENCY, CENTRIFUGAL MIST ELIMINATORS, MODELS CME & CMEH**

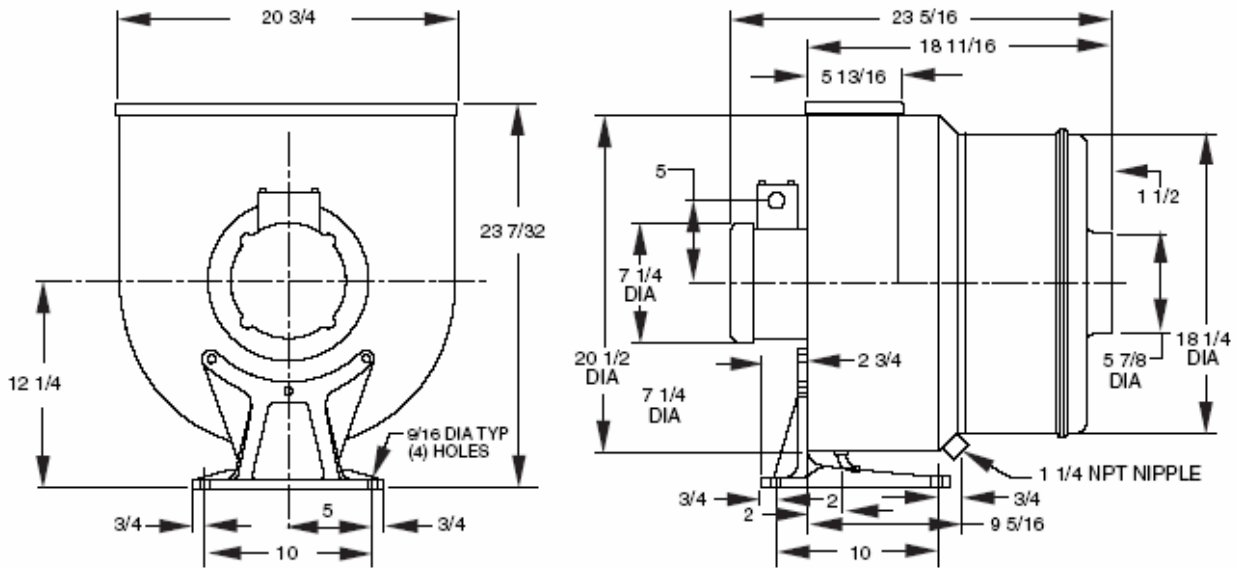


**CME-100 & 200**



**CME-300 & 500**

## Technical Product Data Sheet



### CME-700, 900 & 1200

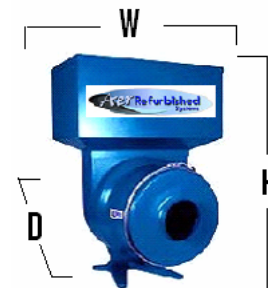
Basic Model / Unit	Inlet (O.D.)	Motor	Weight (lbs.)	Sound
CME-100 & 200	3 7/8"	1/2 HP	74	70 dbA @ 3'
CME-300 & 500	3 7/8" & 5 7/8"	1 HP	95	72 dbA @ 3'
CME-700, 900 & 1200	5 7/8"	3 HP	120 & 125	74 & 76 dbA @ 3'



The prefilter module (P) is a 4" extension of the cylindrical housing of the CME unit. It can be ordered on the unit (CMEP, CMEPH or CMEPH2), or purchased separately and added to units in the field.

*CMEH-900 with standard HEPA module rated at 99.97% efficiency at 0.3 microns (other efficiencies available).*

Model / Unit with HEPA	Depth	Width	Height
CMEH & CMEPH-100 & 200	12 1/2"	15"	31"
CMEH & CMEPH -300 & 500	13 1/2"	24 1/2"	36"
CMEH & CMEPH -700 thru 1200	13 1/2"	24 1/2"	38"
CMEH2 & CMEPH2 -300 & 500	25 3/4"	24 1/2"	39 1/2"
CMEH2 & CMEPH2 -700 thru 1200	25 3/4"	24 1/2"	39 1/2"



#### Additional Options:

- ❖ Floor mount pedestal stands
- ❖ Hose and installation kits
- ❖ Non-sparking drums, strip heaters and spray wash nozzles
- ❖ Portable units
- ❖ Single phase, 575 Volt and other special motors available
- ❖ Lube sump & process packages (special inlet and outlet fittings)
- ❖ Custom units, special filter configurations & OEM units available

AER Refurbished Systems  
 117 Spencer Plains Road  
 Old Saybrook, CT 06475  
 Phone: (860) 399-5855  
 Fax: (860) 399-5857

**"We sell the best and service the rest"**