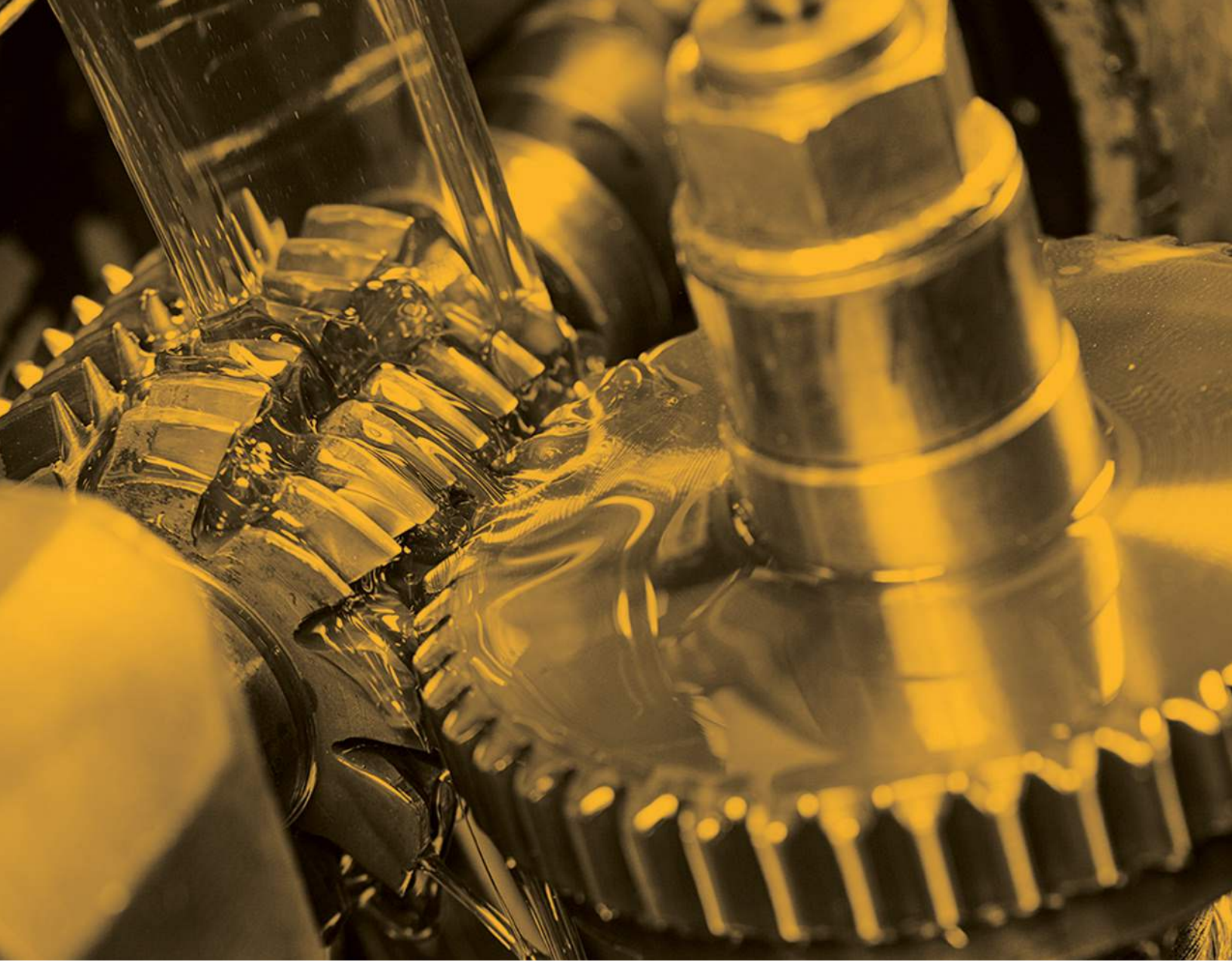

SHM Series

MEDIA MIST COLLECTOR

DYNACOM
Industrial Filtration
Since 1978

Dynacom Inc.
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Chagrin Falls, OH 44023

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Phone: 440.543.1900
Fax: 440.543.9390
info@dynacomonline.com
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Parker
PREMIER
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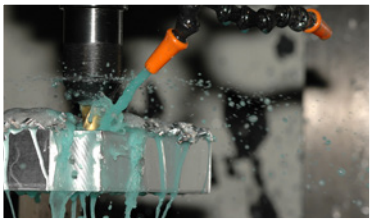
The SmogHog® Advantage

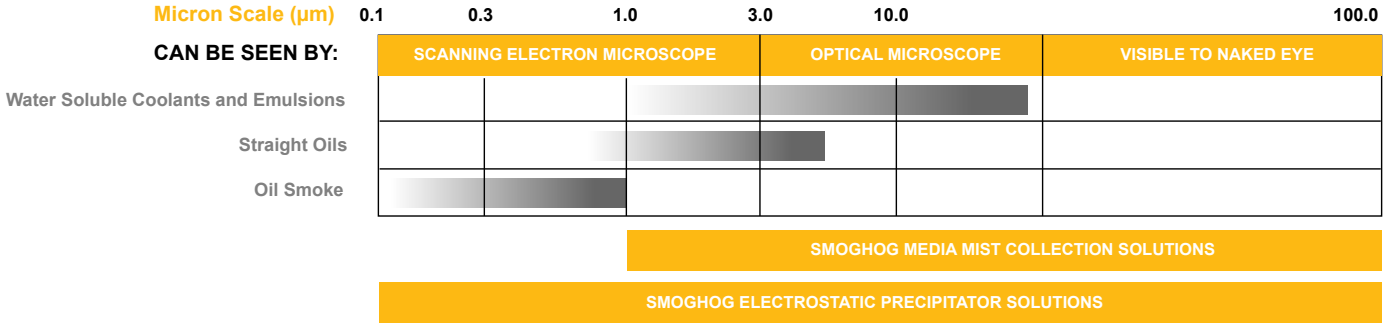
SmogHog is the most recognized and trusted name for effective removal of mist and smoke within the metalworking industry. Our mist collection technologies have been cleaning the air and recycling machine fluids for companies around the world for over half a century. The SmogHog SHM is a self-contained mist collector that can be mounted directly on a machining center or mounted remotely connecting a single or multiple machines with ducting.

- **Filter Technology and Performance.** The SmogHog SHM features proprietary, state of art coalescing filter media technology in a 100% fully synthetic blend of fibers built into a tubular filter arrangement that optimizes drainage. This technology provides best in class removal efficiency and long filter life.
- **Flexible Configurations.** Each SHM mist collector is engineered to your specific requirements. From filter media selection to the orientation of the inlet, the flexibility saves time and money during installation while providing optimal performance in your plant.
- **Technical Expertise.** SmogHog mist collection products have been protecting facilities from metal working fluids for over 50 years. Our application engineers and technical experts are ready to solve your unique application needs.
- **Easy Service and Maintenance.** The SHM was designed with service and reliable operation in mind. Tool-free filter change and simplified filter removal are just a few features that will save you time and money associated with maintenance and operation.

The Right Solution

Different processes and fluids create a variety of contaminates and challenges. It is imperative that the right technology is applied to achieve a solution that is both effective and efficient. The SmogHog portfolio includes both coalescing media filtration and electrostatic precipitator (ESP) technology. Our application engineers will ensure you receive the solution that is right for your application. We don't force fit customers to our products, we let the plant objectives and application needs drive us to the right solution.





SHM Product Features and Operation

The SHM features a three stage filtration process that progressively reduces the mist concentration resulting in greater than 99% reduction in mist concentration.

Integral Blower Module
Features motorized impeller with speed control for precise airflow adjustment. Blower and controls are prewired with a single external termination.

Auto Flow (optional)
Measures air flow and the fan automatically adjusts to maintain a specified target as process or filter pressure drop changes.

Touch Screen Controller
Visual indication of system status and easy to understand operation. 24VDC wiring provides additional layer of product safety.

Heavy Duty Construction
Heavy gauge, steel construction with powder coated finish inside and out creating a durable and reliable product.

Inlet Plenum
Configured to allow inlets on left, right or rear of module.

Oil Drain Sump
Sloped sump with drain plugs on left side of product to collect and recover fluid.

Floor Mount Extension Legs (optional)
Bolt on legs for raising unit and anchoring to mounting surface.

Stage 3
Safety After-filter
Available in ASHRAE 95% oil mist rated filter or HEPA configurations. Removes the remaining small concentration of fine particulate.

Stage 2
Primary Filter
Engineered with PEACH® coalescing filter cartridges or fiberglass envelope bags based on application parameters.

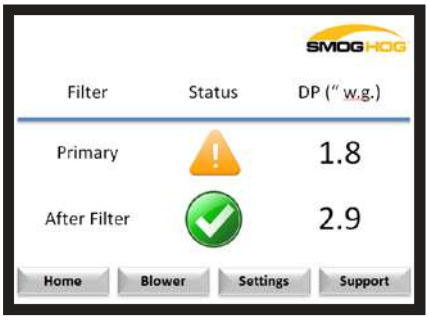
Stage 1
Mist-Stop Pre-Filter
Fine fiber, aluminum mesh pre-filter reduces mist concentration and removes coarse contaminate such as large droplets and metal chips.

10 YEAR WARRANTY

The Latest in Technology

Machine Control Technology

A bright, vivid interactive touch screen controller makes our mist collectors easier than ever to operate and monitor, while reducing maintenance time.



- Monitors filter pressure drop for the primary and after-filters while alerting when filter change is required
- Provides external communication options for integration into remote alarms, PLCs, Building Management Systems (BMS) and more
- NEMA 4X / IP65 rated providing the durability and reliability needed in harsh manufacturing environments

---

Flow Control Technology

Easily adjust airflow to optimize system performance without use of mechanical dampers or complex and expensive variable frequency drives (VFD). It is critical to control air volume in mist collection applications because insufficient air volume leads to fugitive mist escaping the machining center or collection hood, and pulling too much air increases the contaminant loading potentially shortening filter life.

- Rather than operating at full RPM at all times, you can adjust the fan to operate only when required, lower speed means ***significant energy savings*** over mechanical dampers, plus there will be less noise

Optional Auto Flow

Air volume is measured and the fan automatically adjusts to maintain a specified target as process or filter pressure drop changes

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Microglass Filter

A high capacity, final filter specially formulated to capture oil mist. This filter minimizes operating pressure loss with extended filter life. No other product holds as much oil or will last as long.

- Minimum 95% efficient on 0.3 micron particles
- Lower energy consumption resulting from high air volume capacity which minimizes operating pressure loss
- Does not contain traditional media binders used on commodity HEPA filters which often break down when exposed to oils and fluids
- Polyurethane sealant around frame to prevent leakage or bypass when heavily loaded

PEACH® Saturated Depth Filter Technology

PEACH Saturated Depth Coalescing™ media provides an open 3-D depth matrix structure which allows liquids to saturate the media depth and grow to fullest potential then drain with gravity when the droplet is ready, all while maintaining a low differential pressure.

The SHM PEACH media is a 100% proprietary synthetic media engineered specifically for capturing and draining oil mist and coolant contaminants. The multi-layered media features a special, thermally bonded gradient density fiber structure so the media stays strong, but open during operation for optimized performance. The benefits of PEACH media include:

high efficiency | extended service life | low pressure drop over extended periods of time

How PEACH Works

The unique fiber structure of PEACH media separates the liquid droplets from the airstream in three distinct manners. Unlike depth or pleated filters, PEACH media technology provides multiple airflow paths, increasing the virtual filtration area of the media, thus extending the opportunity for contaminants to be removed.

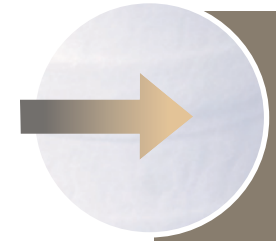
Patent Pending Inner Filter Tube

Filter life is extended with the inner filter tube feature. This patent pending design increases filter capacity and lowers pressure drop resulting in extended filter life and lower cost of ownership.

Drainage

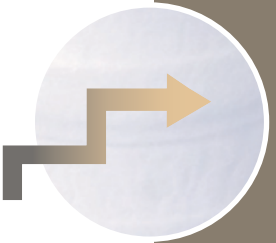
As suspended liquids collect and coalesce on the fiber structure, the droplet size grows and gravity drains the contaminants from the airstream and out of the filter

Three Airflow Paths Remove Over 99% of Contaminants



Radial

Air passes directly through the thickness of the media impacting the fiber structure removing contaminant

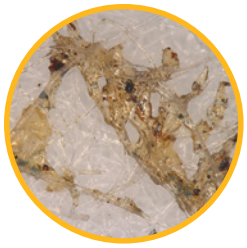


Axial

Media structure forces a large percentage of airflow to take a stair-step path improving particle removal

Helical

The wrapped structure of the fiber matrix creates a corkscrew air pattern that increases dwell time and resulting particle capture



Liquid droplets coalesced within the PEACH fiber matrix

SHM Product Configuration

Designed with Flexibility for Your Application

The units can be configured to meet a wide range of application needs. The unit is easily mounted in various locations, aligning the filter technology with the specific application requirements.

After-filter

Choose between 95% ASHRAE oil mist filter or HEPA filter to capture submicronic particulate.

Blower

Integral mounted fan or discharge plenum with or without after-filter for remote blower connection.

Primary Filter

Choose between fiberglass envelope bags or PEACH coalescing filter cartridges. SHM models are available in configurations with up to 6 filter modules. (Unit with 1 filter module shown.)

Base Mount

Choose between machine mount flange allowing collected fluid to drain directly back into machining center, or floor mounted with a sloped sump and drain.

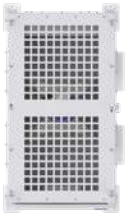
With over 50 years of mist collection experience, our factory trained UAS representatives and application engineers will assist in configuring a solution that meets your unique application needs.

SHM Product Specifications

Model	Filter Media	Module Configuration		Unit Dimensions						Filter Configuration			Nominal Airflow	
				Width		Depth		Height		Qty	Area			
		Width	Depth	(in)	(mm)	(in)	(mm)	(in)	(mm)		(ft^2)	(m^2)	(CFM)	(m^3/hr)
SHM-11F	Fiberglass	1	1	28.5	724	30.1	765	87.8	2,229	1	104	9.7	1,200	2,040
SHM-11C	PEACH	1	1	28.5	724	30.1	765	87.8	2,229	4	39	3.6	1,200	2,040
SHM-12F	Fiberglass	1	2	28.5	724	51.5	1308	87.8	2,229	2	208	19.3	2,400	4,080
SHM-12C	PEACH	2	2	28.5	724	51.5	1308	87.8	2,229	8	78	7.2	2,400	4,080
SHM-21F	Fiberglass	2	1	57.0	1,448	30.1	765	87.8	2,229	2	208	19.3	2,400	4,080
SHM-21C	PEACH	2	1	57.0	1,448	30.1	765	87.8	2,229	8	78	7.2	2,400	4,080
SHM-31F	Fiberglass	3	1	85.5	2,172	30.1	765	87.8	2,229	3	312	29.0	3,600	6,120
SHM-31C	PEACH	3	1	85.5	2,172	30.1	765	87.8	2,229	12	117	10.9	3,600	6,120
SHM-22F	Fiberglass	2	2	57.0	1,448	51.5	1308	87.8	2,229	4	416	38.6	4,800	8,160
SHM-22C	PEACH	2	2	57.0	1,448	51.5	1308	87.8	2,229	16	156	14.5	4,800	8,160
SHM-32F	Fiberglass	3	2	85.5	2,172	51.5	1308	87.8	2,229	6	624	58.0	7,200	12,240
SHM-32C	PEACH	3	2	85.5	2,172	51.5	1308	87.8	2,229	24	234	21.7	7,200	12,240

* Height includes after-filter. For floor mounted stub leg option add 12.8" (323 mm) to height.
Sound level for products at nominal flow is approximately 70 dBA at 5 FT (1,524 mm).
Subtract 18.3" (476 mm) from overall height fore machine mount unit configuration.
Standard product voltage is 380 - 480 Volt / 3 phase / 50-60 Hz. Additional voltage options available.

SHM-11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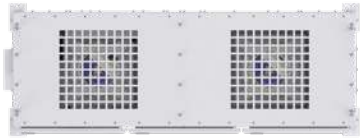
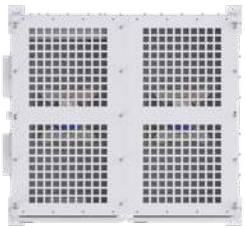

SHM-31

SHM-21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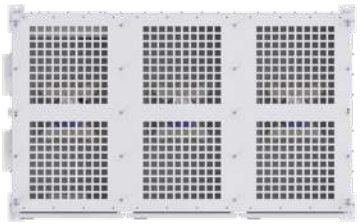
SHM-32

Options and Accessories

- Safety after-filters
  - ASHRAE 95% OM
  - HEPA
- Remote control packages
- Manual speed control option
- 230V / 3PH / 60 Hz blower
- Step down transformers
- Machine mount kits
- Floor mount extension legs
- Clean air discharge plenums
- Drain loop trap
- Sump pump
- Custom paint colors
- Magnehelic® gauges

SMOGHOG®

Parker Hannifin is committed to providing clean air solutions that protect your employees, improve plant performance and enable you to realize your operating goals.

Our commitment is backed by continuous investment in research, leading-edge technology and product development, our people whom are the most knowledgeable in the industry, and a product portfolio that is proven to deliver results. We have been solving problems for you, our customers across the globe for over 50 years.

Industrial Applications

Manufacturing

- Die Casting
- Extrusions
- Wet Grinding

Metalworking

- Casting
- CNC Machining
- Cold Forming
- Boring
- Drilling
- Hobbing
- Sawing
- Milling
- Gear Cutting
- Heat Treating
- Lathes
- Screw Machining
- Soldering
- Wire Drawing
- Broaching
- Punching
- Roll Forming
- Stamping

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DY-PH1811-020

State of California ONLY
WARNING: Proposition 65
The products described herein can expose you to chemicals known to the State of California to cause cancer or reproductive harm.
For more information: www.P65Warnings.ca.gov

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