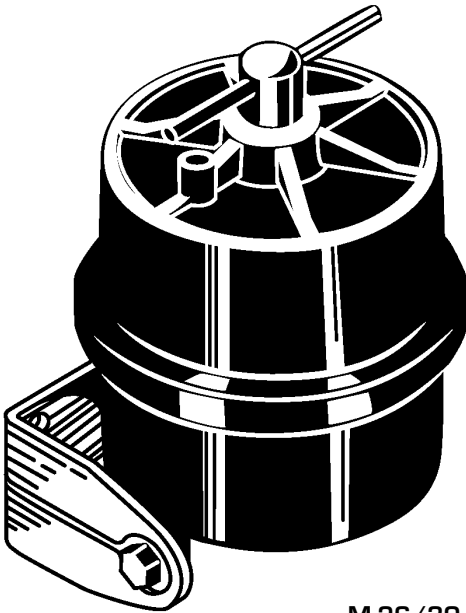


# INSTALLATION & MAINTENANCE INSTRUCTIONS

## MOTOR GUARD

### SUB-MICRONIC COMPRESSED AIR FILTERS Models M-26, M-30, M-40, M-60



M-26/30



M-40/60

 **WARNING:** Read and understand all instructions before installing, operating or servicing this product. Failure to follow instructions may result in serious personal injury and/or property damage.

**SAVE THESE INSTRUCTIONS**

IF YOU HAVE ANY QUESTIONS ABOUT THE OPERATION OF PRODUCT CALL TOLL FREE  
800-227-2822

8:00 am to 5:00 pm - Pacific Time - Monday through Friday

## GENERAL APPLICATION

Motor Guard sub-micronic compressed air filters are designed to remove condensed moisture, oil aerosols and particulates from compressed air. Used properly, these filters will provide clean, dry, oil free air for critical industrial applications.

For best results, the filter should be installed as close as possible to the point of use, thus ensuring a more complete removal of contaminants picked up in the distribution system and condensation downstream of the compressed air source.


Motor Guard filters are meant to supplement, rather than replace, existing dryers, moisture traps and filters. These filters should be installed downstream of all other air treatment devices and are designed to remove contaminants that might pass through conventional filters.

**Model M-26** For use with portable plasma cutters, comes with a bracket and mounting hardware for direct mounting on equipment. 1/4 NPT pipe ports match fittings on most plasma cutters.

**Model M-30** For mounting in the spray booth or at the workstation, comes with a bracket to facilitate wall or bench mounting. 1/4 NPT pipe ports match most flexible air hose applications.

**Model M-40** 3/8 NPT straight through design for in-line installation on air lines. Eliminates the need for bushings or adapters on small branch lines.

**Model M-60** 1/2 NPT straight through design for in-line installation on branch air lines. Excellent for stationary and mobile applications.

 **IMPORTANT:** These filters are intended for use in industrial compressed air systems only. Do not install where pressures or temperatures can exceed those listed below. These filters are neither designed nor approved for breathing air applications.

## SPECIFICATIONS

Model Number	Port Size	Maximum Airflow @ 80 PSI SCFM	Maximum Inlet Pressure PSIG	Inlet Temperature Range °F	Removal Rating Microns	Replacement Element
M-26	1/4-18 NPT (F)	45	125	32-175	.01	M-723
M-30	1/4-18 NPT (F)	45	125	32-175	.01	M-723
M-40	3/8-18 NPT (F)	60	125	32-175	.01	M-723
M-60	1/2-14 NPT (F)	100	125	32-175	.01	M-723

*Specifications are subject to change without notice.*

## RECOMMENDED APPLICATIONS

- Spray Finishing** – For all finishing applications; industrial, automotive, woodworking and marine. Mount in the spray booth as a final filter to eliminate finishing defects.
- Plasma Cutting** – Ideal for plasma cutters, both stationary and portable. Provides cleaner, faster, smoother cuts while prolonging the life of expensive electrodes and tips.
- Powder Coating** – Deliver dry, oil-free air to the hopper for flawless fluidization and excellent finishes.
- Parts Cleaning** – Mount before the blow gun to provide clean, dry oil-free air for critical blow-off applications.
- Air Powered Tools** – Extend the life of expensive air tools by eliminating contamination and moisture.
- Instrumentation** – Mount at instrumentation panel inlet to ensure clean, ultra-dry air for pneumatic instruments.
- Industrial Applications** – Include packaging, drying, inflating and any application requiring clean, dry oil-free air.

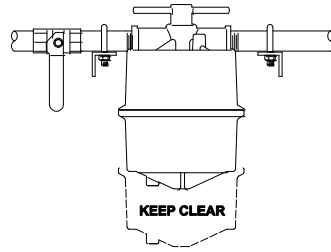
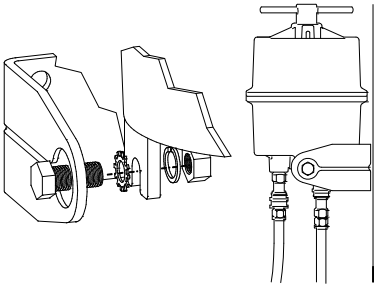
## INSTALLATION

**⚠ WARNING: Disconnect and lockout air supply and drain residual system pressure before installing this filter.** Failure to follow these instructions may result in serious personal injury and/or property damage.

1. Select location of filter to suit application. Mount filter as close to possible to point of use. Allow at least 20 feet of piping between air compressor outlet and filter as this will allow discharge air to cool sufficiently for proper filter operation.
2. Install appropriate fittings needed to adapt filter to in-place piping. A ball-type or other positive shutoff valve or disconnect should be installed upstream of the filter to isolate filter for maintenance. Apply pipe thread compound to male threads only. Do not over tighten fittings.
3. Note direction of airflow before installing filter; "IN" – connection to compressed air supply, "OUT" – connection to tool or equipment.
4. Install filter as follows:

**Models M-26 & M-30**

**Models M-40 & M-60**



1. Mount filter bracket to wall or equipment using appropriate fasteners.
  2. Mount filter to bracket using fasteners provided.
  3. Connect filter using appropriate air line and fittings.
1. Mount filter inline using appropriate fittings.
  2. Piping on inlet and outlet should be properly supported to ensure safe mounting.
  3. Reducers and adapters may be required to accommodate in-place piping.
5. Ensure that T-Handle on top of filter is tight before pressurizing unit. Pressurize slowly to avoid high pressure surge. Once pressurized, check for leaks.

## MAINTENANCE

**⚠ WARNING: Disconnect and lockout air supply and drain residual system pressure before servicing filter. Use only Motor Guard replacement parts.**

As these air filters are high-efficiency, absorbent type, depth filters; periodic changes of the cellulose elements are required. The effective life of the element will depend on the moisture content of the compressed air and the flowrate.

As conditions vary widely between applications, only general guidelines can be provided for filter change intervals. Actual change interval should be determined in the field.

**Dry Air Conditions** – When used in relatively dry conditions, such as downstream of a desiccant dryer or refrigerated air dryer, the change interval should be several weeks. When first installed, the element should be examined after two weeks to determine proper interval.

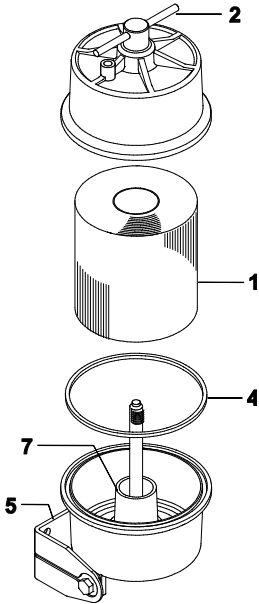
**Moist Air Conditions** – When used on a compressed air system with no drying equipment, change interval will be greatly reduced. When first installed, the element should be examined daily until the proper interval is determined. A dry element will absorb approximately 6 to 8 fluid ounces of liquid and should be changed before it becomes completely saturated.

**Extremely Moist Air Conditions** – Under these conditions, a water separator, with a drain, should be installed in the air line directly upstream of the filter. The separator will remove a large majority of the condensed moisture in the airstream, effectively extending the life of the cellulose element in the Motor Guard filter.

To prevent damage to your air system and components, only genuine Motor Guard replacement elements should be used.

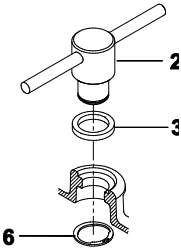
## MAINTENANCE

### Filter Element Replacement



1. Disconnect air supply and relieve residual pressure from filter.
2. Unscrew T-Handle (2) at top of filter and remove upper or lower filter housing. Remove contaminated element and discard.
3. Remove and clean seal (4). Wipe inside of both housings with a clean cloth taking care to also wipe groove in lower housing and mating surface in top housing. Replace seal in groove.
4. Install clean element (1) in lower housing, pushing firmly into place.
5. Inspect threads on T-Handle and threaded stud and repair or replace filter immediately if threads are damaged.
6. Replace housing and engage threads on T-Handle with threaded stud. Tighten T-Handle by hand, in a clockwise direction, drawing housings together and compressing element. Tighten only by hand until seal is fully compressed.
7. Pressurize unit slowly and check for leaks.

## REPLACEMENT PARTS



Key	Part No.	SKU	Description	Qty
1	M-723	00375	Replacement Element (Pk/4)	1
2	101-45	11020	T-Handle	1
3	102-10	22510	Thrust Washer	1
4	106-10	21060	Seal	1
5	108-11	12000	Bracket (M-26/M-30)	1
6	110-20	44510	Retaining Ring	1
7	404-30	22205	Core	2

## LIMITED WARRANTY

Motor Guard Corporation assumes the responsibility of providing products that are free from defects in workmanship and material. Should a product fail due to a defect in workmanship or material, Motor Guard Corporation will repair or, at its option, replace the product without charge, other than the transportation charges, provided that the product is returned to the factory, transportation prepaid, within **One (1) Year** of the date of purchase. Please contact Motor Guard Corporation for return authorization and shipping instructions.

This limited warranty does not cover normal wear and tear or damage to the product due to neglect, misuse or accident, nor does it cover any loss, damage or expense, either direct, indirect or consequential, arising from the non-function of this product.

### Motor Guard Corporation

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