

MODELS M32R&L, M33R&L, M66R&L, M68R&L, M73 INDUSTRIAL MEDIA AMBIENT AIR CLEANERS



Air Quality Engineering Inc., has a policy of continuing product improvement and reserves the right to make changes in design and specification without notice.

Before you get started please review the following:

Purchase Date: _____

Serial Number: _____

Motor Spec: _____

Belt and Sheave Used: _____

Type of oil / coolant collected: _____

Type of filter and AQE P/N: _____

Customer Technical Support:

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Specifications are subject to change without notice.

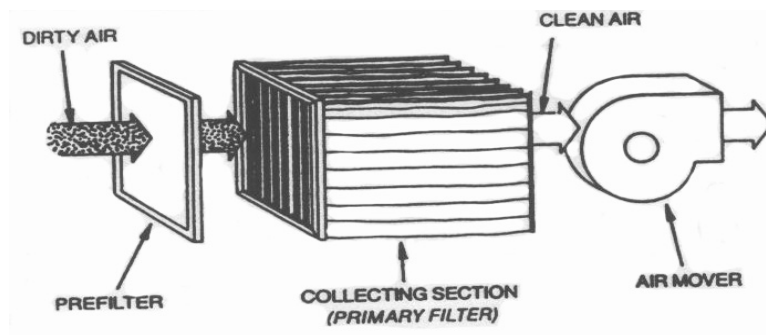
Does not meet California air cleaner regulation requirements; cannot be shipped to California.

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HOW AIRBORNE CONTAMINATION IS REMOVED

Dirty air passes through the prefilter. The prefilter removes large particulate, such as lint. The primary filter then captures the remaining smaller particulate. As the contaminant load on the filters increases, the filters become more efficient in capturing the smaller particles. At the same time, however, the dirty filter allows less particle collection and a decrease in the overall effectiveness of the air cleaner.



SPECIFICATIONS

- IMPORTANT -

THE SPECIFICATIONS GIVEN IN THIS PUBLICATION DO NOT INCLUDE NORMAL MANUFACTURING TOLERANCES. THEREFORE, THIS UNIT MAY NOT MATCH THE LISTED SPECIFICATIONS EXACTLY. ALSO, THIS PRODUCT IS TESTED AND CALIBRATED UNDER CLOSELY CONTROLLED CONDITIONS AND SOME MINOR DIFFERENCES IN PERFORMANCE CAN BE EXPECTED IF THOSE CONDITIONS ARE CHANGED.

THE INDUSTRIAL AIR CLEANERS CAPTURE SMOKE, DUST, MIST AND OTHER AIRBORNE POLLUTANTS IN THE WORKPLACE. THEY ARE COMPLETE SELF-CONTAINED AIR CLEANERS THAT ARE USED BACKGROUND AIR CLEANING TO PROVIDE HEALTHIER WORKING CONDITIONS.

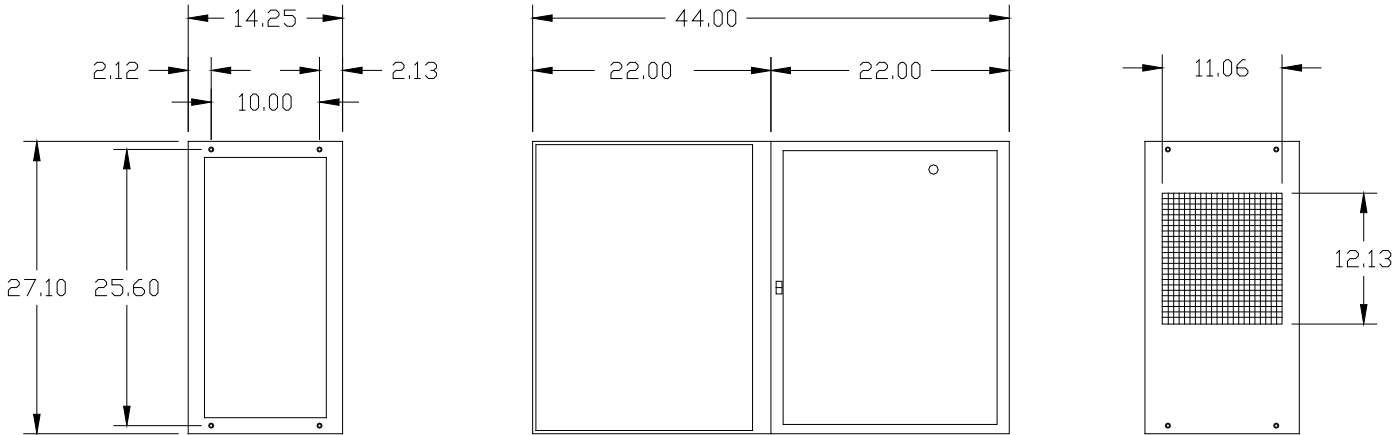
- Factory-installed pressure gauge provides filter status at a glance.
- Heavy-duty, permanently lubricated, ball-bearing motor requires no maintenance.
- Models are available with airflow from left to right or right to left.
- Units are powered from standard grounded outlet. All single phase models equipped with a 10-foot power cord. Three phase have pig tail only.
- Adjustable discharge grill directs airflow where needed.
- The operating temperature range is -40°F to 125°F.
- 16 gauge welded steel cabinet with a baked enamel, textured coated finish

Vac, Hz, Ph	Amps				
	1 Hp	1.5 Hp	2 Hp	3 Hp	5 Hp
120, 60, 1	12.6	17.2	NA	NA	NA
208-240, 60, 1	6.3	8.6	10.2	NA	NA
208-240, 60, 3	3.8	7	6.2	8.6	13.2
440-480, 60, 3	1.9	3.5	3.1	4.3	6.6

* Note: 50hz models, 575V and other electrical requirements available upon request.

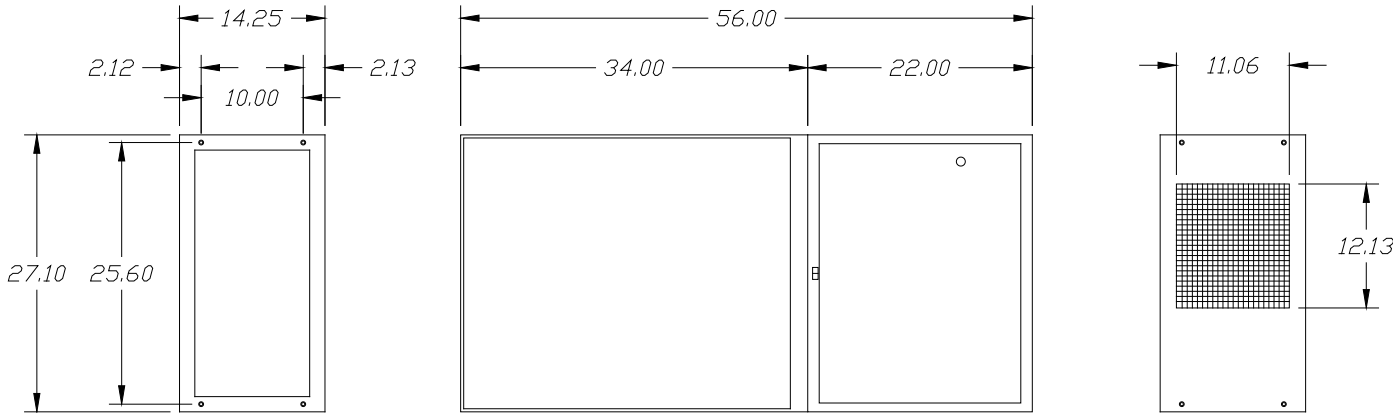
DIMENSIONS

M32 R&L



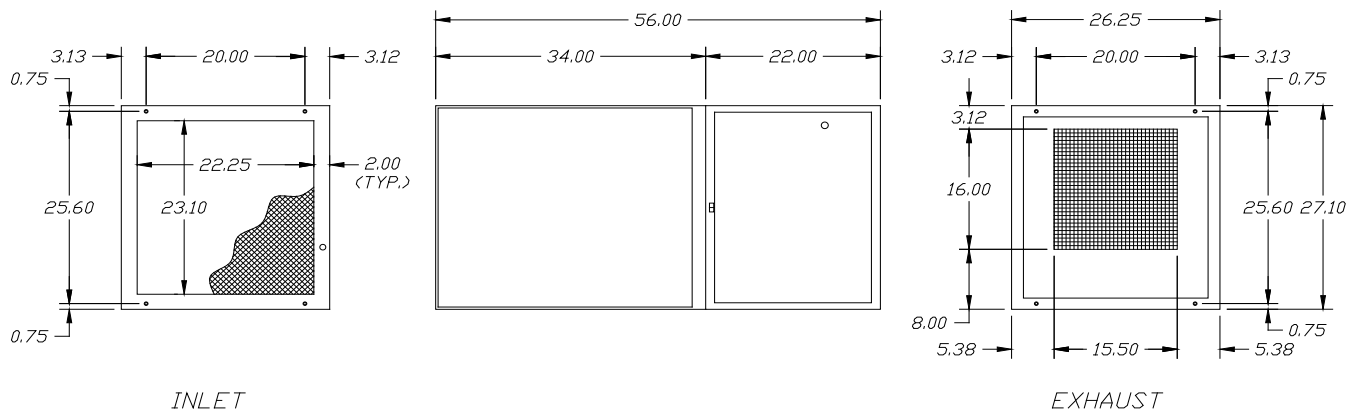
M32 185 lbs installed weight, 220 lbs shipping weight
M32 Filter Door Clearance: 21"
D

M33 R&L

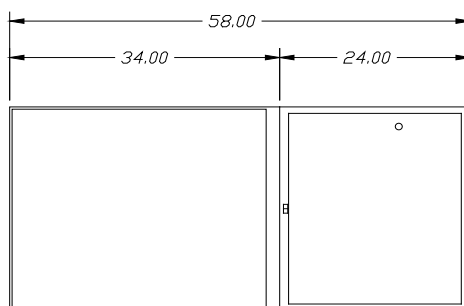


M33 200 lbs installed weight, 240 lbs shipping weight
M33 Filter Door Clearance: 33"
Optional 22 lb carbon module adds 40 lbs to the installed and shipping weight.
Optional 44 lb carbon module adds 84 lbs to the installed and shipping weight.

M66 R&L BELT DRIVE



M66 R&L DIRECT DRIVE



M66: 250 lbs installed weight, 297 lbs shipping weight
M66 Filter Door Clearance: 33"

Optional Wrap-around Pre-filter section: Adds 20" to length and 50 lbs to weight, front access for filter replacement

Optional additional Prefilter section (4" prefilter): Adds 7" to length and 33 lbs. to weight
Prefilter door clearance: 6"

Optional additional Impinger section (4" impingers): Adds 7" to length and 55 lbs. to weight
Impinger door clearance: 6"

Optional 45 lb carbon module adds 95 lbs to the installed and shipping weight, adds no length to unit.

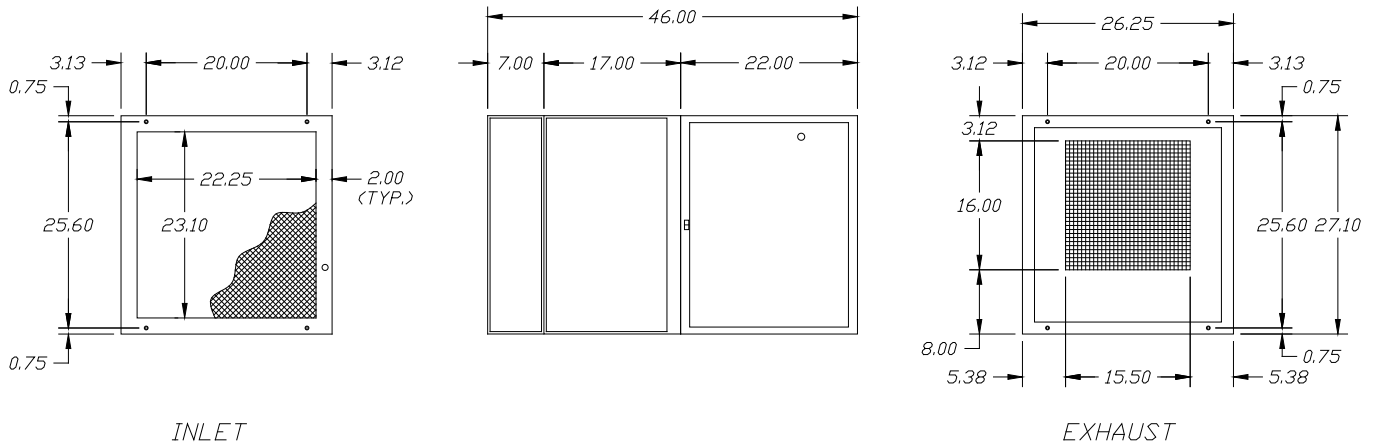
Optional 90 lb carbon module adds 190 lbs to the installed and shipping weight, adds no length to unit.

Optional additional Carbon module: Adds 14" to length and 150 lbs. to weight
Carbon module door clearance: 11"

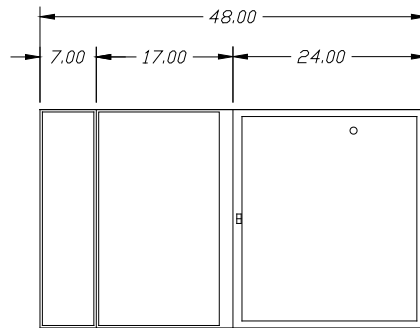
Optional additional HEPA module: Adds 17" to length and 125 lbs. to weight
HEPA module door clearance: 15"

Optional Silencer: Adds 12" to length and x 60 lbs. to weight

M68 R&L BELT DRIVE



M68 R&L DIRECT DRIVE



M68: 250 lbs installed weight, 297 lbs shipping weight

M68 Filter Door Clearance: 15"

Prefilter door clearance: 6"

Optional Wrap-around Pre-filter section: 20"L x 27.1"H x 26.25"D x 50 lbs, front access for filter replacement

Optional additional Prefilter section (4"prefilter): Adds 7" to length and 33 lbs. to weight

Prefilter door clearance: 6"

Optional additional Impinger section (4" impingers): Adds 7" to length and 55 lbs. to weight

Impinger door clearance: 6"

Optional M66 Filter housing: Adds 34" to length and 100 lbs to weight

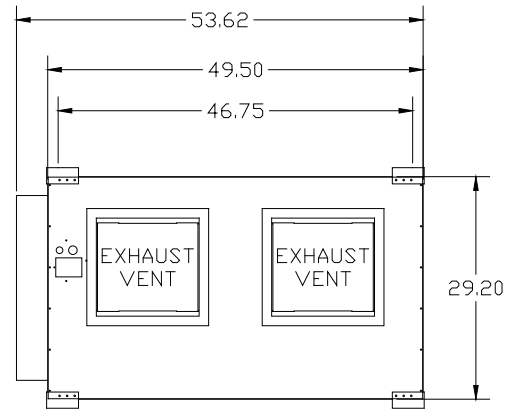
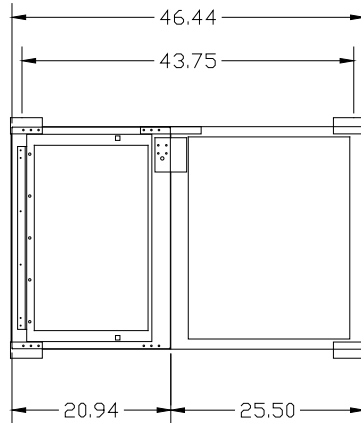
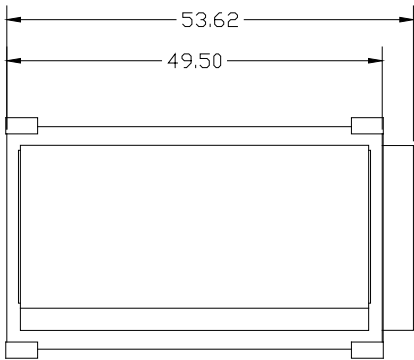
M66 Filter Door Clearance: 33"

Optional Carbon module: Adds 14" to length and 150 lbs. to weight

Carbon module door clearance: 11"

Optional Silencer: Adds 12" to length and 60 lbs. to weight

M73 R&L



M73: 400 lbs installed weight, 460 lbs shipping weight

M73 Filter Door Clearance: 17"

Optional Wrap-around Pre-filter section: Adds 20" to length and 100 lbs. to weight

Wrap around Pre-filter front access for filter replacement

Optional additional Impinger section (4" impingers): Adds 7" to length and 105 lbs. to weight

Impinger door clearance: 6"

Optional Carbon module: Adds 33" to length and 450 lbs. to weight

Carbon module door clearance: 27"

PLANNING THE INSTALLATION

- WARNING -

Air Quality Engineering, Inc. air cleaners are not explosion-proof. They must not be installed where there is danger of vapor, gas or dust explosion.

INTRODUCTION

Clean air is the subject of numerous laws and regulations. Typical requirements in the United States are those put out by the Occupational Safety and Health Administration (OSHA). Private groups, such as the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), have also published numerous recommendations.

Normally, clean air is defined in regulations and recommendations as air having a limited amount of contaminant in it, commonly expressed as parts per million or milligrams per cubic meter. Approved counteractions are intended to lower or eliminate the amount of contaminants in the air. One of the more common methods of achieving this goal is through the use of media air cleaners.

At no time should a media air cleaner be placed where there is a potential for explosion due to the presence of explosive dusts, gases or vapors.

Contact the nearest Air Quality Engineering, Inc., representative for assistance in determining the correct application of a media air cleaner.

SIZING

Sizing is that part of the installation which determines how many air cleaning units are required to maintain a desired level of air quality. The process of sizing an application involves roughly calculating the number of air cleaners needed and then modifying the calculation according to the specific characteristics of each application.

For ambient air cleaning, the air cleaners are strategically placed overhead or on stands to provide background air cleaning.

For background air cleaning, the number of media air cleaners needed can be estimated by the relationship of air volume to the needed air changes per hour. In these cases, the following formula is helpful:

$$\text{Air Cleaners} = \frac{\text{Air Volume} \times \text{Air Changes/Hour}}{\text{Clean Air Rating}}$$

Or reference our website:

<http://www.air-quality-eng.com/sizing.php>

The air volume in a space is sometimes reduced to account for high ceilings and large equipment in the space. For example, in an application where the ceiling is higher than 30 ft. (9.1 m), the air volume above 30 ft. (9.1 m) may be subtracted if it does not significantly affect contaminant dispersal either by how the contaminants are circulated from their sources or how the heating, cooling or ventilating equipment affects the disbursement of the contaminants. Also, if equipment takes up a great deal of space in relation to the total air space, its' volume may be deducted from the total air volume.

A method for calculating the needed air changes per hour is to measure the generation rate of the contaminants and the suggested allowable level of contamination. To use this method of calculation, consult your Air Quality Engineering, Inc., representative.

Regardless of the method used to calculate the number of units needed to produce clean air, the physical conditions of the space to be cleaned may either limit this number or demand that more units be installed. For background air cleaning, it is important to establish a uniform airflow pattern throughout the entire space. Limitations to the calculated sizing may be a lack of space for mounting areas or the number of units may interrupt normal building operation; that is, a unit cannot be mounted where an overhead crane will smash into it or where stand mountings seriously interrupt building traffic patterns. The number of units required by air volume and air changes per hour might need to be increased when the shape of a structure is such that effective capturing and air distribution is not possible according to the sizing calculations.

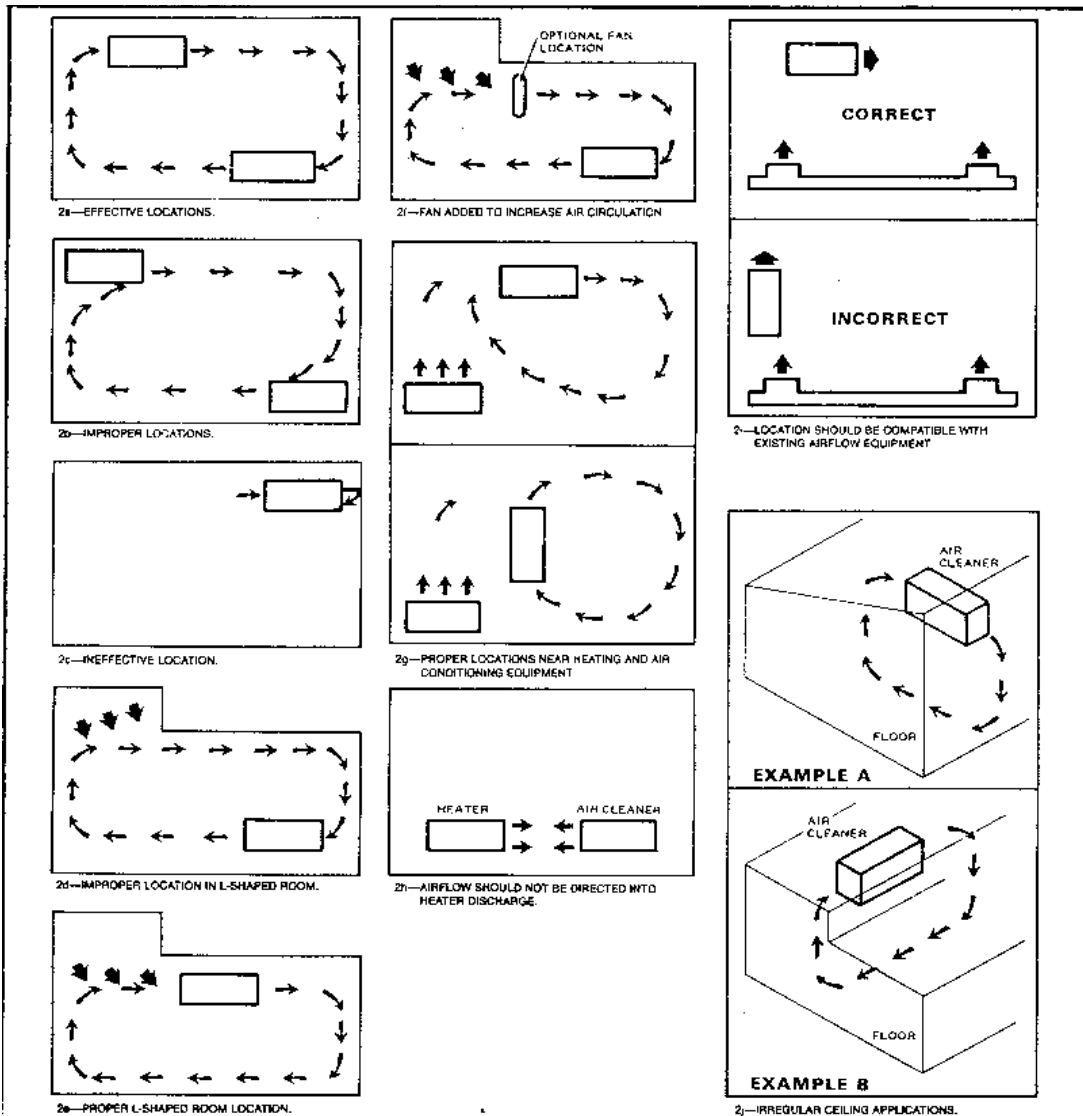


FIGURE 2 – GUIDELINES FOR LOCATING THE AIR CLEANER WHEN AMBIENT CLEANING

AMBIENT CLEANING

Whether an air cleaner is ceiling hung or placed on a stand, the first important consideration is that the inlet of the unit be located as close as is reasonably possible to the greatest concentration of air contaminants. Second, since the air cleaner draws contaminated air from approximately 10 ft. (3.0 m) around the outlet and exhausts the cleaned air from 50 to 75 ft. (15.2 m to 22.8 m) from the outlet, the inlet of the unit should be placed 25 percent of the distance along the wall of a room. See Fig. 3.

DO NOT locate an air cleaner inlet too close to the corners of a room. Contaminated air will be able

to bypass the unit and not be cleaned. DO NOT locate an air cleaner outlet too close to a corner or wall. See Fig. 2 (2c). The cleaned air will recirculate directly back to the air cleaner inlet.

DO NOT locate an air cleaner in an L-shaped room so that exhausted air enters directly into the small portion of the room as shown in Fig. 2 (2d). This can produce a self-contained circular air pattern in the small part of the room that decreases the air cleaner's effectiveness. Locate an air cleaner in an L-shaped room as indicated in Fig. 2 (2e).

The shape of a room and location restrictions may require the installation of a fan as in Fig. 2 (2f) to promote proper air circulation. Also, the size of a

room may require the use of fans to bring contaminants to an air cleaner inlet.

In rooms with irregular ceilings, install the air cleaner close to the ceiling on the highest wall as Example A indicates in Fig. 2 (2j). When one section of the ceiling is at least 12 in. (3-4.8 mm) higher than another, locate the air cleaner in the area with the higher ceiling as shown in Example B of Fig. 2 (2j).

When selecting locations for numerous units, position the air cleaners to create uniform movement of air and provide maximum access to the sources of contamination. The outlets of the air cleaners should not be located so that they generate opposing air currents or that the outlet from one air cleaner is less than 30 ft. (9.1 m) from the inlet of another air cleaner.

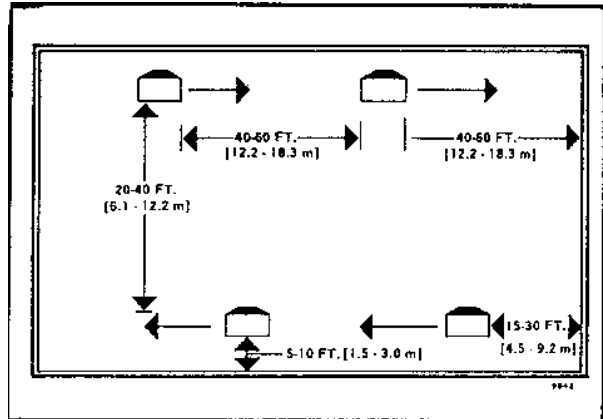


FIGURE 3 – LOCATION GUIDE FOR BACKGROUND CLEANING

INSTALLATION

WHEN INSTALLING THIS PRODUCT

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

UNPACKING

The air cleaner mounting brackets and hardware are packed in one box. Check all air cleaner components carefully when unpacking. Remove all shipping cardboard. Be sure to inspect all packing materials before discarding them.

- CAUTION -

1. Do not connect the power source until after the air cleaner is mounted. This will prevent electrical shock or equipment damage.
2. Be sure to turn the air cleaner off before servicing it. The air cleaner motor may be equipped with an automatic thermal overload. Should the motor become overheated, it will automatically stop. It will automatically start after a sufficient period of cooling (several minutes to an hour).
3. If the air cleaner must be turned on for an electrical check, be extremely careful in avoiding electrical shock. Also, take care when working near the air cleaner's moving parts.

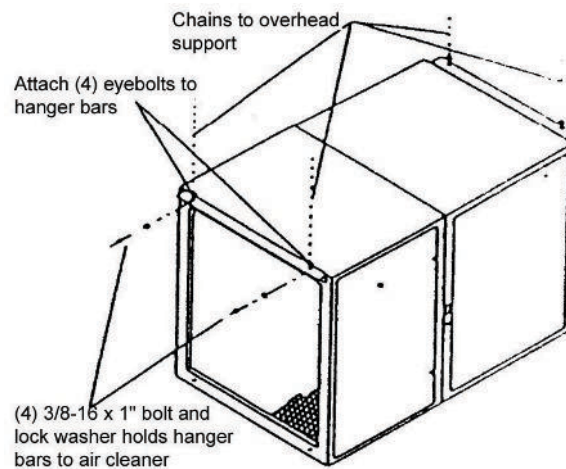
STAND MOUNTING

Securely place the air cleaner on an appropriate stand or cart and locate as close to the contaminant source as possible. The position should also allow satisfactory distribution of air from the outlet of the air cleaner

OVERHEAD MOUNTING

When installing the air cleaner in an overhead location, position the air cleaner as close to the contaminant source as possible. This increases the air cleaner's effectiveness. It is important to select an overhead mounting location for the air cleaner that provides easy access for cell cleaning and maintenance. Do not place a ladder against the air cleaner when it is mounted overhead in order to gain access to the air cleaner interior.

Be certain that the mounting hardware (not included) from the air cleaner to the ceiling provides adequate strength and stability and that it is securely attached to the overhead structure. Do not fasten the air cleaner to a false ceiling, to plaster or to plasterboard. In some cases, it may be necessary to construct supports that will bear the weight of the air cleaner when it is hung in an overhead location.



**FIGURE 10 – MOUNTING M66 OVERHEAD
M73 USES 3/8" EYEBOLTS PROVIDED**

ELECTRICAL INSTALLATION

1. Cord Connected

The power cord must not be concealed above the ceiling or behind the walls. Route the power cord so it will be out of the way of the building's occupants.

The air cleaner models have 10-foot power cords with standard three-prong plugs. There must be a standard grounded outlet provided within 10 feet of the air cleaner. Do not use an extension cord.

The three phase air cleaner models have a 10-foot power cord. An appropriate plug is required since it is not standard with the air cleaner.

2. Conduit Connected

- CAUTION -

This procedure should be attempted only by persons qualified to install electrical wiring.

All wiring must comply with applicable codes and ordinances. Be sure the power source is compatible with the model ordered.

It is recommended that No. 12 gauge wire be used to complete the wiring from the air cleaner wiring compartment to the external power source. However, be certain to comply with local codes. A green wire is provided in the wiring compartment for a grounding connection. Proper grounding of this device is mandatory for proper operation and safety.

- Remove the wiring compartment cover and the 10-foot power cord.
- Run the 12-gauge wires through the conduit. Attach the conduit to the knockout desired, $\frac{1}{2}$ " or $\frac{3}{4}$ ".
- Use the wire nuts to make connections in the wiring compartment. See Fig. 12 for single phase models. See Fig. 13 for three phase models.
- Re-attach the wiring compartment cover.

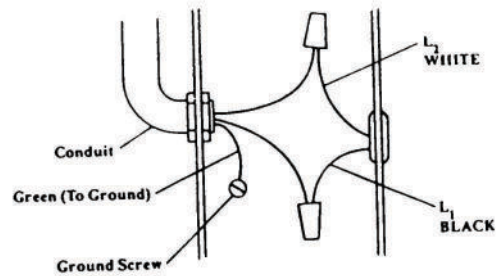


FIGURE 12 – SINGLE PHASE

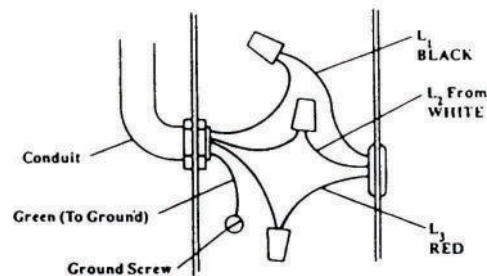


FIGURE 13 – THREE PHASE

CHECKOUT AND OPERATION

CHECKOUT

Before operating the air cleaner, check out the installation using the following procedures:

- Make sure the air cleaner is oriented for good air circulation where it will not interfere with personnel and material traffic. Keep out of fire lanes and away from overhead cranes.
- Make sure the air cleaner is securely mounted to the building structure.
- Clean the inside of the cabinet, the outside of the cabinet and the installation area.
- Make sure that the blower cover and the wiring compartment cover have been reinstalled securely.
- Make sure the prefilter and the primary filter are properly oriented and the airflow arrows are pointing toward the blower.

6. Make sure the filter change gauge (manometer) is level. See the spirit level in the right hand corner of the gauge. If not make sure the air cleaner is level. Minihelic option: Make sure minihelic is at zero, if not reference calibration of the minihelic.
7. Check the oil level in the filter change gauge and adjust the zero knob so the oil level is at zero inches of water when the air cleaner is turned off.
8. Adjust the discharge grille to direct the airflow, as desired.

OPERATION

Turn on the air cleaner control switch. Make sure the blower is providing a strong discharge. On belt drive models, the blower should be rotating in the direction shown on Fig. 14. On direct drive models reference the arrow on the blower. **If the air cleaner is a three phase air cleaner, correct the rotation by interchanging any two power leads.**

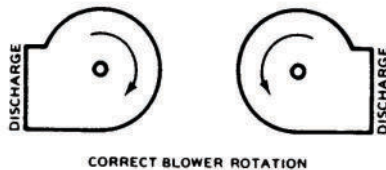


FIGURE 14 – BLOWER ROTATION

NOTE: If the air cleaner does not seem to be operating correctly, refer to the TROUBLE-SHOOTING section of the manual.

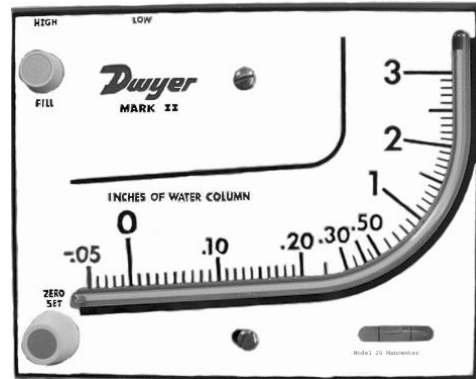
CALIBRATION OF THE DWYER FILTER GAUGE

After the air cleaner has been installed and is ready for operation, the air filter gauge must be calibrated. See the following simple steps:

1. Check that the filter gauge is level. See the spirit level in the right hand corner of the gauge.
2. Check the red oil level and adjust the zero knob so that the oil level is at zero inches of water when the air cleaner is turned off.
3. Turn the air cleaner on with the clean filters in place. Place the green arrow adjacent to the

point at which the red oil rises. The green arrow will indicate clean filters.

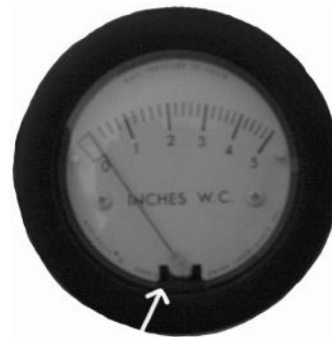
4. Place the red arrow on the gauge scale one inch higher (according to the scale) than the



green arrow. This will indicate dirty filters. A one-inch rise in static pressure indicates a reduction in airflow of approximately twenty-five percent.

CALIBRATION OF THE MINIHELIC

1. Remove the plastic cover by turning it counter-clockwise. One may have to press on the cover as one is turning it.
2. With the supplied hex wrench, one can adjust the needle by turning the hex screw at the bottom of the gauge.



Zeroing hex screw

ADJUSTMENTS

The blower capacity of the air cleaner is factory-set at the maximum volume of air, considering the filter efficiency and other options ordered, such as impingers plenums and carbon.

On belt drive models if increased or decreased airflow is desired, it can be accomplished by adjusting the variable sheave on the motor. It is very important to measure the amperage before and after the adjustments are made on the variable motor sheave to insure that the motor is not overloaded. The rated amperage is listed on the schematic on motor itself.

1. Unplug the air cleaner and open the access door to the blower and motor section of the air cleaner.
2. Loosen the two bolts locking the end of the motor rail in position. Remove the belt.

3. Loosen the Allen setscrew on the face of the motor sheave.
4. Rotate the sheave into a position that gives the desired blower capacity.
5. Measure the amperage after the sheave adjustment to insure that you do not exceed the rated amperage

NOTE: When the sheave is rotated all the way into the shaft, the blower capacity is at its maximum. When the sheave is rotated five turns out on the shaft, the blower capacity is at its minimum. DO NOT ROTATE THE ADJUSTABLE SHEAVE MORE THAN FIVE TURNS OUT ON THE SHAFT. The sheave may already be adjusted one or more turns out on the shaft.

FILTER MAINTENANCE / REPLACEMENT

- CAUTION -

Always disconnect the power to the air cleaner before working on or near the air cleaner.

Do not place a ladder against the air cleaner when it is mounted in an overhead position. A lift platform should be used to gain access to the air cleaner for filter removal and servicing.

The air cleaner was designed to support only the weight of the internal components; motor, blower, and filters. Do not climb in or on the air cleaner. Failure to heed this warning could result in damage to the air cleaner or bodily injury

FILTER MAINTENANCE

Dirty air passes through the prefilter. Large particulate, such as lint, is removed by the prefilter. The remaining smaller particulate is then captured by the primary filter.

As the contaminant load on the filters increases, the filters become more efficient in capturing the

smaller particles. At the same time, however, the dirty filter allows less air to pass through resulting in less particle collection and a decrease in the overall effectiveness of the air cleaner.

An increase of one inch on the gauge would be approximately a 25% decrease in airflow. If the reduction in airflow is not a problem, the air cleaner can be operated beyond this point. The red arrow can be replaced at the point at which the decrease in airflow becomes a problem.

FILTER REPLACEMENT

Prefilter:

1. Open the filter access door and filter retainer.
2. Slide the prefilter out of the track.
3. Slide new or cleaned prefilter in to the retaining track and swing the filter retainer closed
4. Close the filter access door.

If no performance improvement is evident after cleaning or replacing the prefilter then the primary filter will have to be replaced.

Primary Filter:

1. Open the filter access door and filter retainer.
2. Slide the filter out of its retaining track.
3. Slide new or cleaned main filter in to the retaining track and swing the filter retainer closed
4. Close the access door

HEPA:

- CAUTION -

The HEPA filter weighs approximately 40 lbs. Use appropriate means to support the HEPA filter during service.

1. Open the filter access door.
2. Loosen the two filter retainer bolts. A 9/16" wrench will be necessary for this step.
3. Remove the Hepa filter. Caution should be used because the filter weighs approximately 40 lbs. new.
4. Slide the new Hepa filter in place. Make sure the airflow arrow points towards the blower.
5. Using the 9/16" wrench, tighten the filter retainer bolts to compress the filter gasket.
6. Close the filter access door.

Carbon Module:

- CAUTION -

The carbon filter weighs about 50lbs in the M33 and 100 lbs in the M66. Use appropriate means to support the carbon filter during service.

1. Open the filter access door.
2. Reach into the air cleaner downstream of the filters. Slide the used carbon module out of the retraining track and remove the carbon module.
3. Slide the new carbon module into the retaining track
4. Close the access door.

- WARNING -

It is the customer's responsibility to determine the suitability of the carbon filter for any particular application or purpose. The effectiveness of activated carbon must be routinely monitored. In addition, certain substances can combine in the carbon that can result in a fire hazard. Air Quality Engineering, Inc., accepts no liability for the activated carbon effectiveness or fire hazard.

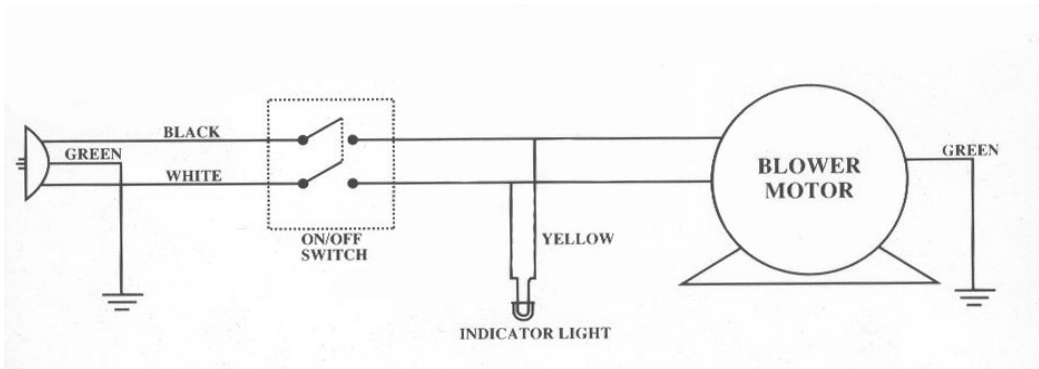
MANOMETER GAUGE MAINTENANCE

Check the oil level occasionally and adjust the zero knob as required. Be sure all pressure is removed by turning the air cleaner off before adjusting the zero knob. If it becomes necessary to add more oil to the gauge, be certain to use only Dwyer Oil that is provided with the air cleaner. Other fluids may damage the gauge. To fill the gauge first max out (turn clockwise) the zero adjust knob (lower left). Unscrew the fill cap (upper left). Pour in oil. Oil is thick so be patient. Screw back on the fill cap. If oil is past the zero

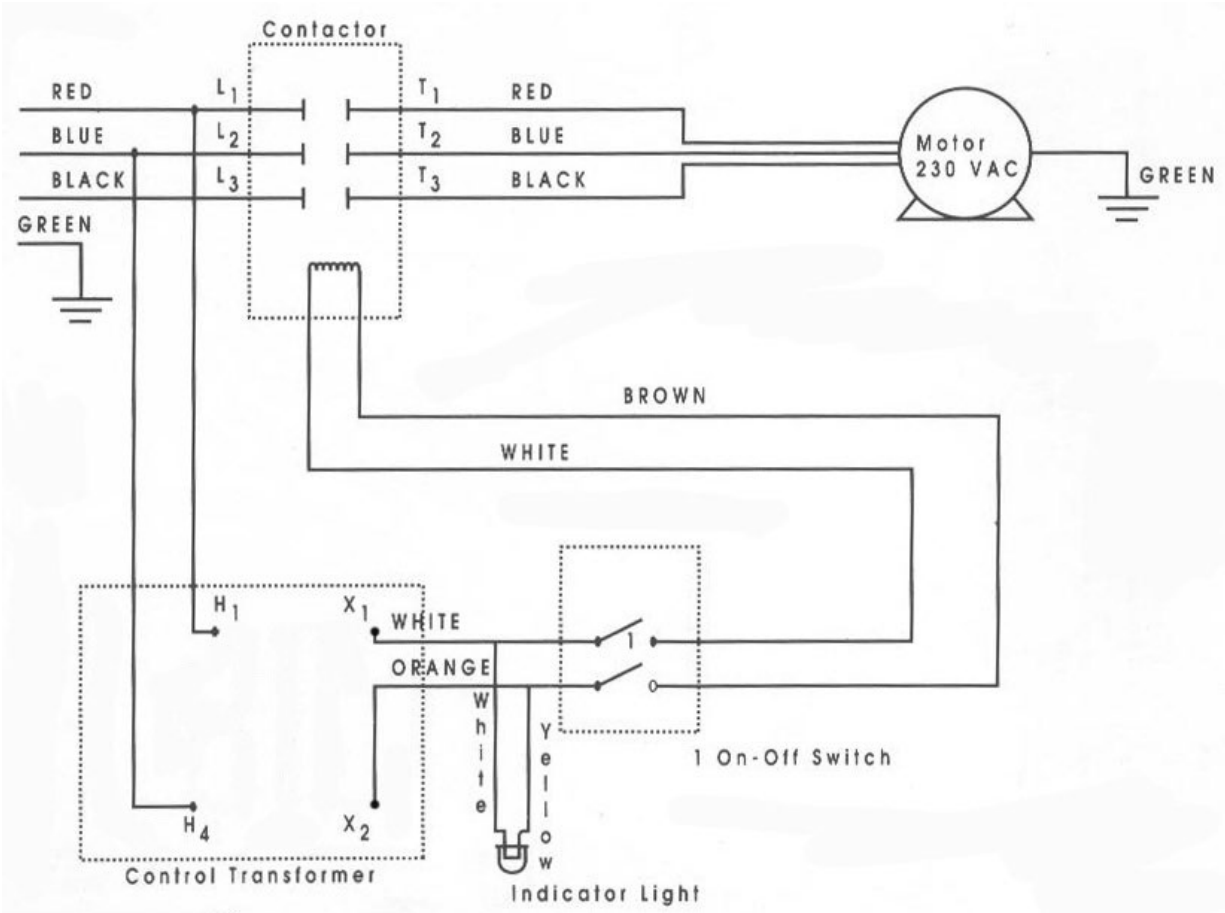
level back out (turn counter clockwise) the zero adjust knob.

Clean the gauge with a soft cloth using a little soap and water. Use of a small brush will aid in cleaning the knobs. Avoid cleaning fluids and liquid soaps, which may have chlorinated solvents in them as they may damage the gauge.

ELECTRICAL SCHEMATICS



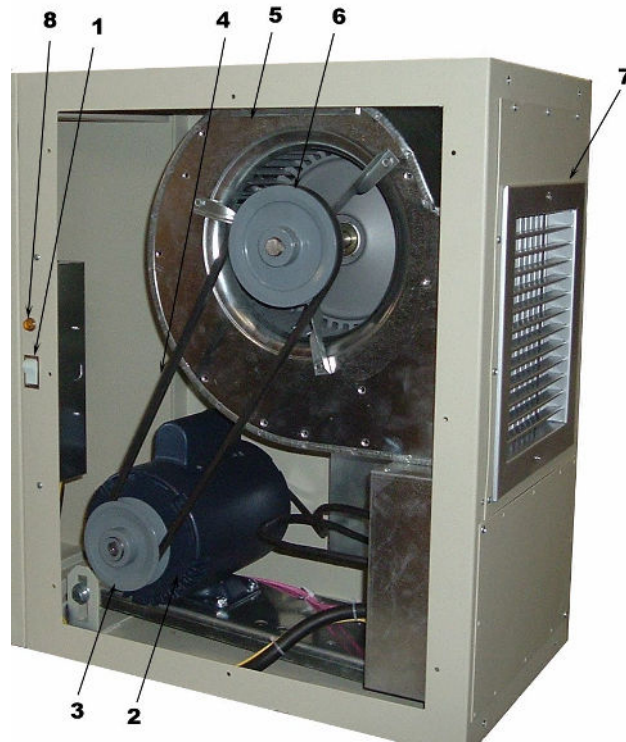
SINGLE PHASE



3 PHASE – 230V or 460V

PARTS LIST

M32/ M33 BELT DRIVE BLOWER SECTION



NO.	DESCRIPTION	PART NO.
1	On/Off Switch	10140
2	Motor, 1 Hp single phase 1.5 Hp single phase 2 Hp single phase 1 Hp 3 phase 2 Hp 3 phase	40013 40037 40039 40009 40040
3	Motor Sheave Variable 1VL44-5/8 Motor Sheave Variable 1VM50-5/8 Motor Sheave Variable AK56-5/8	30166 30583 30577
4	Belt A40 Belt A41 Belt A42 Belt A43 Belt A44 Belt A45 Belt A46 Belt A47	30603 30602 30011 30543 30531 30581 30582 30234
5	Blower	37020
6	Blower Pulley AK41-3/4 Blower Pulley AK46-3/4 Blower Pulley AK51-3/4 Blower Pulley AK56-3/4 Blower Pulley AK64-3/4	30601 30599 30600 30019 30167
7	Exhaust Grille	30530
8	Indicator Light	10097

M32 / M33 Filters

Standard Prefilters for M32/M33: 41124

Standard Primary Filters for M32: 41220, 41221

Standard Primary Filters for M33: 41128, 41129

Prefilters

- 41110 Polyester Media Roll for Media Pad Prefilter, 2" x 26" x 60'
- 41124 35% eff. High-capacity Pleated Prefilter, 12" x 24" x 4"
41124 each for quantity of 5
- 41170 Aluminum Mesh Prefilter, 23 3/8" x 11 3/8" x 2", (two req.)
- 41179 Frame for Media Pads, 24" x 12" x 2" (2 req.)
- 41202 Aluminum Mesh Impinger, 14" x 24 19/32" x 2" (Inside 07072)

Primary

- 41128 95% Bag Filter (M33/M33V)
- 41129 85% Bag Filter (M33/M33V)
- 41161 90-95% DOP Extended Service Filter, 12" x 24" x 12"
- 41136 90-95% Extended Service Filter, 12" x 24" x 12"
- 41137 80-85% Extended Service Filter, 12" x 24" x 12"
- 41181 85% Mist Bag, 12" x 24" x 26", M33
- 41182 95% Mist Bag, 12" x 24" x 26", M33
- 41184 85% Rigid Mist Filter, 12" x 24" x 12"
- 41185 95% Rigid Mist Filter, 12" x 24" x 12"
- 41220 MERV 14 Polypropylene ESF Filter, 12" x 24" x 12"
- 41221 MERV 13 Polypropylene ESF Filter, 12" x 24" x 12"
- 41224 MERV 11 Polypropylene ESF Filter, 12" x 24" x 12"

Carbon

- 41123 22 lb. Carbon Module, M33 Only
- 41165 50 lb. Carbon Refill
- 41081 200 lb. Carbon Refill, granular A/C

M66&M68 BELT DRIVE BLOWER SECTION



NO.	DESCRIPTION	PART NO.
1	On/Off Switch	10140
2	Motor, 1 Hp 1 Ph Motor, 1.5 Hp 1 Ph Motor, 2 Hp 1 Ph Motor, 1 Hp 3 Ph Motor, 2 Hp 3 Ph Motor, 3 Hp 3 Ph	40013 40037 40039 40009 40040 40041
3	Motor Sheave 1VL44-7/8 Motor Sheave 1VL50-7/8 Motor Sheave 1VL56-7/8	30534 30362 30715
4	Belt A40 Belt A41 Belt A42 Belt A43 Belt A44 Belt A45 Belt A46 Belt A47	30603 30602 30011 30543 30531 30581 30582 30234
5	Blower	37012
6	Blower Pulley AK41-3/4 Blower Pulley AK46-3/4 Blower Pulley AK51-3/4 Blower Pulley AK56-3/4 Blower Pulley AK64-3/4	30601 30599 30600 30019 30167
7	Exhaust Grille	30486
8	Indicator Light	10097
9	Transformer (3Ph only)	10075
10	Relay, contact (3Ph only)	10078

M66&M68 DIRECT DRIVE BLOWER SECTION



NO.	DESCRIPTION	PART NO.
1	On/Off Switch	10140
2	Inlet Cone, 2 Hp & 3 Hp Inlet Cone, 5 Hp	37036 37033
3	Wheel, 2 Hp Wheel, 3 Hp Wheel, 5 Hp	37040 37035 37032
4	Motor, 2 Hp 3 Ph Motor, 3 Hp 3 Ph Motor, 5 Hp 3 Ph	40071 40070 40056
5	Exhaust Grille	21782
6	Relay, Contact	10078
7	Transformer	10075

M66 Filters

Standard Prefilter for M66: 41143

Standard Primary Filters for M66: 41055, 41056, or 41072

Prefilters

- 41053 35% eff. Pleated Prefilter, 24" x 24" x 2"
- 41143 35% eff. High-capacity Pleated Prefilter, 24" x 24" x 4"
41143 each for quantity of 5
- 41089 65% eff. Pleated Prefilter, 24" x 24" x 2"
- 41173 65% eff. High-capacity Pleated Prefilter, 24" x 24" x 4"
41173 each for quantity of 5
- 41083 Aluminum Mesh Prefilter, 24" x 24" x 2"
- 41146 Aluminum Mesh Impinger, 24" x 24" x 2"
- 41106 Polyester Media Pad for Wrap-around Prefilters, 2" x 26" x 63"
- 41110 Polyester Media Pad for Wrap-around Prefilters, 2" x 26" x 60'
- 41082 Polyester Media Pad for Wrap-around Prefilters, 135' x 24" x 1"

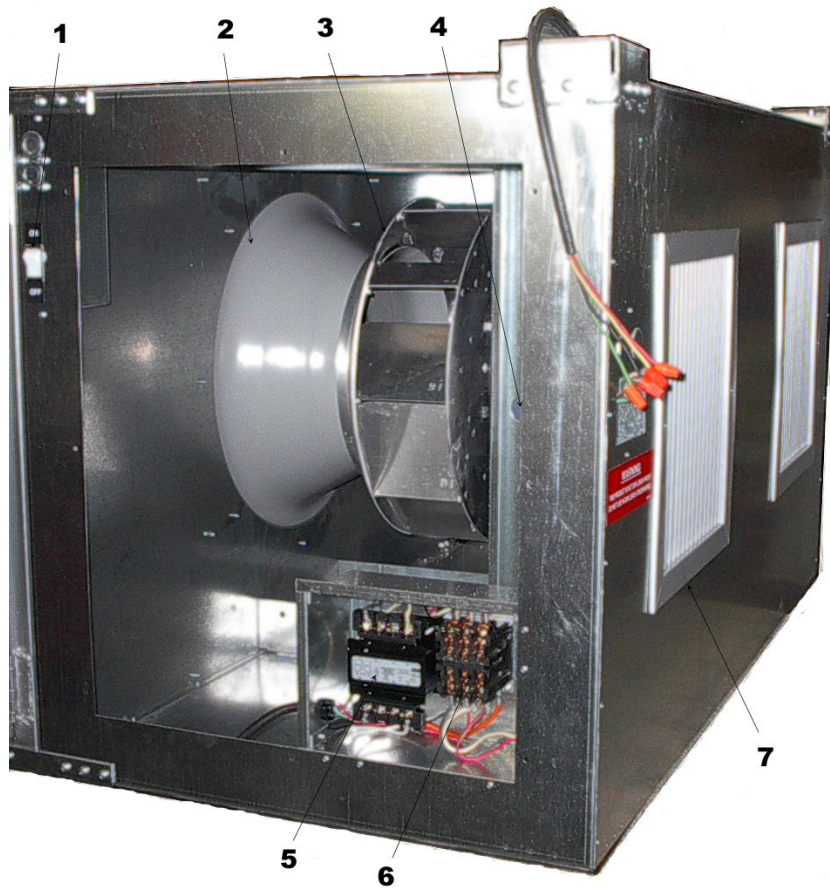
Primary

- 41061 35% Cube, 24" x 24" x 22"
- 41055 MERV 11 Multi-Pocket Bag, 24" x 24" x 21"
- 41056 MERV 13 Multi-Pocket Bag, 24" x 24" x 21"
- 41072 MERV 14 Multi-Pocket Bag, 24" x 24" x 21"
- 41233 95% Mist Bag 24x24x26 10 Pocket
- 41234 85% Mist Bag 24x24x26 10 Pocket
- 41134 90-95% Extended Service Filter, 24" x 24" x 12"
- 41135 80-85% Extended Service Filter, 24" x 24" x 12"
- 41160 90-95% DOP Extended Service Filter, 24" x 24" x 12"
- 41186 95% Rigid Mist Filter, 24" x 24" x 12"
- 41187 85% Rigid Mist Filter, 24" x 24" x 12"
- 41218 MERV 14 Polypropylene ESF Filter, 24" x 24" x 12"
- 41219 MERV 13 Polypropylene ESF Filter, 24" x 24" x 12"
- 41223 MERV 11 Polypropylene ESF Filter, 24" x 24" x 12"
- 41232 Heavy Duty Long Life Mist Filter
- 41235 Heavy Duty Long Life Mist Filter With Header

Carbon

- 41077 45 lb. Carbon Module Filter
- 41165 50 lb. Carbon Refill
- 41081 200 lb. Carbon Refill, granular A/C

M73 BLOWER SECTION



NO.	DESCRIPTION	PART NO.
1	On/Off Switch	10140
2,3	Inlet Cone & Wheel	37042
4	Motor, 5 Hp 3 Ph	40061
5	Transformer	10075
6	Relay, Contact	10078
7	Exhaust Grille	30565
(Not Shown)	Prefilter (2) MERV 8 - 35%	41143
	Prefilter (2) MERV 11 – 65%	41173
(Not Shown)	MERV 14 Polypropylene ESF Filter, 24" x 24" x 12" (2)	41218
(Not Shown)	MERV 13 Polypropylene ESF Filter, 24" x 24" x 12" (2)	41219
(Not Shown)	MERV 11 Polypropylene ESF Filter, 24" x 24" x 12" (2)	41223

CERTIFICATE OF WARRANTY

THREE-YEAR LIMITED WARRANTY

Air Quality Engineering, Inc. (AQE), warrants to the original purchaser, subject to the conditions below, that if the "Product" covered by this warranty should fail to perform by reason of improper workmanship or material, AQE will during the period of three (3) years from the date of original purchase either (i) replace the product or (ii) provide all necessary parts to repair the product without charge. The decision to replace the product or the necessary parts shall rest solely with AQE. This three-year limited warranty does not apply to main filter elements. AQE will replace without charge the main filter elements during the period of thirty (30) days from the date of original purchase if the main filter elements fail to perform by reason of improper workmanship or material. This warranty is valid only under the following conditions:

CONDITIONS

1. **REGISTRATION:** The purchaser's completion and mailing of the Registration Card to Air Quality Engineering, Inc., 7140 Northland Drive North, Minneapolis, Minnesota 55428-1520 within 30 days of original purchase.
2. **AUTHORIZATION:** The purchaser will contact AQE at (800) 328-0787 for authorization, returned goods number (RGA) and the shipping address. AQE will direct the purchaser to either return the necessary parts or the product at AQE's option.
3. **PROPER DELIVERY:** The shipping, freight prepaid or delivery of the parts or the product to AQE in either its original carton or in a carton assuring similar protection of the product with the returned goods number (RGA) clearly displayed on the outside of the carton.
4. **UNAUTHORIZED REPAIR:** A showing by the original purchaser that the product has not been altered, repaired or serviced by anyone other than an authorized service technician using genuine AQE parts.
5. **UNAUTHORIZED PARTS:** A showing by the original purchaser that the product has had only genuine AQE parts and filters used in its operation and maintenance.
6. **SERIAL NUMBER INTACT:** A showing by the original purchaser that the serial number has not been altered or removed.
7. **MISUSE:** A showing by the original purchaser that the product has not been involved in an accident, freight damaged, misused, abused or operated contrary to the instructions contained in the Owner's Manual.

Air Quality Engineering, Inc.'s, sole responsibility shall be to repair or replace the product within the terms stated above. AQE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, EXPRESS OR IMPLIED, APPLICABLE TO THIS PRODUCT. Some states do not allow the exclusion or limitation of consequential damages so this limitation may not apply to you.

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This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

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