

# MONOXIVENT<sup>®</sup>

Source Capture Systems

## Operation and Maintenance Manual

### Filter Units

### Model 3025



**MONOXIVENT - SOURCE CAPTURE SYSTEMS**

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[monoxivent.com](http://monoxivent.com)

**INITIAL INSPECTION:**

If your new 3000 units were shipped in by truck, you should inspect the carton for damages or any possible shortages. If there are any signs of possible shipping damage, unpack the units and make a note of any shortage or damage on the freight bill before signing it. If the carton is opened at a later time and there is any damage to the units, you should file a concealed damage claim with the delivering carrier. They are responsible for any damages in shipment or any shortages in materials that were actually shipped.

**INSTALLING YOUR NEW 3000 UNITS:**

Your supplier should furnish installation instructions. All installations must meet all electrical or mechanical building codes that may apply in your particular area. If there are no local requirements, you should follow the National requirements.

All platforms, chains, hooks, bolts, or other items used in the installation should be at least strong enough to support four times the weight of the unit. Unit weights are as follows:

3011----up to 120 lbs.	3030----up to 185 lbs.
3025----up to 165 lbs.	3037----up to 290 lbs.

**MOTORS:**

All direct drive motors are protected with automatic restart overload protection.

All belt drive units must be protected externally.

**OPERATION:**

Do not operate your units without filters for over several minutes.

**FILTERS:**

All units are equipped with replaceable type media filters. In some cases, where the contaminants being picked up are dry, it is possible to blow out the pre-filters and reuse them. Filters are available in a number of different degrees of efficiencies. The

filters in your new 3000 unit have been selected by your representative or based upon a specification.

Media type filters actually become more efficient as they load with contamination. However, as the filters load up, the airflow volume will decrease and eventually will reach a point where they must be replaced to restore the original airflow.

Changing the filters, in your new 3000 air cleaner, is easy. Old filters are simply pulled out of the entrance end of the unit and new filters are installed. No tools are required. Turning the unit on when installing new bag filters will help to pull them into place.

When installing new filters, the openings in the bag filter and the pre-filter should be in a vertical position. Be sure the cloth part of the bag does not bunch up between the bag header and the angle iron filter stops on the cabinet. The pre-filter should be installed with the wire mesh to the inside of the unit. Please contact Monoxivent for your replacement filter requirements.

**LOUVERS:**

Four way louvers are provided on all units to permit you to direct the discharge air away from pilot lights on heaters and to help you obtain the best air pattern for maximum cleaning. The louvers will be tight and hard to move at first due to new paint.

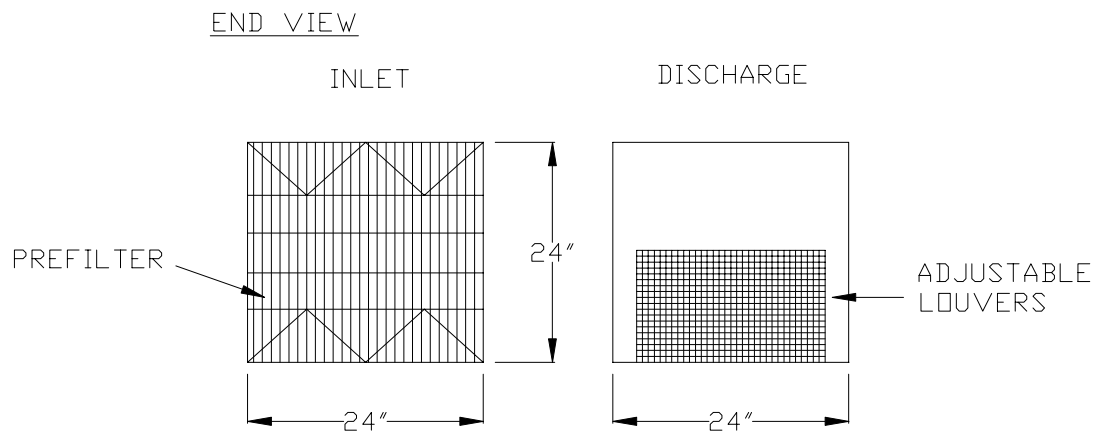
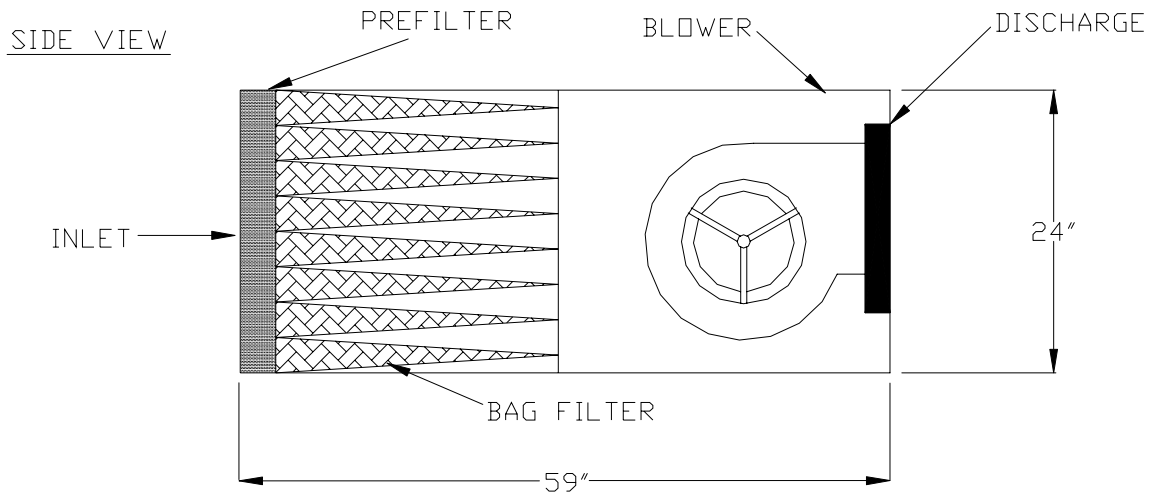
**PARTS:**

Any necessary parts may be purchased from Monoxivent.

**WARRANTY:**

All parts of your 3000 unit, except the filters, are under warranty for a period of one year from the date of shipment. Any part that fails under normal operating conditions during the warranty period will be replaced free of charge. This warranty does not cover damages caused by misuse, accident, fire, and does not cover consequential damages. All parts being replaced under warranty must be returned to Monoxivent before credit can be issued.

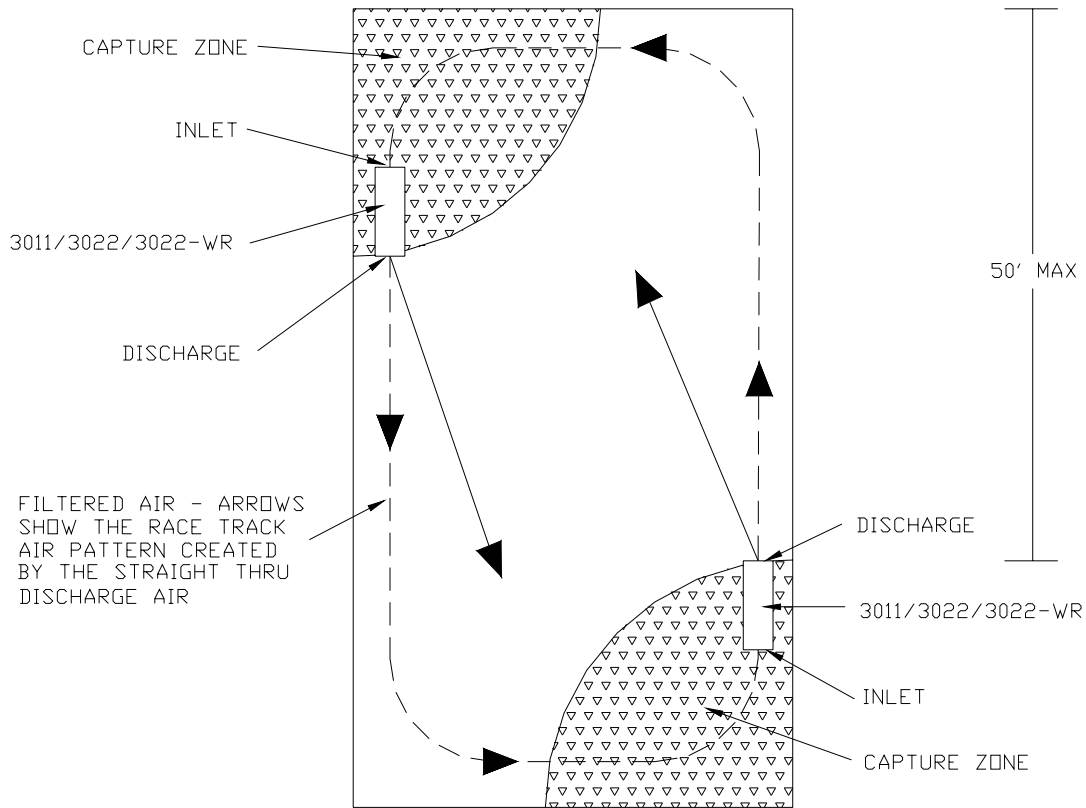
### Exploded View



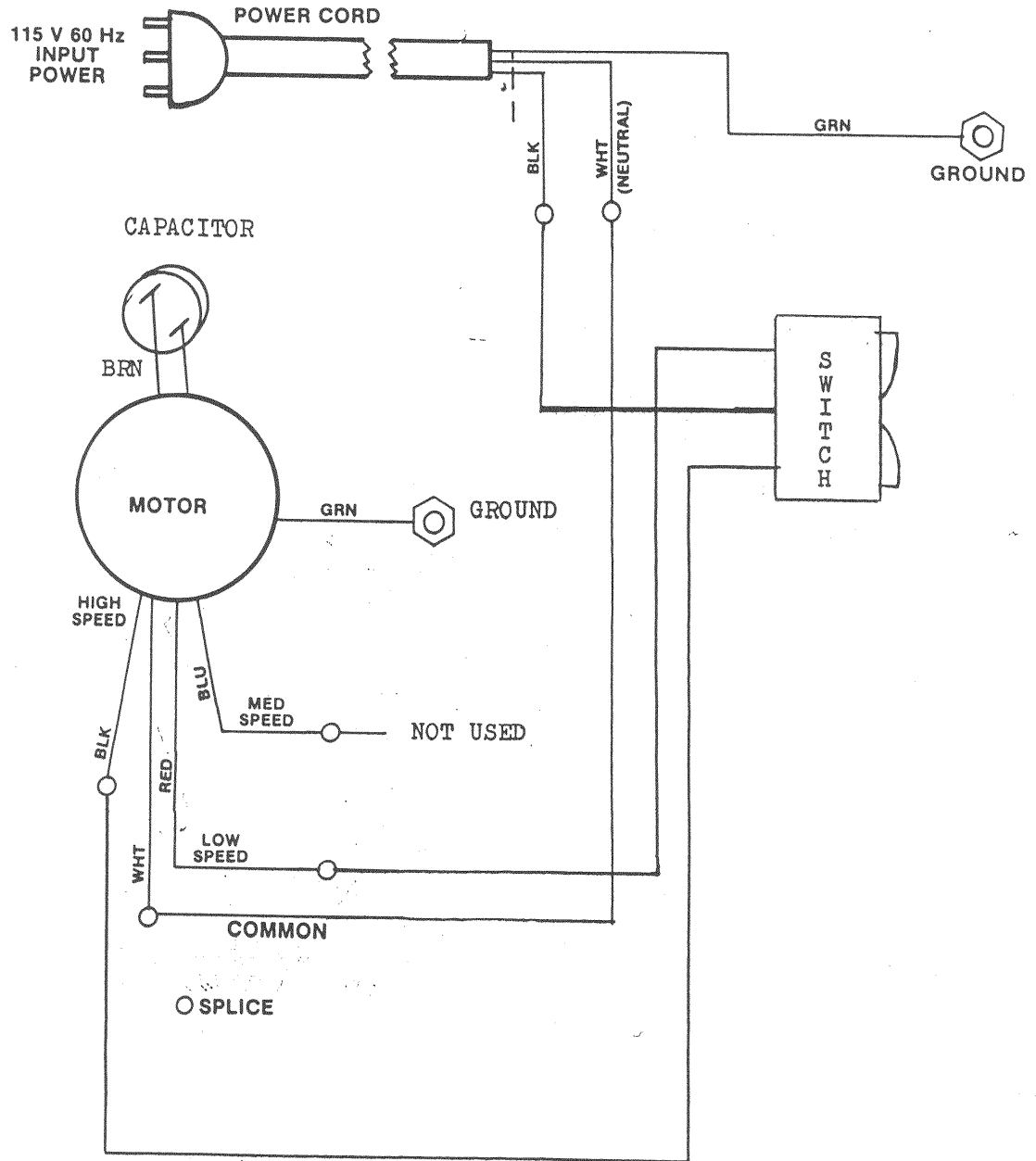
## **GENERAL SPECIFICATIONS**

### **SERIES - 3025 & 3025-WR GENERAL SPECIFICATIONS**

Air Flow Capacity	1750 to 2500 CFM
Motor Type	Motor
Motor	3/4 HP Direct Drive
Voltage	115/120/1 Phase 60 HZ
Motor Control	2 Speed Switch
Blower Type	Forward Incline
Noise Level	67 DBA @ 3'
Cabinet	16 Gauge
Paint	Blue Poly
Inlet	Single
Pre-Filter (2)	Pleated - 24" x 24" x 4"
Primary Filter (2)	8 Pocket Bag 24" x 24" 36"x 65% or 95%
Filter Load Service	End Load
Weight	160 Pounds



The drawing shows a typical race track air pattern created by the straight thru free hanging filter unit. This type of system is used for general air cleaning in a welding or dusty application. The air borne particulate is pushed from unit to unit by the filtered discharged air allowing the particulate to enter into the capture zone of the inlet of the collector. The race track air pattern is on the side of an older type design. There tends to be areas that area not effected by the filtered air thus creating possible areas airborne particulate will be missed. the total number of units required in a work space depends on the cubic feet of the space. Maximum height of the units is 10'. Spacing between units is important and this may vary between applications. Please consult the factory for assistance.



## Motor Trouble Guide

The purpose of this guide is to suggest common answers to electrical problems. The information is not all-inclusive and does not necessarily apply in all cases. When unusual operating conditions, repetitive failures, or other problems occur, consult an electric motor service firm for assistance.

Problem	Cause - What to do
<p><b>Motor Fails to Start</b></p>	<p><b>Blown Fuses</b> - Replace with time-delay fuses or circuit breakers. Check for grounded wiring.</p> <p><b>Low Voltage</b> - Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections.</p> <p><b>Improper Line Connections</b> - Check connections against supplied motor diagram.</p> <p><b>Overload Tripped</b> - Check and reset relay in starter. Check heater rating against motor nameplate current rating. Check motor load. If the motor has manual re-set thermal protector, check if it has been tripped.</p> <p><b>Motor may be overloaded</b> - Reduce load. Increase motor size.</p> <p><b>If permanent split capacitor motor, capacitor may be open.</b> - Indicated by humming sound. Replace motor or starter. See nameplate for correct value.</p> <p><b>Defective motor or starter.</b> - Replace or repair</p>
<p><b>Motor Stalls</b></p>	<p><b>Overloaded motor</b> - Reduce load or increase motor size.</p> <p><b>Low motor voltage</b> - See that nameplate voltage is maintained.</p>
<p><b>Motor does not come up to speed</b></p>	<p><b>Not applied properly.</b> - Consult moter service firm. Use larger motor.</p> <p><b>Voltage too low at motor terminals due to line drop.</b> - Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections.</p> <p><b>Load too high.</b> - Check load motor is carrying at start-replace with larger motor.</p>
<p><b>Motor takes too long to accelerate</b></p>	<p><b>Excess Loading; high inertia load.</b> - Reduce load. Increase motor size.</p> <p><b>Inadequate wiring.</b> - Increase wire size. Check for poor connections.</p> <p><b>Defective motor.</b> - Repair or replace.</p> <p><b>Inadequate starting torque.</b> - Replace with higher horsepower motor.</p>



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<p><b>Motor vibrates or is excessively noisy</b></p>	<p><b>Motor misaligned.</b> - Realign</p> <p><b>High voltages.</b> - Check wiring connections, transformer.</p> <p><b>Worn, damaged, dirty or overloaded bearings.</b> - Replace, check loading and alignment.</p> <p><b>Loose or defective or out-of-balance air mover.</b> - Tighten set screw(s), repair or replace.</p>
<p><b>Insufficient speed change</b></p>	<p><b>Insufficient motor load.</b> - Use a lower horsepower motor. Reduce system restrictions (blower). Increase system restriction (blower fan).</p>
<p><b>Motor overheats while running under load</b></p>	<p><b>Overload.</b> - Reduce load; increase motor size.</p> <p><b>Dirt preventing ventilation.</b> - Clean motor.</p> <p><b>Faulty connection.</b> - Clean, tighten, or replace.</p> <p><b>High or low voltage.</b> - Check voltage at motor, should not be more than 10% above or below rated.</p> <p><b>Defective motor.</b> - Repair or replace.</p>
<p><b>Motor starts with a whine and does not reach full speed.</b></p>	<p>If three phase powered, <b>stop motor immediately.</b> It may be "single phasing" and will overheat, possibly damaging internal windings. Check fuses and/or wires for an interruption in one of the lines. The motor may be operating on two phase only.</p>
<p><b>Motor makes a scraping or knocking noise.</b></p>	<p>Check motor cooling fan and its cover. It may have been damaged or shifted in transit and motor fan is rubbing. Check for loose blower wheel on motor shaft - tighten if necessary.</p>
<p><b>No suction or pressure, or some suction but not as required.</b></p>	<p>Check and open all dampers, if installed. Check ducting for blockage, if installed. Check for dirty or blocked filters (refer to maintenance section). Check rotation of the fan.</p>

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<b>Problem</b>	<b>Cause - What to do</b>
<b>Excess vibration</b>	Check structural support members. Tighten all bolts on legs and cross braces. Make sure entire structure is solid. Check for loose blower wheel. - tighten if necessary.
<b>Contaminants blowing through unit</b>	Check for torn or damaged filters. Check filter seals. If carbon module is used, make sure filter sock is in place.
<b>Motor over-amping nameplate</b>	Access door open, close doors. Incorrect filters or no filters in the unit. Ductwork faulty.