This manual contains specific cautionary statements relative to worker safety. Read this manual thoroughly and follow as directed. It is impossible to list all of the hazards of dust control equipment. It is important that use of the equipment be discussed with a Micro-Air Representative. Persons involved with the equipment or systems should be instructed to operate in a safe manner.
MXT5000/MXT7000

WARNINGS:

⚠️ CAUTION: Installation can cause exposure to live components. Disconnect electrical power before proceeding with installation. Proper Lock Out / Tag Out procedures should be used.

⚠️ All electrical work must be done by a qualified electrician according to local, state and national codes.

⚠️ Improper installation or operation of this equipment can cause damage to equipment and / or injury to personnel. The installation / operation manual must be read and followed in its entirety.

MXT5000 SPECIFICATIONS:

- Input Voltage: 208-230/460 VAC, 60 Hz, 3-Phase
- Motor: 3 HP, 1740 RPM, TEFC
- Max Current: 8.9-8.6/4.3 Amps
- Blower: 12-9 Belt Driven
- Air Flow: 5400 CFM
- Dimensions: 24” H x 48” W x 72” L
- Noise Level: 77.5 dBA at 6’ away from unit
- Noise Level w/ Silencer: 70 dBA at 6’ away from unit
- Shipping Weight: 400 lbs.
- Actual Weight: 350 lbs.

MXT7000 SPECIFICATIONS:

- Input Voltage: 230/460 VAC, 60 Hz, 3-Phase
- Motor: 5 HP, 1760 RPM, TEFC
- Max Current: 12.6/6.3 Amps
- Blower: 12-9 Belt Driven, 1500 RPM
- Air Flow: 7500 CFM
- Dimensions: 24” H x 48” W x 72” L
- Noise Level: 90 dBA at 6’ away from unit
- Noise Level w/ Silencer: 75 dBA at 6’ away from unit
- Shipping Weight: 450 lbs.
- Actual Weight: 400 lbs.

NOTE: The cabinets are designed to be assembled either in a horizontal configuration or a vertical configuration. The mounting options will vary depending on which configuration is selected.
PRE-OPERATING INSTRUCTIONS:

NOTE: The following instructions will vary depending on options ordered.

1. Inspect the unit for any visible damage that may have occurred during shipment. Report any damage to the delivery carrier.
2. Remove the shipping crate, shipping straps and plastic wrap from unit.
3. Remove the unit from the shipping skid and set on a level surface.
4. Remove attachment option from shipping carton.
5. Determine the location where the unit is to be installed. Be sure to allow sufficient access to the unit for servicing and maintenance on all sides.

EQUIPMENT / TOOLS REQUIRED:

- Forklift
- Lifting straps or chains
- Hoist
- Socket wrenches
- Concrete anchors (for wall mount / floor stand)
- Wire nuts
EYEBOLTS HANGING INSTRUCTIONS:

1. Remove the 4 threaded eyebolts from the Owner’s Manual envelope.
2. Thread a nut onto each eyebolt and thread an eyebolt into each of the 4 threaded holes on top of the cabinet. Tighten nuts against cabinet.
3. Once eyebolts are secured, the MXT is ready to be hung in an appropriate location (See FIGS. 1 & 2).

NOTE: Chain, link or cable should hang vertically.

CAUTION: Use strong braided wire or chain to support the air cleaner. Hang from ceiling / roof structural supports.

FIG. 1 – Horizontal Configuration.
CHANNEL HANGING INSTRUCTIONS:

1. Remove 3/8” hardware from the Owner’s Manual envelope.
2. Lift unit to access the threaded holes on the bottom of the cabinet. Depending on the configuration, the number of bolts will be different. The horizontal configuration bolts on 8 places on the bottom of the cabinets whereas the vertical configuration bolts on 4 places. **NOTE:** The cabinet can be lifted by installing eyebolts on the top. Eyebolts are not supplied by Micro Air (See FIGS. 1 & 2).
3. Line up mounting channel with holes on bottom of cabinet. Bolt in place.
4. Once channels are secured, the MXT is ready to be hung in an appropriate location (See FIG. 2).

**NOTE:** Chain, link or cable should hang vertically.

**CAUTION:** Use strong braided wire or chain to support the air cleaner. Hang from ceiling / roof structural supports.
FIG. 3 – Horizontal configuration.

FIG. 4 – Vertical configuration.
WALL MOUNT:

This option is only available for the vertical configuration of the MXT.

1. Remove 3/8" hardware from the Owner’s Manual envelope.
2. Install wall mount. The brackets have (8) 7/16" holes to mount to wall (4 holes on each angle). The holes are spaced 16" apart horizontally by 24" vertically. **NOTE:** Anchors are not supplied by Micro Air. Minimum embedment depth for a 3/8" dia. wedge anchor is 1-1/2”.
3. Lift unit to access the threaded holes on the bottom of the cabinet. **NOTE:** The cabinet can be lifted by installing eyebolts on the top. Eyebolts are not supplied by Micro Air (See FIG. 2).
4. Install cabinet to wall mount by bolting to the bottom of the cabinet with the hardware supplied (See FIG. 5).
10' FLOOR STAND:

This option is only available for the vertical configuration of the MXT.

2. Install floor stand. The stand has (4) 5/8" holes to mount to the floor. The holes are spaced 22" apart. **NOTE:** Anchors are not supplied by Micro Air. Minimum embedment depth for a ½" dia. wedge anchor is 2-1/2".
3. Lift unit to access the threaded holes on the bottom of the cabinet. **NOTE:** The cabinet can be lifted by installing eyebolts on the top. Eyebolts are not supplied by Micro Air (See **FIG. 2**). Install cabinet to floor stand by bolting to the bottom of the cabinet with the hardware supplied (See **FIG. 6**).
OPTIONAL SILENCER ASSEMBLY:

Installation:
1. Remove parts from package and inspect for any damage during shipping.
2. Place silencer over exhaust panel.
3. Using supplied self-drilling sheet metal screws, attach silencer. See FIG. 8 for location of silencer assembly. 16 New holes will have to be drilled on the exhaust panel.

**NOTE:** If the silencer is bought separate from the MXT unit, the exhaust grille will need to be removed before installing the silencer assembly.

FIG. 7

![Silencer assembly](image)

FIG. 8

![Diagram of MXT unit with silencer assembly](image)
OPTIONAL SCRIM PRE-FILTER:

In order to access the filters, the Scrim pre-filter will need to be removed. Pull out the plastic rivets from the mounting bracket. The scrim pre-filter will be installed from the factory when purchased with the unit.

FIG. 9 – Horizontal Configuration.

FIG. 10 – Vertical Configuration
OPTIONAL MAGNAHELIC GAUGE:

Installation:
1. Remove parts from package and inspect for any damage during shipping.
2. Mount the Magnahelic Gauge into the mounting bracket and place the male barb fittings in the pressure ports on the side of the gauge. **NOTE:** The bracket can be mounted in any flat surface. Additional air hose can be purchased from the factory.
3. Plug the two ports on the back of the gauge.
4. Mount the bracket using the (4) self-tapping screws.
5. Using ¼” clear tubing connect the “LOW” pressure port on the gauge to the pre-installed barb fitting on the unit. The “HIGH” pressure port stays disconnected. **NOTE:** The magnahelic assembly will be installed from the factory when purchased with the unit.

FIG. 11
ELECTRICAL INSTALLATION:

All electrical work must be done by a qualified electrician according to local, state and national codes.

1. Conduit electrical connections should be made by a qualified electrician, and must comply with local codes.
2. Remove the electrical box cover located on the top side of the unit.
3. Make electrical connections as shown in wiring diagram to the wires protruding from junction box.
4. Check current draw of the motor. Do not exceed Amps specified.

<table>
<thead>
<tr>
<th>INPUT VOLTAGE (3 PH)</th>
<th>FREQUENCY</th>
<th>CAUTION: DISCONNECT POWER TO UNIT PRIOR TO SERVICING OR INSTALLATION OF PARTS.</th>
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</thead>
<tbody>
<tr>
<td>208–230 VAC.</td>
<td>60 HZ.</td>
<td></td>
</tr>
<tr>
<td>460 VAC.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER: _____ VAC.</td>
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<td></td>
</tr>
</tbody>
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INPUT VOLTAGE

MOTOR CONNECTION (REF.)

NOTE: A MAGNETIC STARTER IS RECOMMENDED FOR MOTOR PROTECTION.

IMPORTANT: UPON COMPLETION OF INSTALLATION, CHECK BLOWER FOR PROPER FAN ROTATION. IF ROTATION IS BACKWARDS EXCHANGE SUPPLY CONNECTIONS L1 & L2.

CAUTION: IMPROPER ROTATION OF BLOWER CAN RESULT IN DAMAGE TO BLOWER BEARINGS.

IF REPLACEMENT IS REQUIRED, CHECK ALL WIRING CONNECTIONS AGAINST WIRING DIAGRAM FURNISHED WITH UNIT TO INSURE PROPER OPERATION, APPROPRIATE FOR DESIRED INPUT VOLTAGE.

FIG. 12
CHANGING THE FILTERS:

As the filters collect airborne pollutants, they will eventually become “loaded,” which will cause a decrease in airflow.

**CAUTION:** Always make sure that the unit is turned off before changing filters or servicing the unit.

1. Turn the unit off.
2. Disengage latches and remove the pre-filters. **NOTE:** Replace the pre-filters only. If the unit airflow is back to normal, the unit is operating properly and there’s no need to replace the main filters.
3. Visually inspect the main filters. If the filters show excessive particulate build-up, they will need to be replaced.
4. Pull the filter from the unit.
5. Install new filter and pre-filter. Make sure that the airflow directional arrow on the pre-filter is pointing towards the inside of the cabinet.
6. Engage latches to secure pre-filters.

**NOTE:** For units equipped with the optional Scrim Pre-Filter, remove the scrim filter from the brackets by pulling out the plastic rivets (See FIGS. 9 & 10).

For units equipped with the Magnahelic Pressure Gauge:

1. The magnahelic gauge indicates the static pressure. Note the reading at initial start-up. As the filters become “loaded,” the static pressure will gradually increase. This will indicate the need to change the filters. **NOTE:** Typical pressure range for most applications is 1.0 in-w.g. for the MXT5000 and 2.0 in-w.g. for the MXT7000 until the filters will need to be replaced. Upon start up, the gauge should measure some amount of pressure drop (typically 0.4 in-w.g.). If no pressure is measured, check connections for proper installation.
2. Replace the pre-filter only. If the pressure reading decreases, the unit is operating properly. If the gauge continues to read high after replacing the pre-filter, then the main filter also needs to be replaced.

**GENERAL MAINTENANCE:**

1. Occasionally check the condition of the drive belt for tightness and wear as well as the condition of the pulleys. **NOTE:** The MXT5000 drive pulley is variable pitch. If it needs to be replaced, the pulley should be set to the largest diameter.
2. Check the blower bearings for unusual wear and the blower wheel for debris and dirt. Clean when necessary.
3. Periodically inspect hardware for loose nuts and bolts on access doors and internal components. Tighten if necessary.
4. Check the wiring for loose connections or cracked insulation.
5. No lubrication is required for the motor.
6. Excessive dirt or oil should be removed periodically.
MXT PARTS LIST (HORIZONTAL CONFIGURATION):  

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>ITEM</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tr>
<td>1</td>
<td>30651-02</td>
<td>Blower Cabinet Weldment</td>
<td>9</td>
<td>P335</td>
<td>Latch</td>
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<td>Drive Cabinet Weldment</td>
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<td>Junction Box</td>
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<td>Access Panel Exhaust</td>
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<td>P7183</td>
<td>Junction Box Cover</td>
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<td>4</td>
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<td>Grille</td>
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<td>C-Channel Mount</td>
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<td>Pre-Filter Bracket</td>
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<td>7</td>
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<td>Scrim Pre-Filter</td>
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<td>16</td>
<td>30672-01</td>
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*Optional

MXT5000 Drive Package

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<td>19</td>
<td>P3218</td>
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<tr>
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<td>P7187</td>
<td>V-Belt</td>
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MXT7000 Drive Package

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<th>DESCRIPTION</th>
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</thead>
<tbody>
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<td>17</td>
<td>P3253</td>
<td>Motor, 5HP, 230/460V</td>
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<tr>
<td>18</td>
<td>P3268</td>
<td>Drive Pulley</td>
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<tr>
<td>19</td>
<td>P3273</td>
<td>1-1/8&quot; Bore Bushing</td>
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<td>20</td>
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</table>

*Optional
**MXT PARTS LIST (VERTICAL CONFIGURATION):**

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<td>Pre-Filter Bracket</td>
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<td>Scrim Pre-Filter</td>
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</tr>
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*Optional

**FIG. 14**

- **MXT5000 Drive Package**
  - ITEM 17  P3495  Motor, 3HP, 208-230/460V
  - ITEM 18  P2140  Drive Pulley
  - ITEM 19  P3218  Blower Pulley
  - ITEM 20  P7187  V-Belt

- **MXT7000 Drive Package**
  - ITEM 17  P3253  Motor, 5HP, 230/460V
  - ITEM 18  P3268  Drive Pulley
  - ITEM 19  P3273  1-1/8" Bore Bushing
  - ITEM 20  P1711  Blower Pulley
  - ITEM 20  P7187  V-Belt