RP1

TWISTER

Micro Air® Installation and Operation Manual

IMPORTANT:

This manual contains specific cautionary statements relative to worker safety. Read this manual thoroughly and follow as directed. It is impossible to list all the hazards of dust control equipment. All persons involved with the equipment or systems should be instructed how to operate in a safe manner.

CAUTIONS:

Avoid mixing combustible materials, such as buffing lint, paper, and wood with dust generated from grinding ferrous metals due to the potential fire hazard caused by sparks in the unit.

Under no conditions should cigarettes or any other burning object be put into the unit.

All users of MicroAir dust collection equipment should comply with all National and Local Fire Codes and/or other appropriate codes when determining the location and operation of dust control equipment.

This unit is not suited for applications where explosion potential is present. Consult the Factory to determine if there is a risk.

SPECIFICATIONS:

INPUT VOLTAGE:
120V 60Hz 1 Phase

MOTOR/CURRENT:
1.5HP 1PHASE 3450RPM TEFC 120V: 18Amps

OVERALL DIMENSIONS:
Base Unit: 76" H x 25" W x 20" D

FILTER AREA:
80/20 Media: 174 Sq. Feet
Poly Media: 150 Sq. Feet

AIR REQUIREMENTS:

- Minimum air line is 3/4"
- Air Pressure regulated 80 – 90 psi.
- Clean, dry, compressed air at the correct pressure is required for the cleaning system to operate correctly. It is recommended that a pressure regulator and coalescing filter be installed between the compressed air source and the inlet to the table.

INSTALLATION:

INSPECTION:
The MicroAir Twister (RP1) is shipped on one skid. This skid should be inspected for any visible damage that may have occurred during shipment. Note any damage on the packing slip.

EQUIPMENT/TOOLS REQUIRED:

- Standard wrenches.
- Screwdriver
- Forklift
- Pipe Wrench

ASSEMBLY OF UNIT:

Determine the location where the unit is to be installed. Be sure to allow sufficient room around the unit to service the filters, and allow for exhaust air.

1. Uncrate the unit. Use caution not to damage the paint while dismantling the crate.
2. Remove any options ordered from the skid.
3. Assemble the optional wall bracket onto the unit.
4. Carefully mount the unit into its location.

COMPRESSED AIR INSTALLATION

The compressed air inlet for the Roto-Pulse cleaning system is on the side of the unit. A 3/4" air line is required (at a minimum) with 80 – 90 psi clean dry air, for proper operation of the Roto-Pulse® System.

1. Locate the compressed air connection.
2. Connect your standard air fitting to the provided 3/4" NPT thread.
3. Connect your air line to the fitting.

ELECTRICAL INSTALLATION:

ALL ELECTRICAL WORK MUST BE DONE BY A QUALIFIED ELECTRICIAN ACCORDING TO LOCAL CODES

INSTALLATION CAN CAUSE EXPOSURE TO LIVE COMPONENTS. DISCONNECT ELECTRICAL POWER BEFORE PROCEEDING WITH INSTALLAITON. PROPER LOCK OUT/ TAG OUT PROCEDURES SHOULD BE USED.

If the unit is ordered with 120V electrical wiring there is no additional wiring required. Simply plug the unit into any 110/120V electrical plug rated for 15A.

UNIT OPERATION:

1. To start the unit, turn the switch located on the front of the unit to the on position. To stop the unit, turn the switch to the off position.

CARTRIDGE CLEANING OPERATION:

The Micro-Air® Twister is designed with the Roto-Pulse® Cleaning System to clean the cartridge filters. This system provides superior cleaning performance using a rotating tube with pre-drilled holes. As the diaphragm valve opens, the Roto-Pulse® tube rotates while air exits the holes, thus providing the cleaning of the cartridge.

- For proper cleaning, the compressed air pressure should be regulated at 80 - 90 psi maximum.
- During normal operation the Roto-Pulse® cleaning system is activated by depressing the pulse button located on the electrical box.
- The Roto-Pulse® cleaning operation dislodges particles from the cartridges. Particles then fall down into the collector.

NOTE: When servicing the collection system, be sure to turn the unit off.

PULSE TIMING:

The Twister is provided with a manual pulse option as the standard for all units. The filters can be pulse cleaned by depressing the pulse button (located on the front of the electrical box) and holding it down for approximately 2 seconds. Since the unit does not have “Auto-Pulse” the filters should be pulse cleaned regularly throughout the day. In addition they should be pulsed several times after the blower has been shut off.

NOTE: Cleaning of the filters too often will decrease your level of performance. A certain level of dust cake on the filters will improve the efficiency of the filter cartridges. You should try to maintain a minimum of 1 in w.c. of pressure differential across the filters. If you can not maintain this minimum level of differential across the filters the time between cleaning pulses should be increased until this can be achieved.

MAGNAHELIC INSTALLATION:

1. Turn off dust collector and disconnect power to the unit.

2. Mount the Magnehelic Gauge into the Magnehelic Mounting Bracket and place the (2) male barb fittings in the pressure ports locatedon the side of the Magnehelic Gauge.

3. Also use the two pressure port plugs supplied with the Magnehelic Gauge on the two ports located on the backside of the gauge.

4. Mount the bracket. Do not mount the bracket on the unit. Mounting screws may damage internal components.

5. Using 1/4” clear tubing (Additional length can be purchased) connect the “LOW” pressure port on the gauge to the clean air plenum and “HIGH” pressure port to the dirty air plenum.

6. Reconnect the power to the unit and start the dust collector.

BARREL LID INSTALLATION:

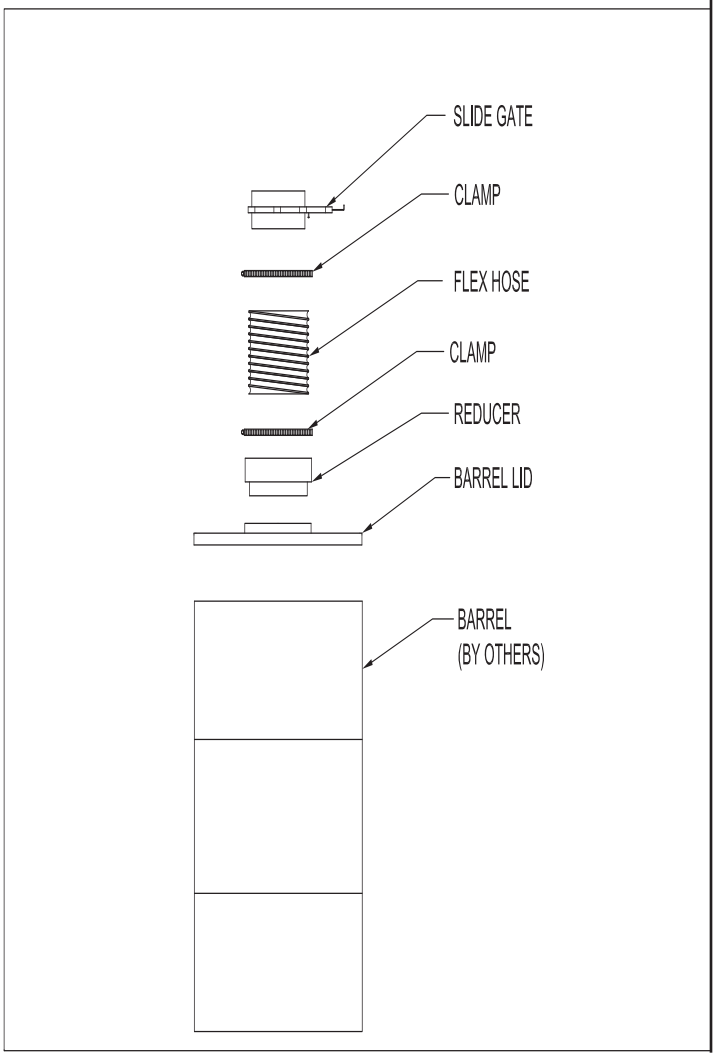
1. Remove parts from box and inspect for any possible damage incurred during shipping.

2. Using the 10” hose clamp attach the 8” flex hose to the collar on the slide gate.

3. With the remaining 10” hose clamp attach the barrel lid flex hose to the collar on the top of the 8” to 10” reducer.

4. Attach the 10” side of the reducer to the barrel lid.

5. With barrel lid installed a 55 gallon barrel (not provided) can be placed under the barrel lid for material collection.



FILTER CHANGE:

1. Turn unit off. Manually pulse the unit several times to remove excess material from the filter.

2. Disconnect power to the unit.

3. Open the slide gate to empty any remaining material from the hopper.

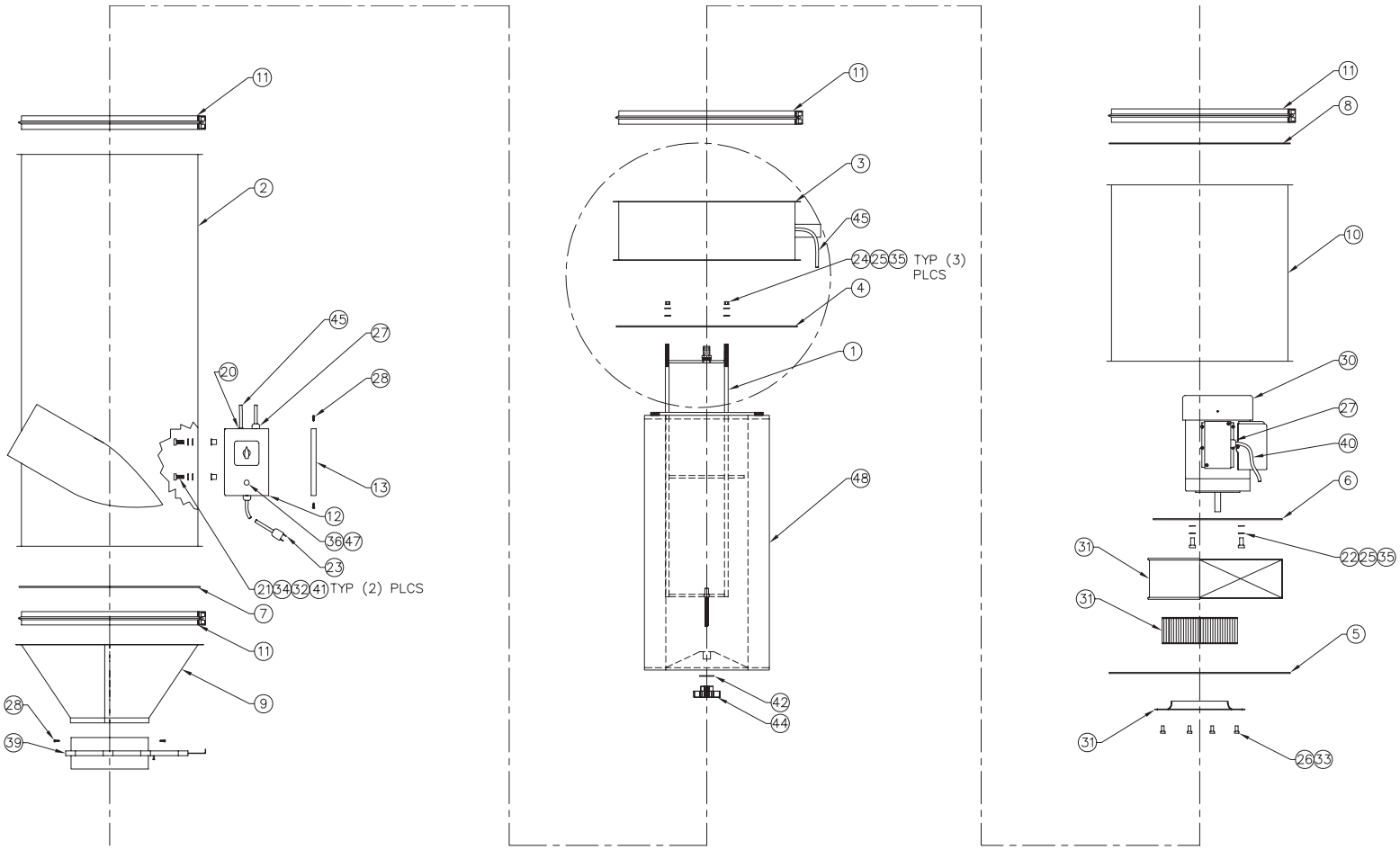
4. Remove the barrel, barrel lid kit, and hopper by loosening the lowest joint band. The drop out plate will come off with the hopper.

5. Remove the 4-Prong knob and seal washer from below the filter. Save the knob.

6. Slide the filter down out of the unit.

7. Reverse steps 4-6 to install new filter.

See Parts List Diagram for additional assistance.



Parts List Diagram

Item #	Part #	Description
1	36720-10	Roto-Pulse Assembly
2	38151-01	Body Weldment
3	38154-01	Clean Air Plenum
4	38155-01	Roto-Pulse Seal Plate
5	38155-02	Blower Seal Plate
6	38155-03	Motor/Fan Plate
7	38155-04	Drop-Out Plate
8	38155-05	Exhaust Grill
9	38158-01	Hopper
10	38160-01	Silencer Assembly
11	38162-01	Joint Band
12	38165-01	Electrical Box Weldment
13	38168-01	Electrical Box Cover

Item #	Part #	Description
20	P1050	Edge Protector
21	P119	5/16-20 Bolt
22	P124	3/8 - 16 Bolt
23	P1363	Cord w/Plug
24	P141	3/8” Nut
25	P142	3/8” Lock Washer
26	P164	1/4-20 Bolt
27	P1954	Cord Strain Relief
28	P2059	#8 Screw
29	P2075	Diaphram Valve
30	P2301	1 1/2HP Motor
31	P2302	Blower Assembly
32	P233	5/16” Washer
33	P242	1/4” Lock Washer
34	P249	5/16” Lock Washer

Item #	Part #	Description
35	P2704	3/8” Washer
36	P2766	Pulse Push Button
37	P3403	5/8” ID Hose
38	P3411	1” Hose Clamp
39	P3158	8” Slide Gate
40	P345	14 Ga Cord
41	P3508	5/16” Rivnut
42	P3559	Rubber Washer
43	P3585	Hose Barb
44	P3649	Knob
45	P3734	1/4” OD Air Hose
46	P3735	90° Presto Lock
47	P3924	Straight Presto Lock
48	P7401RM	80/20 Cartridge Filter
48	P7410RM	Poly Cartridge Filter

Notes:

Installation Date: _____ Location: _____

Machine Number:_____ Installer:_____

Air Pressure: _____ Air Line Size: _____

FilterType: 80/20 Cellulose Media (Red) OR Polyester Media (White)

Distributor Company: _____ Contact Name:_____

Phone Number:_____(_____)_____-_____

Other Notes:_____