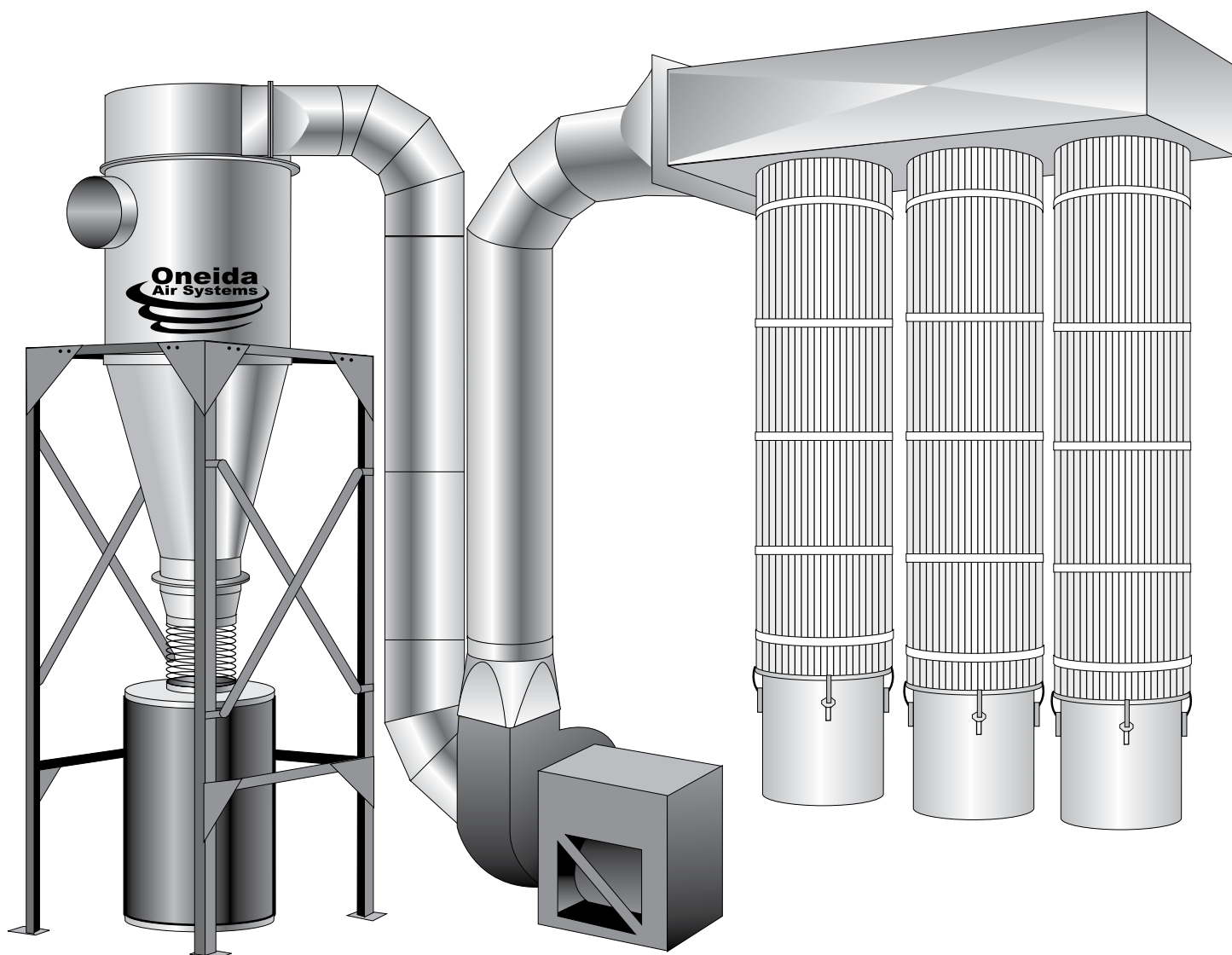




# 10 HP Cyclonic Dust Collectors

## *Owner's Manual*



Oneida Air Systems, Inc. 1001 West Fayette St., Syracuse, NY 13204  
Phone 1.800.732.4065 315.476.5151 Fax 315.476.5044 [www.oneida-air.com](http://www.oneida-air.com)

# ***Thank You for Choosing an Oneida Air Systems Product!***

OAS manufactures and sells dust collection equipment only. Our qualified technicians and sales staff are available 7:30am - 6:00pm EST Mon. - Thurs. and 7:30am - 5:00pm EST Fri. to answer any questions concerning OAS products and dust collection. Call for ductwork design and ductwork quotes, including system pricing and shipping cost.

***Read the entire Owner's Manual before installing or operating system!***

*Proudly  
Made in  
the USA*



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# I. System Start-Up Information

1. Read the installation and maintenance instructions as well as the recommended safety practices in this manual.
2. Install Ductwork completely:
  - (A.) Seal ductwork with silicone sealant or duct tape.
  - (B.) Have Dust Bin in place and sealed.
3. Have licensed electrician wire Fan / Blower according to wire diagram in this owner's manual.
4. Have a licensed electrician check current draw on motor with all gates open. Current draw should not exceed maximum motor amperage. (OAS is not responsible for destroyed motors.)

## Caution

*The Dust Collector & Fan / Blower is heavy! Handling and installation should always be performed by experienced and trained personnel who have experience with rotary equipment. In addition to the following instructional manual, care should be taken to ensure compliance with specific safety requirements mandated by federal, state and local codes.*

## Warning

*Do not operate Fan / Blower without connecting ductwork. Never operate Fan / Blower without belt shaft guard in place. Keep clear of exhaust. Keep hands and objects clear of inlet and outlet.*

## Warning

*Check amperage draw during operation with all blast gates open. Make certain amperage is not outside operating limit indicated on motor plate! If amperage is too high - shut down immediately! (See Troubleshooting section.)*

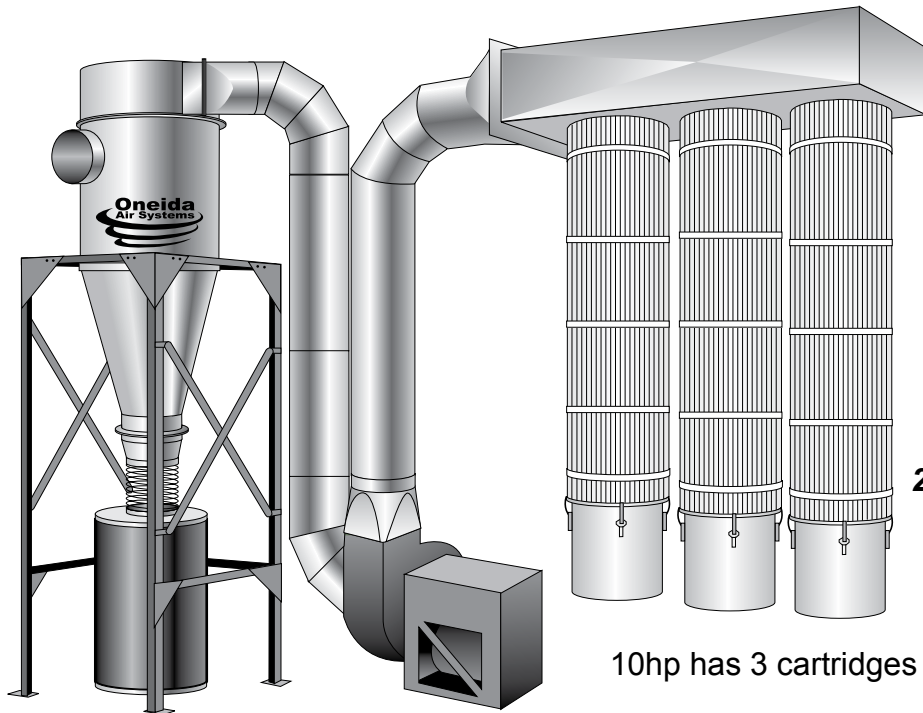
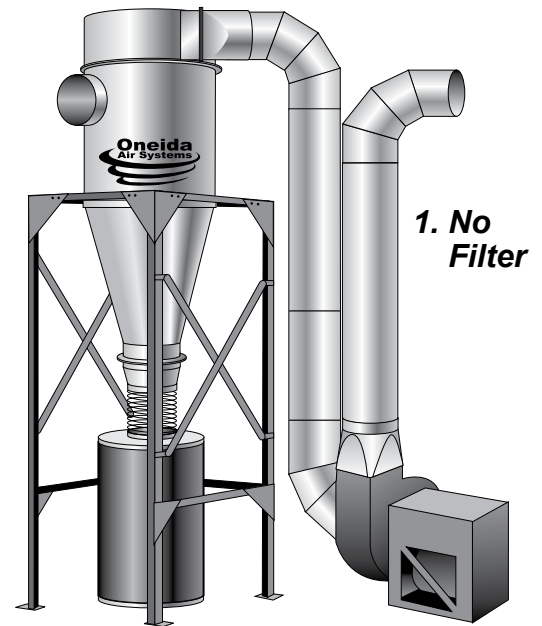
## II. 10hp Pulley Drive Configurations

### 1. No Filter - Vent Outside

#### Caution:

*If exhaust air is vented outside you must provide make-up / return air.*

*Flue gases (carbon monoxide) can be drawn into the shop from furnaces, water heaters or other appliances*



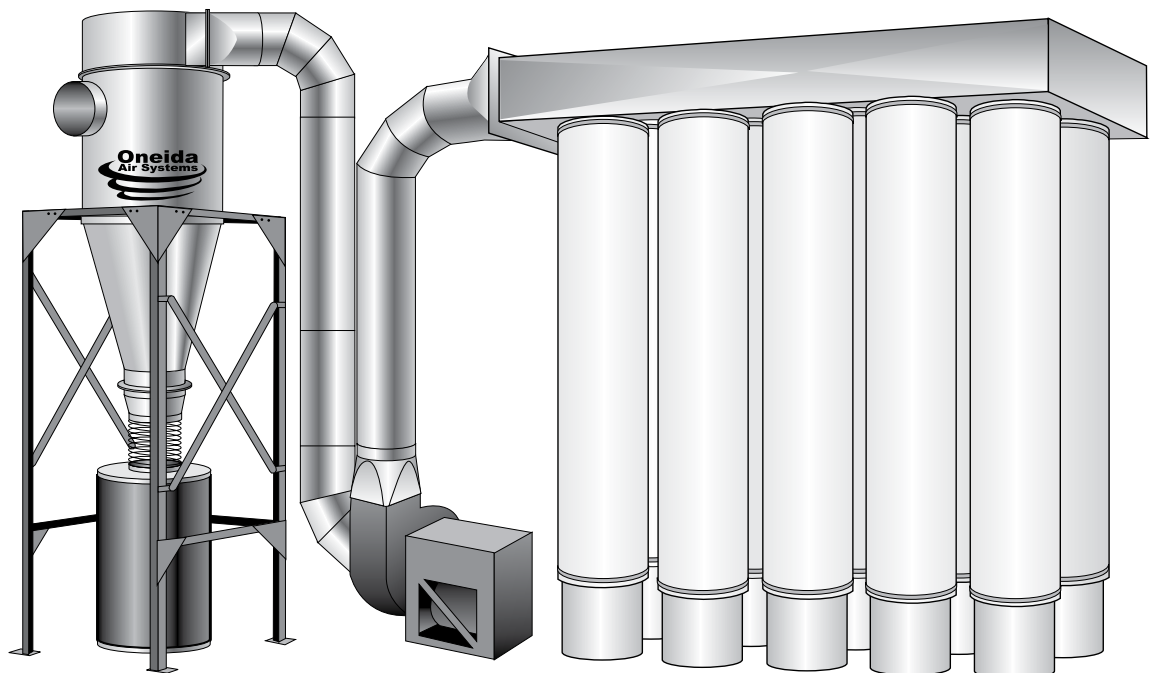
### 2. External Cartridge Filters



Silencer easily drops into Filter. Hold filter up to Flange Plate and clamp.

### 3. External Tube Filters

10hp has  
10 tubes  
2 rows of 5



5 gal. dust buckets not included.

# III. General Specifications & Fan Performance Curves

## Cyclone C-3500

Full welded exterior  
Main body, cone and inlet: 16 ga. galv.  
Flanged 12" dia. Inlet: Flanged 13" dia. Outlet  
80" high  
14" rolled steel flange discharge  
36" dia. rolled steel flange for mounting

## System Packages include:

### 10hp Fan / Blower

Made in USA NYB 224 DH Arrangement 10  
10 horsepower, Pulley drive with weather/shaft guard  
TECO - Westinghouse TEFC 60 Hz 10hp motor  
Three Phase: 230/460v 24/12A (U\*sable on 208v 25.9A)  
Fan Wheel dia.: 22.625"  
3300 CFM @ 12" Static Pressure

## Optional Items:

Angle Iron Wall Mount Brackets

Angle Iron Stand

Plenum Box - 10 or 14 hole ring thimble plenum box to hold Tube Filters.

Silencer - For fan / blower outlet to 13" I.D. will reduce noise level

Magnetic Motor Starter

Rotary Air Lock

## Filter Media

### Exterior Cartridge Filters

10hp - 3 Cartridges - 390 Sq. Ft.  
Spun-Bonded Polyester BIA ZH1/487 Test - Rated C  
Captures 99.99% of test material over 20 microns  
Captures 99.9% of test material between 0.2 - 2.0 microns @  
11 fpm face velocity

### Exterior Tube Filters

10hp - 10 Tubes  
Needle Felted BIA ZH1/487 Test - Rated C  
Captures 99.99% of test material over 20 microns  
Captures 99.5% of test material between 0.2 - 2.0 microns @  
11 fpm face velocity

## Dust Bins

55 Gal. Steel Drum  
Other large dust bins available.

## WARNING!

This fan has moving parts that can cause serious injury. Read the installation and maintenance instructions and the AMCA Safety Practices manual before starting maintenance or operating.

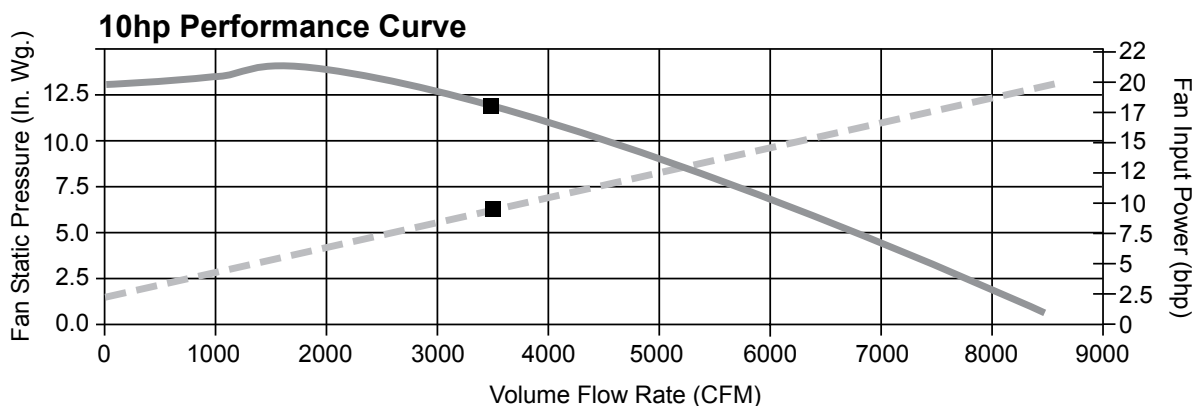
### During Operation

1. Keep body, hands and objects away from the inlet, outlet and other moving parts of the fan such as belts, pulleys and shafts.
2. Do not operate at excessive speeds or temperatures.

### Before starting maintenance work:

Lock power supply in off position and immobilize fan wheel.

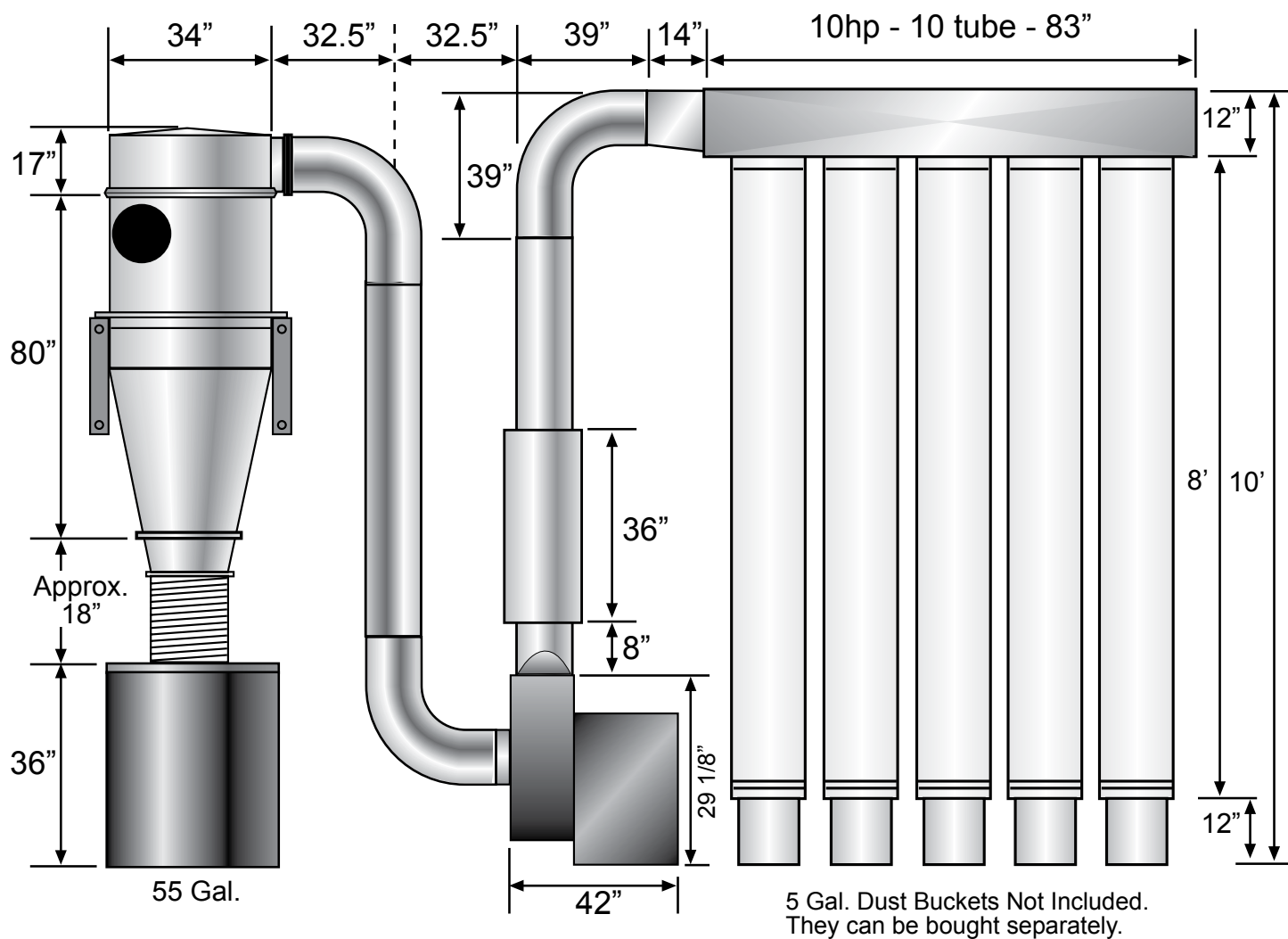
## 10hp Fan Curves



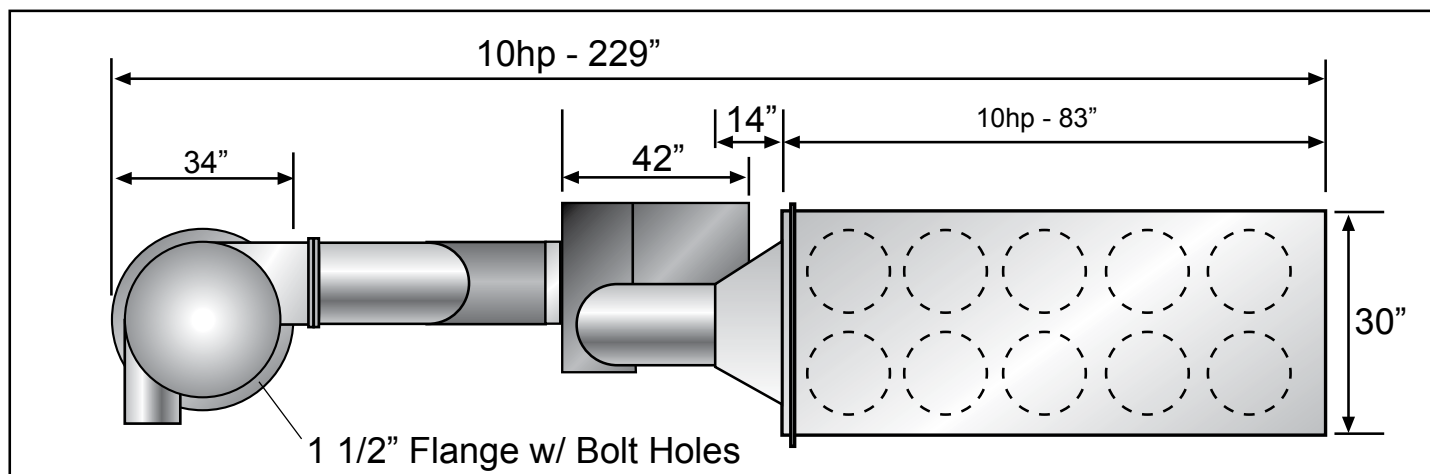
Static pressure and volume together determine a fan's performance. Several factors, such as layout of ductwork and diameter of openings, can affect a fan's performance.

Performance - ———  
Horsepower - - - - -

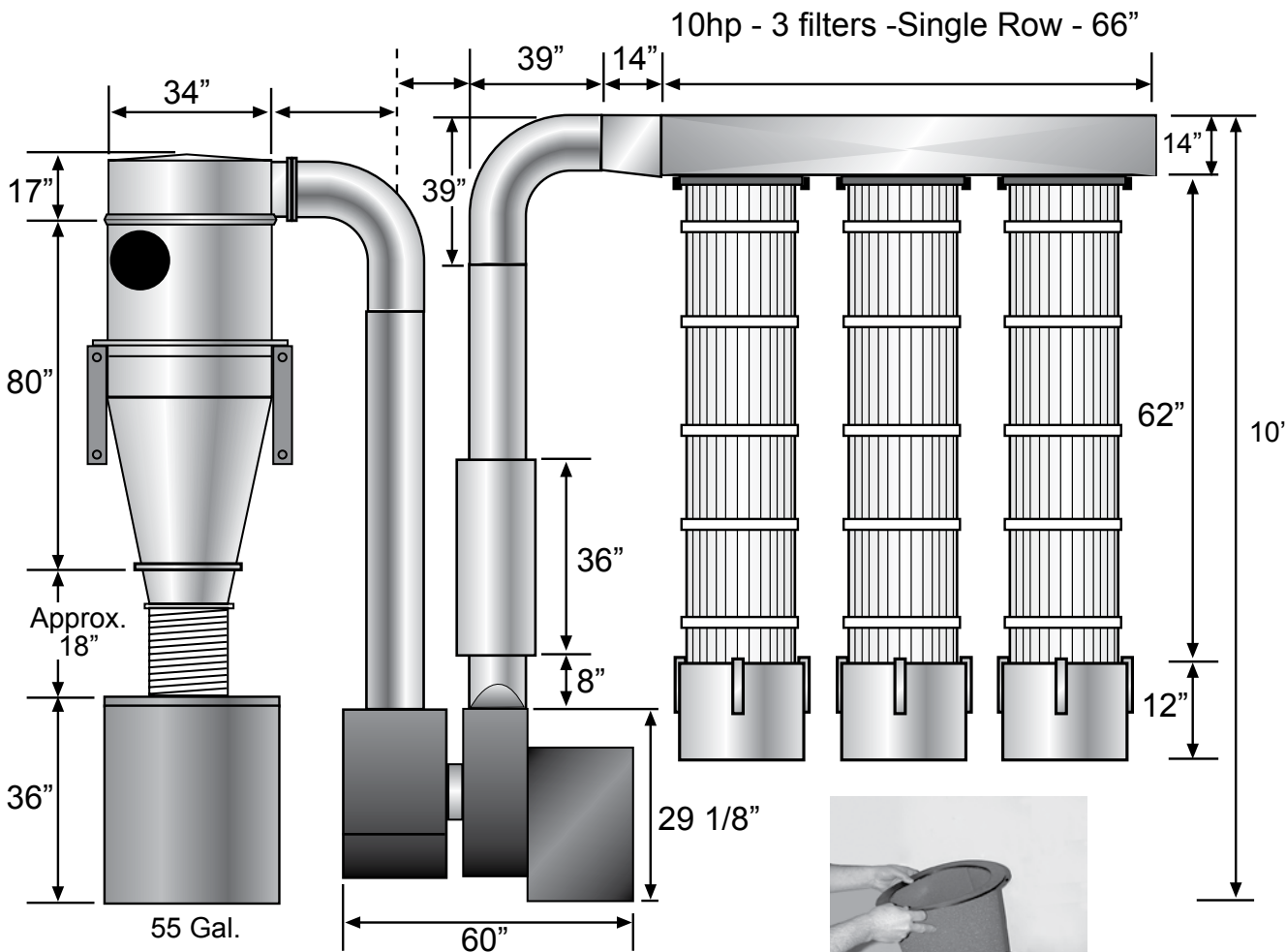
## IV. Dimensions - External Tube Filters



### Top View Dimensions - Largest Configuration



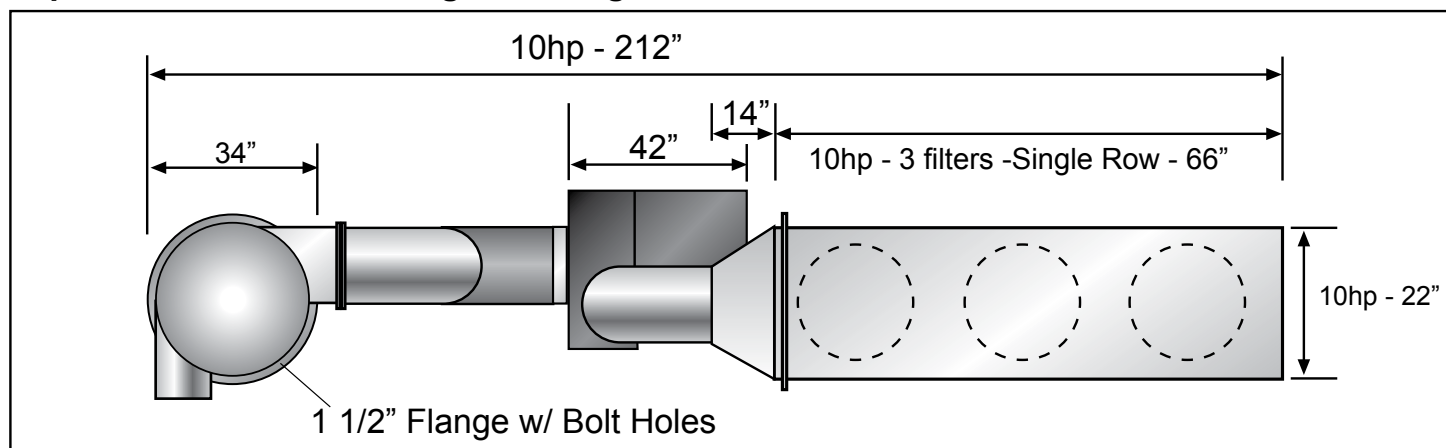
## IV. Dimensions - External Cartridge Filters



Silencer easily drops into Filter. Hold filter up to Flange Plate and clamp.



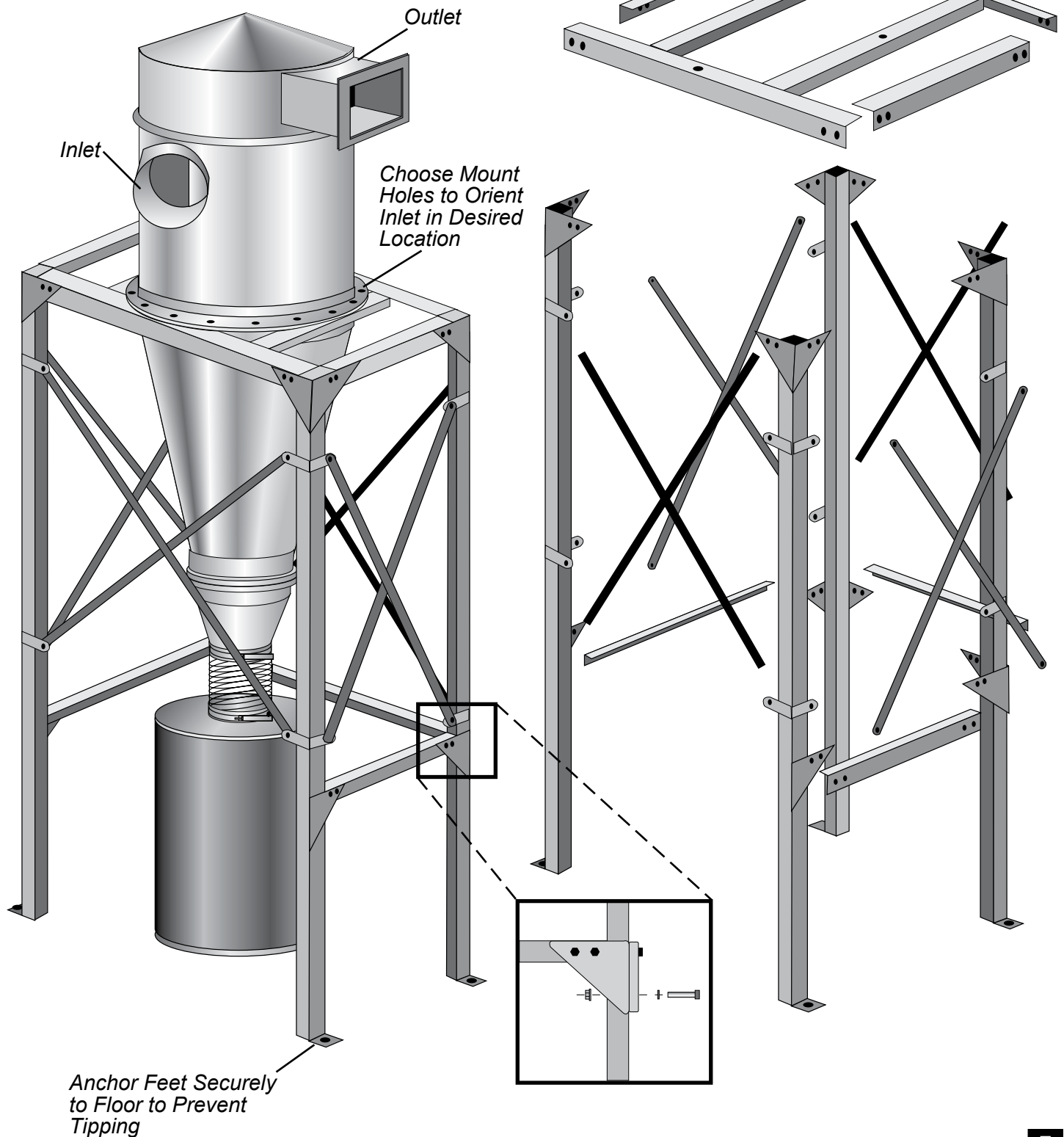
### Top View Dimensions - Largest Configuration



# C-3500 Cyclone Stand - w/ 55 Gal. Drum - Part # STZ350055

## Unit should be shipped with:

- (4) 3/8-16 x 1" bolts for Cyclone mount
- (20) 3/8-16 x 1" bolts for Cross Brace mount
- (28) 3/8-16 x 1" bolts for Triangle Brackets
- (48) 3/8" flat Washers
- (48) 3/8" Serrated Nuts





## V. Configuration Examples

**Cyclone Fan / Blower and filters can be placed in different locations.**

**Sleeve Kit** - Sleeve Kit 10 C-2500 cyclone requires 16" - 18" for a single drum and 24" for 2x drums. Additional feet of flex can be purchased to make the sleeve kit longer if needed.

**Drum** - Standard 55 gal. steel drums are usually 35 - 36" high. Oneida Air sells 55 gal. and 35 gal. fiber and steel barrels with metal lids and snap - on rings.

55 gal. fiber - 35.5" high 22" dia.

35 gal. fiber - 23" high 22" dia.

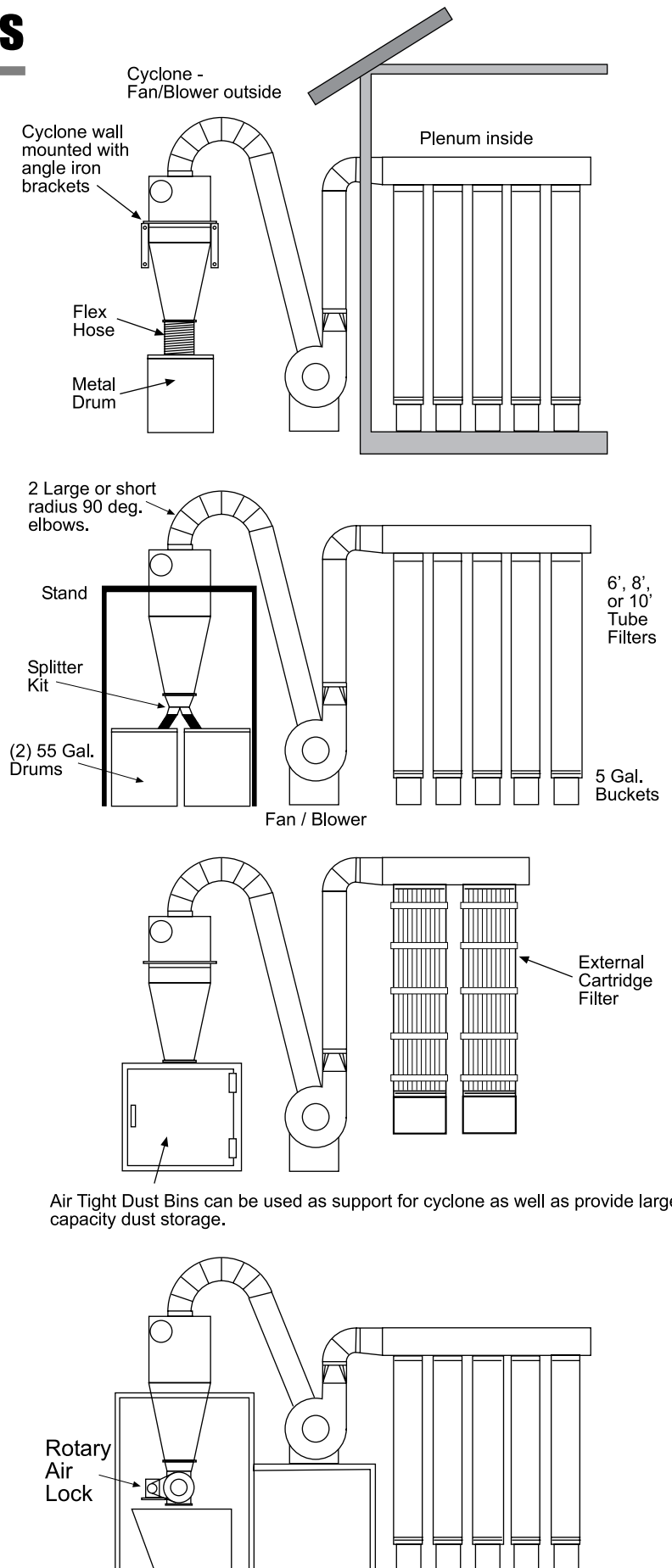
55 gal. steel - 35.5" high 22" dia.

**Hoppers - See Accessories page**

**Dust Box** - Can be any height. For efficient pre-separation there must be an air tight seal between cyclone and dust bin.

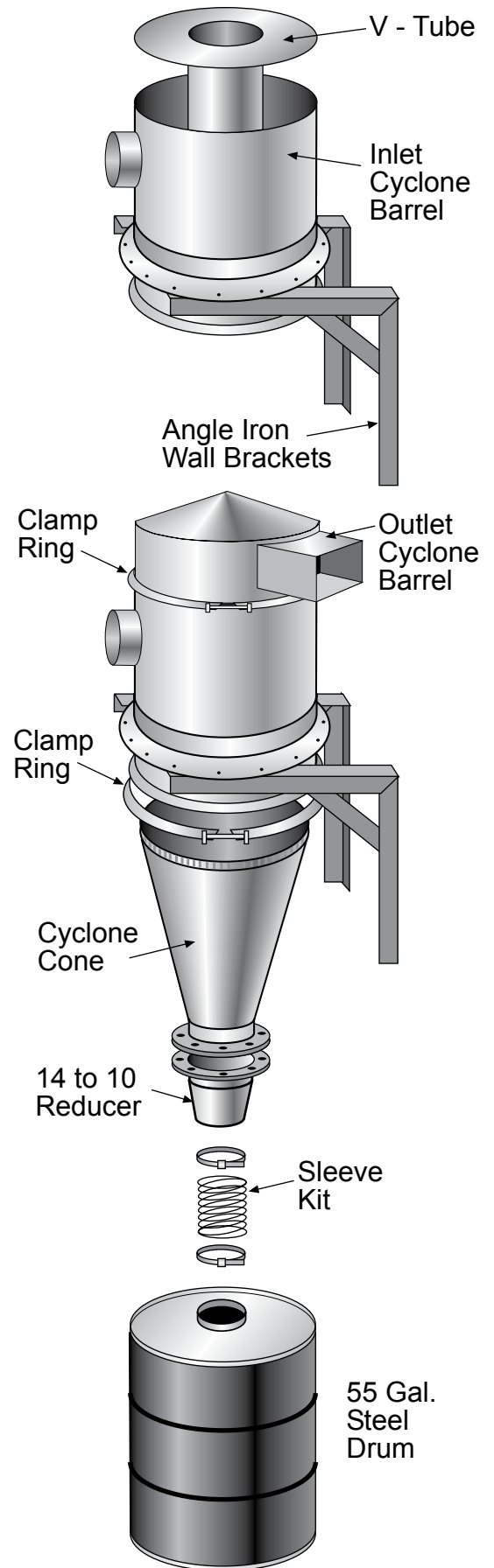
**Rotary Air Locks** - Provide an alternative to an air tight dust bin for larger volume capacity and less maintenance. The airlock maintains an air tight seal which allows material to drop out into an open container.

*A 10" Airlock will drop 1.85 cu. ft. / rev. of material.*



# VI. General Assembly Instructions

1. Determine mounting height for the cyclone.
  - Height depends on size of Dust Bin and length of Flex Hose to Dust Bin connection.
2. Mount Angle Iron Brackets to wall using appropriate hardware.
3. Mount Cyclone Barrel to Wall Brackets.
  - Determine inlet orientation. Fasten Cyclone to Brackets with one bolt on each side using included hardware. Drill new hole in ring if needed for your orientation.
4. Lower V-Tube into Cyclone Barrel
5. Connect Outlet Cyclone Barrel to Inlet Cyclone using included Clamp Ring.
6. Connect Cyclone Cone to Barrel using included Clamp Ring.
  - Seal around Clamp Ring with silicone.
7. Connect 14 to 10 Reducer to bottom of Cone.
  - Seal around Reducer with silicone.
8. Connect Sleeve Kit to Cyclone Cone and Dust Barrel using included Band Clamps.



*For cyclonic pre-separation there must be an air tight seal between cyclone and dust container. Dust bin must be located vertically under cyclone. Material drops down by gravity.*

## Ideas for make your own Dust Bins:

- 55 gal. drum, metal or rigid plastic garbage can, air-tight plywood box.

Note: You can make a lid using plywood lined with some type of gasket material (Carpet Foam).

(Continued on next page.)

## VI. General Assembly Instructions (Cont.)

### 9. Set up Fan / Blower.

#### CAUTION

All moving parts must have guards to protect personnel. Safety requirements vary, so the number and type of guards needed to meet company, local and OSHA standards must be determined and specified by the user. Never start a fan without having all safety guards installed. Check regularly for damaged or missing guards and do not operate any fan with guards removed. Fans can also become dangerous because of potential windmilling, even though all electrical power is disconnected. Always block the rotating assembly before working on any moving parts.

**Fan Outlet -** Square to round transition for fan outlet does not come with installation hardware. Drill holes, bolt screw, or pop rivet to fan outlet, seal with silicone. Make sure pulley cover and shaft guard are in place before operation.

10. If applicable, connect silencer to square-to-round transition.

11. Connect ductwork from fan inlet to top of Cyclone Barrel.

12. Set up Plenums according to height requirements for type.

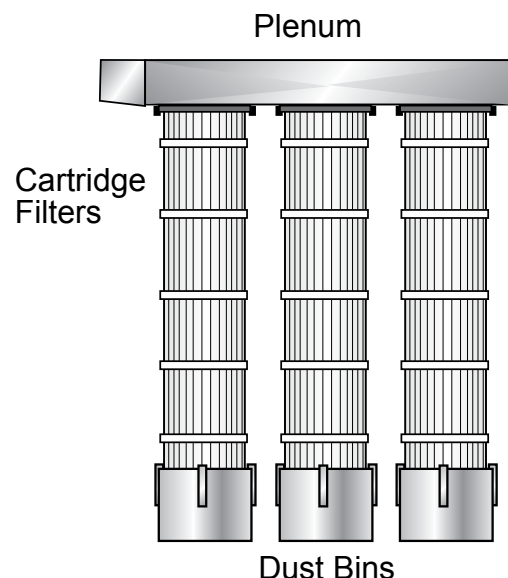
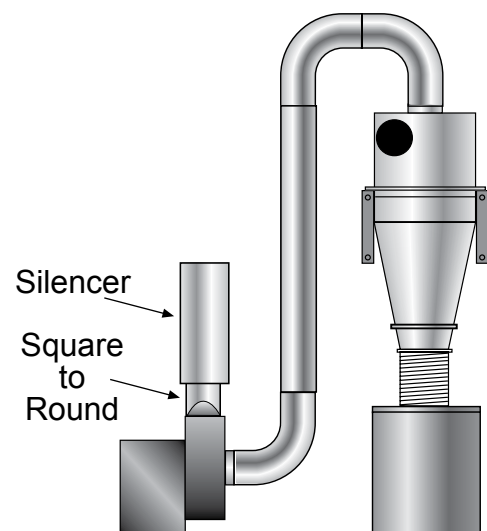
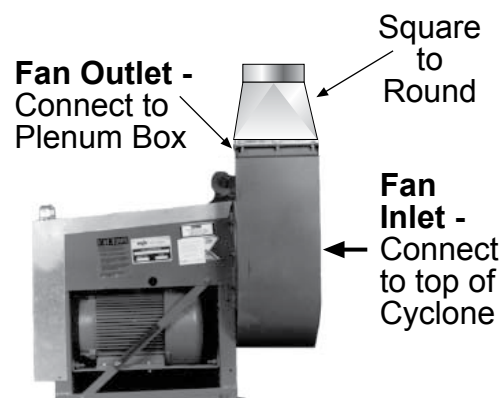
- Instructions for Cartridge Filters:  
Clamp filter cartridges to plenum, then clamp dust bins to cartridges

#### External Filter Cartridge Cleaning Intervals

When unit is turned off, use compressed air to blow dust off from exterior of filter. Hold nozzle at least 8" away from filter pleats. Do not remove bottom dust pan before or during the blow-off process! Let dust settle into dust pan. Unclip and dump out dust. Filter removal is not required. You can also run your fingers around the filter pleats to knock material down.

- Instructions for Tube Filters - *See next page.*
- Instructions for build your own plenum - *See next page.*

13. Connect ductwork between Fan / Blower outlet or Silencer and Plenum.



# VII. External Filter Bag Assembly

## OAS Galvanized Plenum Box

1. Connect the plenum to the fan / blower outlet with the bolts provided. Band clamp tube filters to the Ring Thimbles on the bottom of the plenum and to the tops of the 5 gal. buckets.

(Check mounting height - Match to bag heights..)

## Build Your Own Plenum

Plenum box can be constructed of plywood or metal. Oneida Air Systems sells 22 gauge galv. plenum boxes. The filter medium is a 16 ounce polyester felt which has been singed inside to help release caked dust.

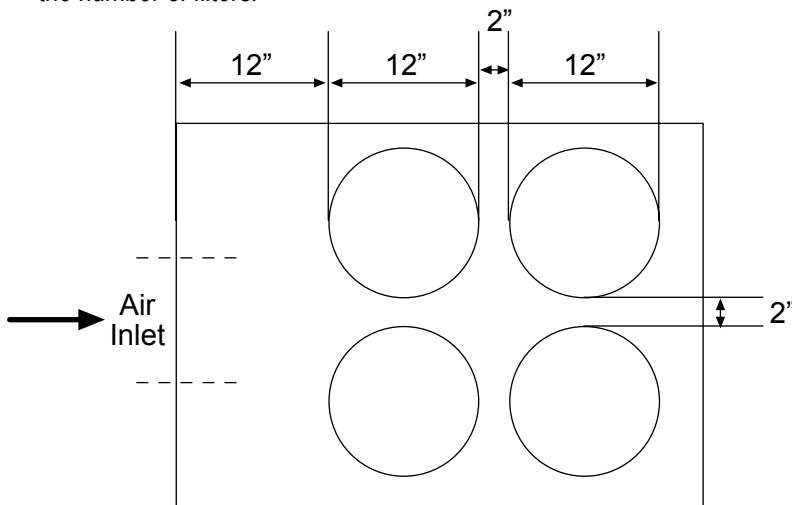
For the tube style filters, a 12" dia. ring thimble (Part # - FAZ000000) is needed for each filter. The plenum box and the ring thimbles are suspended above the floor at a height that will allow for a 5 gallon plastic bucket and tube filter to fit properly underneath.

A well sealed plywood box will make a good plenum for air distribution through the tube filters. Use plywood for the plenums. Cut 12" dia. holes in the bottom of the box (spaced 2 - 3" apart ), so that the ring thimbles fit snugly. The rings should not be able to slide through the holes. Bend Ring Thimble tabs then apply duct sealant or caulk around the edge of the ring Thimble. Use sheet metal screws to secure.

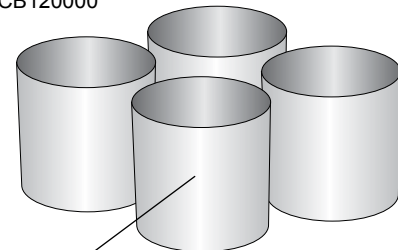
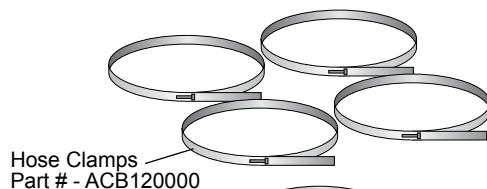
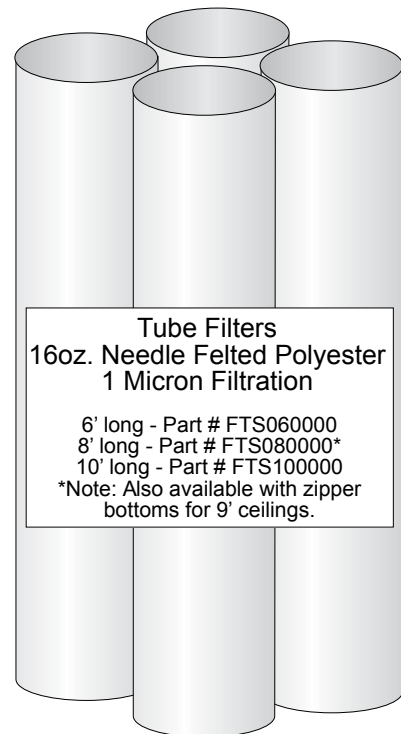
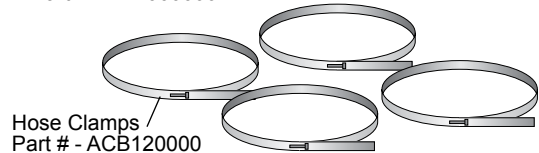
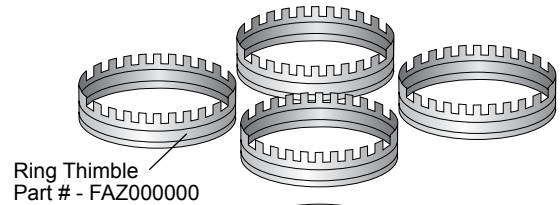
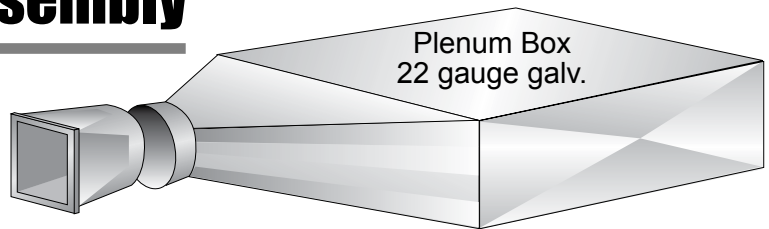
Be sure to remove any sharp edges from the bucket or ring thimble that may abrade the filter. Slide the filter over the thimble past the raised bead. Secure with a band clamp. Slide the bottom of the filter over a five gallon plastic bucket. Secure with a band clamp or strong bungee (shock cord). Be sure filter is not loose or moving around when the system is on. This could lead to wear on the filter.

With the use of a cyclone pre-separator, the buckets will not need emptying very often, but do need to be checked occasionally. Simply lift the bucket, weight will indicate how full the bucket has become.

*Note: Plenum hole configuration varies. The number of holes matches the number of filters.*



Plenum box height - 12" min. Use 3/8" or thicker plywood. Seal plenum box with silicone.



5 gallon buckets 12" high (Not supplied with system). Can be purchased. Part # - SDS050000 or recycled joint compound buckets or food storage containers can be used.

# XIII. Fan / Blower Wiring Diagram -

***Wiring should always be done by a licensed electrician.***

**Before Operation** - Before making electrical power connections, check for proper grounding of motor and application. All electrical contacts and connections must be properly insulated and enclosed. Coupling, belts, chains or other mounted devices must be in proper alignment, balance and secure to insure safe motor operation.

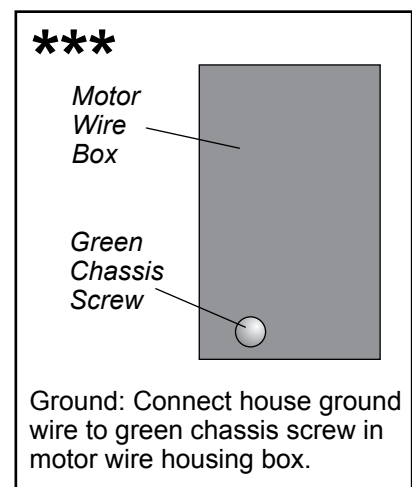
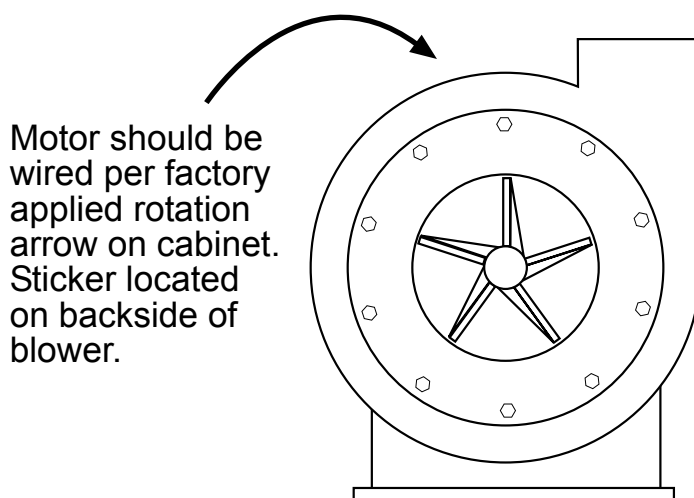
**Electrical Wiring**- Prior to connecting to the power line, check motor plate for proper voltage and rotation connection. This motor should be installed in compliance with the National Electrical Code and any other applicable codes. Voltage at motor not to exceed + or - 10% of nameplate voltage. Licensed electrician should make all electrical connections.

**Electrical Disconnects** - Every motor driven fan should have an independent disconnect switch to isolate the unit from the electrical supply. It should be near the fan and must be capable of being locked by maintenance personnel while servicing the unit, in accordance with OSHA procedures.

Always use the wire diagram on the motor plate. Sometimes the wire diagrams on the motor will be for different rotation. Wire for counter-clockwise rotation.

***Follow Motor Plate for wiring diagram.***

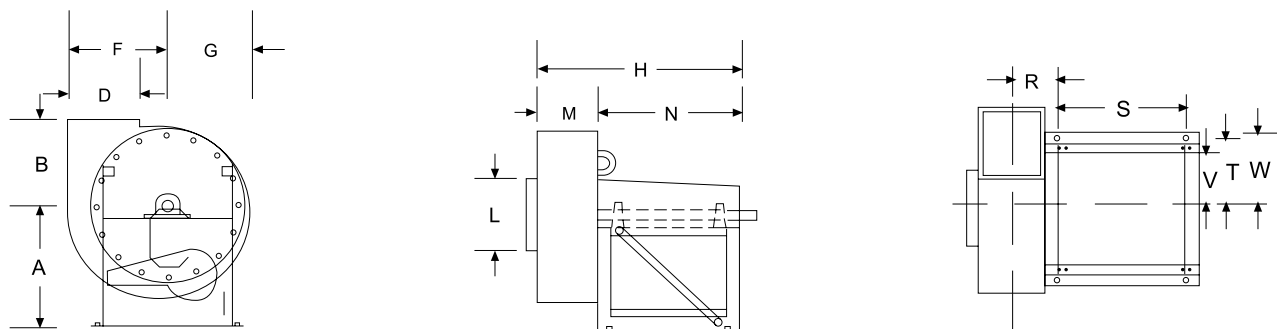
***Locate factory applied rotation arrow on blower cabinet to establish rotation direction. It is not possible to know beforehand which direction a 3-phase motor will rotate. 'Bump' start the motor and observe the direction of rotation of the end of the blower shaft (see hole in NYB outer cabinet that is aligned with the end of the blower shaft.)***



To reverse rotation interchange any two power line leads.

# IX. Fan / Blower - Maintenance

The Fan / Blower has a TEFC - Totally Enclosed Fan Cooled motor that can be placed outside. The fan housing is adjustable by 22 1/2 degree increments - outlet can be oriented by adjusting bolt hole locations between the scroll and the bracket assembly. Fan blowers come as clockwise up blast from Oneida Air Systems.



Item	A	B	D	F	G	H	L	M	N	R	S	T	V	W
Dimensions (Inches)	17 1/5	12 5/8	10 1/8	14 1/2	12 1/4	34 1/8	11	9 1/2	22	6 5/8	18 3/8	8 7/8	8	9 1/2
Dimensions (mm)	445	321	257	368	311	867	279	241	559	168	465	225	203	241

- A high pressure blower requires a certain amount of resistance which will prevent motor over amperage.
- Make sure power source matches wire voltage configurations.
- Check set screw and key in fan wheel, make sure fan wheel is secure, fan blower should not vibrate.

**WARNING: Rotating Fan Blades.**  
**Keep Objects Clear of Inlet and Outlet**

**REMINDER: Check Motor and Fan Lubrication Schedule.**

**DANGER!**

Do not open until the power supply has been locked off and the shaft has stopped rotating. Failure to do this can result in serious injury.

## Maintenance of Fan / Blower

### 1.) Electrical -

Failure to follow instructions and safe electrical procedures could result in serious injury or death. Disconnect all power and discharge all capacitors before servicing. Install and ground per local and national codes. Consult qualified personnel with questions or if repairs are required.

### Electrical Connections -

- A) All wiring, fusing, and grounding must comply with National Electrical Codes and local codes.
- B) To determine proper rotation and voltage connections, refer to wire diagram section of this manual.
- C) Use the proper size of line current protection and motor controls as required by the National Electrical Code and local codes. Recommend use is 125% of full load amps as shown on the nameplate for motors with 40 degrees Celsius ambient and a service factor over 1.0. Recommended use is 115% of full load amps as shown on the nameplate for all other motors. Do not use protection with larger capacities than recommended. Three phase motors must have all three phases protected.



# Maintenance of Fan / Blower (Cont.)

**2.) Cleanliness** - Keep both the interior and exterior of the motor free from dirt, water, oil and grease.

**3.) Safety** - Motors should be installed, protected and fused in accordance with latest issue of National Electrical Code, NEMA Standard Publication No. MG2 and local codes. Rotating parts such as pulleys, coupling, external fans, and unusual shaft extensions should be permanently guarded. Keep hands and clothing away from moving parts. Electrical repairs should be made by trained, qualified personnel only.

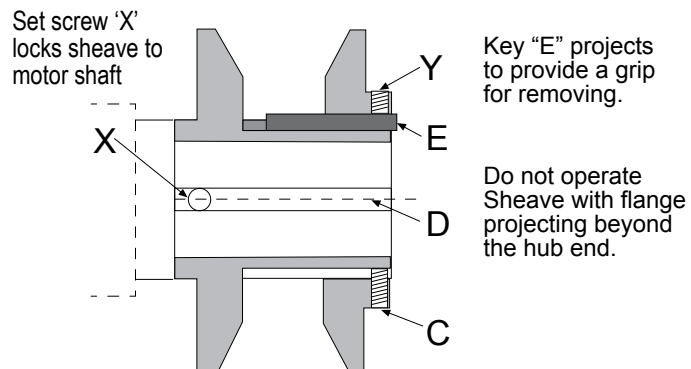
**4.) Location** - The free flow of air around the motor should not be obstructed. The motor should never be placed in a room with hazardous processes or where flammable gases or combustible material may be present, unless it is specifically designed for this type of service.

## 5.) V-Belt Drive -

- A.) Align sheaves carefully to avoid axial thrust on motor bearing. The drive sheave on the motor should be positioned toward the motor so it is as close as possible to the bearing.
- B.) When adjusting belt tension, make sure the motor is secured by all mounting bolts before tightening belts.
- C.) Adjust belt tension to belt manufacturers recommendations. Excessive tension will shorten bearing life. Insufficient tension shortens bearing life, can reduce fan performance and may cause vibration. Belts may slip during start-up, but slipping should stop when fan reaches full speed.

### Replacement Belt Part Numbers

10hp	B44 Belt	BLZ440000
15hp	BX44 Belt	BLZ440001



D.) Sheaves should be in accordance to NEMA Spec. MG-1 or as approved by the manufacturer for a specific application.

### Adjusting:

- 1.) Loosen set screws "Y" and "C" in moving parts of sheave and pull out external key "E". (This key projects a small amount to provide a grip for removing.)
- 2.) Adjust sheave pitch diameter for desired speed by opening moving parts by half or full turns from closed position. Do not open more than six full turns for "B" belts.
- 3.) Replace external key "E" and tighten set screw "Y" over key and set screw "C" into keyway in fixed half of the sheave. Wrench torque 100 in. lbs. minimum to 130 in. lbs. maximum.
- 4.) Put on belts and adjust belt tension. (Do not force belts over grooves.)
- 5.) Future adjustments should be made by loosening the belt tension and increasing or decreasing the pitch diameter of the sheave by half or full turns as required. Readjust belt tension before starting drive.
- 6.) Be sure that all keys are in place and that all set screws are torqued properly before starting drive. Check set screws and belt tension after 24 hours of service.
- 7.) Replace shaft and pulley guards covers.

**6.) Condensation Drain Plugs** - All explosion proof and totally enclosed motors are equipped with automatic drain plugs, which should be kept free of oil, grease, paint, grit and dirt. The drain system is designed for normal floor (feet down) mounting. For other mounting positions, modification of the drain system may be required. Consult the manufacturer.

**7)** The factory installed bearings in the motor are double shielded (permanently sealed), pre-lubricated, ball bearings without grease fittings and don't need relubrication. The bearing part numbers are as follows: Drive End / 6309ZZ, Opposite Drive End / 6307ZZ. If the bearings ever need replacing, the motor should be taken to an EASA (Electrical Apparatus Service Association) certified shop to ensure proper installation.

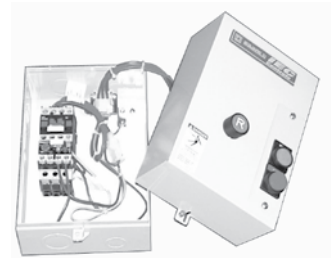
# X. Accessories

**STZ250000** - Angle Iron Cyclone Stand  
**STZ990000** - Plenum Stand



## Magnetic Motor Starters -

The 5 & 7.5 hp Pulley Drive dust collectors do not come wired or with an on/off switch. Because of the voltage and amperage requirements of the system, an industrial switch must be used. OAS offers Square "D" Full Voltage Non-Reversing across the Line Staters, NEMA Type 1 Enclosure with start/stop in cover, and class 10 overload. Industrial switches can also be purchased through your local electrician. Due to varying electrical codes, OAS cannot specify exact wiring requirements. When wiring the collector you should always hire a licensed electrician.



## Dust Sentry™ AXB999110

The Oneida Dust Sentry™ with adjustable IST (Infrared Sensing Technology), flashes a strobe light to alert you when the dust in your container reaches your preset level, telling you when it's time to empty the container.



Pat. Pending

## Drum Liner - Plastic Bag Hold-Down

Enables you to line your dust drum with a plastic bag for easy, safe dust disposal.

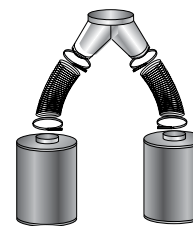
ABX000035 35 Gal. Hold-Down  
ABX000055 55 Gal. Hold-Down



## Dust Bin Options - (Must order custom mounting stand.)

### 1. Multiple Drums -

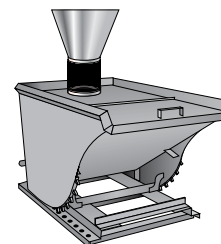
Custom order the System Mounting Stand for multiple drums or hoppers. Stand widths will vary depending on dust container.



### 2. Hoppers -

Large capacity hoppers from .5 cu. yd. to 3 cu. yd.

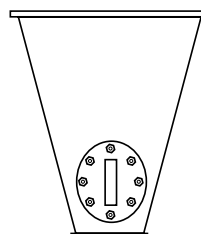
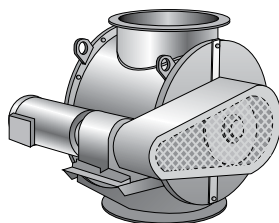
3/15" reinforcing angle for added support - 3/16" plate body is 100% continuously MIG welded on inside - 3/8" rear cross brace angle (not 3/16") - three 3" base channel - All angles are structural not formed.



### 3. Air Locks -

Rotary air locks provide an alternative to an air tight dust bin for larger volume capacity and less maintenance.

Example - A 10" air lock will drop 1.85 cu. ft. / rev. of material.



### 4. Cone w/ Clean Out -

Optional cone with clean out plate for use with airlocks.



## **XII. Troubleshooting**

### **Motor Overheating**

*The motor's internal circuit breaker will trip if the motor is overheating.*

Motor amperage too high - Shut system down.

Caused By:

- System should be completely bolted and sealed together.
- Ductwork should be completely installed and sealed with sealant.
- Air leaks between the collector and dust bin.
  - The lid of the dust bin and the cyclone must be in place and sealed when operating the dust collector.
  - Make sure flex hose is not torn and the hose clamps are tight.
  - Check drum lid; cover should have a foam seal and be well seated.
  - Check for holes or leaks in the dust bin barrel.
- Motor not properly wired. Check wire connections.
  - Check motor rotation - See wire diagram
- Check breaker box. Make sure incoming power supply matches motor specifications.

**Note:** If you continue to experience difficulty with your collector, call Oneida Air Systems at 1.800.732.4065 for assistance.

### **Poor Dust Pick-Up at Woodworking Machines**

Caused By:

***Improper motor rotation - Running backwards will reduce suction by 30%.***

- Check length of duct runs and duct diameters compared to ductwork design guideline.
- Make sure all ductwork is sealed. Large air losses will occur even through small cracks in the ductwork. Use silicone, duct tape or duct mastic compound as a sealant.
- Check for air leaks between collector and dust bin.
- Close all unused blast gates at your woodworking machines.
- Examine hood design for weaknesses according to the ductwork guide.
- Check for a restricted pipe, too small a hood port or too small a branch line. See branch line diameter chart in ductwork guide.
- Be sure that your filter is clean. See filter cleaning directions.

### **Filter Clogging**

Caused By:

- Air leakage between cyclone and dust bin. Cyclone and dust bin must be air tight. Even small leaks can will cause poor pre-separation in the cyclone.
- Large chips clogging the filter:
  - Check for a leak in the dust bin, flex coupling or lid. Check for split or torn flex coupling. (See also: Motor Overheating Section above.)
  - Make sure dust bin has not over filled. Dust bin should be emptied before dust reaches top of container.
  - Interruption of air flow, such as vacuuming chips with a flex hose connection, will increase filter maintenance.
  - Minimum 4" diameter pick up at tool location. Less than 4" will restrict air flow into collector and will increase filter maintenance, If there is not enough air entry in system, open more blast gates.
  - Make sure clamp around cyclone is tight and sealed with silicone.

### **Excessive Vibration**

Caused By:

- Loose mounting bolts.
- Excessive system pressure or restriction of air due to closed blast gates.
- Accumulation of foreign material on the fan wheel.
- Inadequate support structure.

## **XII. Fire Hazards - Read Before Installing and Operating**

### **Oneida Collectors are designed for WOOD DUST only!!**

Wood shaping and cutting processes generate wood chips, shavings, and dust. These materials are considered combustible. Air borne wood dust below 420 microns in size (.017 of an inch) in certain concentration ranges when ignited can deflagrate (burn quickly).

An ignition source such as a spark or ember can ignite a dust mixture resulting in an expanding flame front which can cause an explosion if tightly contained. A disturbance that raises a cloud of accumulated fine dust can raise additional dust clouds, which can cause a series of explosions that can level an entire building. *Until this type of fire has been witnessed, it is difficult to believe the devastation. This type of fire is rare but worth safeguarding against.*

The best way to avoid a wood shop fire is to keep the shop clean. A shop ankle deep in dust with layers of fine dust everywhere is an accident waiting to happen. A good dust collection system reduces overall fire hazards but also adds new concerns. A fire hazard is still present. Combustible material is now in the dust collector and storage container.

The following points are worth heeding:

- It is the buyer's responsibility to follow all applicable federal, state, local, OSHA, NFPA, or authorities having jurisdiction codes and regulations when installing and operating this dust collector.
- Fire marshals may want the unit located outside of the building. If the collector is located inside the facility, controls such as spark detection, suppression, or explosion venting may be required.
- Most local jurisdictions consult or adopt NFPA (National Fire Protection Agency) codes. However, other codes may apply. Local codes may vary from jurisdiction to jurisdiction.
- NFPA 664 Code book, "Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities", applies to woodworking operations that occupy areas of more than 5,000 sq. ft. or to areas where dust producing equipment requires an aggregate dust collection flow rate of more than 1500 cfm (cubic feet per minute). This exempts some small operators from the NFPA code 664, but other codes may apply in your jurisdiction. Consult your local Fire Marshall for help. Additional information can be found in NFPA Code Book 664.

*The customer assumes the responsibility for contacting their insurance underwriter with regard to specific application requirements of explosion venting or if additional fire protection and safety equipment may be required.*

**Do not use this product to collect other types of dust or flammable vapors.**

#### **Fire or explosion may occur!**

- Never collect sparks from a bench grinder into a wood dust collector.
- Never introduce sparks or sources of ignition into the dust collector.
- Personnel should keep at least 20 feet away from unit.
- Check dust bin frequently and before leaving the shop for smoldering material.

Keep portable Fire Extinguishers handy.

- The ABC type (dry chemical) is generally a good choice for small wood shops. Additional information on portable extinguishers can be found in NFPA 10 (Standards for Portable Fire Extinguishers).
- Be especially careful with sanding units. They can produce concentrations of dust in the combustible range. Make certain enough air volume is at the suction point to capture all the particulate generated.
- This high air volume will dilute the mixture below the lower limit of flammability. Be careful not to generate sparks into the sanding dust.
- Empty dust bin and clean filter often, especially when sanding.
- Don't overload woodworking equipment, especially sanders. Excessive frictional heat can spontaneously ignite dust.

Sparks can be generated in several ways:

- High-speed sanders and abrasive planers may strike foreign material.
- Saws and edgers may strike foreign material and create a red hot metal fragment.
- Knots in hardwood can create frictional sparks.
- Tramp metal when drawn into the collector can spark against ductwork.
- Check wood stock for old nails and screws which can create red hot metal fragments.
- Avoid using excessively large wood waste storage bins.
- Always check storage bins for smoldering material before leaving for the day.
- Electrically ground all equipment and ducting. Static sparks can ignite wood dust. (Avoid using PVC drainpipe).
- Don't allow accumulation of layers of fine dust on horizontal surfaces. (Especially overhead lights, electrical boxes, and fuse panels which can ignite dust).

# XIII. Terms and Conditions

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## Checking in Order

Please look over the shipped order very carefully in the presence of the delivery person for damage or incomplete shipment before signing the delivery receipt. Please note any tears or irregularities in shipping packaging, however slight, on the shipping delivery receipt. This could be an indication of extensive concealed damage. The shipping company will not take responsibility if the damage is not noted on the delivery receipt. In the event of shipping damage, call O.A.S. immediately so we can expedite replacements. Please check in all parts within 3 days from receiving order. Notify O.A.S. immediately of any missing or incorrect parts. O.A.S. does not accept any claims for damage or shortage after 3 days from date of delivery.

## Limited Warranty

Oneida Air Systems warrants products it manufactures for a period of 2 years to the original purchaser from the date of purchase. Items not manufactured by O.A.S. are limited to their own manufacturer's warranties. All electrical items such as magnetic starters, remotes, sensors, pumps and accessories are limited to 90 days. This warranty does not apply to defects directly or indirectly to misuse, negligence, accidents, abuse, repairs or alterations or lack of maintenance. This is Oneida Air Systems sole written warranty and any warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. O.A.S. does not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall O.A.S.'s liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Oneida Air Systems shall be tried in the State of New York, County of Onondaga.

Oneida Air Systems shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our product.

Oneida Air Systems does not warrant or authorize use of wood dust collectors for other purposes. This includes wood products that are treated, coated, or otherwise altered from their natural state.

***\*Note: Motors should be protected from extreme weather to prolong motor life. Single phase motors should only be started and stopped up to 4 - 10 times per hour. Starting single phase motors more frequently can cause heat build up and can cause the motor overload to trip or cause motor damage. In general, motors should be started and stopped as little as possible for maximum lifespan and best economy (electrical use).***

## Delivery Risk of Loss

Products will be shipped to Buyer's single destination. Title and risk of loss shall pass to the Buyer upon delivery to such destination. Buyer pays transportation expenses. Dates of shipment are advisory and O.A.S. will make reasonable efforts to ship on or before the date states for shipment, however, O.A.S. shall not incur any liability for failure to ship on that date.

## Returned Goods Policy

Buyer must inform O.A.S. of any shortage or damage, by so noting in writing, on the freight delivery bill prior to signing to indicate receipt of shipment. All claims, including claims covered under the limited warranty, are subject to inspection and investigation by O.A.S. O.A.S. reserves the right to inspect, investigate all returned products before Buyer's claim is settled. All products returned for a cash refund must be unused, resaleable and purchased within 30 days. There are no refunds on flex hose, custom made components or partial kit items. Kits must be returned in full (all components) for credit. ***There will be a 25% restocking fee applied to any returned items. Buyer must call and get an RMA (Return Authorization Number). Merchandise must be shipped to us prepaid.***

***Installing a dust collection system will greatly reduce airborne dust levels in your shop. However, NIOSH recommends that respirators must be worn if ambient concentration of wood dust exceeds the prescribed exposure limit. If in doubt, wear a NIOSH mask.***

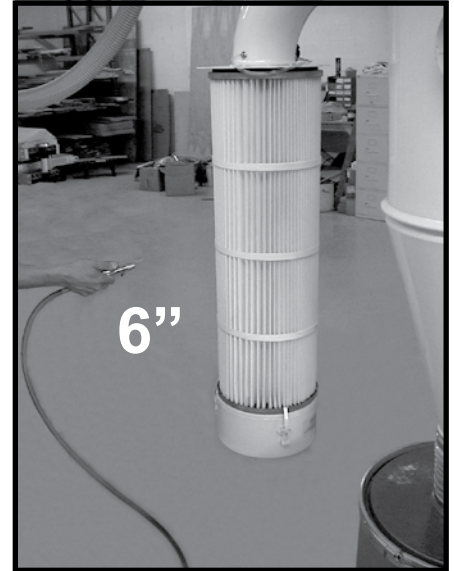
## XIV. External Filter Maintenance

All steps should be done with a dust mask and eye protection. Proper filter cleaning should not be neglected. A dirty filter can affect dust collector operation and filter life.

### 1. *Compressed air from outside.*

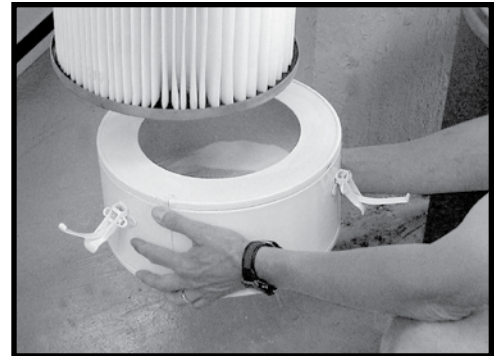
Blast air along pleats of the filter at about a 20 degree angle. Blast air out and away from you or anyone in the general area. Keep air nozzle at least 6" from filter. Closer blasts may damage material. This operation should be done with filter on the unit. Dust is trapped inside filter so it will not make a mess.

Filter must be cleaned regularly or filter damage may result. If gauge reaches 3, it is time to clean your filter. Never allow gauge to reach 5. You could destroy your filter. See page 16.

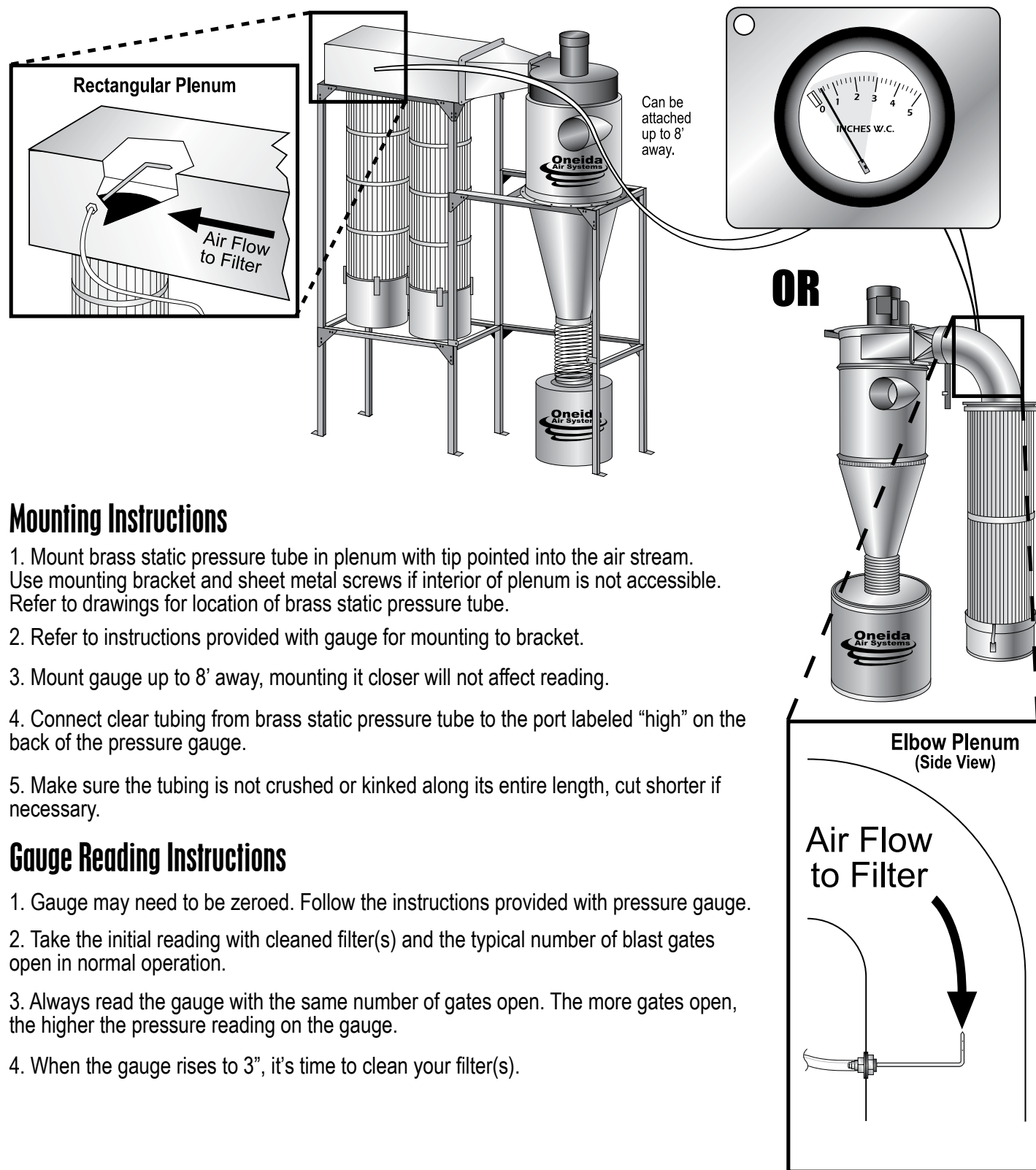


### 2. *Empty Dust Bin.*

Wait a few minutes for internal dust to settle then unclip and carefully empty dust bin.



## XV. Filter Efficiency Gauge Mounting Instructions - Optional



### Mounting Instructions

1. Mount brass static pressure tube in plenum with tip pointed into the air stream. Use mounting bracket and sheet metal screws if interior of plenum is not accessible. Refer to drawings for location of brass static pressure tube.
2. Refer to instructions provided with gauge for mounting to bracket.
3. Mount gauge up to 8' away, mounting it closer will not affect reading.
4. Connect clear tubing from brass static pressure tube to the port labeled "high" on the back of the pressure gauge.
5. Make sure the tubing is not crushed or kinked along its entire length, cut shorter if necessary.

### Gauge Reading Instructions

1. Gauge may need to be zeroed. Follow the instructions provided with pressure gauge.
2. Take the initial reading with cleaned filter(s) and the typical number of blast gates open in normal operation.
3. Always read the gauge with the same number of gates open. The more gates open, the higher the pressure reading on the gauge.
4. When the gauge rises to 3", it's time to clean your filter(s).

***After many cleaning cycles, a filter's pressure will rise after each cleaning. An older filter does not get as clean as a new filter.***



## XVIII. Supplemental Instructions for Magnetic Motor Starters with Oneida Air Systems Dust Collectors

***Please see complete manufacturer instructions for more information.***

This supplement is designed to aid Oneida Air Systems customers with frequently asked questions.

***You must have this product installed by a qualified and licensed electrician.***

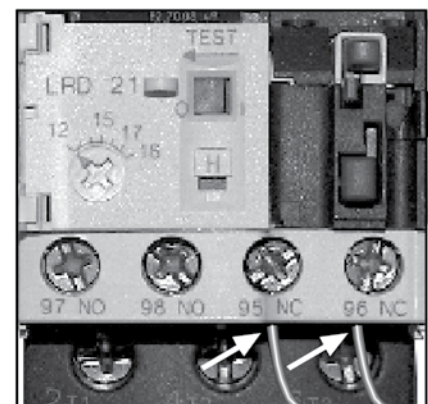
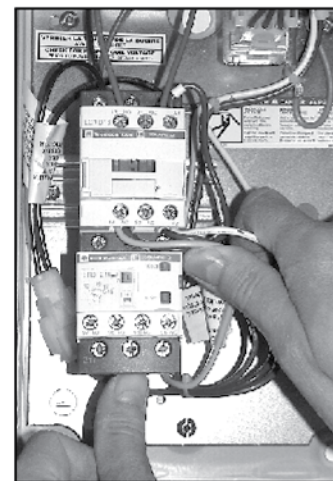
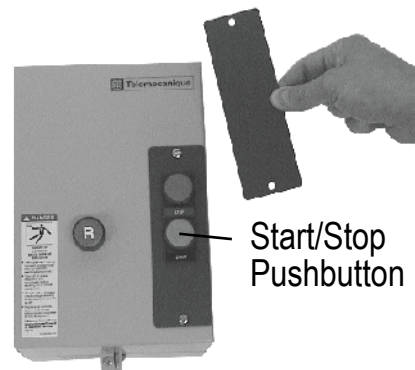
***Improper installation is very dangerous and will void your warranty. Follow all local & national electrical codes when installing this product.***

This starter can be used in single or 3 phase applications. When used in 1 phase it requires a jumper wire that connects T2 and L3. (See attached wiring diagram.) This “tricks” the overload into thinking it has 3 phase power. This jumper must be installed by a licensed electrician. ***The jumper is not required if you are using 3 phase power.***

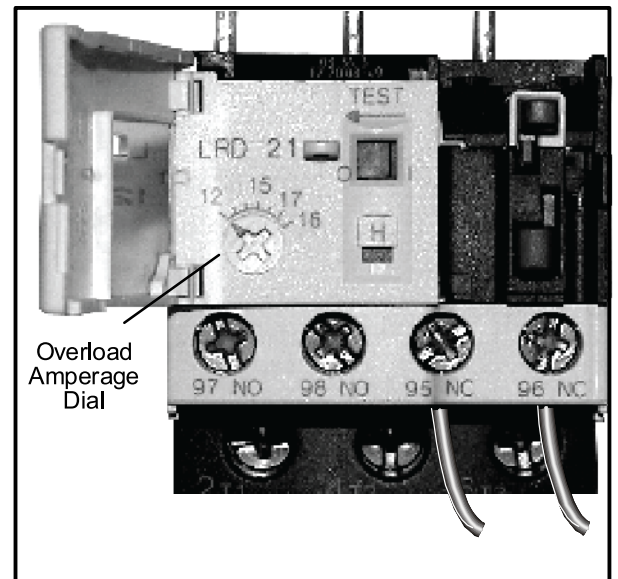
### ***Important!***

The gauge of the Jumper wire must match the gauge of the wire bringing power to the motor through the Starter.

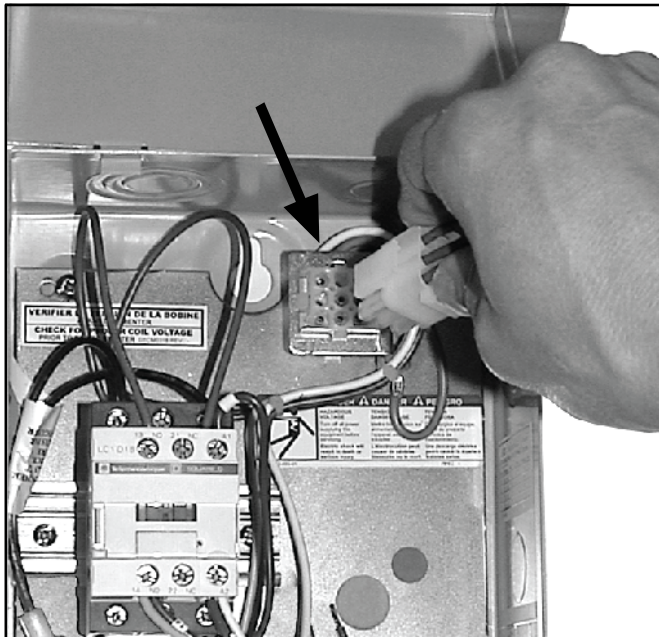
- ▶ Remove the blank plate and install the Start / Stop Pushbutton into the starter cover.
- ▶ You must mount the Overload Protector to the contactor. The Overload comes in the small white box. It mounts to the three terminals at the bottom of the contractor. ***See the complete instructions for more information.***
- ▶ After mounting the overload, connect (2) brown wires marked 95 & 96 to their respective numbered terminals on the overload.



- Open access cover on the overload, then set the overload amperage dial to match the FLA amperage of your motor. The FLA value can be found on your motor nameplate.



- Be sure you have the proper voltage available for your Starter's Power & Control Circuit (Control circuit controls Contactor Coil in Starter). Coil voltage is/can be independent from the line voltage that runs your motor. Customers may desire an alternative Contactor Coil voltage to connect a Starter to a low voltage control circuit. Most OAS starters are shipped with 240v coils.
- Plug the Start / Stop Push-Button Assembly into keyed receptacle. As shown below.)



- Run power to the starter and from the starter to your motor. See the manufacturer instructions for more details.  
The Power Circuit connected to the Starter should be fed from a dedicated circuit breaker or disconnect with fuses. Don't connect any branch circuits to the Mag Starter Power Circuit is to be sized per Article 430.32 of the NEC.

\*Use time delay fuses rated for motor circuits.

