ZBM000035

Oneida Air Systems™
Rotary Air Lock - SAZ080000B

6_12

Powerful ▪ Economical ▪ Made in the USA

Made in USA

Owner's Manual

1.800.732.4065 1001 W. Fayette St., Syracuse, NY 13204 www.oneida-air.com

Oneida Air Systems, Inc. was founded in 1993 to bring cost effective, state-of-the-art dust collection systems and material handling ductwork to woodworking shops. OAS designs and manufactures industrial grade dust collection systems that create a practical, safe and healthy work place environment.

Important Safety Instructions

Read All Instructions Before Using.

!Warning!

Wire according to all applicable codes. Improper wiring can cause electrocution or fire. The motor must be properly grounded.

!Danger!

This machine has powerful rotating elements that can cause severe injuries. Never operate without guards in place. When removing blockages or servicing: Lock Out / Tag Out power source.

!Danger!

Dust can be flammable and explosive. Some dust can be toxic or cause allergic reactions.

!Danger!

The input and output must be guarded during use.

!Danger!

Depending on how wired, the airlock may start automatically.

!Danger!

Do not use with flammable or combustible liquids or use in areas where they may be present.

For industrial or commercial use only.

!Warning!

Look at the included wiring diagram carefully.

Save these instructions.

Check www.oneida-air.com for owner's manual updates.

This compact, rotary air lock was designed with smaller systems in mind. It is economical to run and uses far less energy than standard air locks.

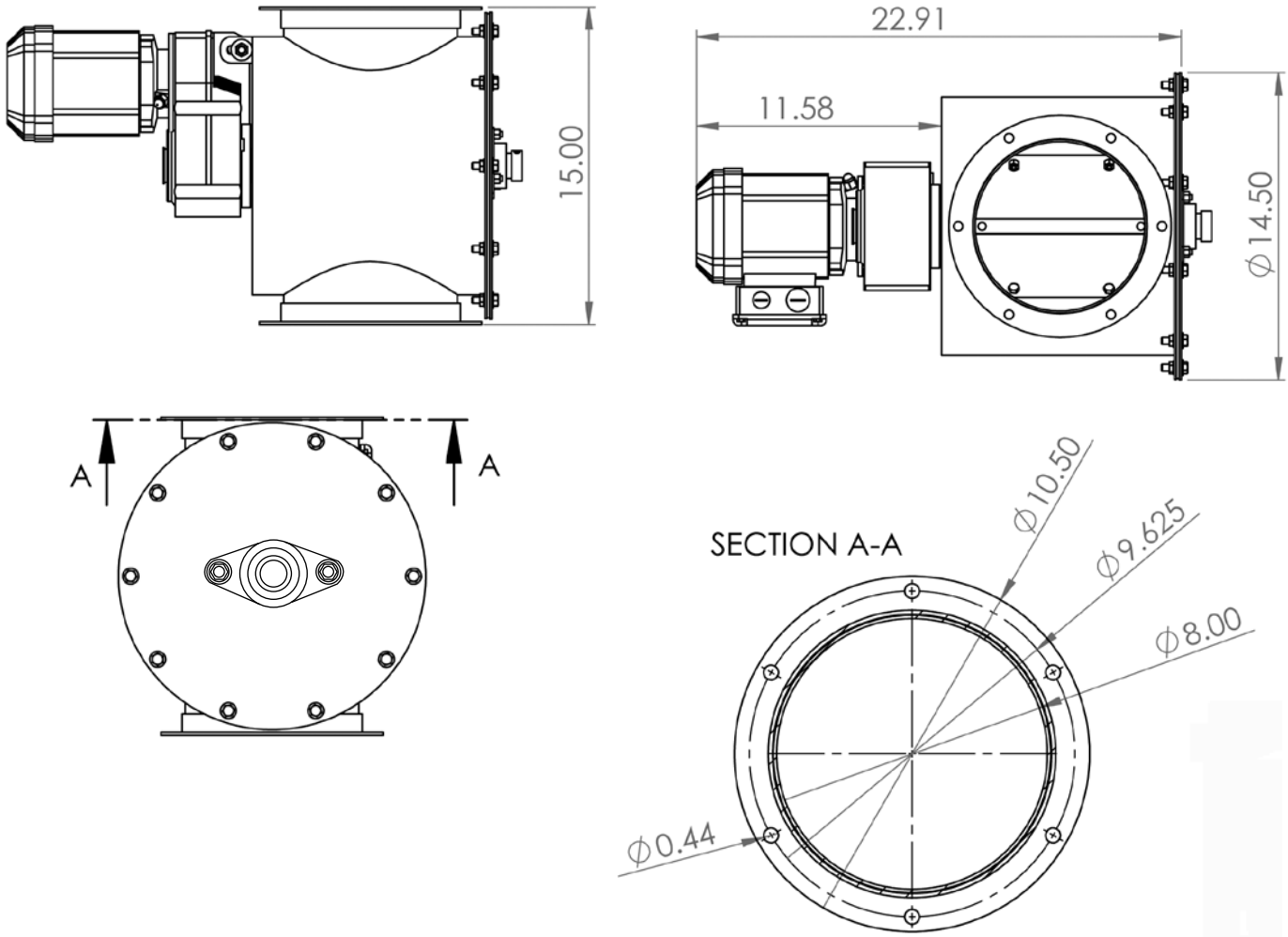
Part #	Description
SAZ080000B	Rotary Air Lock

Features :

- Fully seam-welded cold rolled steel.
- Durable, powder-coated finish.
- Easily replacable seals.
- 1/4hp, 230 v or 460v*, 3 phase, helical drive is compact, durable and quiet. Made in USA.
  **** 460v requires alternate starter.***
- 13 rpm rotation for less seal wear.
- Volume per minute at 100% loading = 3.75 Ft.^{3} / Min.
- Volume per minute at 30% loading = 1.1 Ft.^{3} / Min.
- Assembles in minutes.
- 8” dia. inlet and outlet. Reducers and adapters available for all makes and sizes of cyclones.
- Unit weighs only 72 lbs. and ships via UPS.
- For commercial and industrial use only.
- The rotor’s direction of rotation does not matter.
- 1 Year Warranty

Not intended for severe duty. Designed for dust only. (Wood and other non-explosive dusts.)

Dimensions



User Maintenance

- Airlock should be kept clear of obstructions.
- Motor should be kept clean for proper cooling. Use a shop vacuum to clean off the motor's shell and fan area. Make sure motor cooling fan is able to spin freely and that all air vents are clear.
- Rotor seals should be inspected every 1000 hours of run time (approx. 6 months) for wear and replaced if air leaks are noted. Seal replacement kit is OAS part number AXA080000.
- All joints should be inspected for leaks and leaks should be sealed if observed.
- Access ports to be kept closed and air tight with proper fasteners.
- Bearing should not have to be re-greased in normal operation. For unusual conditions, please consult your Oneida Air technical salesperson.

Installation

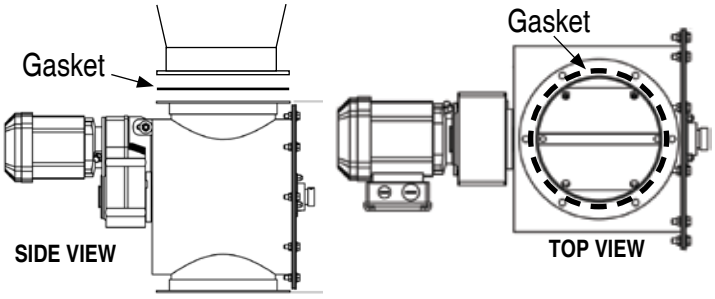
Tools required:

Two each, 7/16”, 1/2” and 9/16” wrenches

All installations must have a provision for access to the inlet area in order to remove jammed material. Consult with your Oneida Air Systems technical representative on the best way to provide for clean out access. Options include clean out hatches in the cyclone to airlock adaptors or in the cyclone itself.

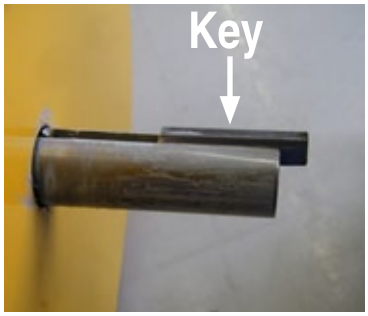
1. Select a position for the airlock assuring that there is at least 16 inches of clearance for the motor drive to be installed and for proper access to the motor for service. Make sure the airlock is installed so that the labels read right side up.

2. Bolt top inlet ring to adapter or directly to cyclone with (6) 5/16-18 bolts with (12) washers and (6) locking nuts. Tighten properly. Seal connection with the provided 1/2”gasket. ***It is important that this joint is air tight.***

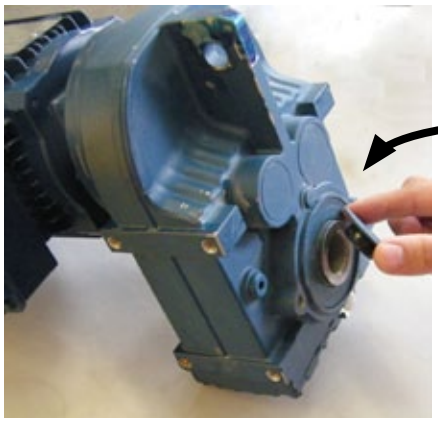


3. Next, be sure end of rotor shaft is clean and free of damage. Dirt or burrs can cause the shaft to jam in the drive and be difficult to remove in the future.

4. Apply a thin even coating of the white anti-seize coating provided to the exposed end of the rotor shaft and key. Save left over anti-seize for future use. This coating allows the drive to be easily removed for future service. Insert key into end of shaft’s keyway, making sure it is seated per illustration in next column.

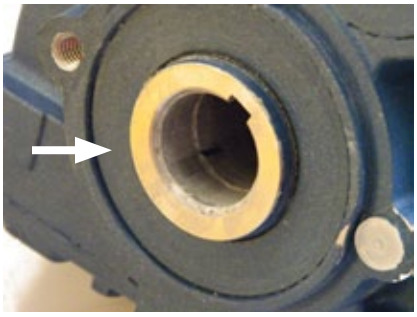


5. Remove the plastic plug on the gear box.

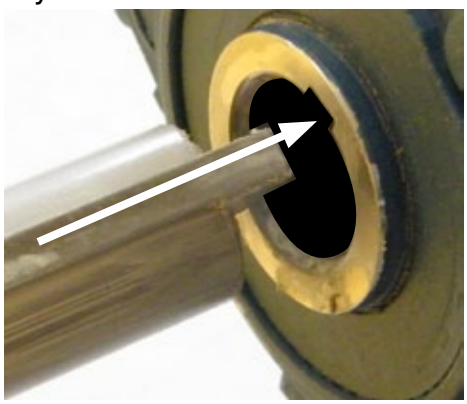


Discard bolt, washer but save key.

6. Make sure the interior of the drive’s hollow shaft is clean.



7. Lift the drive and rotate until the key way lines up with key

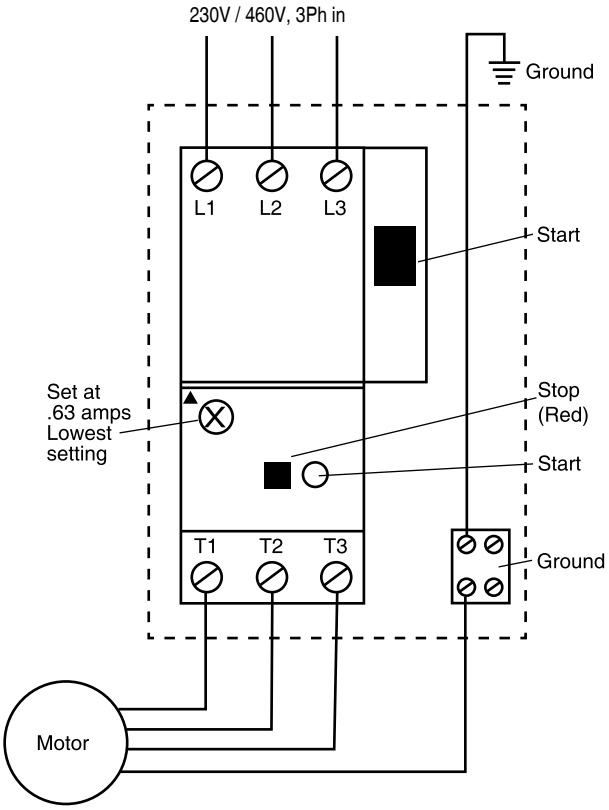


8. Slip on part way, then gently rotate entire drive clock-wise until the top rib is in line with the left side of the torque tab on the airlock, push on the rest of the way.

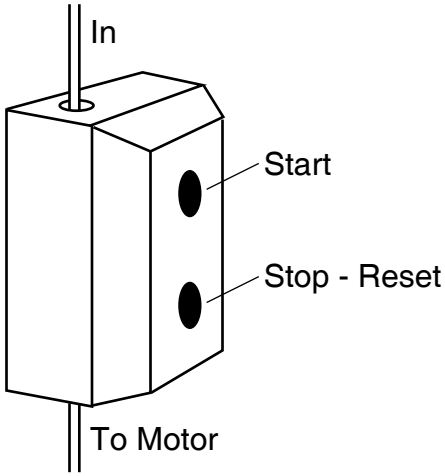
9. Insert 3/8” bolt, washers and nyloc nut and then tighten securely.

The motor can be wired for 230V or 460V, 3 Phase, but double check the diagram on the inside lid of the motor wiring box for proper wiring.
Wire the unit per all applicable codes. Overload should be set to trip at .6 amps. This will protect the motor if the air lock is jammed with material that is too large to pass through. A magnetic starter is also included to assure that the unit does not unintentionally restart after the overload turns it off.
DANGER! Since the air lock can be wired to start automatically such as when dust collector is started, it is very important that the wiring allows for proper **Lock Out Tag Out**. When servicing the air lock for any reason, it is very important to have all power locked out and tagged out so that the motor cannot start accidentally.

Airlock Wiring Diagram for Manual Control

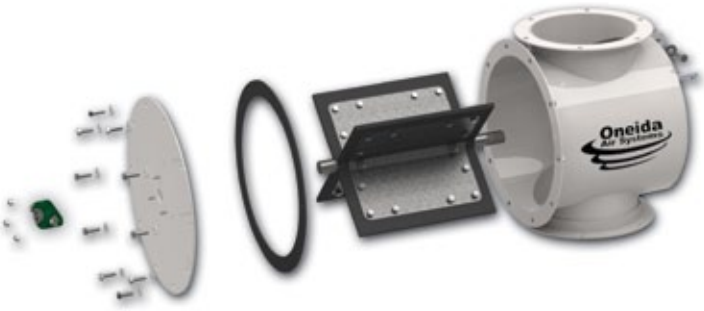


Use appropriate gauge wire. Follow all applicable codes.



Motor wiring.
Tools required, 8mm [5/16] and 7mm [9/32] nut drivers

Rotor Seal Replacement



Depending upon the type of material and other conditions, your seals may have to be replaced after 1000 to 2000 hours of running time. To determine if seals need replacement, first Lock Out / Tag Out the motor's power supply, then open the cleanout port. Inspect the rubber seal's edges with a flashlight to see if there are gaps between the edges of the rubber and the interior of the airlock's cylindrical walls. If there are gaps that permit air leaks, the rubber needs to be replaced.

Tools required:

Two each, 7/16", 1/2", 9/16" wrenches, 1/8" allen wrench, medium sized phillips head screw driver or 1/4" drift punch.

Disassembly:

Turn off power and Lock Out / Tag Out power source per regulations. Airlocks often have automatic starting.

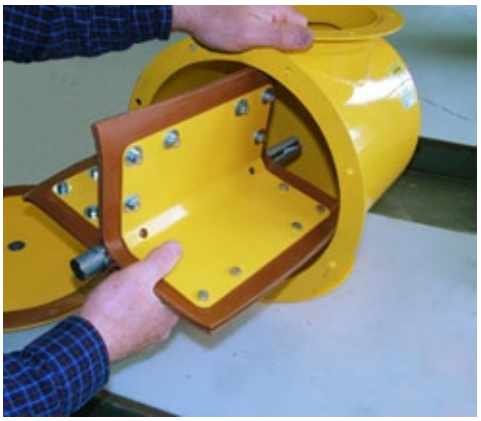
DANGER! Rotor turns with sufficient force to cause severe injury.

Remove 3/8" torque tab nut, washers and bolt and then slide motor drive unit off end of shaft. Be careful to keep hollow shaft interior clean.

Remove and save the key.

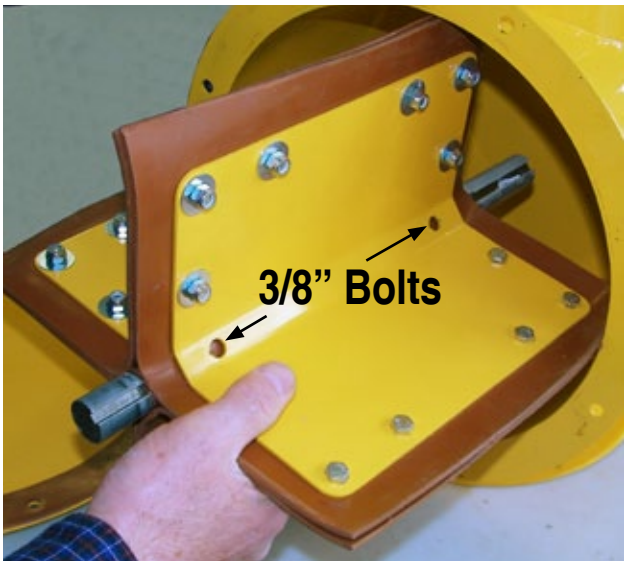
Loosen bearing set screws with 1/8" allen wrench.

Remove 5/16" bolts holding end plate on. Slide plate off. Be careful not to damage flange gasket.



Pull out rotor assembly. Twisting the rotor may help.

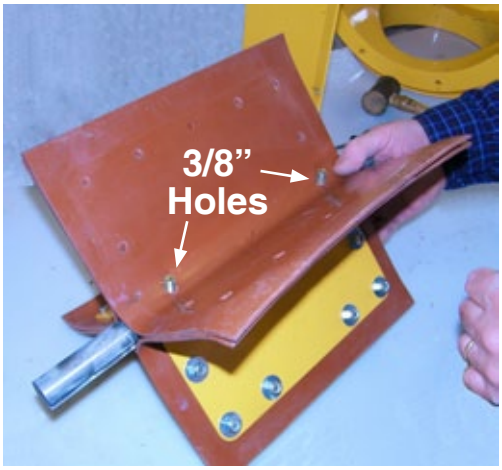
Be careful not to damage the shaft.



Remove and save all the 1/4”-20 nuts and bolts and then remove the (2) 3/8” bolts that pass through the shaft and the (4) steel vanes. Save all the fasteners but discard the (4) rubber seals.

Re-Assembly:

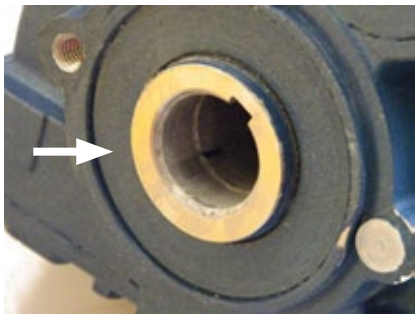
Note that all four vanes and seals are identical except that two of the rubber seals have two additional 3/8” holes along the center axis. The other two do not.



Start with one steel vane. Insert the two 3/8” bolts and then place one of the seals with the extra center holes over the bolts. Then extend bolts through the holes in the shaft. Do the same on the opposite side. Apply washers and nuts but keep loose.

Next, align the next seal and steel vane and start installing the 1/4” bolts but keep them loose.

Continue until all of the 1/4”- 20 bolts are in place, then make sure the seal’s edges are lined up and then tighten the nuts and bolts. Then tighten the two 3/8” nuts and bolts.

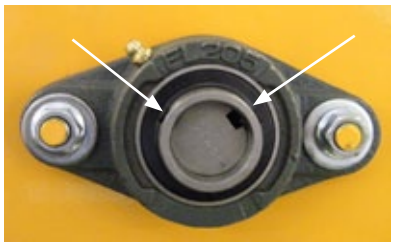


Make sure the airlock interior is clean. It makes installing the rotor easier to spray the interior with silicone lubricant. Do not apply any lubricants or solvents to the rubber seals. They can damage the rubber.

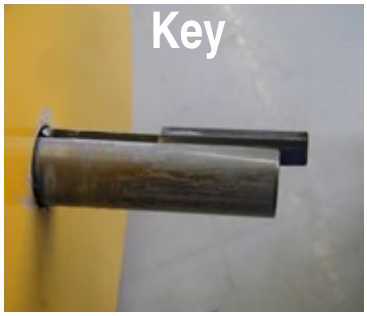
Carefully slide the rotor assembly back in place. Rotating it will help.

Clean both ends of the rotor shaft with a clean cloth, then apply a thin, even coat of anti-seize to the bearing end of the shaft.

Re-install end plate and insert nuts and bolts. First finger tighten and then progressively wrench tighten all 10 bolts.



DO NOT tighten the two set screws in the bearing yet.



Make sure the drive end of the shaft is clean and free of burrs or other damage. Insert key, then apply a thin, even coating of the anti-seize. Lift drive into place and line up the hollow shaft's keyway with the shaft key and slide on part way. Rotate the drive so to align with the torque tab and slide on the rest of the way. Re-install 3/8" nuts, bolts and washers and tighten.

Turn on airlock, rotate a few times, turn off. then tighten set screws.

Troubleshooting

Unit Stops:

Overload protection is designed to shut the motor off in about 8 seconds if jammed.
Turn off and **Lock Out / Tag Out** all power. Open access port and remove debris if any is present.
Replace access port cover, restore power and push the red stop / reset button, then push start.
(Note: It takes 4 - 5 minutes for the motor to cool before the motor will restart.)

Seals Wear Prematurely:

Abrasive or sharp material is being passed through unit. Unit is intended for use with wood or similar dusts only.

How to Order

Phone - 1.800.732.4065 Toll-Free
Our hours are Monday - Friday 8:30am - 5:00pm EST

Fax - 1. 315.476.5044
You can fax your order in anytime and we will send you back a confirmation by e-mail, fax or mail. Be sure to include your name and a daytime phone number

Internet - www.oneida-air.com
You can shop on our online web store 24 hours a day.
E-mail us at: ***info@oneida-air.com.***

Methods of Payment

Checks, Money Orders or C.O.D.

Mail - Oneida Air Systems, Inc. 1001 W. Fayette St., Syracuse, NY 13204
You can mail in your order and we will send you back a confirmation by e-mail, fax or mail. Be sure to include your name and a daytime phone number.

Terms and Conditions / Shipping

Oneida tries to ship orders out in a timely manner, however sometimes delays and back orders are inevitable. Oneida will not be held responsible or liable for these conditions or the way they may effect your production. Back orders will be shipped when they are available. When orders are shipped UPS, UPS will notify you by e-mail. If shipped by Common Carrier, you can arrange for the trucking company to notify you and make arrangements for delivery. Shipping method is determined by Oneida Air Systems and is dependent upon material to be shipped and destination. You are not charged until your order is shipped.

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 OAS Customer Service immediately at 1.800.732.4065 so we can expedite replacements. Please check in all parts within 3 days from receiving order. Notify OAS immediately of any missing or incorrect parts. OAS does not accept any claims for damage or shortage after 3 days from date of delivery.

Limited Warranty

Oneida Air Systems™ warrants the products manufactured by Oneida Air Systems, for a period of 1 or more years depending on the product, to the original purchaser from the date of purchase unless otherwise specified. Items not manufactured by Oneida Air Systems 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. Oneida Air Systems warrantees that the product will be free from defects in materials and workmanship. This warranty does not apply to defects due directly or indirectly to misuse, negligence, accidents, abuse, repairs, alterations, improper wiring or lack of maintenance. This is Oneida Air Systems sole written warranty and any and all 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. Oneida Air Systems 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 Oneida Air Systems' 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, AND CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCT.

Safety Warning - Please Read

Before Purchasing or Installing a dust collection system the buyer is cautioned to do so in accordance with prescribed Federal, State, Local, OSHA, NFPA, and any other applicable codes or regulations relating to the type of dust(s) you are collecting.

SOME TYPES OF DUST UNDER CERTAIN CONDITIONS HAVE THE POTENTIAL TO BE EXPLOSIVE.

Oneida Air Systems is not responsible for how the dust collector is used or installed. Dusts with deflagration or explosion risks, such as wood dust, may require additional safety equipment including but not limited to; venting, spark detection, suppression systems, back draft dampers or may require installation in an outside location or in a protected area away from personnel. The customer assumes the responsibility for contacting their insurance underwriter with regard to specific engineering controls or application requirements. (We suggest you reference NFPA 664, 654 and 68 codes for more information) Oneida Air Dust Collection Systems may not be suitable for some applications and are not designed to be used in explosive atmospheres. ***Oneida Air Systems equipment should only be installed and wired by a licensed electrician following all applicable local and national electrical codes.***

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. Oneida Air Systems recommends using additional approved safety equipment such as an approved OSHA and NIOSH dust mask or respirator.

Oneida Air Systems makes every effort to accurately represent our products, specifications and prices; however Oneida Air Systems reserves the right to make changes to products and prices at any time. As a manufacturer, Oneida Air Systems reserves the right to change product designs and specifications at any time.

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 Oneida Air Systems will make reasonable efforts to ship on or before the date states for shipment, however, Oneida Air Systems shall not incur any liability for failure to ship on that date.

Returned Goods Policy

Buyer must inform Oneida Air Systems 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 covered under the limited warranty, are subject to inspection and investigation by Oneida Air Systems. Oneida Air Systems reserves the right to inspect and investigate all returned products before Buyer's claim is settled. All products returned for a refund must be unused and resalable and purchased within the last 30 days. There are no refunds on flex hose or custom made components. There will be a 25% restocking fee applied to any returned items. Buyer must call and obtain a Return Material Authorization Number (RMA #) prior to making a return. All merchandise must be shipped to us prepaid.