Oneida® Air Systems

OWNER'S MANUAL

10 HP Direct Drive

Single Drum / Dual Drum / Air Lock

220V/ 460V/ 600V

#XXK100300-220-155
#XXK100300-220-255
#XXK100300-220-AIR

#XXK100300-460-155
#XXK100300-460-255
#XXK100300-460-AIR

#XXK100300-600-155
#XXK100300-600-255
#XXK100300-600-AIR

Actual appearance may vary from that shown above.

Table of Contents

System Start-Up Information

⚠ **MAKE SURE TO READ AND UNDERSTAND THE INSTALLATION AND MAINTENANCE INSTRUCTIONS AS WELL AS ALL RECOMMENDED SAFETY PRACTICES.**

⚠ WARNING ⚠

1. Install ductwork/flex hose completely before operating collector.

   a. Seal ductwork with silicone sealant or duct tape if leaks are found.

   b. Have dust drum in place and sealed.

2. THIS UNIT IS NOT RATED FOR USE IN COMBUSTIBLE ENVIRONMENTS.

3. This equipment incorporates parts such as switches, motors or the like that tend to produce arcs or sparks that can cause an explosion.

4. Operating without the filter can blow debris around and cause injury

5. To reduce the risk of Electric Shock, DO NOT use on wet surfaces and have adequate protection outdoors. 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

6. Exhaust air should not be vented into a wall, a ceiling, or a concealed space of a building.

7. To reduce the risk of injury from moving parts - unplug BEFORE servicing.

8. Ensure that your dust collector is turned off and unplugged during installation.

9. Use this equipment for dry material collection only. DO NOT use for liquid collection.

⚠ FIRE HAZARDS ⚠

1. Wood shaping and cutting processes generate wood chips, shavings and dust. These materials are considered combustible. Airborne wood dust below 420 microns in size (0.017 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.

2. 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.

3. The following points are worth heeding:

   a. 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.

   b. 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.

   c. 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.

   d. NFPA664 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 1,500 cfm (cubic feet per minute). This exempts some small operators from the NFPA code 664, but other codes may apply in your jurisdiction. Consult

System Start-Up Information (Continued)

your local Fire Marshal for help. Additional information can be found in NFPA Code Book 664.

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

5. DO NOT use this product to collect flammable dust or flammable vapors! - Fire or explosion may occur!

6. NEVER collect sparks from a bench grinder into a wood dust collector.

7. NEVER introduce sparks or sources of ignition into the dust collector.

8. Check dust bin frequently for smoldering material and before leaving the shop.

9. Keep portable fire extinguishers handy.

   a. The ABC type (dry chemical) is generally a good choice for small wood shops.

   b. Additional information on portable extinguishers can be found in NFPA 10 (Standard for Portable Fire Extinguishers).

10. 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.

11. This high air volume will dilute the mixture below the lower limit of flammability. Be careful not to generate sparks into the sanding dust.

12. Empty dust bin and clean filter often, especially when sanding.

13. DO NOT overload woodworking equipment, especially sanders. Excessive frictional heat can spontaneously ignite dust.

14. Sparks can be generated in several ways:

   a. High speed sanders and abrasive planers may strike foreign material.

   b. Saws and edgers may strike foreign material and create a red-hot metal fragment.

   c. Knots in hardwood can create frictional sparks.

   d. Trapped metal when drawn into the collector can spark against ductwork.

   e. Check wood stock for old nails and screws which can create red hot metal fragments.

15. Avoid using excessively large wood waste bins.

16. ALWAYS check storage bins for smoldering material before leaving for the day.

17. Electrically ground all equipment and ducting. Static sparks can ignite wood dust. (Avoid using PVC drain pipe.)

18. DO NOT allow accumulation of layers of fine dust on horizontal surfaces (especially overhead lights, electrical boxes and fuse panels which can ignite dust.)

19. UNPLUG UNIT BEFORE SERVICING OR CLEANING

Customer Service Dept.
1-866-387-8822 • support@oneida-air.com

Preventive Maintenance Schedule

⚠ **UNPLUG YOUR UNIT BEFORE SERVICING OR CLEANING.**

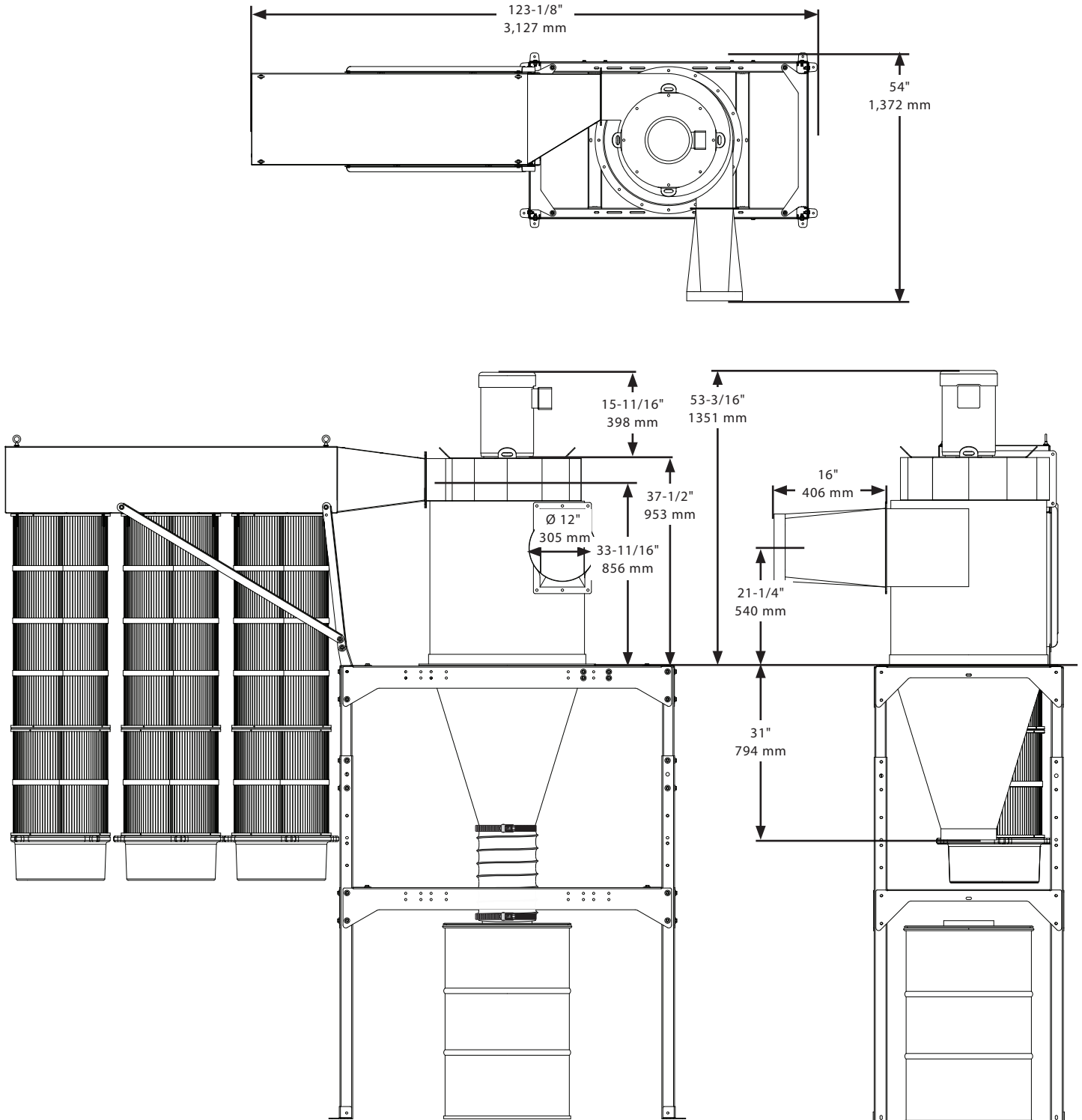| INTERVAL	ACTIVITY
Daily	Monitor system and make sure that dust is removed as needed.
Daily	Check your drum level and empty as necessary. This may need to be done more often depending on your application and material.
Daily	Check the system for normal or abnormal visual and audible conditions. (i.e. vibrations, grinding, dust debris leaking, etc.)
Weekly	Check and record pressure reading on Filter Efficiency Gauge (G16). By monitoring differential pressure regularly, you'll notice changes. For example, if differential pressure suddenly drops a lot, you may have a hole in a filter or a leaking gasket.
Weekly	Clean the Filter – See: Cleaning the Filter (page 28) for instructions.
Yearly	Check Air Lock Wipers for damage. Damaged wipers will reduce the Air Lock's performance. Replace as necessary.
Yearly	Check the fan wheel blades for dust buildup or damage.
Yearly	Check gasket/silicone connections of the system. Replace or reseal as necessary.
Yearly	When the system is unplugged, check electrical boxes for loose wires, burnt contactors, etc.
Yearly	Check flex hose connection to the drum for potential slits or separation.
Yearly	Follow your system's motor maintenance and greasing schedule.
Yearly	Check your duct work to make sure there is no accumulation of debris. Clean as necessary.

Oneida Air Systems, Inc.

System Specifications

OPERATION	
Fan Rating (with Cyclone & Filter)	3,800 Actual CFM at 2.3" S.P.
MOTOR AND ELECTRICAL	
Motor Type	U.S. Made TEFC Motor
Motor Insulation	Class F
Motor Service Factor	1.15
Horsepower	10 HP
Motor Speed	3,490 RPM
Phase	Three-Phase (3ph)
Voltage	208-230V, 460V, 600V
Cycle	60Hz
Listed FLA	26.2 - 23.8A @ 208-230V 12.1A @ 460V 9.5A @ 600V
On/Off Switch	Magnetic Starter with On-Off Switch
Power Connector	Wire
Recommended Circuit Size	30A
Recommended Circuit Type	HACR
Sound Emission	85-87 dBA @ 10 ft
IMPELLER	
Size	17" Diameter
Material	Backward inclined, welded carbon steel
CARTRIDGE FILTER	
Filter Media Type	Izumi Axtar Spunbond Media
Filter Efficiency	99.9% @ 0.2-2.0 microns
Filter Surface Area	465 Sq. Ft.
SYSTEM DIMENSIONS AND CONSTRUCTION	
Primary Build Materials	Steel, Cold Rolled Steel
Inlet	Round: 12" I.D. Square ID: 8"(W) x 14"(H) Square OD: 10-1/2"(W) x 16-1/2"(H)

Component Dimensions

Nominal dimensions shown. Dimensions subject to slight variations in manufacturing.

Note: The Telescoping Stand is compatible with a number of different dust collection systems and the overall height will vary based on each configuration. Please see the Telescoping Stand Instruction Sheet (ZBT282321) for additional dimensions.
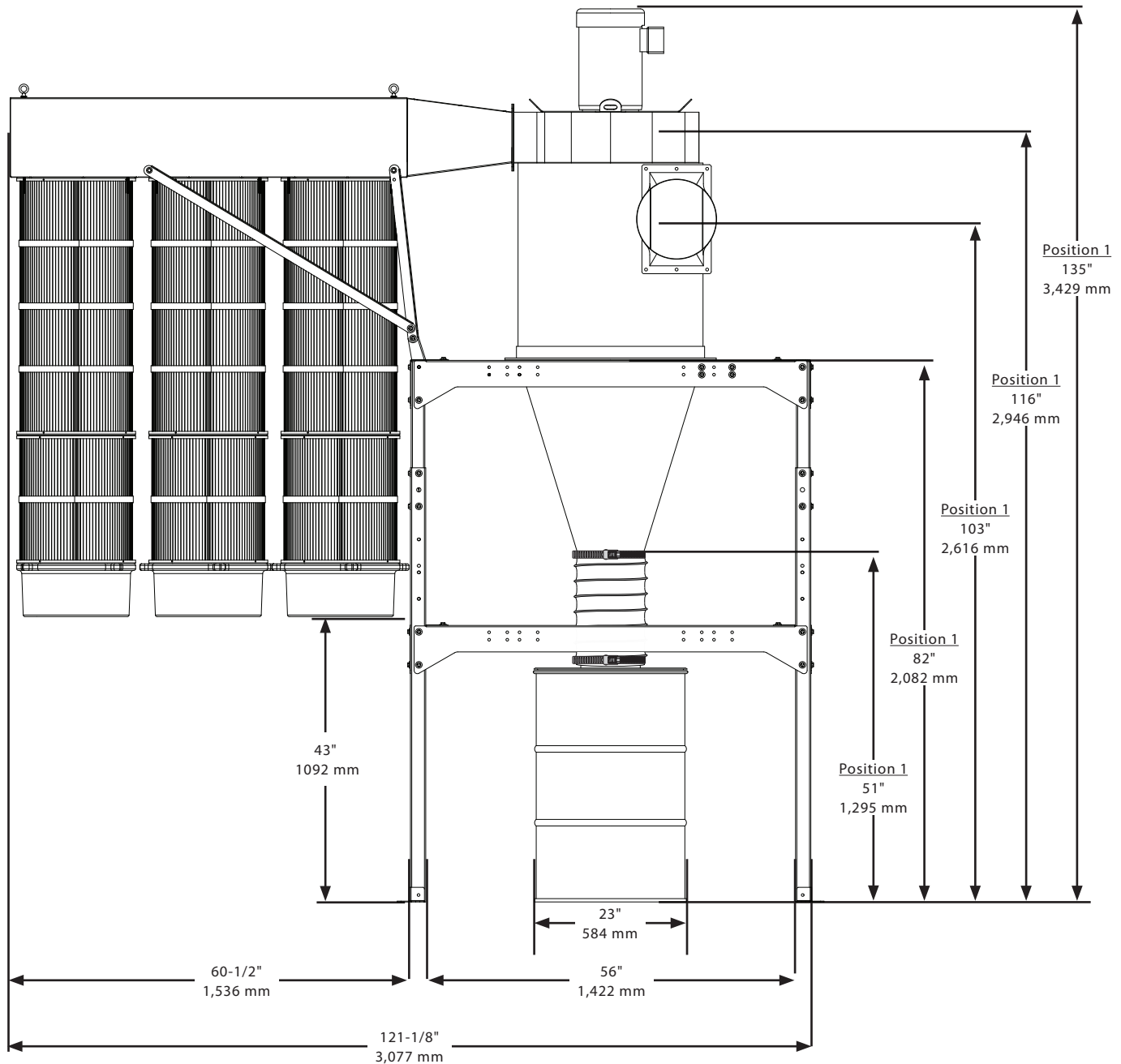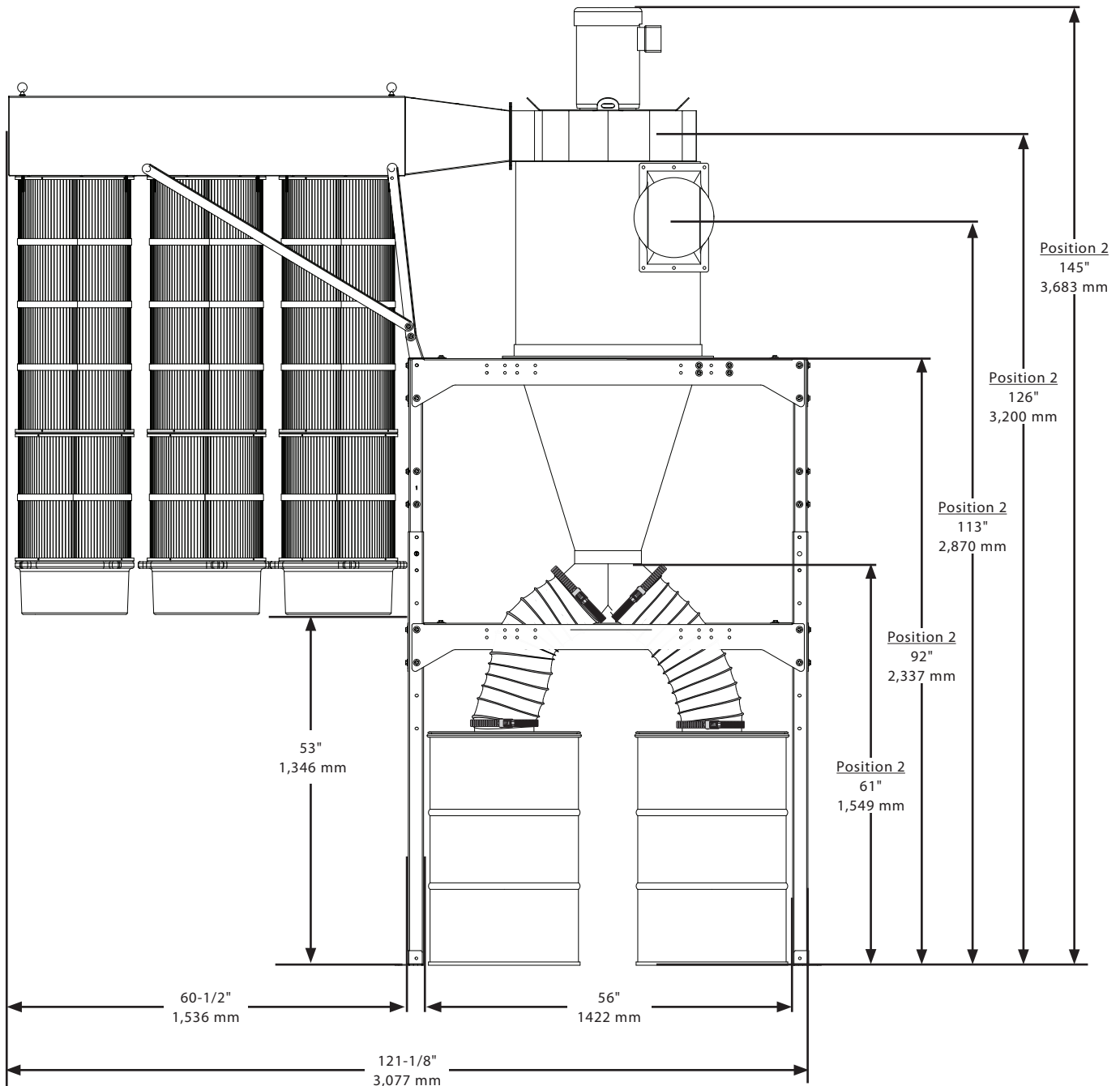
123-1/8"
3,127 mm

54"
1,372 mm

15-11/16"
398 mm

53-3/16"
1351 mm

16"
406 mm

37-1/2"
953 mm

Ø 12"
305 mm

33-11/16"
856 mm

21-1/4"
540 mm

31"
794 mm

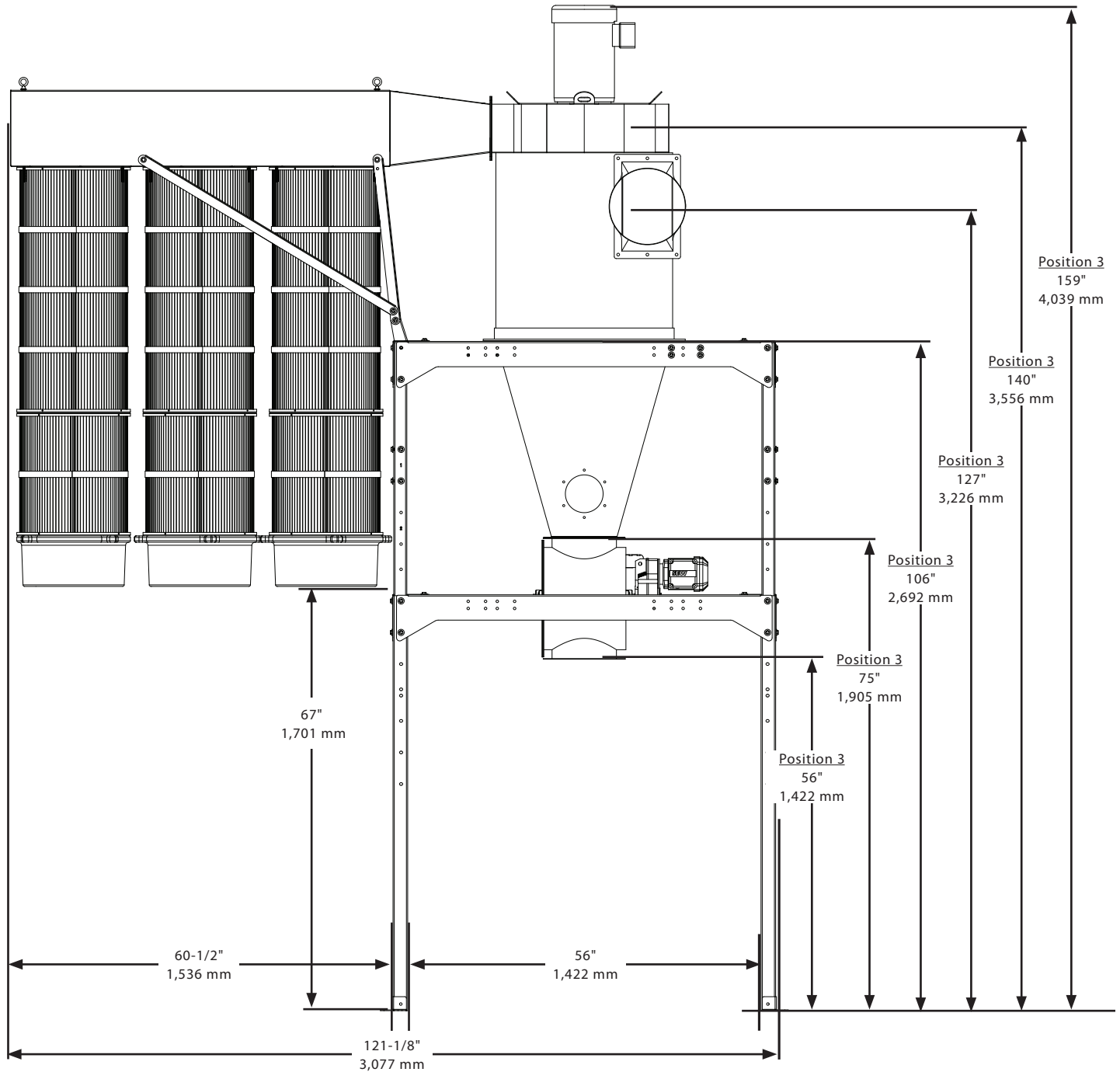# Single Drum Dimensions

Nominal dimensions shown. Dimensions subject to slight variations in manufacturing.

Note: The Telescoping Stand is compatible with a number of different dust collection systems and the overall height will vary based on each configuration. You are not limited to Stand Position 1 but it is the recommended configuration for the Single Drum. Please see the Telescoping Stand Instruction Sheet (ZBT282321) for additional dimensions.

Stand shown in Position 1

Position 1
135"
3,429 mm

Position 1
116"
2,946 mm

Position 1
103"
2,616 mm

Position 1
82"
2,082 mm

Position 1
51"
1,295 mm

43"
1092 mm

23"
584 mm

60-1/2"
1,536 mm

56"
1,422 mm

121-1/8"
3,077 mm

Dual Drum Dimensions

Nominal dimensions shown. Dimensions subject to slight variations in manufacturing.

Note: The Telescoping Stand is compatible with a number of different dust collection systems and the overall height will vary based on each configuration. You are not limited to Stand Position 2 but it is the recommended configuration for the Dual Drum. Please see the Telescoping Stand Instruction Sheet (ZBT282321) for additional dimensions.

Stand shown in Position 2

Position 2
145"
3,683 mm

Position 2
126"
3,200 mm

Position 2
113"
2,870 mm

Position 2
92"
2,337 mm

Position 2
61"
1,549 mm

53"
1,346 mm

60-1/2"
1,536 mm

56"
1422 mm

121-1/8"
3,077 mm

Air Lock Dimensions

Nominal dimensions shown. Dimensions subject to slight variations in manufacturing.

Note: The Telescoping Stand is compatible with a number of different dust collection systems and the overall height will vary based on each configuration. You are not limited to Stand Position 3 but it is the recommended configuration for the Air Lock. Please see the Telescoping Stand Instruction Sheet (ZBT282321) for additional dimensions.

Stand shown in Position 3

Position 3
159"
4,039 mm

Position 3
140"
3,556 mm

Position 3
127"
3,226 mm

Position 3
106"
2,692 mm

Position 3
75"
1,905 mm

Position 3
56"
1,422 mm

67"
1,701 mm

60-1/2"
1,536 mm

56"
1,422 mm

121-1/8"
3,077 mm

System Contents

ID	PART #	DESCRIPTION	QTY
A	BXI100300A BXI100360	Fan Blower Assembly 3Ph 220V/460V Fan Blower Assembly 3Ph 600V	1
B	AMS100323 AMS100346 AMS100600	Magnetic Starter 3PH 230V Magnetic Starter 3PH 460V Magnetic Starter 3PH 600V	1
C	SCX070000 SCX999910	Cone for Single and Dual Drums Clean Out Cone	1
D	BQX121000	12" Square to Round Inlet Adapter	1
E	AHX000013A	Hardware Kit	1
E1	FGA000002	14" Grounding Cable with Two 8-18 x 3/8″ Self-tapping Screws	1
E2	RGZ000000	Neoprene Foam Gasket Roll	25'
E3*	AFB155114	5/16"-18 x 1.25" Flange Bolt	46
E4*	AFT155175	5/16" Whiz-Lock Nut	46
F	FPX031000A	Plenum Assembly	1
G	AHX031000	3-Filter Plenum Accessory Pack	1
G1	AFB301446	5/16"-18 x 1.25" Eyebolt	4
G2	AFW180000	5/16" Flat Washer	8
G3	AFW180516	5/16" Rubber Washer	8
G4	AFB155175	5/16"-18 x 3/4" Flange Bolt	4

ID	PART #	DESCRIPTION	QTY
G5	FPB280003	Short Plenum Support Brace	2
G6	FPB280002	Long Plenum Support Brace	2
G7	OS#36004	Plenum Filter Clip	12
G8	AFT155175	5/16" Whiz-Lock Nut	12
G9	BSC180000	Drop-in Silencer	3
G10	FCS183900	18" x 39" Spunbond Cartridge Filter	3
G11	AHX186200A	Filter Stacking Hardware Kit	3
G11A	AFB025200	1/4"-20 x 2" Carriage Bolt	4
G11B	AFW025000	1/4" Flat Washer	4
G11C	AFC000004	Filter Stacking Clip	8
G11D	AFT900006	1/4"-20 Nylock Nut	4
G12	FCS182000	18" x 19.5" Spunbond Cartridge Filter	3
G13	AFT000001	5/16"-18 Thumb Nut	12
G14	AFJ051602	5/16"-18 x 2" J Bolt	12
G15	FPZ000018	Fine Dust Bin	3
G16	FXK000000	Filter Efficiency Gauge	1
H**	STZ230000	Stand	1

Please unpack the parts carefully and confirm you have received each item listed. There may be leftover hardware.
*Combined inside hardware package (AHX000005).
**Reserve your extra hardware from assembling the Stand for use in future system installation steps.

REQUIRED TOOLS

8' Ladder	7/16" Wrench	1/4" Driver	Razor Knife
Level	7/16" Socket Wrench	1/4", 13/32" Drill Bits	9/16" Wrench
Tape Measure / Ruler	1/4" Socket	Bolt Cutter	9/16" Socket Wrench
1/2" Wrench	Impact Driver	Wire Cutter	
1/2" Socket Wrench	Power Drill	Diagonal Cutters	

* You will need to supply your own mounting hardware (e.g. screws, washers, lag bolts, nuts, etc.) if you wish to secure the Stand or Filter Option to the wall or ceiling you are mounting it onto.
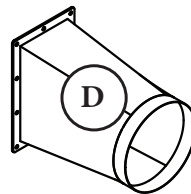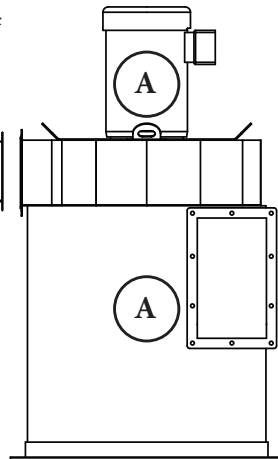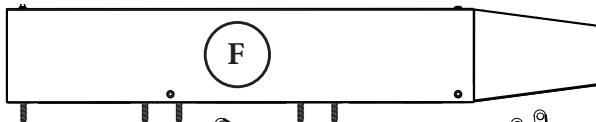
System Contents (Continued)
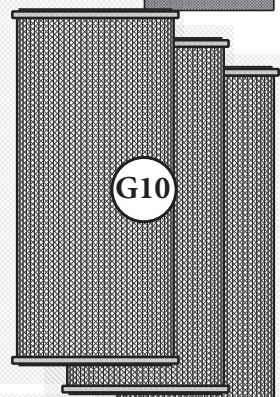
G1 ×4
G2 ×4
G3 ×4

E3 ×4
E4 ×4

B

E2

F

A

A

A

D

E3 ×10
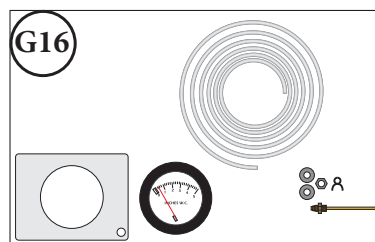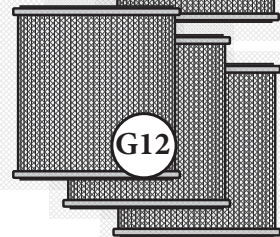E4 ×10

G4 ×4
G2 ×4
G3 ×4

G6

G5

G7 ×12
G8 ×12

E3 ×16
E4 ×16

G9

C

C

G10
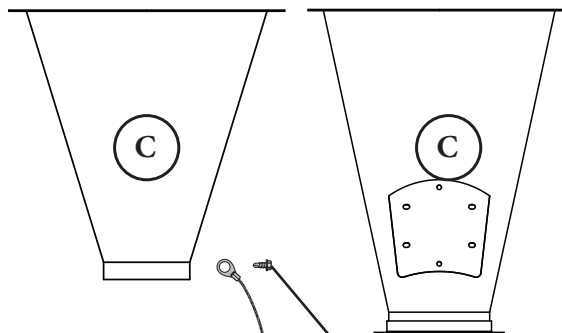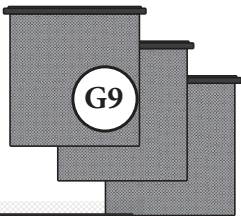
G11 ×3

G11A ×4

G11B ×4

G11C ×8

G11D ×4

E1

G16

H

G12

G13 ×12

G14 ×12

G15
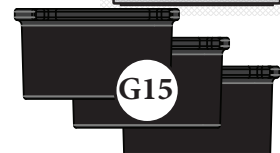
Waste Containment Contents

| ID	PART #	DESCRIPTION	QTY
INCLUDED ONLY WITH SINGLE 55-GALLON STEEL DRUM			
I	ACB120000	8-12" Hose Clamp	2
J	DHF100001	10" Diameter x 1' Flex Hose	1
K	SEX551000	Steel Drum Lid with 10" Collared Lid	1
L	SES550000	55 Gallon Steel Drum with Clamp	1
INCLUDED ONLY WITH DUAL 55-GALLON STEEL DRUMS			
M	DWK101010	10x10x10 Pants Wye	1
E1	FGA000002	14" Grounding Cable with Two 8-18 x 3/8" Self-tapping Screws	1
M1	AFS013000	8-18 x 3/8" Self-tapping Screws	3
M2	AFT000001	2" x 15' Foil Tape	1
I	ACB120000	8-12" Hose Clamp	4
N	DHF100500	10" Diameter x 5' Flex Hose	1
K	SEX551000	Steel Drum Lid with 10" Collared Lid	2
L	SES550000	55 Gallon Steel Drum with Clamp	2
INCLUDED ONLY WITH AIR LOCK VALVE			
0	SAZ100000C	10" Air Lock	1

Please unpack the parts carefully and confirm you have received each item listed. There may be leftover hardware.

Waste Containment Contents (continued)
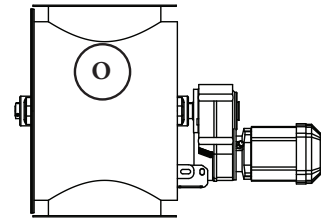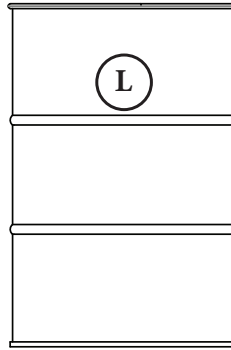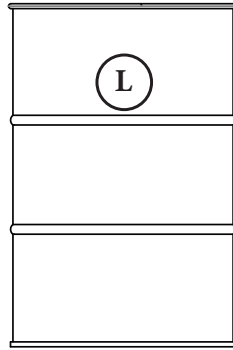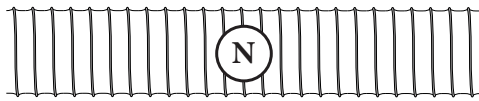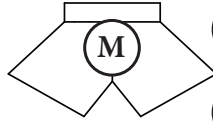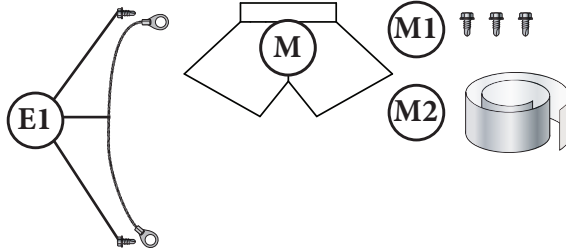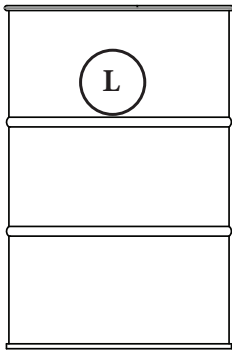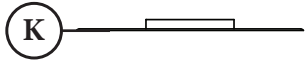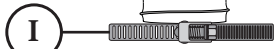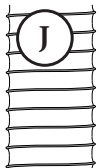
Assembly Instructions

⚠️ **BEFORE YOU START, DETERMINE WHICH DIRECTION YOU WANT YOUR FILTER TO HANG AND WHICH DIRECTION YOU WANT YOUR DUCT WORK TO ENTER THE COLLECTOR. FOR YOUR OWN SAFETY, DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED. PLEASE ALSO MAKE SURE THAT YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.**

1 Assemble the Stand (H) [FIG. 1] by referring to the included instruction sheet:

- Stand Instruction Sheet #ZBI282321

Reserve your extra hardware from assembling the Stand for use in future system installation steps.
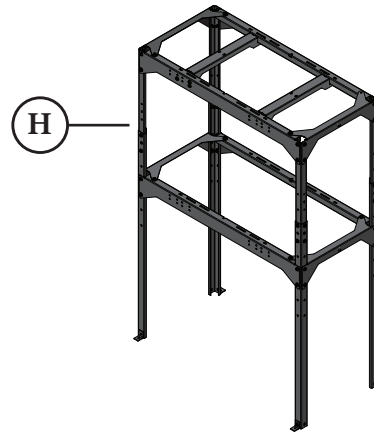

FIG. 1

2 Your barrel, fan housing, and motor assembly are pre-installed at the factory in the orientation shown in [FIG. 2].
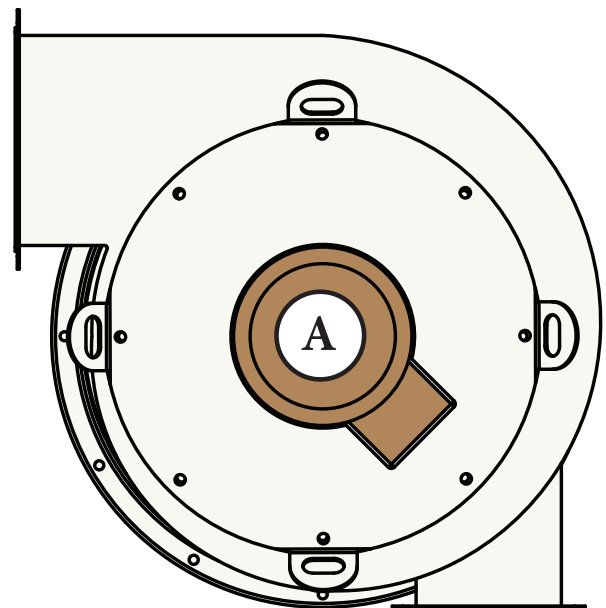

FIG. 2

Assembly Instructions (Continued)

⚠ **The fan blower assembly is very heavy and cumbersome; Be sure to have adequate help to lift the fan blower assembly up!**

3 If you need to alter the Fan Blower Assembly (A) for your setup you will need to unbolt the eight bolts from the motor assembly and unbolt the eight bolts from the fan housing attached to the barrel [FIG. 3]. Then rotate to the desired angle (45° increments).
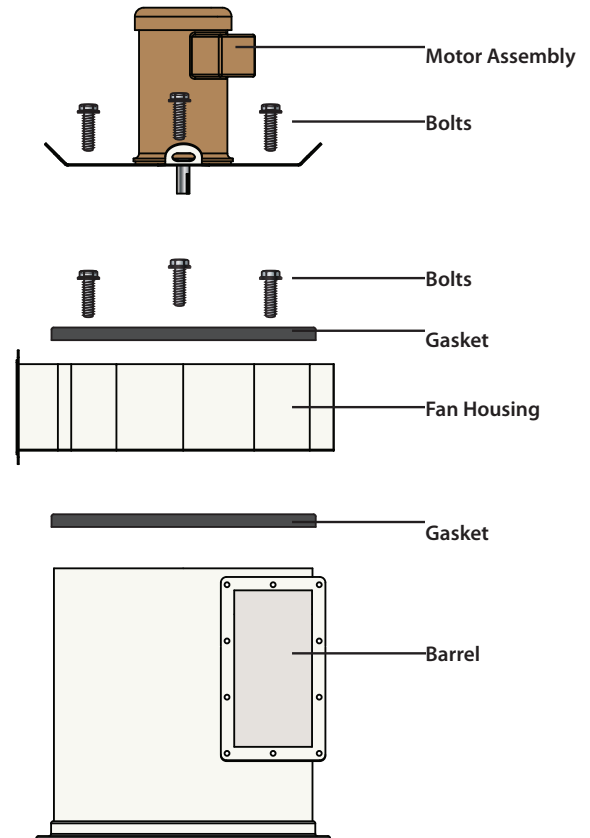
Otherwise skip to Step 5.

FIG. 3

4 Once you have it positioned in the desired orientation, you will need to reattach the fan housing to the barrel with the previously removed bolts [FIG. 4].

Note: We recommend installing new gaskets if your gaskets have been damaged, are torn, or have been fully compressed.
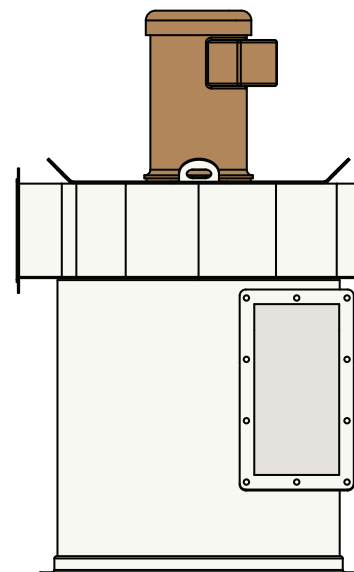

FIG. 4

Assembly Instructions (Continued)

5 Apply Gasket (E2) making sure that there is no gap where the ends meet.

   a. Apply to the 12" Square to Round Inlet Adapter (D). Make sure to apply it inside of the bolt holes [FIG. 5a].

   b. Apply to the Motor Assembly's Outlet (A). Make sure to apply it inside of the bolt holes [FIG. 5b]

   c. Apply to the top flange of the Cone (C). Make sure you apply it inside the bolt holes [FIG. 5c].

Note: Dust collection systems cannot operate effectively if there isn't a complete seal. There must be NO air leaks.

FIG. 5a

FIG. 5b

E2

FIG. 5c
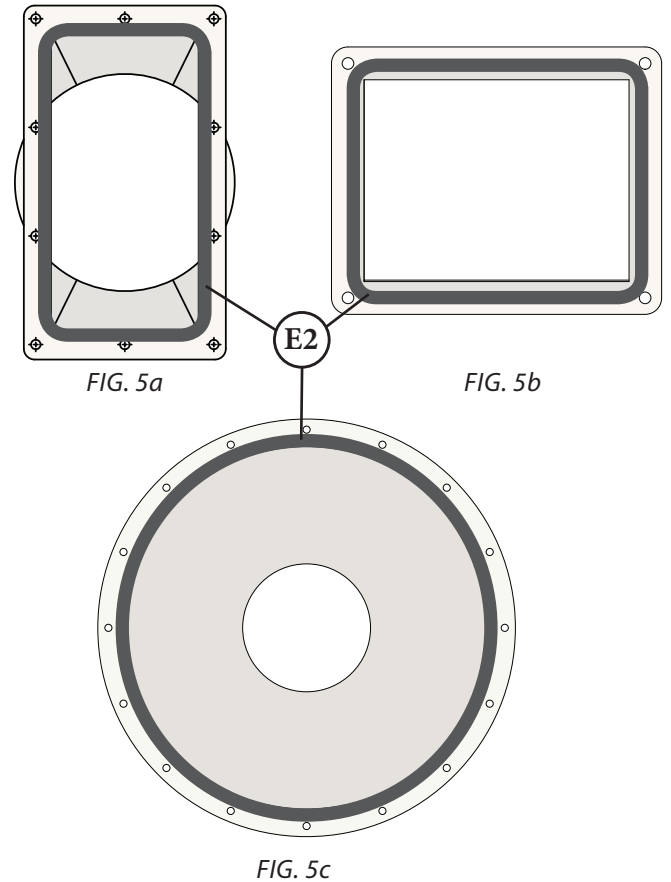
6 Attach the 12" Square to Round (D) onto the inlet of the Fan Blower Assembly (A) with ten 5/16"-18 x 1.25" Bolts (E3), and ten 5/16" Whiz-Lock Nuts (E4) as shown in [FIG. 6].

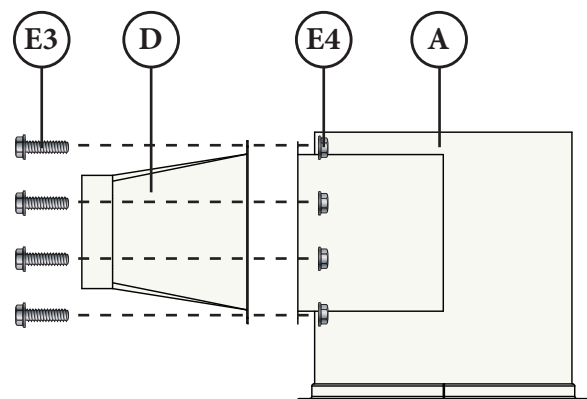*Note: Tighten firmly but do not over compress the gasket.*

E3   D   E4   A

FIG. 6

Assembly Instructions (Continued)

7 Lift the Cone (C) onto the Stand (H), making sure to align the Cone's flange holes with those on the Stand (H)[FIG 7].
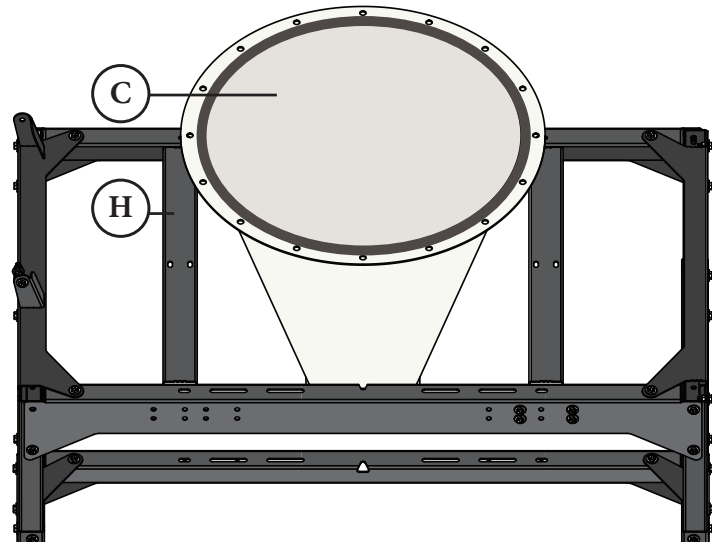
FIG. 7

⚠ **The fan blower assembly is very heavy and cumbersome; Be sure to have adequate help to lift the fan blower assembly up!**

8 Once your cone is aligned with the stand, lift the Fan Blower Assembly (A) onto the Cone (C), making sure to align the corresponding flange holes.

Thread sixteen 5/16"-18 x 1.25" Bolts (E3) through the aligned holes of the Fan Blower Assembly (A), the Cone (C), and the Stand (H). Secure each of the bolts in place using twelve 5/16" Whiz-Lock Nuts (E4) [FIG 8].

Note: Dust collection systems cannot operate effectively if there isn't a complete seal. There must be NO air leaks. Do not rip or tear the gasket during installation.
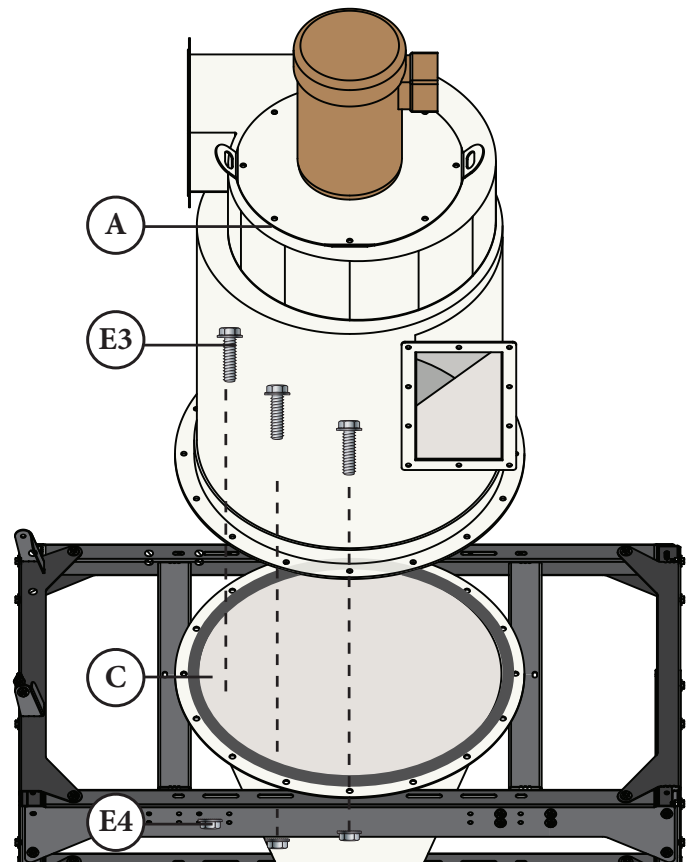
FIG. 8

Assembly Instructions (Continued)

9 Take each of the four Eyebolts (G1), Flat Washers (G2), Rubber Washers (G3), and thread them into the four holes on top of the Plenum Assembly (F) as shown in [FIG. 9].
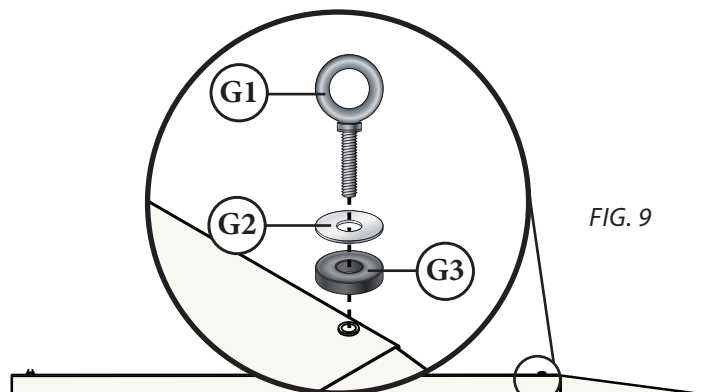
FIG. 9

10 Secure each of the twelve Plenum Clips (G7) onto the threaded studs using twelve Whiz-Lock Nuts (G8) as shown in [FIG. 10].

Note: Finger tighten only at this time.

Threaded Stud
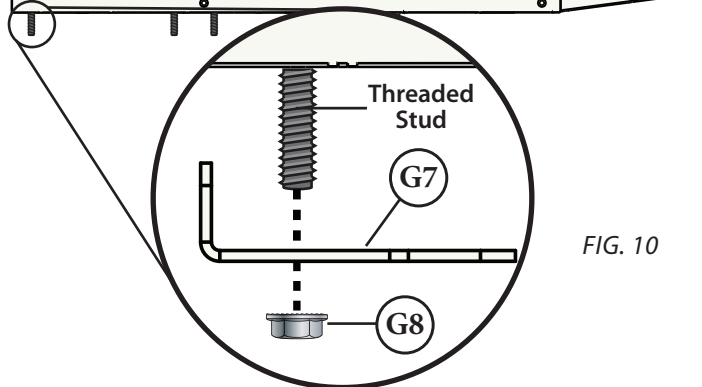
FIG. 10

11 Attach the two Short and Long Plenum Support Braces (G5, G6) to the Plenum Assembly (F) as shown in [FIG. 11] using a Flange Bolt (G4), Flat Washer (G2), and Rubber Washer (G3). Ensure that the Rubber Washers are placed between the Brace and the Plenum Assembly.

Note: Hardware should be finger tightened for ease of assembly when securing to the Plenum Assembly. The Support Braces should be able to rotate and slide freely.
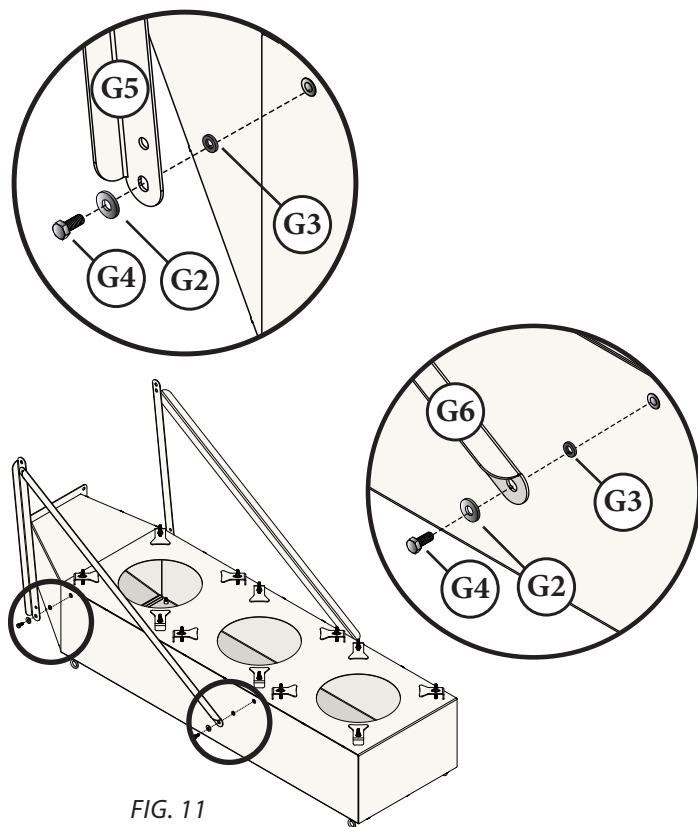
FIG. 11

Assembly Instructions (Continued)

12 Attach the Long Plenum Support Braces (G6) to the Short Plenum Support Braces and secure using a Hex-Head Bolt, Flat Washer, and Whiz-Lock Nut set aside during Step #1 as shown in [FIG. 12].
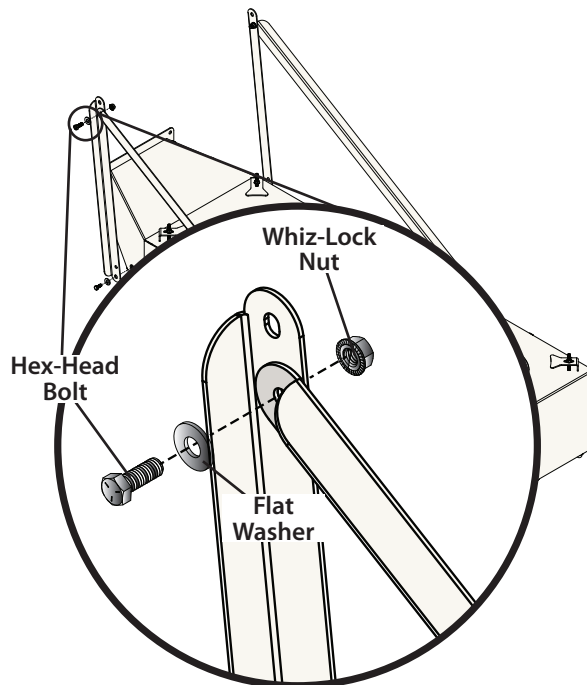
FIG. 12

13 Lift the Plenum Assembly (F) up and attach to the Stand (H) by connecting each of the Short Plenum Support Braces (G5) to the Stand's tab, securing in place with the Hex-Head Bolts, Flat Washers, and Whiz-Lock Nuts set aside during Step #1. [FIG. 13]. Support the Plenum Assembly during installation using a step stool, material lift, or other installer.

Note: Hardware should be finger tightened for ease of assembly when securing to the Plenum Assembly. The Support Braces should be able to rotate and slide freely.
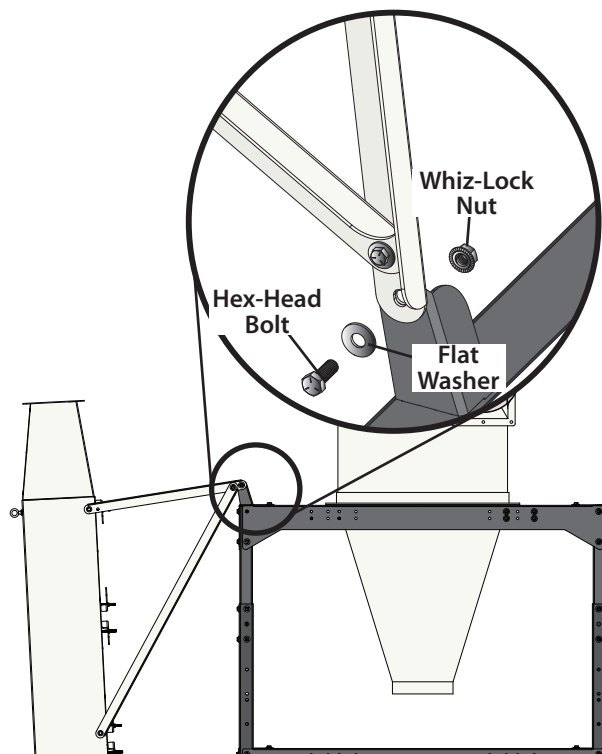

FIG. 13

Assembly Instructions (Continued)

14 Rotate the Plenum Assembly (F) to its upright position and attach it to the outlet of the Fan Blower Assembly (A) with four 5/16"-18 x 1.25" Bolts (E3), and four 5/16" Whiz-Lock Nuts (E4) as shown in [FIG. 14].

Note: Tighten firmly but do not over compress the gasket.
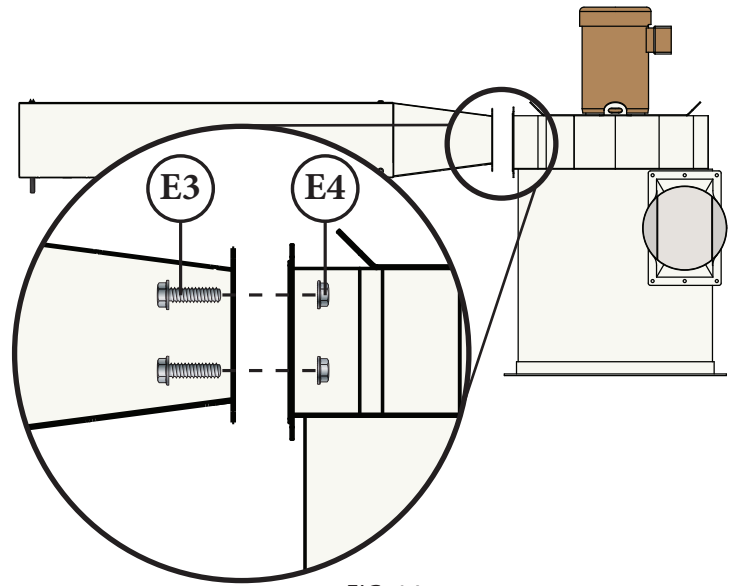
FIG. 14

15 Thread the Carriage Bolts (G11A) through a pair of Filter Stacking Clips (G11C) and loosely secure Carriage Bolt in place using a 1/4" flat washer (G11B) and a 1/4"-20 Nylock Nut (G11D); repeat until all Filter Stacking Clips are loosely connected. [FIG. 15a]

Stack the Filters (G10, G12) on top of each other [FIG. 15b].

Attach four Filter Stacking Clip assemblies onto the rims where the Filters are joined, spacing them evenly at 90 degree increments around the diameter [FIG. 15c]. Finish tightening each Nylock Nut in a crisscrossing pattern until the Filters are pulled together and the gasket is evenly compressed all around, leaving a 3/8" gap visible between the filter flanges.

Note: Gasket compression must be constant and even. Tighten just until the filters are firmly attached to each other and evenly sealed. Over-tightening can damage the filter and uneven tightening can cause air leakage.
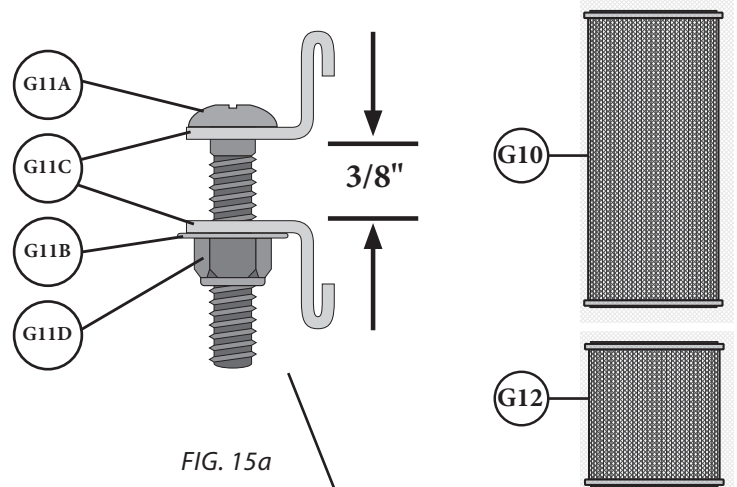
FIG. 15a

FIG. 15b
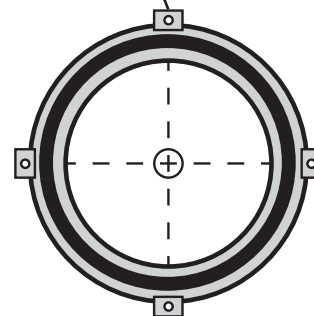
FIG. 15c

Assembly Instructions (Continued)

16 Filters should be oriented so that the larger Filter (G10) is on top; Incorrect orientation can place unnecessary strain on the smaller Filter (G12) [FIG. 16a].

Insert the Drop-In Silencer (G9) into the top of the larger Filter as shown in [FIG. 16b].
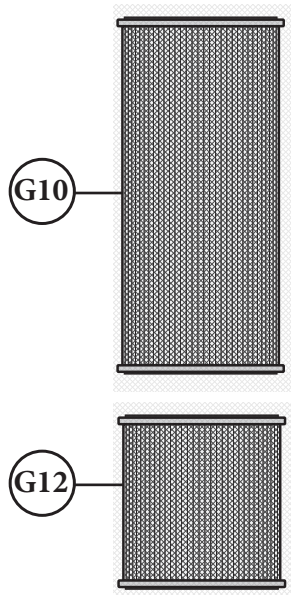
FIG. 16a
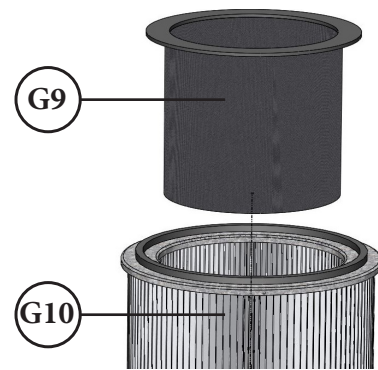
FIG. 16b

17 Lift the three stacked Filters (G10, G12) to mate with the outlets on the Plenum Assembly (F). Rotate the twelve Plenum Clips (G7) so the Clip is under lip of the Filter as shown in [FIG. 17a]. Tighten hardware.

Attach the Fine Dust Bin (G15) to the bottom cartridge filter with four 5/16"-18 x 2" J-Bolts (G14) and four 5/16"-18 Thumb Nuts (G13) as shown in [FIG. 17b].
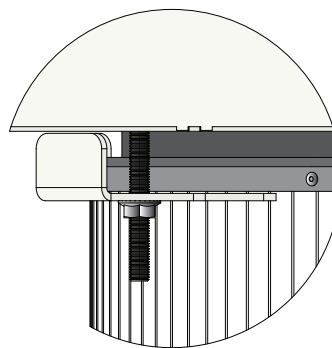
FIG. 17a
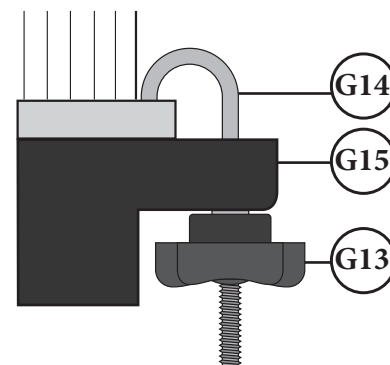
FIG. 17b

⚠ **TIGHTEN ALL INSTALLED HARDWARE BEFORE PROCEEDING WITH FURTHER STEPS.**

Assembly Instructions (Continued)

18 If you purchased the Dual Drum setup continue to Step 20.

If you purchased the Air Lock setup please refer to the included owner's manual:

- Air Lock Owner's Manual #ZBM000035

If you purchased the Single Drum setup, attach the 10" Hose (J) to the Cone's (C) discharge, and secure it in place with the Hose Clamp (I). Position the Drum (L) under the Cone and repeat the process to attach the opposite end of the Hose onto the Lid's Collared Inlet (K) [FIG. 18]. The Drum can now be sealed using the Drum Clamp for operation.

Note: The hose is a snug fit. Pull ends up little by little to work the hose onto the cyclone's discharge. Pliers can be used to grab the reinforcing wire and aid in pulling the hose over the opening.

FIG. 18

19 Unclamp the Lid (K) and test to see if the Drum (L) is easy to remove from underneath the Cone (C) [FIG. 19].

If there is insufficient clearance for removing the drum, you may trim the Hose (J) using a razor knife and diagonal cutter to cut through the clear lining and reinforcing wire.

Note: Be careful to only remove 0.5" at a time so as not to over trim.
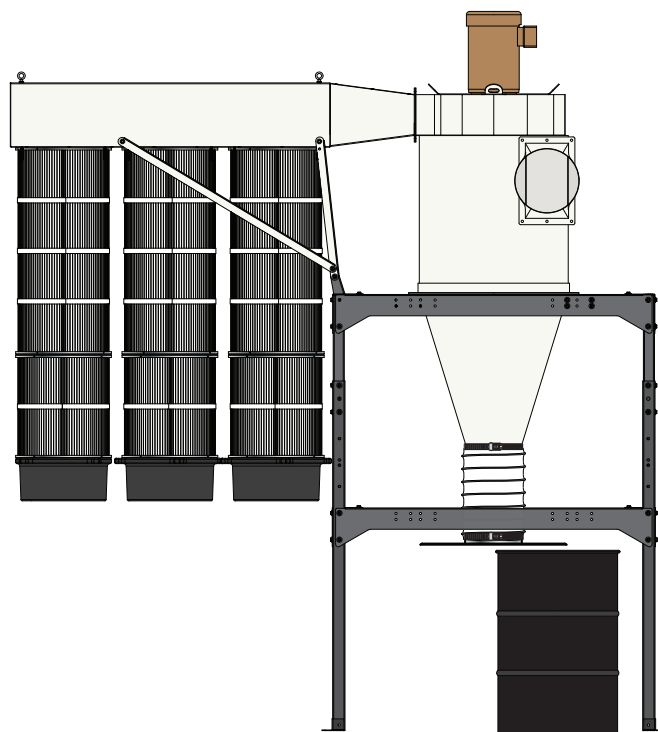
FIG. 19

Assembly Instructions (Continued)

20 If you purchased the Dual Drum setup, secure the 10x10x10 Pants Wye (M) to the Cone's (C) discharge with the Self-tapping Screws (M1) and seal it airtight with the Foil Tape (M2). Cut the 10" Flex Hose (N) in half using a razor knife and diagonal cutters to cut through the clear lining and reinforcing wire [FIG. 20a].

Attach the Hose to each Leg of the Pants Wye and secure them in place with the Hose Clamps (I). Position the Drums (L) under the Cone (C) and repeat the process to attach the opposite end of the Hose (N) onto each Lid's Collared Inlet (K) [FIG. 20b]. The Drum can now be sealed using the Drum Clamp for operation.

Note: The hose is a snug fit. Pull ends up little by little to work the hose onto the cyclone's discharge. Pliers can be used to grab the reinforcing wire and aid in pulling the hose over the opening.
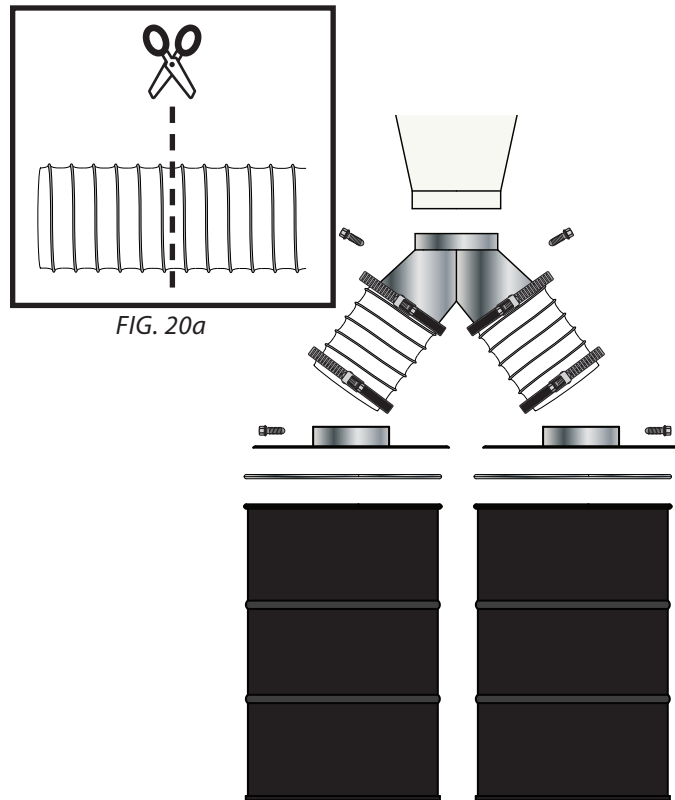
FIG. 20a

FIG. 20b
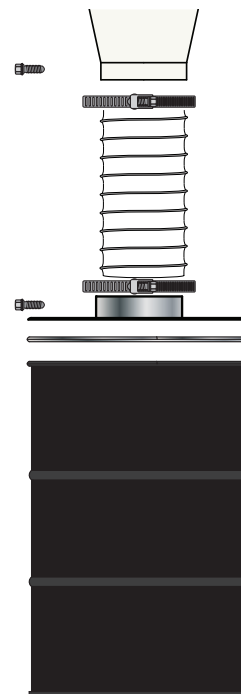
21 Unclamp the Drum's Lids (K) and test to see if the Drums (L) are easy to remove from underneath the Wye (M) [FIG. 21].

If there is insufficient clearance for removing the drum, you may trim the Flex Hose (N) using a razor knife and diagonal cutter to cut through the clear lining and reinforcing wire.

*Note: Be careful to only remove 0.5" at a time so as not to over trim.*
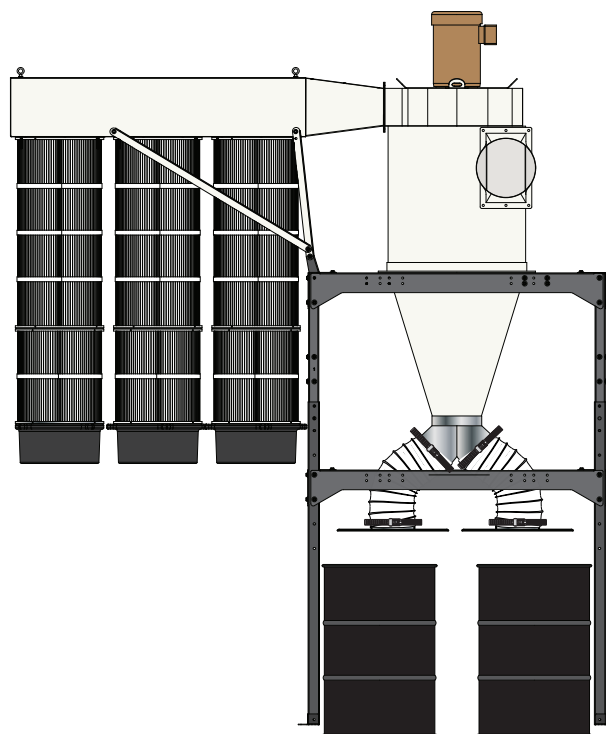
FIG. 21

Assembly Instructions (Continued)

● If you purchased the Single Drum setup, statically ground the Drum (L) by attaching the 14" Grounding Cable (E1); Drive the 3/8" Self-Tapping Screw through its eyelet and into the bottom of the Cone (C) just above the installed Flex Hose (J). Repeat using the second 3/8" Self-Tapping Screw on the Lid's Collared Inlet (K). [FIG. 22a].

If you purchased the Dual Drum setup, statically ground the Drums (L) by attaching both of the 14" Grounding Cables (E1); Drive the 3/8" Self-Tapping Screw through its eyelet and into the bottom of each leg of the Pants Wye (M). Repeat using the second set of 3/8" Self-Tapping Screws on the Lids' Collared Inlet (K). [FIG. 22b].

If you purchased the Air Lock, assemble by referring to the included Owner's Manual:

- 10" Rotary Air Lock Valve #ZBM000037

Note: If you need to extend the wire, you can use any 16 gauge copper stranded wire and connect with wire nuts
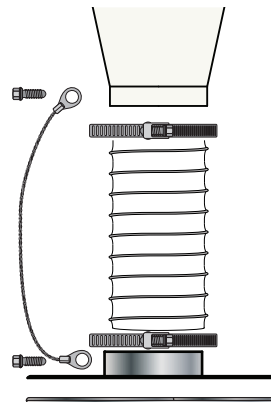
FIG. 22a
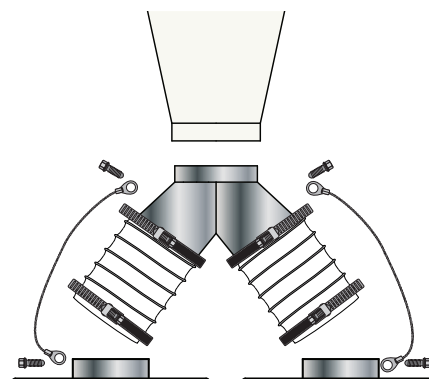
FIG. 22b

22 Assemble the Filter Efficiency Gauge (G16) [FIG. 23] by referring to the included instruction sheet:

- Filter Efficiency Gauge Instruction Sheet #ZBP000002
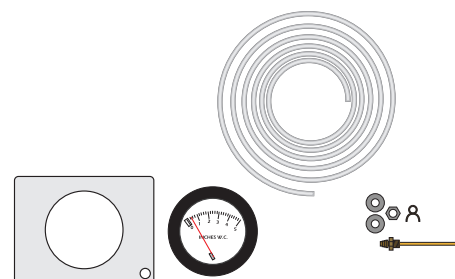
FIG. 23

Electrical Wiring Instructions

⚠️ **WIRING SHOULD ALWAYS BE DONE BY A LICENSED ELECTRICIAN! USE WIRING DIAGRAM ON MOTOR PLATE IF DIFFERENT FROM THAT SHOWN HERE. IMPROPER INSTALLATION IS VERY DANGEROUS AND WILL VOID YOUR WARRANTY. FOLLOW ALL LOCAL AND NATIONAL ELECTRICAL CODES WHEN INSTALLING THIS PRODUCT.**

23 Assemble the Magnetic Starter (B) [FIG. 24] by referring to the included instruction sheet:

- Magnetic Starter Instruction Sheet #ZBI000031
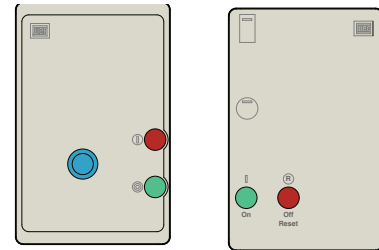
FIG. 24

24 Electrically insulate all connections and verify that your motor is wired per the following diagram.

Once wired, check that the fan impeller's rotation is counter-clockwise, looking from the top of motor down [FIG. 25].

Power Line 1 & 2 are interchangeable. To reverse the fan's rotation, interchange any two line leads.

Outlet to Filter

FIG. 25

Inlet from Ductwork
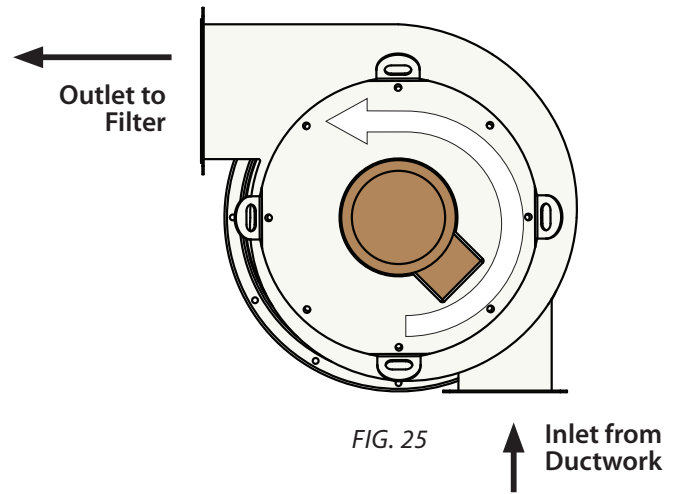
We recommend that you connect an additional 16-gauge grounding wire to the green grounding screw inside of the motor's wire box. Using a metal screw to penetrate through the powder coat finish, this wire should be connected to the stand to ensure a strong path to the ground. All other components (e.g. drum, filters, etc.) can then be similarly connected with braided wire to the stand to fully ground all chassis components. Always refer to all applicable federal, state, local, OSHA, NFPA, or authorities having jurisdiction (AHJ) codes and regulations.

THREE-PHASE (240 VOLT)		THREE-PHASE (460 VOLT)		THREE-PHASE (600 VOLT)	
Wire	Line	Wire	Line	Wire	Line
1 7	L1	1	L1	1	L1
2 8	L2	2	L2	2	L2
3 9	L3	3	L3	3	L3
4 5 6	Tie together	4 7	Tie together		
		5 8	Tie together		
		6 9	Tie together		

Maintenance

⚠️ **UNPLUG YOUR UNIT BEFORE SERVICING OR CLEANING.**

Cleaning the Filter

Proper filter cleaning should not be neglected as a dirty filter can significantly affect your dust collector's performance and the overall lifespan of your filter. The following steps should be done while the filter is still attached to your system:

1. WEAR A DUST MASK AND EYE PROTECTION.

2. Turn off and unplug the dust collector and wait for the fan blower to come to a complete stop and for the dust to settle.

3. Use a hand-held, compressed air nozzle with a pressure up to 90 PSI to blast air along the filter's exterior pleating. Hold the air nozzle at least 2" away from the filter; closer blasts will damage the filter material. Direct air out and away from anyone in the area.

   Note: Do not use this method when any hazardous material has been collected.

4. Wait a few minutes for dust to settle then remove the Fine Dust Bin (G15) at the bottom of the Filter (G12) by loosening the twelve 5/16"-18 Thumb Nuts (G13) and twelve 5/16"-18 J-Bolts (G14). Dispose of dust carefully and then reconnect the Fine Dust Bin.

5. Check to make sure filter is in good condition with no torn media or cracks or tears in the seal. A broken filter can leak material into the motor and cause severe damage! You cannot operate the system without a proper filter in place. (See page 33 for the replacement filter part number.) Operating without a sufficient filter will cause severe damage to the motor and will void the warranty!

   Note: To help see damage from the outside, shine a flashlight from the inside.

6. If the filter isn't in good condition, remove the Filters (G10,G12) by loosening the twelve 5/16"-18 Thumb Nuts (G13) and twelve 5/16"-18 J-Bolts (G14). Set aside the Fine Dust Bins (G15). Dispose of the old filter in the same way you would dispose of the dust you've been collecting.

   Note: If you only need to replace one of the Filters (G10 or G12) you must save the Filter Stacking Hardware Kit (G11).
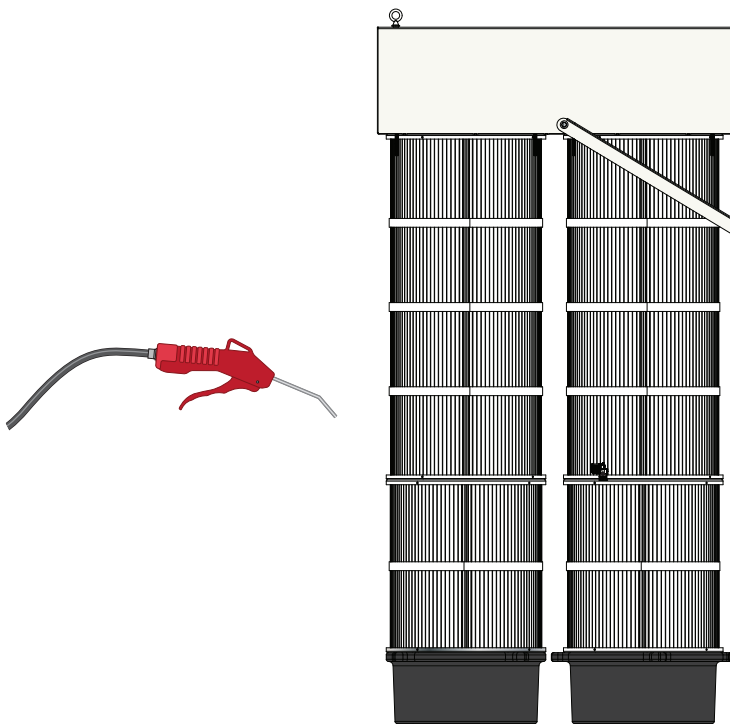
Maintenance (Continued)

Emptying the Drum(s)

When first using the dust collector, check the Drum(s) regularly to get an idea of how often it needs to be emptied. If the Drum(s) becomes overfilled, the dust will be sucked into the Cone (C) and into the Filter (G10,G12).

1. WEAR A DUST MASK AND EYE PROTECTION.
2. Turn off the dust collector and wait for the fan blower to come to a complete stop and for the dust to settle before unclamping the Lid(s) from the Drum(s).
3. Dispose of waste safely and properly.

Cleaning out the Cyclone

If the Drum becomes overfilled and the Cone is packed with dust:

1. WEAR A DUST MASK AND EYE PROTECTION.
2. Turn off the dust collector and wait for the fan blower to come to a complete stop and for the dust to settle.
3. Try to get contents of Cone to fall down into Drum(s). Empty Drum(s) and reinstall as directed.
4. If the Cone is clogged up with dust so tightly that waste cannot fall into the Drum, you will need to remove the debris manually using a long object such as a broom handle to dislodge the dust. If this does not remedy the problem, you will need to remove the Motor assembly to reach into the Cone.
5. If any of the Filters (G10,G12) becomes completely filled with dust remove the Filters (G10,G12) by loosening the twelve 5/16"-18 Thumb Nuts (G13) and twelve 5/16"-18 J-Bolts (G14). Set aside the Fine Dust Bins (G15). Dispose of the old filter in the same way you would dispose of the dust you've been collecting.

   Note: If you only need to replace one of the Filters (G10 or G12) you must save the Filter Stacking Hardware Kit (G11).

If the Air Lock becomes jammed or overloaded during operation and the Cone is packed with dust:

1. WEAR A DUST MASK AND EYE PROTECTION.
2. Turn off the dust collector and Air Lock and wait for both units to come to a complete stop and for the dust to settle.
3. Remove the Clean-Out Cyclone's door by removing the six 5/16" Whiz-Lock Nuts and setting them aside.
4. Empty the Cyclone by removing large debris from the cone. The Air Lock's wipers can be manually rotated to drop debris into your waste container. Use a wet/dry vacuum to clean the finer dust that may be bridging the connection.
5. Reinstall the Clean-Out Cyclone's door by securing the six 5/16" Whiz-Lock Nuts back onto the protruding bolts.

Troubleshooting

PROBLEM	CAUSE	SOLUTION
Motor Overheating/System Tripping (The motor's overload will trip if the motor is overheating)	Air leaks between the dust collector and dust bin	1. The lid of the dust drum must be in place, have a foam seal, and be well seated when operating the dust collector. 2. Make sure flex hose is not torn and the hose clamps are tight. 3. Check for holes or leaks in the dust barrel.
	Motor not properly wired	1. Check wire connections. 2. Check fan impeller rotation. 3. Check breaker box to make sure power supply is correct for motor.
Poor dust pick-up at Tools/ System Lost Suction	Ductwork Issues	1. Check length of duct runs, duct diameters, and hood design compared to ductwork design guidance. 2. 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. 3. Check for air leaks between collector and dust drum. 4. Close all unused blast gates at your woodworking machines. 5. Check for a restricted pipe, too small a hood port, or too small a branch line. 6. Be sure that your filter is clean.
Filter Clogging	Large Chips Clogging the Filter	1. Check for a leak in the dust bin, flex coupling, or lid. Check for split or torn flex coupling. 2. Make sure dust bin has not over filled. Dust bin should be emptied before the dust reaches top of container. 3. Interruption of air flow, such as vacuuming chips with a flex hose connection, will increase filter maintenance.
	Fine dust clogging the filter	1. Check for excessive elbows or bends in your ductwork layout 2. Heavy sanding with a drum sander or fine grit paper will cause the pleated filter media to blind sooner than with larger size dust. Clean filter more often with compressed air.

If you continue to experience difficulty with your dust collector, call Oneida Air Systems' Customer Service Department at 1-866-387-8822 or e-mail support@oneida-air.com.

Oneida Air Systems, Inc.

F.A.Q.

Can I vent my system outside?

If you have conditioned air in your shop (heated or cooled), then exhausting outside can be costly. If your building is small and well-sealed, you can interfere with flue exhausts as well. Close neighbors might object. If the Dust Collection system is run intermittently it is generally not a problem. Most buildings have enough leaks and crevices where the aforementioned volume of air does not cause problems. If you have a problem opening or closing an outside door when the DC is running, crack a window slightly. The rule of thumb is for every 500 CFM have at least 1 sq/ft of return air coming back into the shop. A lot of our customers blow exhaust air outside successfully.

Can this be used for wet applications?

No. This system is designed for collecting dry materials only.

What dust can be collected?

Oneida Air Systems' dust collectors are designed and tested for wood and wood dust. They can and have been used effectively for various other dusts and chips, such as drywall dust, paper dust, agricultural dust, metal chips and other forms of debris. The customer is, however, cautioned that some common materials when cut, ground or processed by machinery may become very dangerous: toxic, flammable, or deflagrable and explosive. The user must ensure that the dust collection system is used in accordance with national, state, local, NFPA, OSHA and all other applicable codes.

How often should I clean the dust collector's cartridge filter?

A meter such as our Filter Efficiency Gauge can be used to monitor pressure buildup and inform you when the filter needs to be cleaned. See page 28 for instructions on Cleaning the Filter and page 6 for our Preventative Maintenance Schedule.

Is this product compatible with Quick-Clamp Duct?

Yes, but you will first need to install a Machine Adapter into the dust collector's inlet. These adapters are smaller on the raw end than traditional ducting so that they can slip into the ports on systems and tools i.e. a 5" Quick-Clamp Duct Machine Adapter will measure ~4.9" O.D. on the raw end.

F.A.Q.

What do I need to know about NFPA regulations?

Fire protection regulations are a complex and ever-changing set of rules that differ from facility to facility, so there is no general rule that we can provide for all customers.

There are three regulatory bodies that impact the specific code applicable to your facility – the **NFPA** (an international non-profit organization that develops and publishes fire protection codes and standards to which businesses are held), your **AHJ** (Authority Having Jurisdiction - the organization responsible for enforcing the codes and standards set by the NFPA), and your **insurance company**.

If you need further assistance, please don't hesitate to contact us directly with more detailed information on your shop including where it's located, the size and layout of the shop and its existing tools, and with prospective locations for your new Oneida Air dust collection system.

My Filter Efficiency gauge is reading 3 and I just installed it onto a new filter - Why is that?

The actual number doesn't really matter. It will be higher when you have more gates open, more airflow through the system and thus more back-pressure on the filter.

What we really care about is the change in the number. So, take a baseline reading (or set of readings) with a brand new filter installed. An easy way to monitor the filter's performance is putting a notch mark in your gauge at the initial baseline reading so you'll be able to notice any changes. When the filter gets dirty, the pressure and gauge reading will go up. When the reading changes say 1-2" on the gauge that's a good indicator of when you'd want to clean. None of this is exact science but rather an indication of pressure buildup in the filter.

Also, cleaning it more often (when the buildup is lower) will normally be easier and quicker than waiting for the filter to be dirtier.

Recommended Accessories

10" Direct Drive Rotary Air Lock Valve

#SAZ100001 (Single-Phase) / #SAZ100000C (Three-Phase)

- Significantly reduces shop downtime and labor costs for emptying bins.
- Limits dust exposure within the work environment.
- US-Made helical drive motor is compact, durable, energy efficient, and quiet.

Clean-Out Access Cone

Call for Info

- Custom configurations for cyclone separators.
- Facilitates maintenance inside the cone to remove clogs.
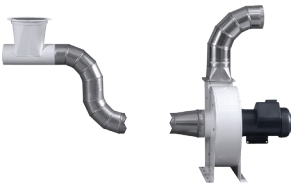
5HP Transfer Blower Kit

#BSK050199 (Single-Phase) / #BSK050399 (Three-Phase)

- Pneumatic conveyance system for use with Air Lock valves to transfer bulk waste away from the dust collector.
- Blower features an industrial, 230V Single-phase U.S. motor with magnetic starter and a variety of fittings for connecting the Air Lock's 10" discharge flange to 8" diameter rigid, steel ducting.

Industrial 18" x 62" Stacking Spunbond Filters

#FCK186200

- Specially designed for high airflow performance with minimal pressure drop.
- Wide-spaced pleating and non-stick coating facilitates quick dust release for cleaning.
- Durable polyester pleating material with external, reinforcing steel wire frame.

Auxiliary Start/Stop Station

#AMP000001

- Industrial push button control box provides additional control locations for your dust collection system.
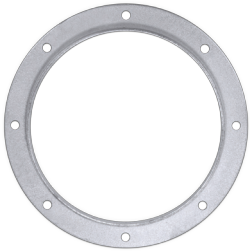- Can be daisy chained together to position controllers through the shop.

Recommended Accessories (Continued)

10" Collared Flange
#DLX100000

- Made from heavy-duty, spot-welded, galvanized steel.
- Easy to install onto your existing tool.
- Pre-crimped for easy flex hose connections.

10" Angle Ring
#DFZ100000

- Made from heavy gauge steel with punched holes along the rim.
- Easy to install onto your existing tool.
- Pre-crimped for easy flex hose connections.

10" - 8" Heavy Long-Taper Reducer
#DRH100800

- Made from heavy-gauge, galvanized steel using a long-tapered design to minimize air resistance.
- Pre-crimped on the larger end for fast and simple installations.

10" 90 Deg. Spiral Pipe Elbow
#DEH901000

- Single-piece, machine formed elbow constructed from heavy 22-gauge galvanized steel.
- Large radius design for optimum airflow performance.
- Uncrimped on both ends.

Universal Drum Dolly
#SDD990000

- This lightweight and low profile mobile dolly fits nearly any cylindrical waste bin.
- Includes hardware for securing larger drums to the dolly and five 2" non-marking caster wheels (3 non-locking, 2 locking).
- Maximum Weight Load: 150 lbs.

Warranty Information

Limited Warranty – Activate online at <u>oneida-air.com/warranty</u>

Oneida Air Systems®, Inc. (OAS) warrants the 10 HP Direct Drive for a period of 2 years 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, bin sensors, bag grippers, etc. and accessories are limited to 90 days. Oneida Air Systems warrants that the product will be free from defects in materials and workmanship.

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. This warranty does not apply to defects due directly or indirectly to misuse, negligence, accidents, abuse, repairs, alterations, improper wiring or lack of maintenance. 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.

The buyer is cautioned to install and operate Dust Collectors in accordance with prescribed Federal, State, OSHA, NFPA, local codes and regulations. This equipment should be installed/wired by a licensed electrician following all applicable codes. Local codes can be significantly different from national codes. The customer assumes the responsibility for contacting their insurance underwriter with regard to specific application requirements of venting or if additional fire protection and safety equipment may be required. 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.

Oneida Air Systems makes every effort to accurately represent our products 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 specifications at any time in an effort to achieve better quality products.

⚠ **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; etc.

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.

Notes

Oneida Air Systems, Inc.

Oneida®
Air Systems

The **Industry Leader in Dust Collection**

Thank you for your business!

Regardless of where you purchased your system, if you have any questions or issues with missing / damaged parts, please call Oneida Air Systems first to let us help resolve your problem. We fully stand behind the quality of our products and place the utmost value on our customer's satisfaction.

We want to do everything possible to make your purchase and experience with Oneida Air Systems a good one!

Customer Service Dept.
1-866-387-8822 • support@oneida-air.com