ACT Dust Collectors
Installation and Operation Manual
All models

Volume 2
January 2009

CAUTION!!!

Accidents happen, be careful and always follow all local and federal regulations!

- Fires and explosions do occur in dust collectors. Many items in a dust form become very flammable. It is very important when installing a dust collector to check with and abide by all local and federal regulations. Precautions such as spark traps and spark detectors are always recommend when sparks or danger is present. Never throw any burning objects into the duct work or dust collector.

- If your dust collector came with explosion vents it is the owner/operators responsibility to for full compliance with all authorities having jurisdiction. It is recommended that the NFPA codes be studied and applied, including but not limited to 68, 69 and 654. Included in the NFPA standards is the issue of isolating your dust collector. Please contact us or an expert in the area regarding isolation of your dust collector in the event of an explosion. Unless a Kst test was performed, and we were provided with the results, we used an assumed Kst and Pmax value to design your explosion vents. It is the owner/operators responsibility to verify the Kst and Pmax values. We recommend that your process be evaluated regularly to make sure that you remain in compliance and the vent area is sufficient. Air Cleaning Technology, Inc. will not be responsible for ANY loss whatsoever resulting from an explosion associated with an ACT dust collector.

- Dust collectors are tall and top heavy. Always be careful when handling them. Make sure your equipment is capable of making the lifts and moves you are trying to make. Be sure the foundation for the dust collector is proper and secure.

- All plumbing and electrical should be performed by a certified professionals and meet all codes and regulations.

- Never open any doors or access panels while the machine is in operation.

- Always shut down the unit prior to service and lock out all disconnects.

- Always wear proper safety equipment when working on or around your dust collector and follow all local and federal codes.

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Welcome

We would like to thank you for buying an Air Cleaning Technology dust collector. Our goal is to provide you a combination of the best quality, service and pricing in the industry. Your dust collector was built with a lot of forethought. The operation and maintenance of this unit is designed to be second to none.

As service is what we strive to achieve, please feel free to contact us with any questions or comments at any time. We hope your experience with your new A.C.T. dust collector is a great one and that you will consider us for all your future dust collection needs.

Introduction

Please familiarize yourself with your new dust collector and its parts before installing it. Below is a list of standard items that should have shipped with your dust collector. If you did not receive any of the items below please contact us or your local dealer immediately.

Standard items:

- Support legs and cross beams
- Hopper/s
- Dust collector body
- All-in-one pulse control timer board and pressure gage
- Cartridge filters
- Nuts, bolts, washers and lock washers
- Hose between solenoid housing and diaphragms
- Drum lid

Some of you may have ordered some additional items. If you did not receive them please contact your sales rep.

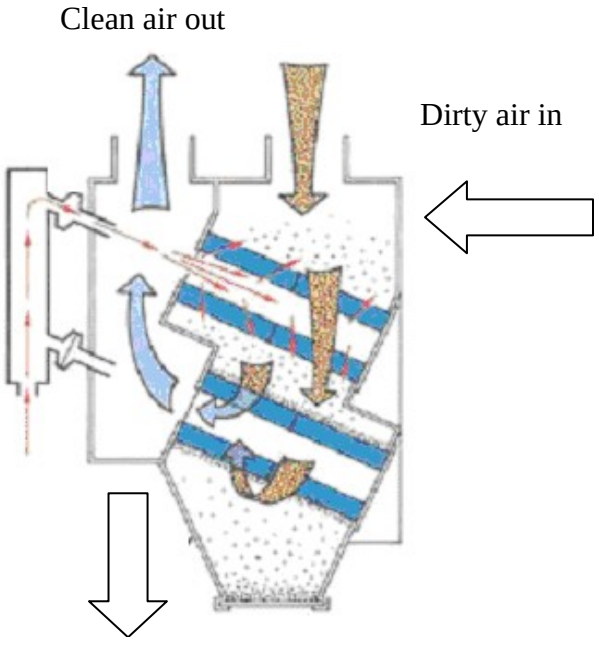
Operation and Assembly

Operation:

The operation of your dust collector is designed to be efficient and flexible. There will a variety of ways to bring air into and exhaust air from your dust collector. Please see the drawing below for a demonstration of the air-flow pattern.

Drawing

figure 1



Assembly:

Step 1 - Bolting legs to dust collector body:

- Raise the dust collector body allowing clearance to attach the legs. When raising the dust collector always use proper lift equipment. When raising the dust collector from above, always use the lifting lugs located at the top of the dust collector. (Do not lift using compressed air manifold)

- Bolt the legs to the corners of the dust collector with the supplied hardware. (Larger units will have more legs). Do not fully tighten the bolts at this time.
- Attach all cross braces using supplied hardware. Do not fully tighten the bolts at this time
- Lower the dust collector onto its permanent foundation but do unhook it from the crane or lifting device yet. Be sure the dust collector is level and the legs are square. Once this is achieved you should tighten all hardware.
- Secure the legs to the foundation before unhooking it from the crane or lifting device.

Drawings of leg packs and bolt, nut and washer configuration figure 2

Step 2 – Attaching the hopper:

- Apply sealant to the mating flange on the hopper inside the bolt hole pattern.
- Lift the hopper into place using a proper lifting device and secure with the provided hardware

Step 3 – Drum lid:

- Secure the drum lid to the hopper outlet using supplied flex hose and hose clamps. A drum must be in place to ensure proper operation.

Step 4 – Installing the top mount fan

- Using crane or proper lifting device, raise the motor/blower assembly to the top of the dust collector.
- Apply a bead of sealant inside the bolt hole pattern on the clean-air-outlet on the top of the dust collector. (see figure 3)

Top of dust collector

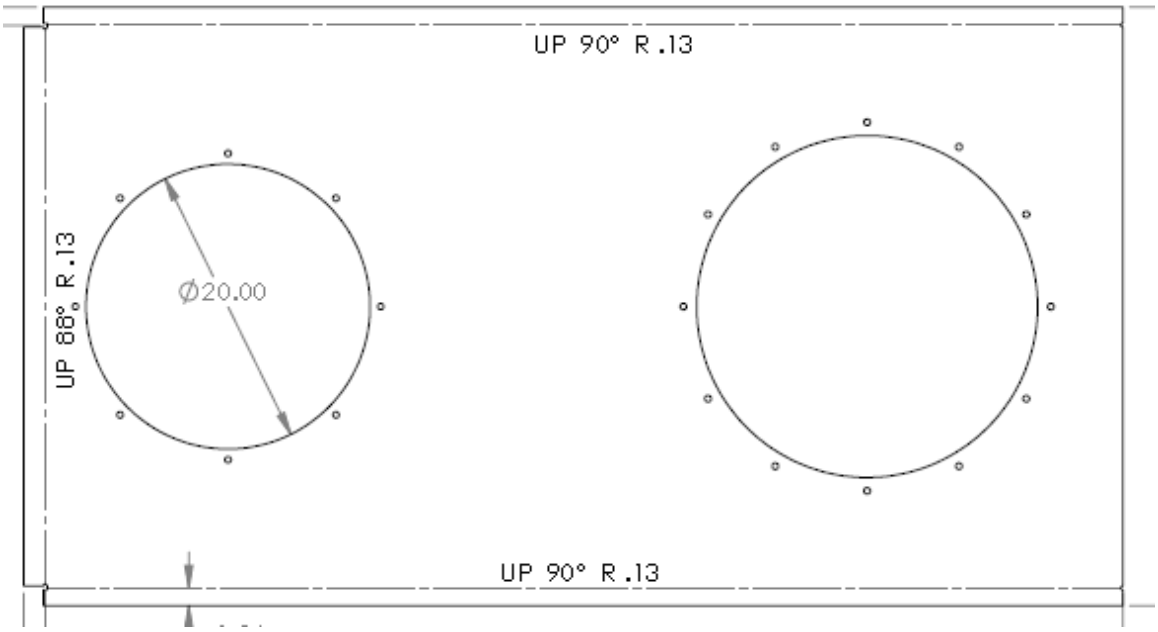


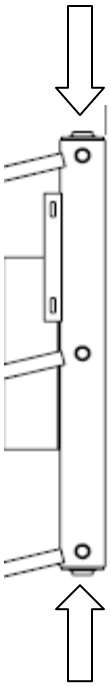
figure 3

- Place the motor/blower assembly onto the top of the dust collector, exhausting in desired direction, and secure with supplied hardware.
- All silencers require additional support in the field.

Step 5 – Supplying compressed air to dust collector:

- Compressed air must be supplied to the bottom or top of the air manifold located at the rear of the dust collector (see figure 4) for proper operation of the filter cleaning system. 1" air line is recommended for ample air supply.

Compressed air in here



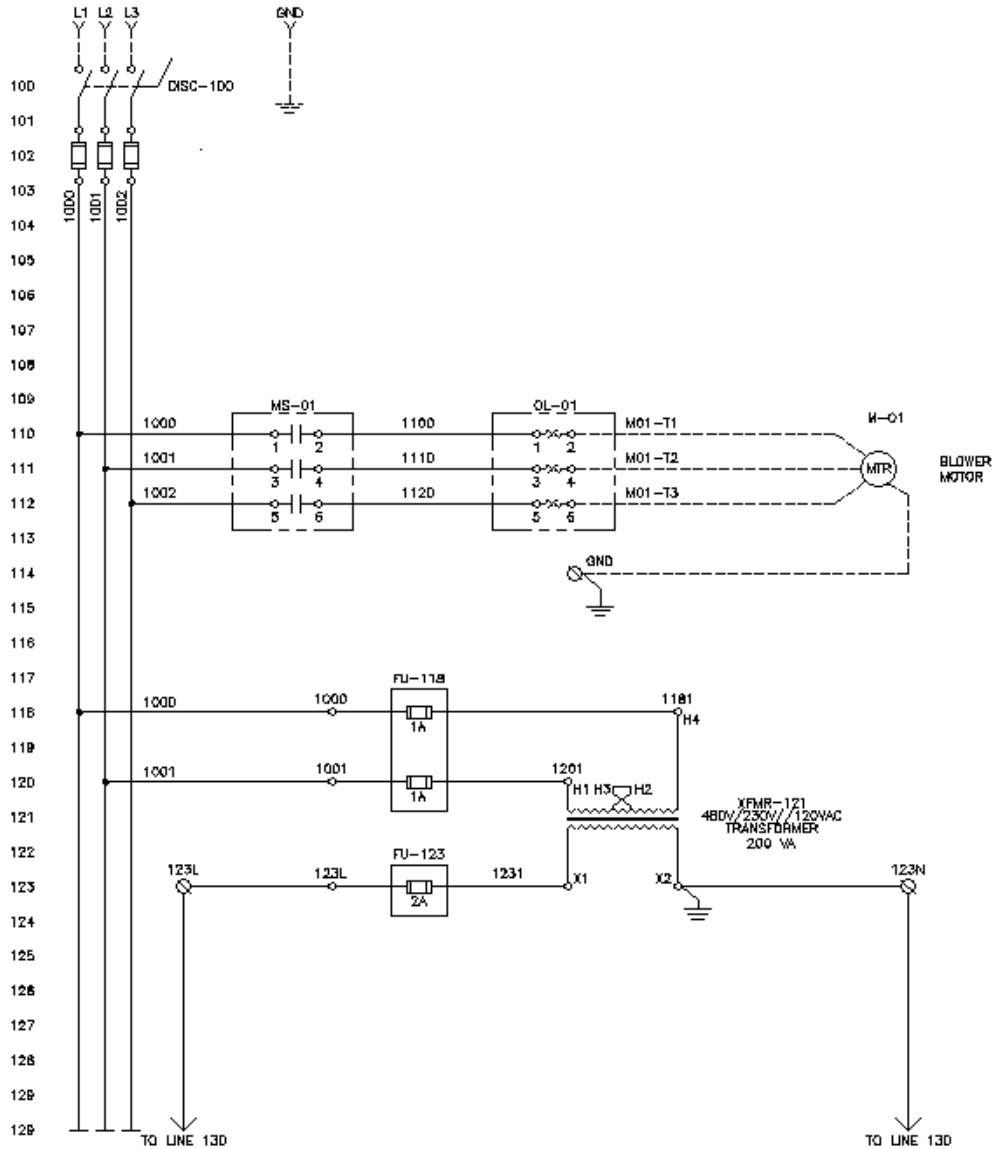
Drip-Tee with ball valve is recommended here

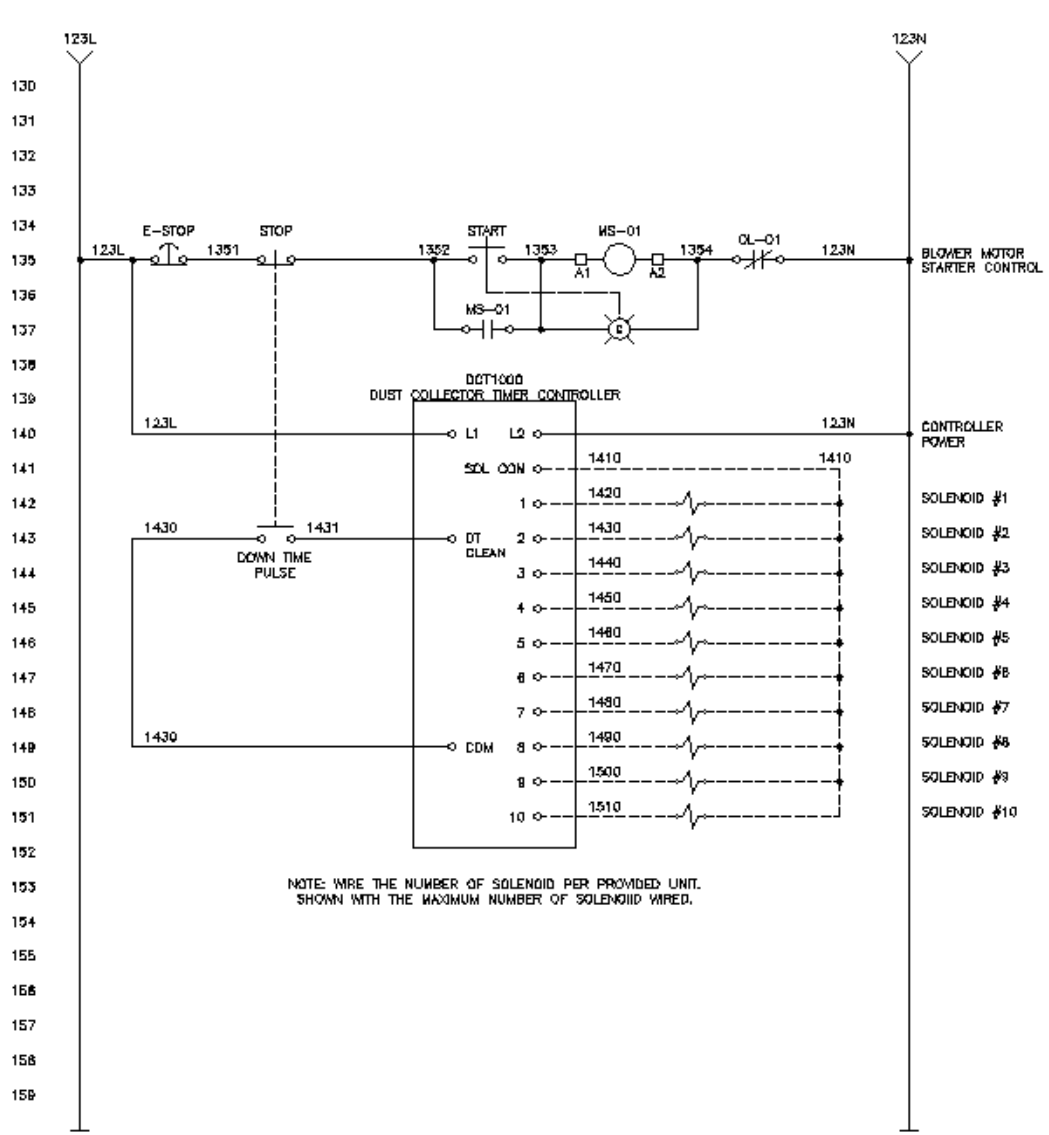
Figure 4

- The air must be clean, dry and regulated to 90-100 psi for best results.
- Each diaphragm uses approximately 2 CFM per pulse.
- A drip tee should be added to the bottom of this tank to allow water build-up to be drained.
- All plumbing should be done according to all local and federal codes.

Step 6 – Wiring the fan:

- All wiring should be done by a certified electrician and in accordance with all local and federal codes.
- IMPORTANT: It is very important to verify proper motor/blower rotation. Simply recognizing that the fan is moving air is not enough. The blower will move air even if it is rotating backwards but it will only move a fraction of its designed airflow.





NOTE: WIRE THE NUMBER OF SOLENOID PER PROVIDED UNIT.
SHOWN WITH THE MAXIMUM NUMBER OF SOLENOIID WIRED.

REV.	DESCRIPTION	DATE
1	CREATED	7/28/08

DUST COLLECTOR BLOWER PACKAGE 3 PHASE – WITH DUST COLLECTOR TIMER CONTROLLER

DRAWN BY: EDS	DATE: 7/28/08	FINISH: NONE	CLIENT: AIR CLEANING TECH. INC	
CHECKED BY: EDS	DATE: 7/28/08		PROJECT NUMBER	

Step 7 – Wiring the timer board and pressure gage:

- All wiring should be done by a certified electrician and in accordance with all local and federal codes.
- Locate the timer board as close to the dust collector as possible. It is recommended that the timer board not be mounted to the dust collector itself as the vibrations may cause the timer board and pressure gage to malfunction.
- To wire the timer board, please refer to the wiring diagram located inside the timer board enclosure.
- Once the timer board has been installed the pressure gage must be hooked up to the dust collector using customer supplied ¼" tubing (see figure 5 for low and high pressure ports). If the dust collector is installed outside, the tubing should UV protected.
- IMPORTANT: be sure that the timer board is wired for the down time pulse cleaning. This is the most effective time to clean your filters and will greatly increase your filter life.

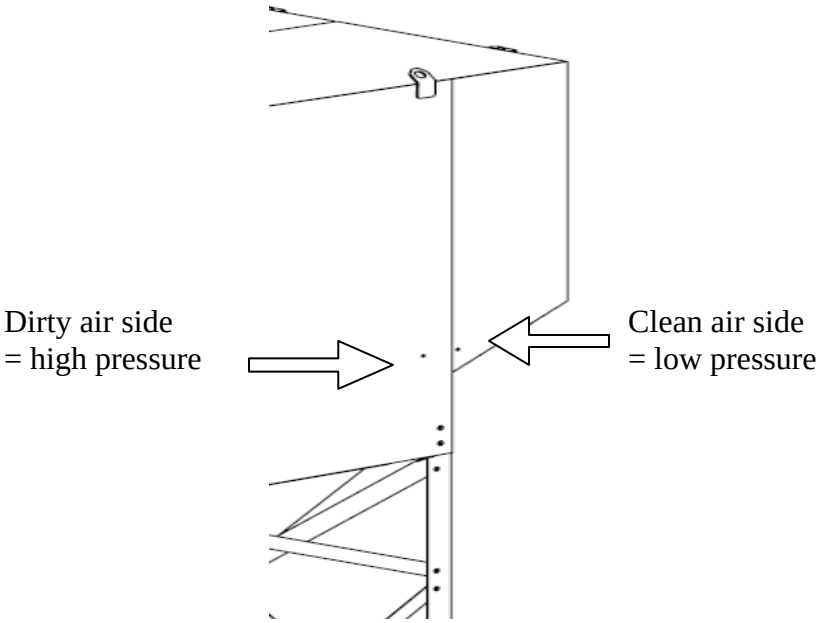
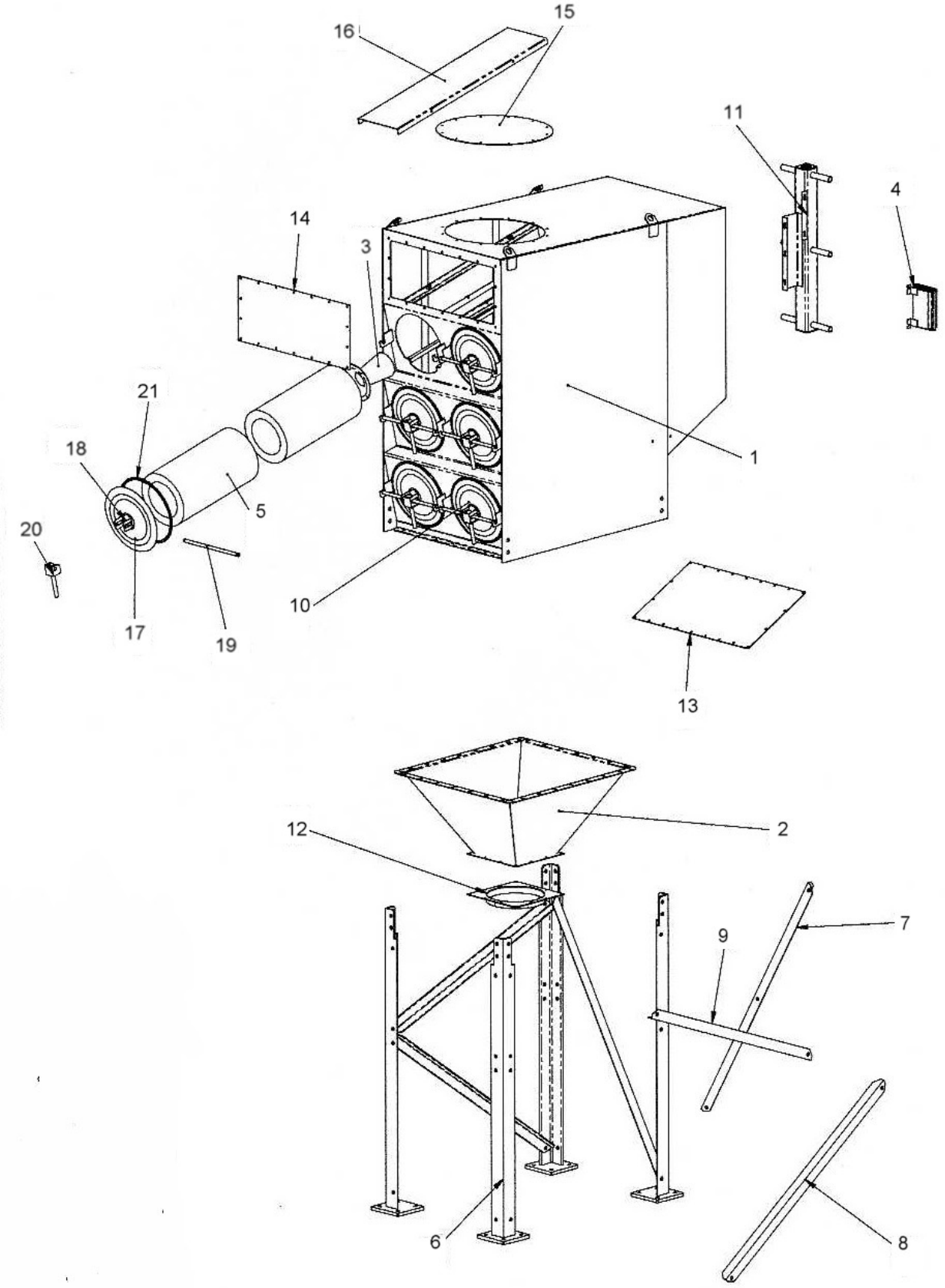


figure 5

Parts

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	DC07506	Collector	1
2	DC07502	Hopper	1
3	DC06001	Venturi	1
4	SVE06WP61	Solenoid Valve Enclosure	1
5	22111/22211	Filter	2
6	DC07505	Leg Weldment	4
7	DC07015	Angle, Long	2
8	DC07014	Angle, Mid	2
9	DC07013	Angle, Short	2
10	DC06002	Filter Access Door Assembly	5
11	DC07504	Compressed air manifold	1
12	DC07503	14" drum lid transition	1
13	DC07029	Bottom clean air access cover	1
14	DC07030	front inlet cover	1
15	DC07031	top inlet cover	1
16	DC07507	deflector plate	1
17	DC07041	Filter Access Door	1
18	DC07017	door cam bracket	1
19	DC07018	Shaft, Lock	1
20	DC07019	quick lock cam	1
21	DC08073	Lid Gasket	1
22	DC08074	Filter Gasket	1
	Optional Parts or Configurations		
11	DC08602	Manifold, Blow Down 8 Valve	1
7	DC08060	Angle, Long 4 Filter Wide	2
	DC08064	Cover 180 Fan	
	DC08065	Cover 200 Fan	
	DC08604	Adaptor 6" Air Lock	
1	DC08601	Collector, C4-16	
1	DC08603	Collector, C-24	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Warranty

Air Cleaning Technology, Inc. warrantees the equipment to be free from defects in materials and workmanship for a period of 5 years from the date of purchase. This warranty does not cover any damage due to normal wear and tear including, but not limited to, corrosion, abrasion, elements, and modifications. This warranty covers parts only. This warranty covers only the parts manufactured exclusively for Air Cleaning Technology, Inc. All other parts will be covered by individual manufacturer's warranty.

Product Data Sheet

Make/Model:
Serial Number:
Filters:
Ship Date:
Date of Manufacture:

Option/Accessories:

Fan/Blower Manufacturer:
Model Number:
Serial Number:
HP:
Voltage:
RPM:
CFM Rating:
Silencer: Damper:

Pulse Control Timer Board Manufacturer:
Model:
Serial Number:
Diaphragm Mfg: