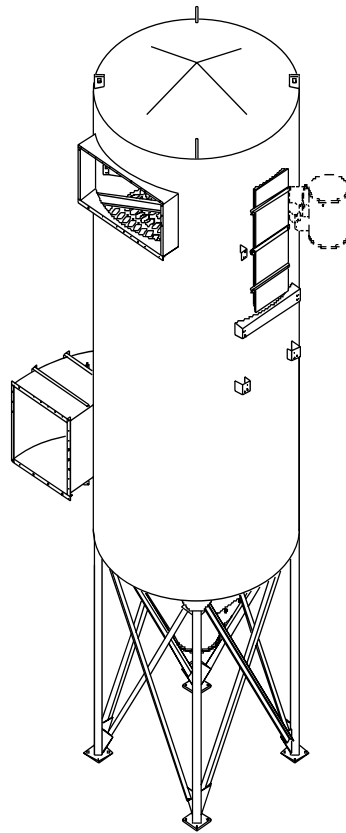
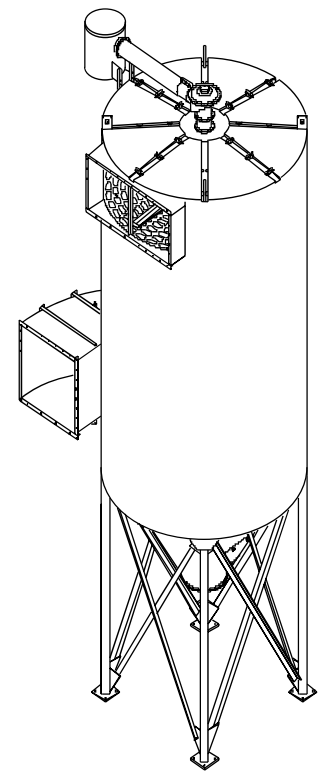


# Installation and Operation Manual

## RF Baghouse Dust Collector Models RFT and RFW



Model RFW



Model RFT



Throughout this manual statements indicating precautions necessary to avoid equipment failure are referenced in a **Note**. Statements indicating potential hazards that could result in *personal injury* or *property damage* are referenced in a **Caution!** box.

This manual is property of the owner. Leave with the unit when set-up and start-up are complete. Donaldson Company reserves the right to change design and specifications without prior notice.



## **Caution!**

### **Application of Dust Control Equipment**

- Combustible materials such as buffing lint, paper, wood, aluminum or steel dust, weld fume, or flammable solvents represent fire or explosion hazards. Use special care when selecting and operating all dust or fume collection equipment when combustible materials are present to protect workers and property from damage due to fire and/or explosion. Consult and comply with National and Local Codes relating to fire or explosion and all other appropriate codes when determining the location and operation of dust or fume collection equipment.
- When combustible materials are present, consult with an installer of fire extinguishing systems familiar with these types of fire hazards and local fire codes for recommendations and installation of fire extinguishing and explosion protection systems. Donaldson dust collection equipment is not equipped with fire extinguishing or explosion protection systems.
- DO NOT allow sparks, cigarettes or other burning objects to enter the hood or duct of any dust or fume control equipment as these may initiate a fire or explosion.
- For optimum collector performance, use only Donaldson replacement parts.

## Contents

Description .....	4	Start-Up .....	18
Purpose and Intended Use .....	4	Start-Up Sequence .....	18
Operation .....	5	Shut-Down Sequence .....	18
Inspection on Arrival .....	6	Service Information .....	19
Installation Codes and Procedures .....	6	Operational Checklist .....	19
Installation .....	6	Maintenance .....	19
Site Selection, Grade-Mounted Units .....	6	Weekly .....	19
Unit Location .....	6	Quarterly .....	19
Standard Equipment .....	8	Troubleshooting .....	20
Leg and Hopper Assembly .....	8	Warranty .....	24
Section Assembly .....	9		
Roof Mount, RFW .....	9		
Inlet Scroll Installation, All Units .....	10		
Cleaning Mechanism .....	10		
Air Supply .....	12		
Solid-State Timer Installation .....	13		
Solenoid Connection .....	13		
Timer and Solenoid Specifications .....	14		
Time Delay, Start-Up .....	14		
Time Delay, Shut-Down .....	14		
Filter Bag Installation .....	16		
Boltsafe™ .....	16		
Snap-In .....	16		



This manual contains specific precautionary statements relative to worker safety. Read thoroughly and comply as directed. Discuss the use and application of this equipment with a Donaldson representative. Instruct all personnel on safe use and maintenance procedures.

## Data Sheet

Model Number _____	Serial Number _____
Ship Date _____	Installation Date _____
Customer Name _____	
Address _____	
_____	
Filter Type _____	
Accessories _____	
Other _____	

## Description

The RF Baghouse is a continuous duty dust collector with bag-style filters designed to handle 2,495 to 113,325 cfm applications with heavy dust loads. Continuous-duty means no downtime. The filters are pulse-cleaned without turning the unit off. A cleaning-cycle timer energizes the cleaning cycle that cleans each bag at least once every four minutes.

The cylindrical units feature all-welded, or an optional bolt-together design. Standard sizes range from 48 to 484 filter bags either 8, 10, or 12-ft long and feature an involute, scroll-type inlet with an internal deflection baffle. The involute inlet removes heavy materials before they reach the bags, eliminating the need for a separate cyclone precleaner.

The RF Baghouse is available in two styles — RFT and RFW. Model RFT allows walk-on, top-access bag removal, and Model RFW features a walk-in clean-air plenum. Both models allow filter-bag service from the clean-air side of the unit.

## Purpose and Intended Use

The RF Baghouse collector is most common in the woodworking industry and high-volume, high dust-load applications. Additional applications include grain, cement, chemical, and food processing applications especially sugar and other moisture-sensitive materials.

- The RF is most commonly used in applications over 25,000 cfm.
- Sizes available for lower airflow applications with any of the following conditions or requirements:
  - Heavy dust load
  - No compressed air available
  - A round unit required for sanitary reasons
  - A round unit required because the dust supports spontaneous combustion
  - High pressure or vacuum requirement
  - A requirement for a single discharge hopper.

Operations involving high temperature and humidity require special attention. Temperature, moisture content, and chemistry issues may exist, and custom design modifications to the collector may be required.



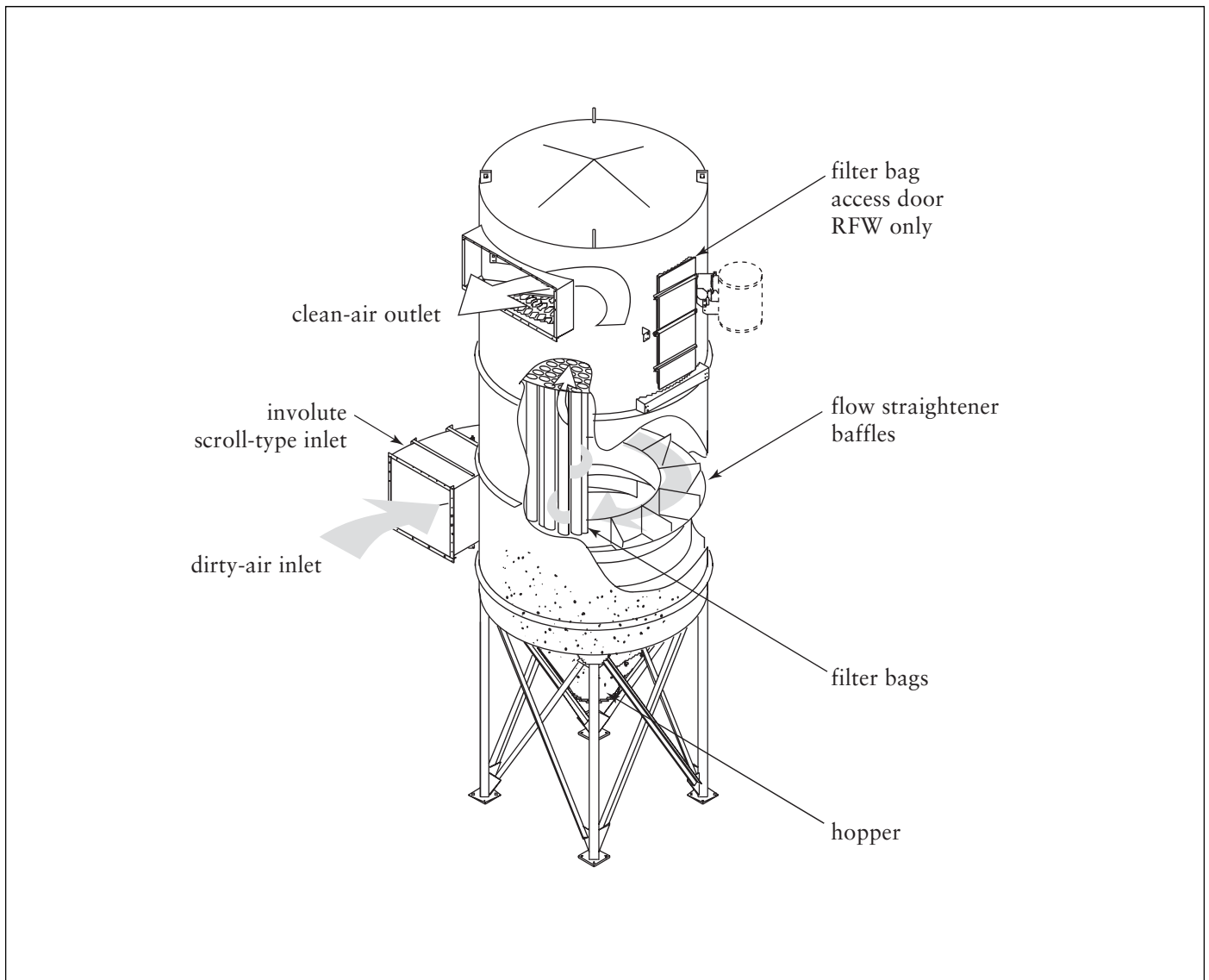
### CAUTION

- Misuse or modification of this equipment may result in personal injury.
- Do not misuse or modify.

## Operation

The RF cleaning system automatically cleans each bag at least once every four minutes. During normal operation, dust-laden air enters the dirty-air inlet. The scroll-style inlet develops a cyclonic airflow causing heavier particulate to drop directly into the hopper. The air continues through an internal flow straightener that evenly distributes the dust-laden air around the filter bags. Dust collects on the outside surface of each filter bag forming a dust cake. Clean, filtered air passes through the filter bags, into the clean-air plenum, and discharges through the clean-air outlet.

During the filter cleaning cycle, a solid-state timer energizes a solenoid valve and controls the open and close time of the diaphragm valve. An air reservoir stores the pressurized air. The diaphragm valve, controlled by the solenoid valve, opens and high-volume air is directed through the manifold arms and into the filter bags forcing the collected dust to fall into the hopper where it is discharged into drums, rotary valve, screw conveyor, or pneumatic conveying system.



*Unit Operation*

## Inspection on Arrival

1. Inspect unit on delivery.
2. Report any damage to the delivery carrier.
3. Request a written inspection report from the Claims Inspector to substantiate claim.
4. File claims with the delivery carrier.
5. Compare unit received with description of product ordered.
6. Report incomplete shipments to the delivery carrier and your Donaldson representative.
7. Remove crates and shipping straps. Remove loose components and accessory packages before lifting unit from truck.

## Installation Codes and Procedures



### CAUTION!

OSHA may have requirements regarding recirculating filtered air in your facility. Consult with the appropriate local authorities to ensure compliance with all codes regarding recirculating filtered air.

1. Safe and efficient operation of the unit depends on proper installation.
2. Authorities with jurisdiction should be consulted before installing to verify local codes and installation procedures. In the absence of such codes, install unit according to the National Electric Code, NFPA No. 70-latest edition.
3. A qualified installation and service agent must complete installation and service of this equipment.



### CAUTION!

- Combustible materials such as buffing lint, paper, wood, aluminum or steel dust, weld fume, and flammable solvents represent fire or explosion hazards.
- Use special care when selecting and operating all collection equipment when combustible materials are present to protect workers and property from damage due to fire and/or explosion.
- Consult and comply with all national and local codes relating to fire or explosion, and all other appropriate codes when determining the location and operation of dust collection equipment.
- Donaldson equipment is not equipped with fire extinguishing or explosion protection systems.

## Installation

### Site Selection, Grade-Mounted Units

1. The unit can be located on a reinforced concrete foundation or rooftop.
2. Wind, seismic zone, and other live-load conditions must be considered when selecting the location for rooftop-mounted units.
3. Provide clearance from heat sources and interference with utilities when selecting the location.

### Unit Location

1. When hazardous conditions or materials are present, consult with local authorities for the proper location of the collector.
2. Foundation or roof support must be sized to accommodate the entire weight of the unit, plus the weight of the collected material, piping, and ductwork. If equipped with a sprinkler system, consider the weight of water that may accumulate during sprinkler activation.
3. Prepare the foundation in the selected location. Install 3/4 or 1-in anchor bolts extending 1 3/4-in above foundation as indicated on the Specification Control drawing. Generally, 3/4-in bolts for 48 to 156-bag units and 1-in bolts for 232 to 484-bag units.
4. Locate the collector to ensure the shortest and straightest inlet- and outlet-duct length, easy access to electrical connections and routine maintenance.

## Electrical Wiring



### WARNING!

- Electrical installation must be performed by a qualified electrician and comply with all applicable national and local codes.
- Lock out electrical power sources before performing service or maintenance work.
- Do not install in classified hazardous atmospheres without an enclosure rated for the application.

1. All electrical wiring and connections, including electrical grounding, should be made in accordance with the National Electric Code and NFPA No. 70-latest edition.
2. Check local ordinances for additional requirements that apply.
3. The appropriate wiring schematic and electrical rating must be used. See unit's rating plate for required voltage.
4. If the unit is not furnished with a factory-mounted disconnect, an electric disconnect switch having adequate amp capacity shall be installed in accordance with Part IX, Article 430 of the National Electrical Code and NFPA No. 70-latest edition. Check unit's rating plate for voltage and amperage ratings.
5. Refer to the wiring diagram for the number of wires required for main power wiring and remote wiring.

## Rigging Instructions

### *Suggested Tools & Equipment*

Crane or Forklift	Pipe Wrenches
Slings, Spreader Bars and Clevis Pins	Socket Wrenches
Drift Pins	End Wrenches
Clamps	Large Crescent Wrench
Screwdrivers	Drill and Drill Bits
	Pipe Sealant

### Hoisting Information

1. Use all lifting points provided.
2. Use clevis connectors, not hooks, on lifting slings.
3. Use spreader bars to prevent damage to units casing.
4. Check the Specification Control drawing for weight and dimensions of the unit, subassemblies, and components to ensure adequate crane capacity.
5. Allow only qualified crane operators to lift the equipment.
6. Refer to applicable OSHA regulations and local codes when using cranes, forklifts, and other lifting equipment.
7. Lift unit and accessories separately, and assemble after unit is in place.
8. Use drift pins to align holes in section flanges during assembly.



### CAUTION!

- Failure to lift the collector correctly can result in severe personal injury or property damage.
- Use appropriate lifting equipment and adopt all safety precautions needed for moving and handling the equipment.
- A crane or forklift is recommended for unloading, assembly, and installation of the collector.
- Location must be clear of all obstructions, such as utility lines or roof overhang.

## Standard Equipment

All welded units can be lifted directly from the truck to the prepared site. Bolt-together units are assembled at the site. A general approach to set up is as follows:

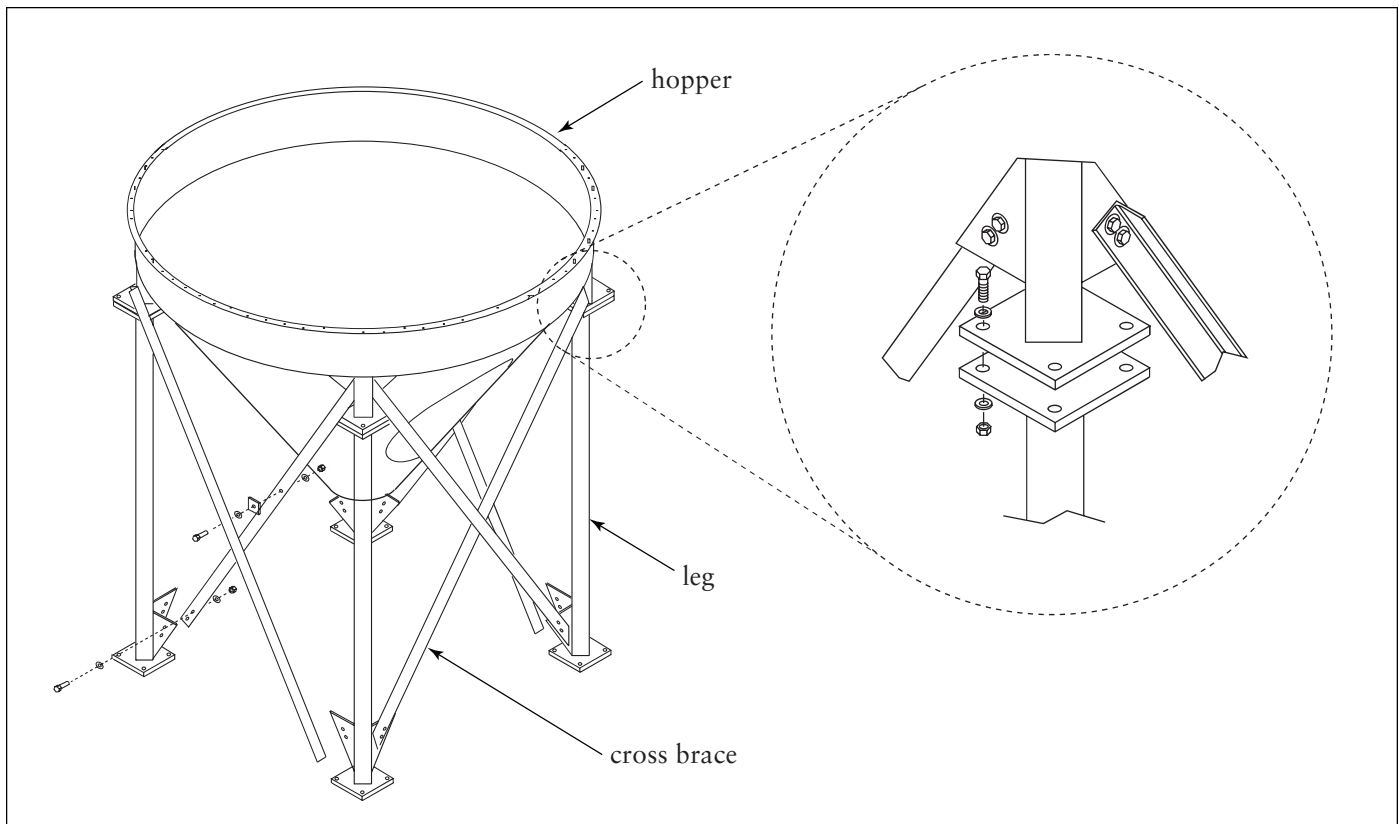
1. Prepare site.
2. Assemble hopper and legs.
3. Attach filter housing to hopper.
4. Install ladder and platform.
5. Install cleaning mechanism.
6. Install positive-displacement blower.
7. Electrical connection including solid-state timer.
8. Install filter bags.

## Leg and Hopper Assembly

**Note:** If installing an all-welded unit, skip to Inlet Scroll Installation on Page 10.

1. Place the hopper upside down on the floor.
2. Attach legs to hopper gussets using the hardware supplied. Assemble cross braces as shown in Leg and Cross Brace Assembly. Do not tighten hardware at this time.
3. Turn leg and hopper assembly over and position over anchor bolts. Secure each leg pad to the foundation anchor bolts with customer-supplied flat washers, lock washers, and nuts. Do not tighten hardware at this time.
4. Level hopper.
5. Tighten all hardware securing legs, cross braces, hopper gussets, and foundation anchor bolts.

**Note:** Tighten all hardware before removing crane.

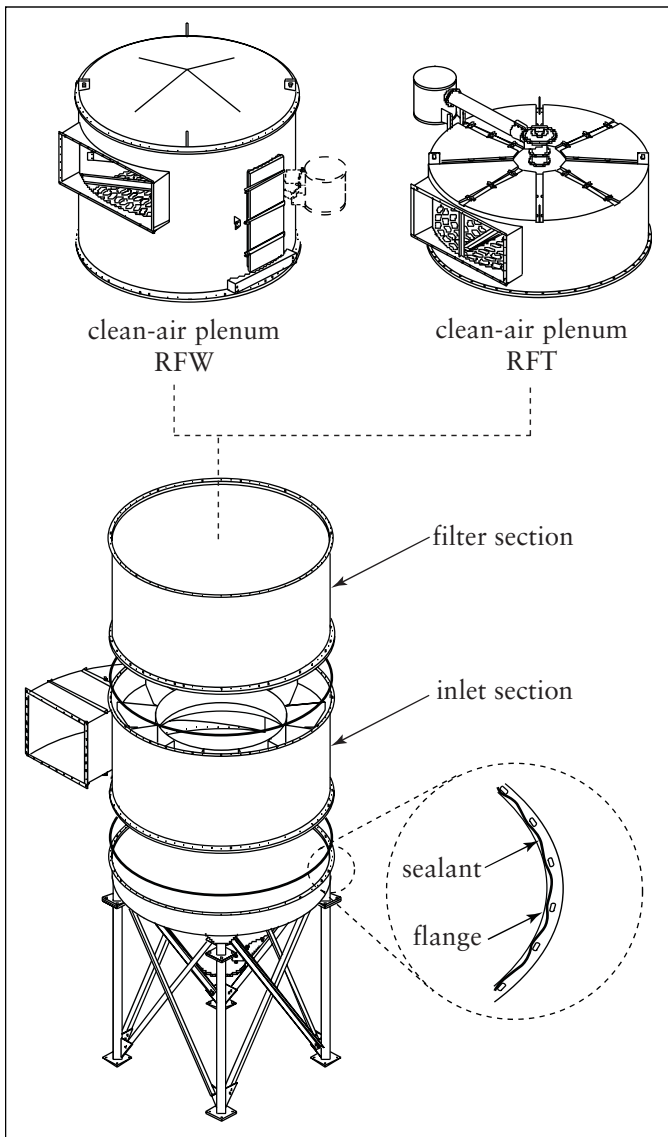


*Leg and Cross Brace Assembly*



## Section Assembly

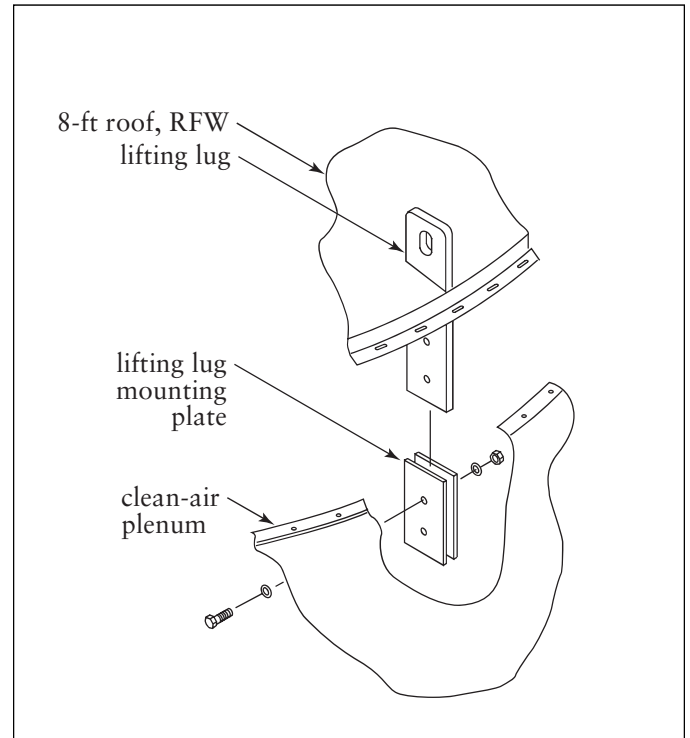
1. Reference the customer drawing for inlet and outlet orientation.
2. Apply 1/4-in diameter, rope-type sealant to the hopper's top flange.
3. Lift the inlet section into position over the hopper and lower slowly.
4. Use drift pins to align holes in the section flanges and secure using the hardware provided.
5. Follow Steps 1 through 3 to install the filter section and clean-air plenum.



*Section Assembly*

## Roof Mount, RFW

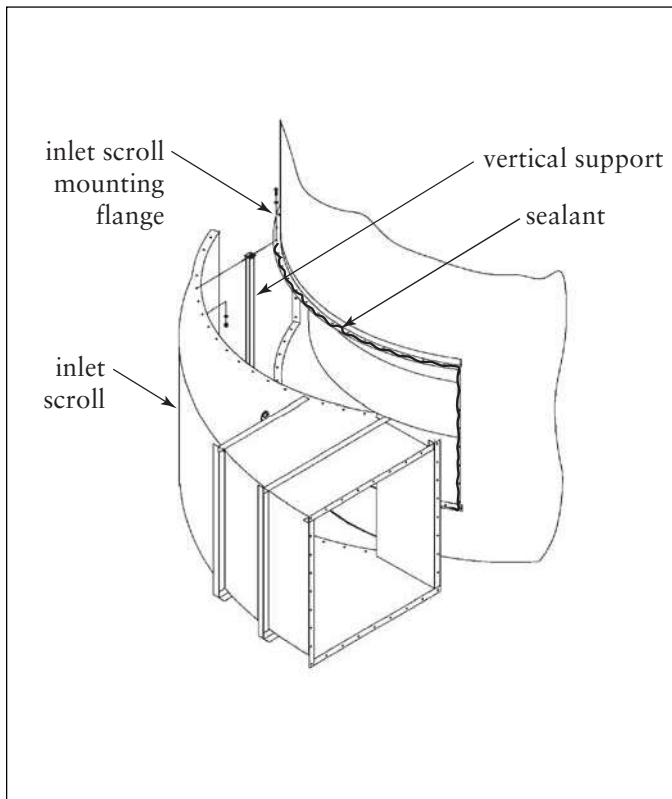
Fasten each lifting lug to the clean-air plenum as shown in Lifting Lug, Model RFW.



*Lifting Lug, Model RFW*

## Inlet Scroll Installation, All Units

1. After the unit is upright and secure, remove the vertical supports from inlet scroll opening on the unit.
2. Place 1/4-in diameter, rope-type sealant toward the outside edge of the bolt pattern on the inlet-section scroll mounting flanges.
3. Lift inlet scroll into position and secure with the hardware provided.



*Inlet Scroll Installation*

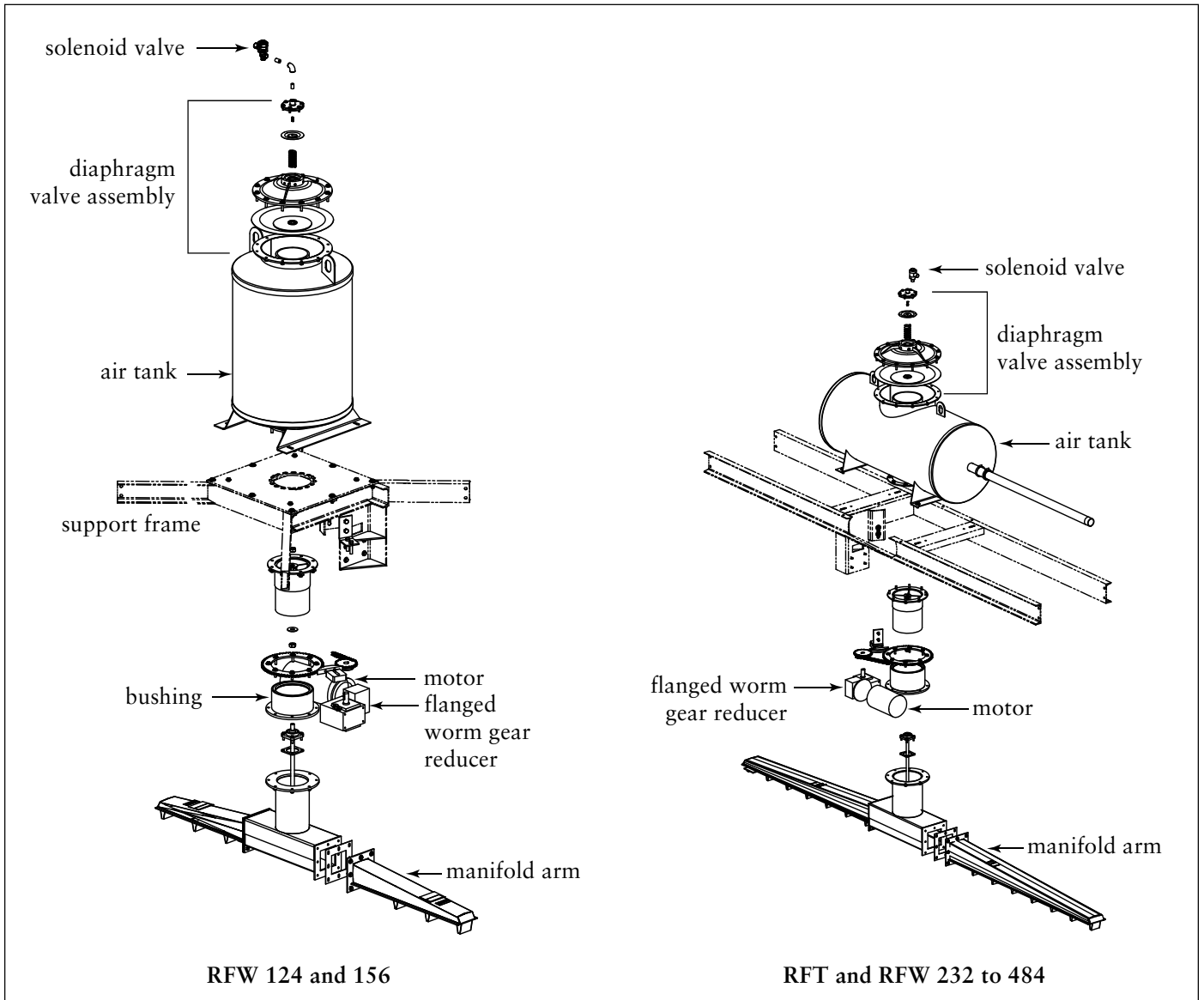
## Cleaning Mechanism

1. Install the gear reducer drive motor. Check that the motor shaft key is in place and enters the keyway in the gear drive correctly. Fasten the motor flange to the gear reducer housing using four hex head cap screws supplied.
2. Fill the gearbox with lubricant according the instructions provided with the reducer. Remove the pipe plug and install the breather.
3. Remove the plastic exhaust-port plug from the bottom of the solenoid valve.
4. Wire the motor to a customer-supplied motor starter with overload and short circuit protection.

**Note:** All electrical wiring and connections, including electrical grounding, must be made in accordance with the National Electric Code and NFPA No. 70-latest edition.

If the unit was supplied with an electrical control panel, the wiring diagram supplied with the control panel takes precedence over the general diagrams shown in this manual.

5. Remove all shipping restraints from manifold arms and shipping braces from the cleaning system or cleaning system support frame.



*Cleaning Mechanism*

## Air Supply

A positive-displacement blower provides the air required for filter cleaning. The blower is sized for each unit based on the model and airflow requirements. Follow the installation instructions provided with the positive-displacement blower.

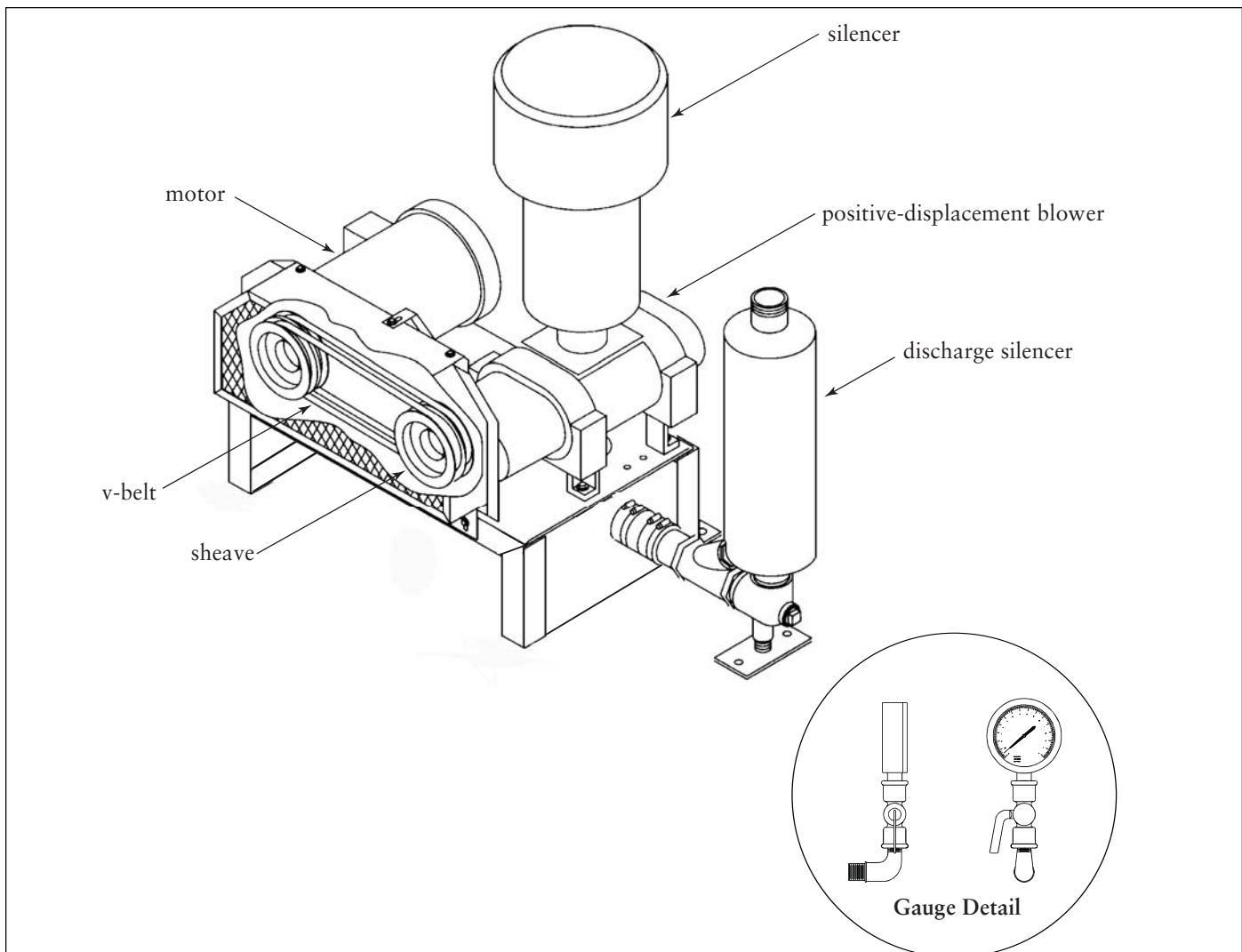
**Note:** Turn the blower ON then OFF to check for proper rotation by referencing the rotation arrow located on the belt guard. Proper rotation is counterclockwise.

### To reverse rotation, three-phase power supply:

Turn electrical power OFF at source and switch any two leads on the output-side of the blower motor starter.

Air Supply Pipe Sizing	
Model	Pipe Diameter
48-72	1-in
124-156	1 1/4-in
232-276	1 1/2-in
376 and 484	2-in

**Note:** Fill the gearbox with the lubricant supplied following the instructions provided with the positive-displacement blower.



*Positive-Displacement Blower Assembly*

## Solid-State Timer Installation

The solid-state timer is an electronic timer used to control the filter cleaning system.



### CAUTION!

The solid-state timer requires a 105 to 135-Volt, customer-supplied power supply.

**Note:** Do not mount the solid-state timer on the unit. Mechanical vibration can damage the control.

1. Mount the timer near the pressure gauge on the positive-displacement blower or air tank. Choose a location convenient for accessibility and maintenance.
2. Using the wiring diagram supplied, wire the blower motor, blower-motor starter, solid-state timer, and solenoid valve. Use appropriate wire gauge for rated amp load as specified by the National Electric Code.



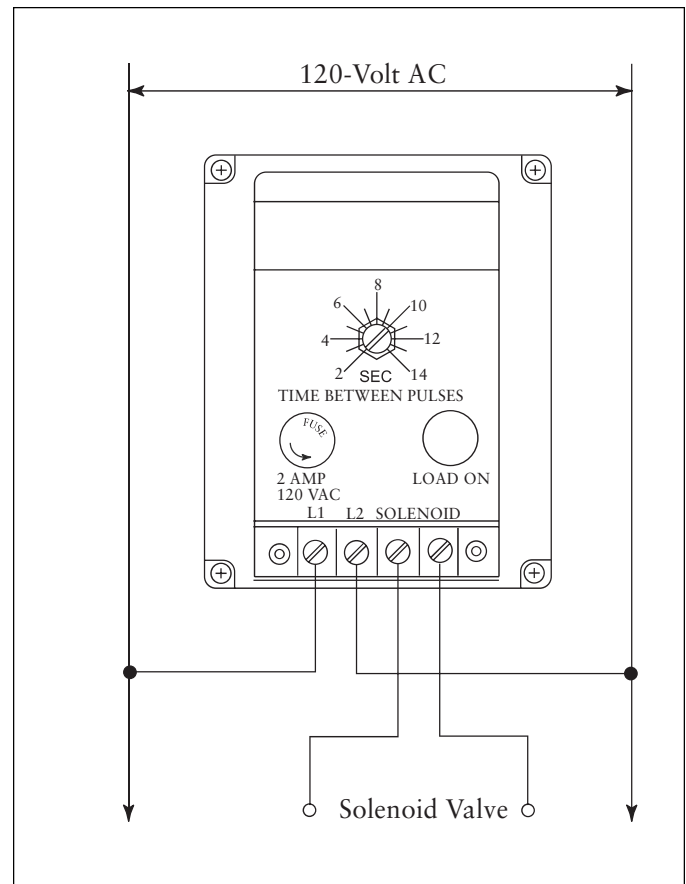
### WARNING!

- Electrical installation must be performed by a qualified electrician and comply with all applicable national and local codes.
- Lock out electrical power sources before performing service or maintenance work.
- Do not install in classified hazardous atmospheres without an enclosure rated for the application.

## Solenoid Connection

The unit is equipped with a 115-V solenoid valve that controls the diaphragm valve, which cleans the filters.

Wire the solenoid to the solid-state timer following the wiring diagram shown or the wiring diagram supplied with the unit. Filter life and cleaning operation will be affected if not wired correctly.



*Timer Wiring*

### ***Timer and Solenoid Specifications***

**Note:** If the unit was supplied with an electrical control panel, the wiring diagram supplied with the control panel takes precedence over the general diagrams shown in this manual.

Power to the solid-state timer is supplied to Terminals L1 and L2, which operate in parallel with the positive-displacement blower starter's low-voltage coil. On blower start-up, power is supplied to the timer and the preset OFF time is initiated. At the end of the OFF time, the timer energizes the solenoid valve to provide the ON time cleaning pulse for the diaphragm valve.

#### **Input**

105-135V/50-60Hz/1Ph

#### **Output Solenoids**

The load is carried and turned ON and OFF by the 200 watt maximum load-per-output solid-state switch.

#### **Pulse ON Time**

Factory set at 100-milliseconds, or 1/10-second. Pulse ON time is not adjustable.

#### **Pulse OFF Time**

Factory set at 10-seconds, adjust the OFF time so that the pressure at the air reservoir peaks at 7.5 psi just before the next pulse. Make final adjustments by observing the LOAD ON light flashing on the timer.

**Note:** Open the valve to the air reservoir gauge only when adjusting OFF time.

#### **Operating Temperature Range**

-20° F to 130° F

#### **Transient Voltage Protection**

50 kW transient volts for 20-millisecond duration once every 20 seconds, 1% duty cycle.

#### **Solenoid Valve**

115-V at 19.7 watts

### ***Interlocking***

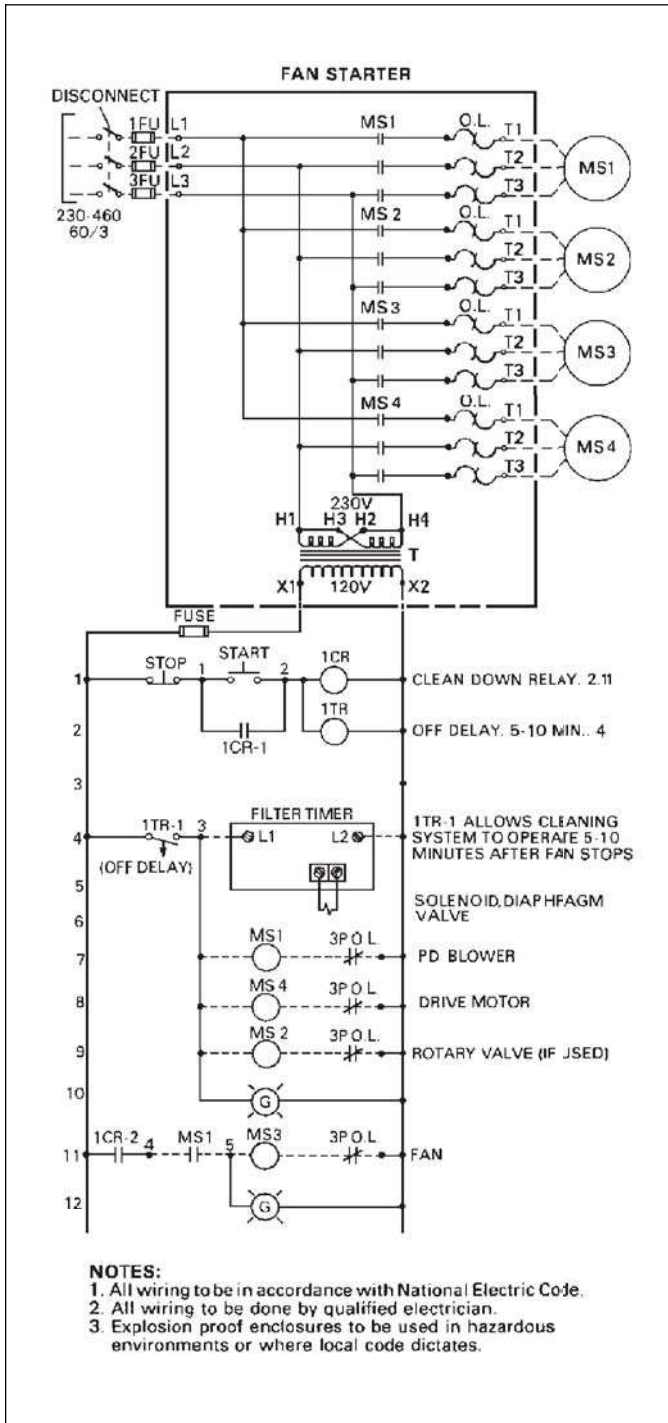
Main blower should not start unless the cleaning mechanism, positive-displacement blower, and dust removal system are operating. Failure of the interlocked devices should not shut down the main blower, but should activate an alarm system, if available. Failure of either a rotary airlock or screw conveyor with separate drives should shut down both.

#### ***Time Delay, Start-Up***

Start motors at 3-second intervals to minimize inrush current and to allow interlocking.

#### ***Time Delay, Shut-Down***

After the main blower shuts down, the remaining components should continue to run for several minutes to empty the hopper and dust removal system of all dust that drops from the filter bags after the primary airflow stops.



Unit Wiring

## Filter Bag Installation

### ***Boltsafe™***

1. Slide the filter cage into filter bag until the top edge of the bag reaches the top flange of the filter cage.

**Note:** Place the bottom seam of the bag parallel to the long side of the oval, filter cage bottom.

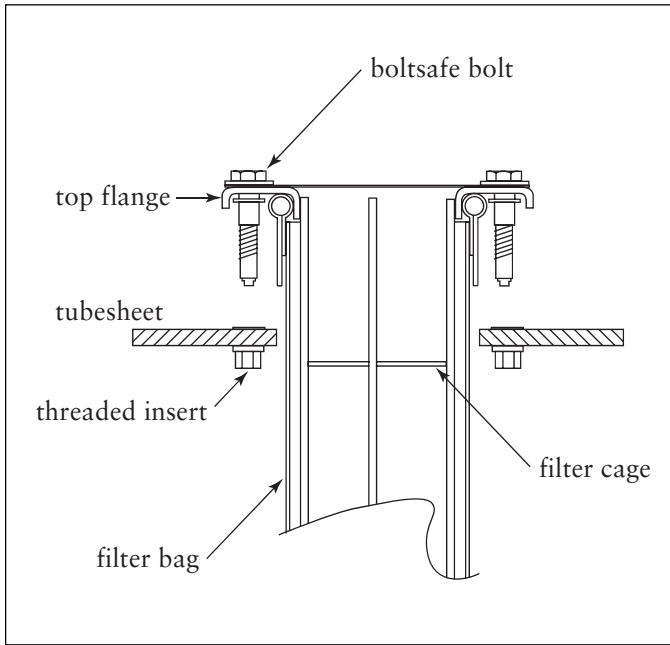
2. From the clean-air plenum, insert the filter and cage assembly through the tubesheet aligning the two bolts with the threaded inserts in the tubesheet.
3. Secure with Boltsafe bolts provided.

**Note:** Hand-start each bolt before tightening either bolt. Do not use a power or impact driver to tighten bolts. A speed wrench using maximum 20 ft/lb is recommended.

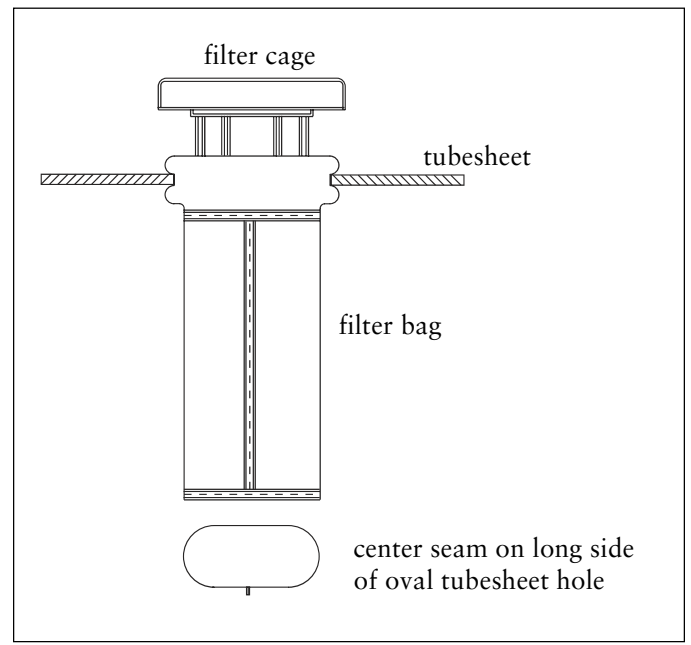
### ***Snap-In***

1. From the clean-air plenum, insert the snap-in filter bag aligning the seam with the long edge of the oval in the tubesheet.
2. Snap the bag in place with the tubesheet between the upper and lower rings on the filter bag collar.
3. Slide the filter cage into the filter bag and seat firmly.

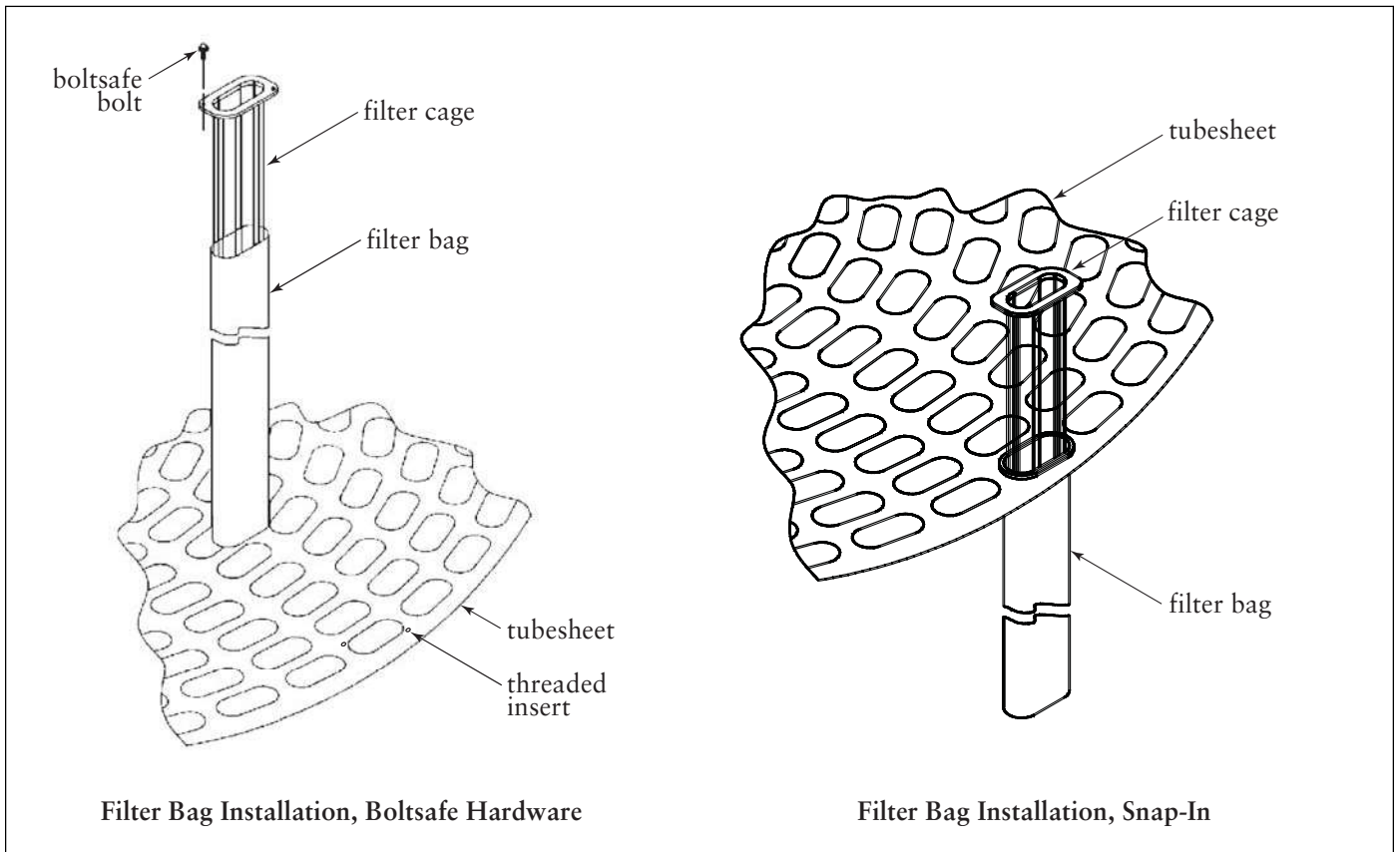




*Filter Cage and Bag Installation, Boltsafe*



*Filter Cage and Bag Installation, Snap-In*



*Filter Bag Installation, Boltsafe Hardware*

*Filter Bag Installation, Snap-In*

*Filter Bag Installation*

## Preliminary Start-Up Check

1. Check all electrical connections for tightness and contact.
2. Check for and remove all loose items in or near the inlet and outlet of the unit.
3. Check that all remote controls are wired into the control system, and all service switches are in the OFF position.
4. Check that all optional accessories are installed properly and secured.
5. Check that hopper discharge is open and the storage container is sealed, if equipped.
6. Turn power ON at source.
7. Turn the cleaning air blower ON then OFF to check for proper rotation by referencing the rotation arrow located on the belt guard. Proper rotation is counterclockwise.

### To reverse rotation, three-phase power supply:

Turn electrical power OFF at source and switch any two leads on the output-side of the fan-motor starter.

8. Turn the system blower ON then OFF to check for proper rotation. Look for manufacturer's rotation arrow.
9. Adjust the blower for proper airflow by adjusting the volume control damper on the blower discharge, if equipped.



### CAUTION!

- Do not look into blower outlet to determine rotation.
- Check that the exhaust plenum is free of tools or debris before checking blower/fan rotation.
- Stand clear of exhaust to avoid personal injury.

## Start-Up

1. Start the positive-displacement cleaning blower and check for counterclockwise rotation.
2. Turn power to timer and solenoid ON.
3. Check solenoid and diaphragm valve operation.
4. Adjust the timer to allow the cleaning system pressure to rise to 7.5 psi between pulses. Too short of an OFF time results in inadequate cleaning pressure; too long of an OFF time causes the pressure relief valve to discharge air.
5. Close the isolation petcock between the positive-displacement blower and the gauge.
6. Check the cleaning drive for clockwise rotation.
7. Start the system as shown in Start-Up Sequence.
8. Adjust for proper airflow with the volume control damper, if equipped.
9. Measure pressure drop and start dust-creating process. Pressure drop will rise. Equilibrium pressure is generally 3 to 4 "wg for seasoned filters, although 1 to 6 "wg is considered normal.

## Start-Up Sequence

1. Pneumatic conveyor or transfer blower, if equipped.
2. Rotary airlock and screw conveyor.  
**with separate drives:** Start simultaneously.  
**with common drive:** Start.
3. Manifold drive and pulse timer.
4. Positive-displacement cleaning blower.
5. Main blower.

## Shut-Down Sequence

1. Main blower.
2. Positive-displacement cleaning blower.
3. Manifold drive and pulse timer.
4. Rotary airlock and screw conveyor.  
**with separate drives:** Shut-down simultaneously.  
**with common drive:** Shut-down.
5. Pneumatic conveyor or transfer blower, if equipped.

## Service Information

### Operational Checklist

1. Monitor overall performance of the collector.
2. Monitor exhaust.
3. Monitor pressure drop across filters.
4. Monitor dust disposal.



#### **WARNING!**

- Lock out electrical power sources before service or maintenance work is performed.
- Turn air supply to collector OFF and depressurize air tank before service work is performed.

### Maintenance

#### **Weekly**

1. Check that pressure drop ranges from 1 to 6 "wg.
2. Check for 7.5 psi air pressure at reservoir.

#### **Quarterly**

1. Check condition of the clean-air plenum. If dust accumulation is present, check filter bags for wear, tears or loose seals. Replace as necessary.
2. Check solenoid and diaphragm valve operation.
3. Check door seals and replace as necessary.
4. Check cleaning arm drive chain and positive-displacement blower belt tension.
5. Check positive-displacement blower and gear reducer oil levels. Add oil through breather mounting holes or other oil fill locations. Positive-displacement blowers come with an initial supply of Mobil® 1 15-50 synthetic oil. If this type is not available, use the single viscosity oils as shown.

<b>Standard</b>	Winter below 30° F	SAE 20
	Summer 30 to 90° F over 90° F	SAE 30 SAE 40
<b>Premium</b>	Winter below 0° F 0 to 30° F	SAE 20 SAE 30
	Summer 30 to 90° F over 90° F	SAE 30 SAE 40

## Troubleshooting

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
<b>Blower fan and motor do not start</b>	Improper motor wire size	Rewire using the correct wire gauge as specified by national and local codes.
	Not wired correctly	Check and correct motor wiring for supply voltage. See motor manufacturer's wiring diagram. Follow wiring diagram and the National Electric Code.
	Unit not wired for available voltage	Correct wiring for proper supply voltage.
	Input circuit down	Check power supply to motor circuit on all leads.
<b>Blower fan and motor start, but do not stay running</b>	Electrical supply circuit down	Check power supply circuit for proper voltage. Check for fuse or circuit breaker fault. Replace as necessary.
	Incorrect motor starter heater elements installed	Check for proper heater elements and replace if necessary.
<b>Clean-air outlet discharging dust</b>	Electrical circuit overload	Check that the power supply circuit has sufficient power to run all equipment.
	Filter bags not installed correctly	See Filter Bag Installation on Page 16.
	Torn or damaged filter bags	Inspect filter bags using a flashlight. Replace as necessary. Use only genuine Donaldson replacement parts. See Filter Bag Installation on Page 16.

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
<b>Insufficient airflow</b>	Blower rotation backwards	Compare rotation to blower manufacturer's rotation arrow.
	Access doors open or not closed tight	Check that all access doors are in place and secured.
	Fan exhaust area restricted	Check fan exhaust area for obstructions. Remove material or debris.
	Filter bags need replacement	Remove and replace using genuine Donaldson replacement filters. See Filter Bag Installation on Page 16.
	Pulse cleaning not energized	Use a voltmeter to check supply voltage to the timer. Check and replace timer fuse if necessary. See Solid-State Timer Installation on Page 13.
	Solenoid valve failure; constant air leakage	Replace solenoid valve. Lock out all electrical power to the unit and bleed the compressed air system before removing the valve.
	Solenoid valve failure; failure to open	Check voltage output from Solid-State Timer. If output voltage is present, replace the solenoid valve. Lock out all electrical power to the unit and bleed the compressed air system before removing the valve.
	Diaphragm valve failure	Replace the primary and secondary diaphragms and springs. Note: To reassemble the smaller secondary diaphragm, remove the solenoid valve and pipe fittings and push down on the top of the diaphragm to hold it in the closed position while tightening the retaining bolts. Lock out all electrical power to the unit and bleed the compressed air system before any component repair work is completed.
	Solid-State Timer failure	Using a voltmeter, check supply voltage to the timer board. Check and replace the fuse on the timer if necessary. If the fuse is good and input power is present, but output voltage to the solenoid valve is not, replace the timer. See Solid-State Timer Installation on Page 13.
	Solid-State Timer out of adjustment	See Solid-State Timer and Solid-State Timer Wiring Diagram on Page 13.

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## Limited Warranty

Donaldson® warrants to the original purchaser that the major structural components of the goods will be free from defects in materials and workmanship for ten (10) years from the date of shipment, if properly installed, maintained and operated under normal conditions. Donaldson warrants all other Donaldson built components and accessories including Donaldson Airlocks, TBI Fans, TRB Fans, Fume Collector products and Donaldson built Afterfilter housings for twelve (12) months from date of shipment. Donaldson warrants Donaldson built filter elements to be free from defects in materials and workmanship for eighteen (18) months from date of shipment. Donaldson does not warrant against damages due to corrosion, abrasion, normal wear and tear, product modification, or product misapplication. Donaldson also makes no warranty whatsoever as to any goods manufactured or supplied by others including electric motors, fans and control components. After Donaldson has been given adequate opportunity to remedy any defects in material or workmanship, Donaldson retains the sole option to accept return of the goods, with freight paid by the purchaser, and to refund the purchase price for the goods after confirming the goods are returned undamaged and in usable condition. Such a refund will be in the full extent of Donaldson's liability. Donaldson shall not be liable for any other costs, expenses or damages whether direct, indirect, special, incidental, consequential or otherwise. The terms of this warranty may be modified only by a special warranty document signed by a Director, General Manager or Vice President of Donaldson. Failure to use genuine Donaldson replacement parts may void this warranty. **THERE EXIST NO OTHER REPRESENTATIONS, WARRANTIES OR GUARANTEES EXCEPT AS STATED IN THIS PARAGRAPH AND ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.**

## Parts and Service

For genuine Donaldson Torit replacement filters  
and parts, call the Parts Express Line

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**Donaldson**  
*Filtration Solutions*

Donaldson Company, Inc. is the leading designer and manufacturer of dust, mist, and fume collection equipment used to control industrial-air pollutants. Our equipment is designed to help reduce occupational hazards, lengthen machine life, reduce in-plant maintenance requirements, and improve product quality.