

Installation and Operation Manual

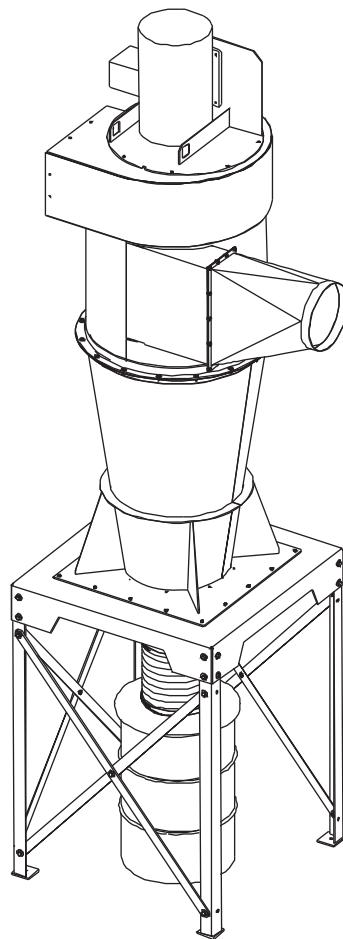
Cyclone

Models 12, 16, 20, 24, 30, 36, and 44



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

Illustrations are for reference only, as actual product may vary.



This manual is the 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.



Application of Dust Control Equipment

Combustible materials such as buffing lint, paper, wood, metal dusts, weld fume, or flammable coolants or solvents represent potential fire and/or explosion hazards. Use special care when selecting, installing, and operating all dust, fume, or mist collection equipment when such combustible materials may be present in order to protect workers and property from serious injury or damage due to a fire and/or explosion.

Consult and comply with all National and Local Codes related to fire and/or explosion properties of combustible materials when determining the location and operation of all dust, fume, or mist collection equipment.

When combustible materials are present you must consult with an expert in fire extinguishing and/or explosion protection systems, who is also familiar with the local codes, for support and guidance on the selection and installation of an appropriate fire and/or explosion protection system.

DO NOT allow sparks, cigarettes or other burning objects to enter the hood or duct of any dust, fume, or mist collection equipment as these may initiate a fire or explosion of any combustible materials accumulated in the collector.

Improper operation of a dust, fume, or mist control system may contribute to conditions in the work area or facility that could result in severe personal injury and product or property damage. Check that all dust, fume, or mist collection equipment is properly selected, installed, and operated for its intended use.

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

For optimum collector performance, use only Donaldson Torit replacement parts.

Contents

Safety Statements	2	Adapter Collar Installation	11
Data Sheet	3	Inlet Transition Assembly	11
Description	4	55-Gallon Drum Pack/Double Drum Pack..	12
Purpose and Intended Use	4	Electrical Installation	13
Rating and Specification Information	5	Optional Equipment	14
Operation	6	Filter Bag Installation.....	14
Inspection on Arrival.....	6	Surge Hopper Installation	16
Installation Codes and Procedures.....	6	Silencer Assembly	16
Installation.....	7	Attenuator Installation.....	17
Site Selection, Grade-Mounted Units	7	Explosion Vent	18
Unit Location.....	7	Preliminary Start-Up Check	18
Rigging Instructions.....	7	Service Information	19
Hoisting Information	7	Operational Checklist	19
Standard Equipment	8	Troubleshooting.....	20
Field Assembly.....	8	Service Notes	22
Base and Leg Assembly.....	8	Warranty	24
Cyclone Installation	9		
Power Pack Installation	9		



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.

Data Sheet

Model Number _____	Serial Number _____
Ship Date _____	Installation Date _____
Customer Name _____	
Address _____	

Filter Type _____	
Accessories _____	
Other _____	

Description

Cyclone dust collectors are mechanical separators that use the principles of centrifugal force to remove particulate from the airstream.

The Cyclone provides high-efficiency separation due to its high inlet velocities. Long tapered cones and an inner helix minimize inlet-zone turbulence common in some similarly designed equipment. For added efficiency, an optional filter bag assembly is available and installed in a plenum on the discharge side of the fan. Standard options include cabinets with pullout drawers, hoppers, or a 55-gallon drum dust containment system.

Purpose and Intended Use



Misuse or modification of this equipment may result in personal injury.

Do not misuse or modify.

Most commonly used in applications generating high dust loads, such as woodworking and machining, where coarse or large dust particles are produced. Product recovery of fine dust such as powdered paint is also a common application.

The Cyclone can be used alone or with filter bags, depending on whether the discharge air is exhausted to the atmosphere or returned to the plant. Used as a pre-cleaner, the Cyclone can reduce the load to the inlet of a cartridge or bag collector.



Combustible materials such as buffing lint, paper, wood, metal dusts, weld fume, or flammable coolants or solvents represent potential fire and/or explosion hazards. Use special care when selecting, installing, and operating all dust, fume, or mist collection equipment when such combustible materials may be present in order to protect workers and property from serious injury or damage due to a fire and/or explosion.

Consult and comply with all National and Local Codes related to fire and/or explosion properties of combustible materials when determining the location and operation of all dust, fume, or mist collection equipment.

Standard Donaldson Torit equipment is not equipped with fire extinguishing or explosion protection systems.

Rating and Specification Information

Seismic ratingZone 4

Wind load, mph100

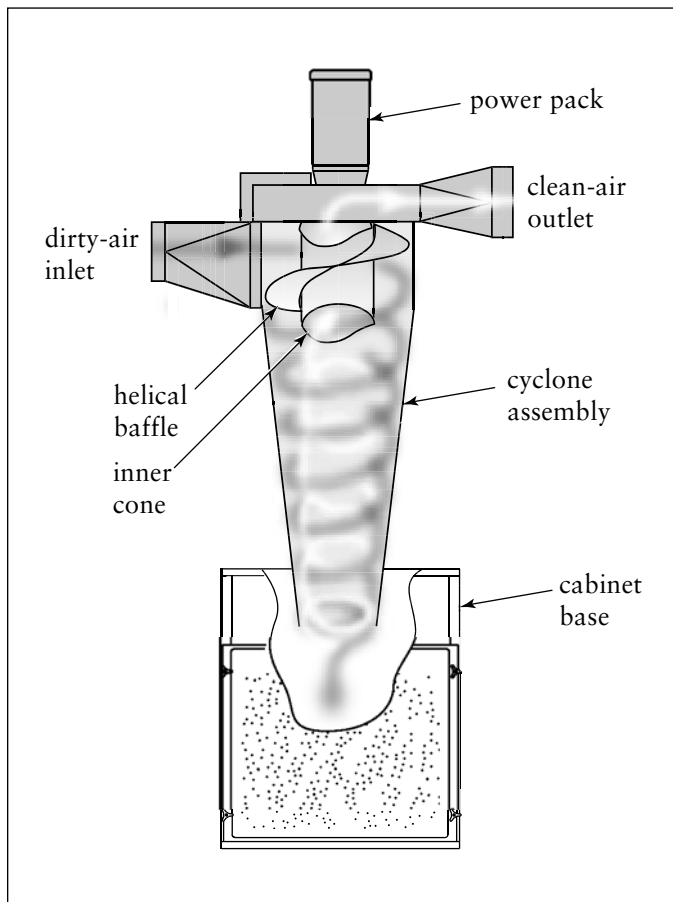
Specifications	Model						
	12	16	20	24	30	36*	44*
Supply Voltage	208/230/460-Volt, 60 Hz, 3 Phase						
Horsepower, blower motor	3/4	2	3 5	7 1/2	10 15	20 25 30	40 50
Dust Holding Capacity, cu ft							
Dust Drawer	4.8	4.8	8.5	8.5	16.5	--	--
Hopper	12.0	12.0	19.5**	37.5**	37.5**	54**	103
Air Inlet, inches diameter	4	6	8	10	12	14	18
Air Outlet, inches diameter	6	8	10	12	14	16	20
Optional Afterfilter							
No of Bags	1	1	4	4	8	12	24
Afterfilter area, cu ft	15	25	70	100	200	300	600
Shipping Weight, lbs							
Dust Drawer	265	340	635	750	1210	--	--
Hopper	350	410	740	850	1486	2165	3165

* Belt-driven blower motor

** Hopper capacity up to 103 cu ft available

Operation

Air is drawn into the unit through the dirty-air inlet and diverted by a helical baffle. This baffle causes the airstream to spin. Centrifugal forces move the heavy dust to the interior sidewalls and carries them to the base of the unit. Clean air is directed up through the inner cylinder and discharges through the clean-air outlet. The Cyclone design allows clockwise air movement only.



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.

Safe and efficient operation of the unit depends on proper installation.

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.

A qualified installation and service agent must complete installation and service of this equipment.

Inspect unit to ensure all hardware is properly installed and tight prior to operating collector.

All shipping materials, including shipping covers, must be removed from the unit prior to, or during unit installation.

NOTICE Failure to remove shipping materials from the unit will compromise unit performance.

Installation

Site Selection, Grade-Mounted Units



Wind, seismic zone, and other live-load conditions must be considered when selecting the location for rooftop-mounted units. Reference the Rating and Specification Information.

The unit can be located on a reinforced concrete foundation or rooftop.

Provide clearance from heat sources and interference with utilities when selecting the location. Reference the Rating and Specification Information.

Portable units require no special installation accommodations.

Unit Location



Donaldson equipment is not designed to support site-installed ducts, interconnecting piping, or electrical services. All ducts, piping, or electrical services supplied by others must be adequately supported to prevent severe personal injury and/or property damage.

When hazardous conditions or materials are present, consult with local authorities for the proper location of the collector.

Foundation or roof support must be capable of supporting the entire weight of the unit, plus the weight of the collected material, piping, and ductwork. Reference the Rating and Specification Information.

Prepare the foundation in the selected location. Install anchor bolts to extend a minimum of 1 3/4-inches above foundation.

Locate the collector to ensure the shortest and straightest inlet- and outlet-duct length, easy access to electrical connections, and routine maintenance.

Rigging Instructions



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.

Suggested Tools & Equipment

Clevis Pins and Clamps	Lifting Slings
Crane or Forklift	Pipe Sealant
Drift Pins	Drill and Drill Bits
Screwdrivers	Socket Wrenches
End Wrenches	Spreader Bars

Hoisting Information

Use all lifting points provided.

Use clevis connectors, not hooks, on lifting slings.

Use spreader bars to prevent damage to unit's casing.

Check the Specification Control drawing for weight and dimensions of the unit, subassemblies, and components to ensure adequate crane capacity.

Allow only qualified crane operators to lift the equipment.

Refer to applicable OSHA regulations and local codes when using cranes, forklifts, and other lifting equipment.

Lift unit and accessories separately, and assemble after unit is in place.

Use drift pins to align holes in section flanges during assembly.

Standard Equipment

Standard equipment for models 12, 16, 24, and 30 consists of a cone assembly, a 55-gallon drum base assembly, and an inlet pack. Model 36 includes the same components as models 12 through 30 plus a power pack. Model 44 contains the cone assembly, hopper base, and power pack.

Field Assembly

Models 12, 16, 20, 24, and 30 ship in three sections: motor, blower housing and cone, and a base section. Models 36 and 44 ship with the power package assembled to the upper cylinder assembly and the cone and base ship separate.

Base and Leg Assembly

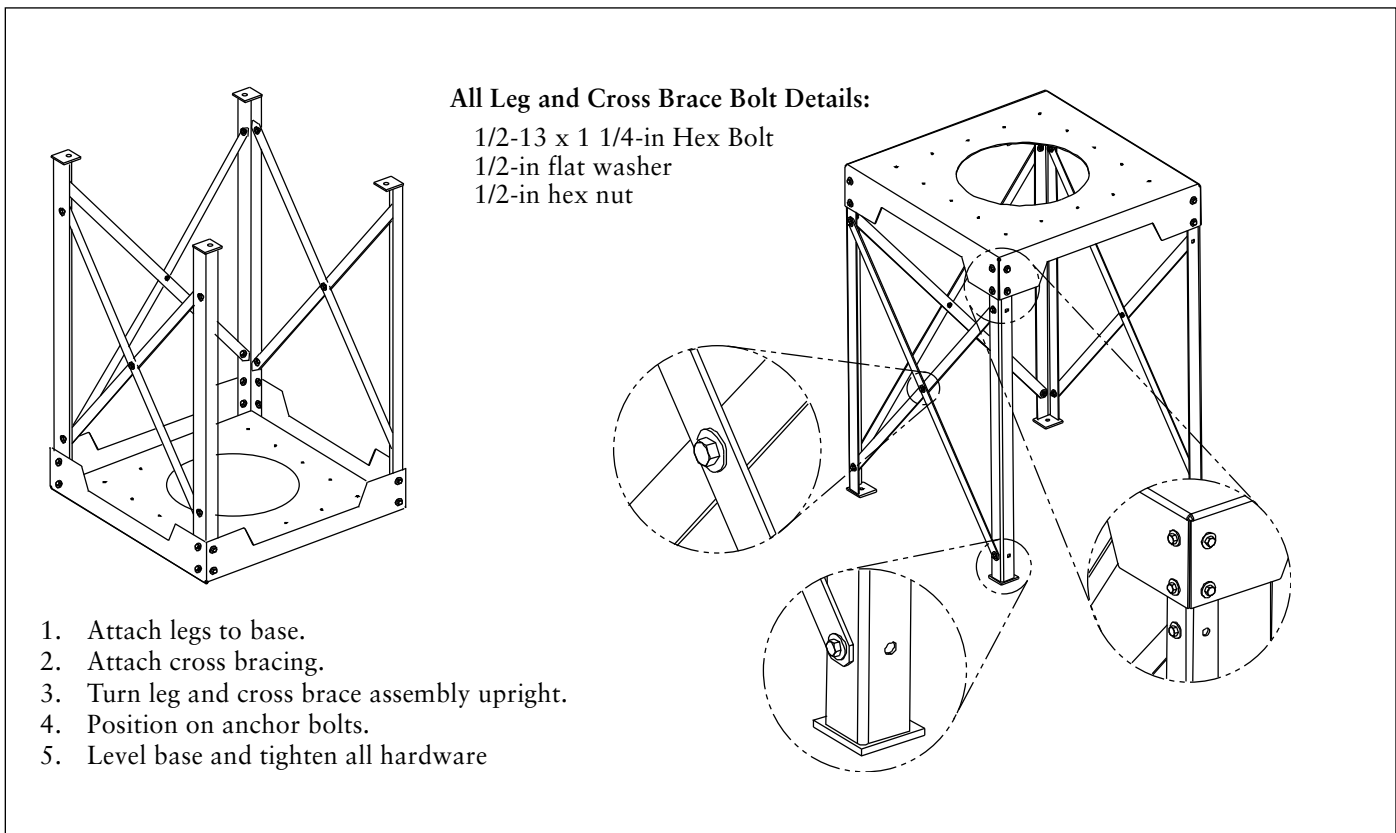
1. Position and assemble base, legs, and cross braces as shown below.
2. Use drift pins to align the holes in the base with the holes in the legs. Attach each leg with 1/2-13 x 1 1/4-in bolts. Do not tighten hardware.

3. Use drift pins to align the holes in the legs with the holes in the cross braces. Fasten using 1/2-13 x 1 1/4-in bolts. Do not tighten hardware.
4. Recheck the position of legs and cross bracing.
5. Using a crane, lift the assembled base and legs onto the anchor bolts. Fasten each leg pad to the anchor bolts using flat washers, lock washers, and hex nuts provided by others. Do not tighten hardware at this time.
6. Level base. Use steel shims under leg pads if necessary. Tighten all hardware on legs, cross braces, and foundation anchors.

NOTICE

Tighten all leg and cross brace hardware before removing

crane.



Base and Leg Assembly

Cyclone Installation

1. Wrap an adjustable strap tight around the cyclone's cone.
2. Use a crane to lift the cyclone from the pallet and lay it on the floor horizontally.
3. Attach chain shackles to the eyebolts on flanged units or to the lifting lugs on welded units.
4. Attach chains to the shackles and secure to the upper portion of the cone with adjustable straps.

NOTICE

To ensure vertical stability, secure chains to upper cone using adjustable straps.

5. Using a crane, lift the cyclone and position over base and lower slowly.
6. Use drift pins to align the holes in the cyclone's bottom plate and the base.
7. Fasten securely using 3/8-16 x 1 1/4-in bolts, washers, and hex nuts.

Models 36 and 44

1. Using a crane, lift the cyclone, position over base and lower slowly.
2. Use drift pins to align the holes in the cyclone's bottom plate and the base.
3. Fasten securely using 3/8-16 x 1 1/4-in bolts, washers, and hex nuts.
4. Lift the cylinder with power pack into position over the cyclone and lower slowly.
5. Use drift pins to align the holes in the mating flanges.
6. Fasten securely using 3/8-16 x 1-in bolts, washers, and hex nuts.

Power Pack Installation

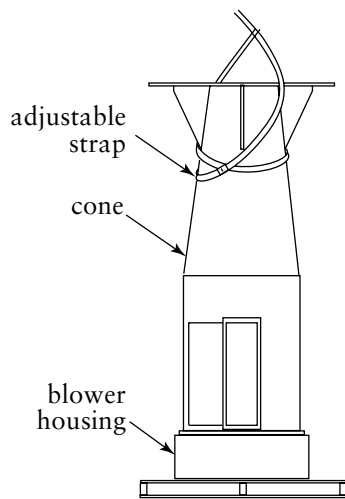
The power pack is designed to fit on the top of the blower housing on Models 12 through 30. The power packs for Models 36 and 44 are shipped assembled to the upper cylinder.

Check that the inlet and discharge are facing the desired directions. Both may be positioned in 45° increments. To rotate the blower housing, remove either the tread-cutting screws or the 1/4-20 x 3/4-in bolts, turn the housing to the desired position and re-secure. Drilling is required for increments other than 45°.

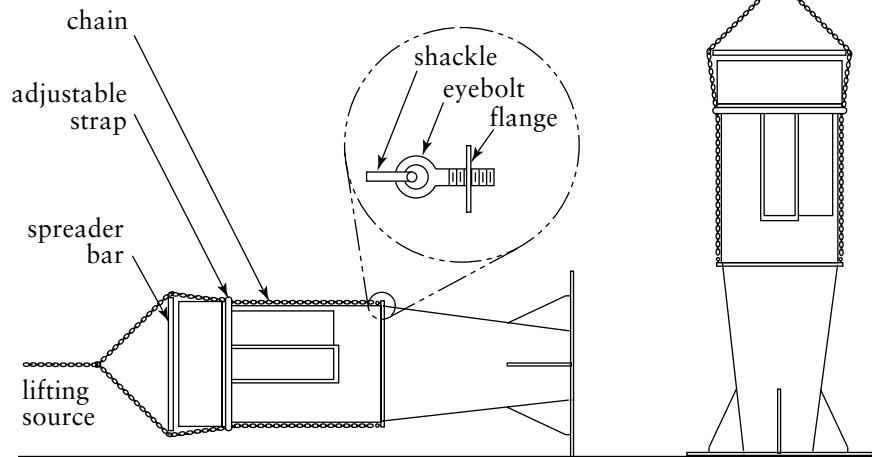
NOTICE

If the unit has a belt-driven blower, do not attempt to make pulley changes. Each pulley is sized for proper operation prior to shipment. No changes should be made unless specifically directed by Donaldson. Individual manuals are furnished with each belt-driven unit.

1. Apply sealant to the inside edge of the bolt pattern on the top of the blower housing.
2. Using a crane, lift the power pack into position over the blower housing and lower slowly.
3. Secure power pack to blower housing using the tread-cutting screws provided.
4. Manually rotate blower wheel to ensure adequate clearance between the blower wheel and housing.



1. Wrap an adjustable strap tight around the cyclone's cone.

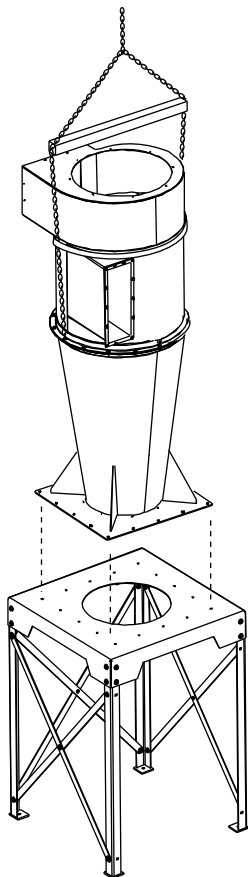


2. Use a crane to lift the cyclone from the pallet and lay it on the floor horizontally.
3. Attach chain shackles to the eyebolts on flanged units or to the lifting lugs on welded units.
4. Attach chains to the shackles and secure to the upper portion of the cone with adjustable straps.

NOTICE

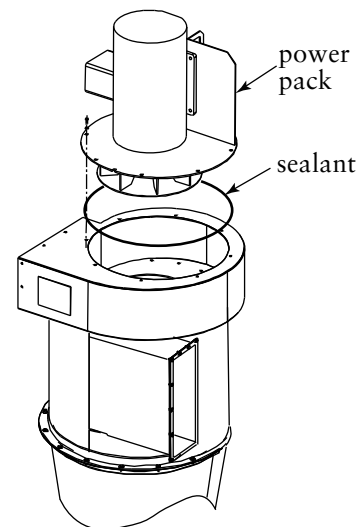
To ensure vertical stability, secure chains to upper cone using adjustable straps.

5. Using a crane, lift the cyclone and position over base and lower *slowly*.
6. Use drift pins to align the holes in the cyclone's bottom plate and the base.
7. Fasten securely using 3/8-16 x 1 1/4-in bolts, washers, and hex nuts.



Power Pack Installation

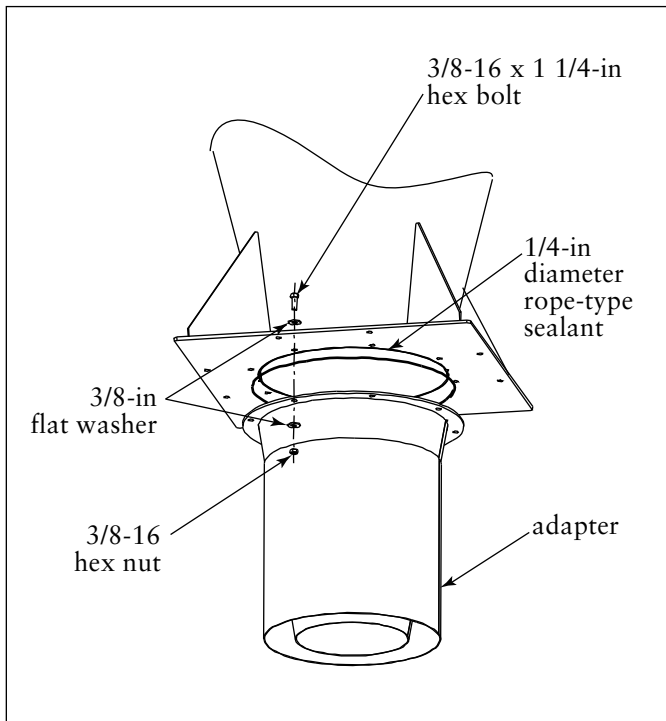
1. Apply sealant to the inside edge of the bolt pattern on the top of the blower housing.
2. Using a crane, lift the power pack into position over the blower housing and lower *slowly*.
3. Secure power pack to blower housing using the tread-cutting screws provided.
4. Manually rotate blower wheel to ensure adequate clearance between the blower wheel and housing.



Cyclone Installation

Adapter Collar Installation

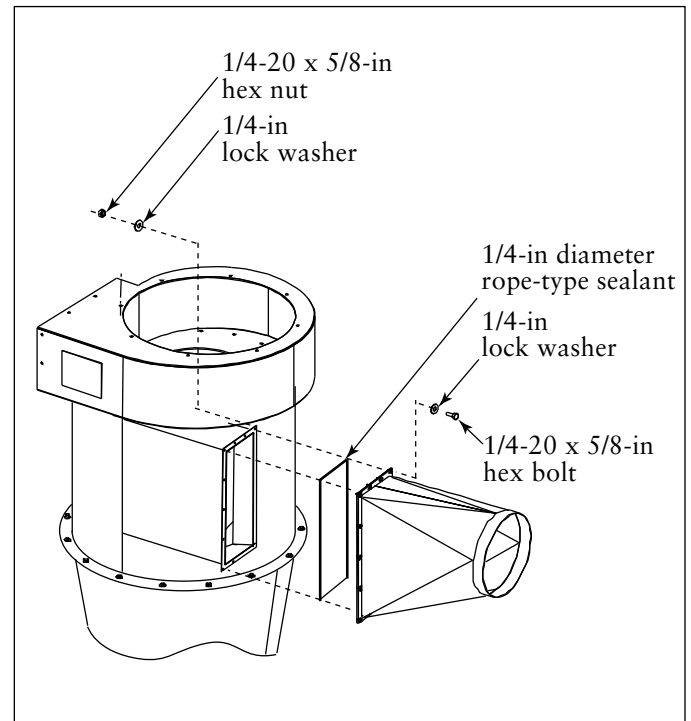
1. Apply 1/4-in diameter rope-type sealant toward the inside edge of the adapter's bolt pattern.
2. Fasten adapter to cone using 3/8-16 x 1 1/4-in bolts, washers, and hex nuts. Tighten all fasteners securely.



Adapter Collar Installation

Inlet Transition Assembly

1. Apply 1/4-in rope-type sealant to the Cyclone's inlet mounting collar.
2. Align holes in the inlet collar with holes in the transition collar and secure using 1/4-20 x 5/8-in bolts, lockwashers, and hex nuts.



Inlet Transition Assembly

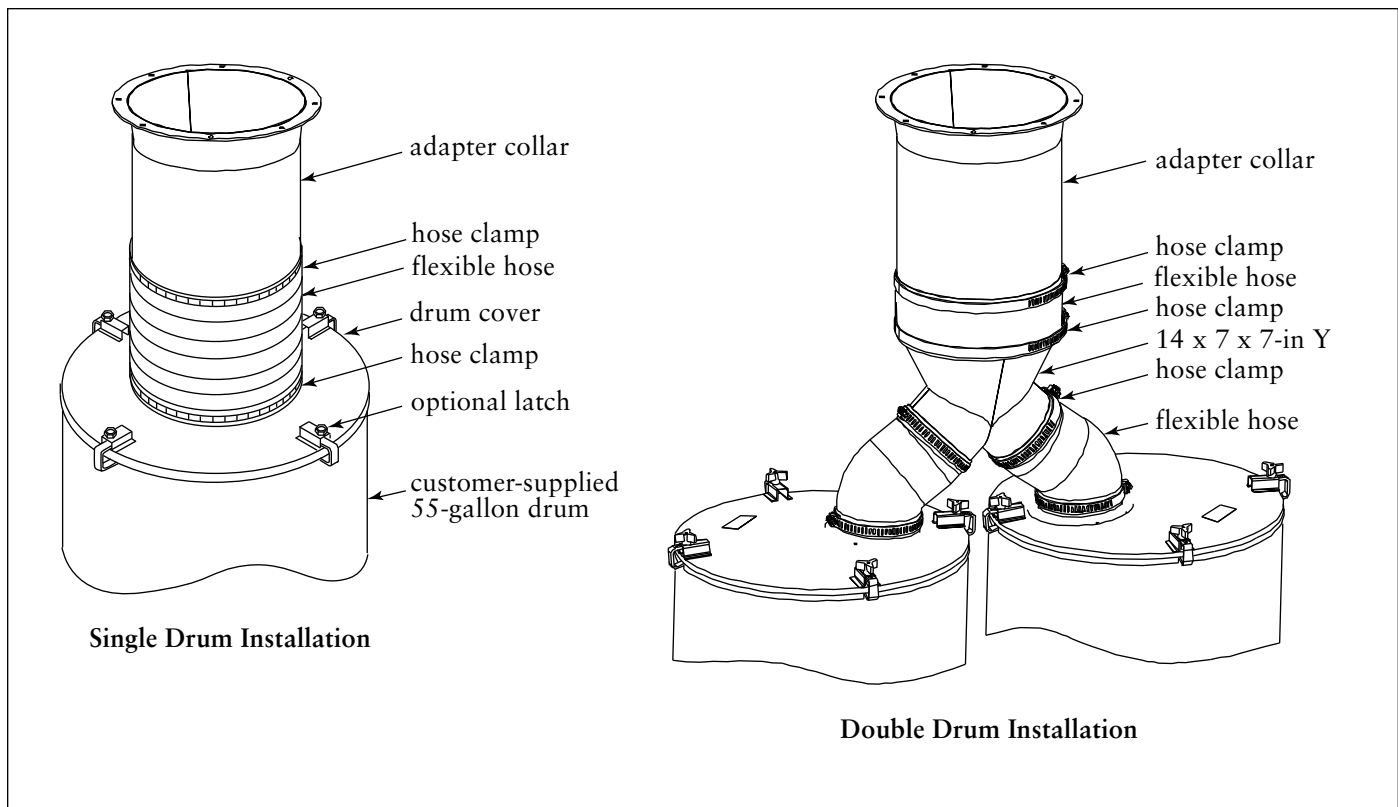
55-Gallon Drum Pack and Double Drum Pack Installation

The drum pack is designed to fit a customer-supplied, standard 55-gallon drum and provides easy access for dust removal and disposal. A flexible hose connects the drum cover and Cyclone adapter collar. Placing a pallet under the drum allows heavier materials to be moved quickly using a forklift or pallet jack. If a pallet is used, the length of flexible hose may need to be shortened.

1. Place drum cover on drum and secure with latches, if equipped.
2. Connect one end of the flexible hose to the adapter collar and the other end to the drum cover. Secure with hose clamps.

Double Drum Pack

1. Attach Y-branch to adapter collar and secure with hose clamp.
2. Connect one end of 7-in diameter flexible duct to one Y-branch outlet and the other end to the drum cover. Secure with hose clamps.
3. Repeat Step 2 for the second Y-branch outlet and drum.



55-Gallon Drum Pack

Electrical Installation



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.

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

Check local ordinances for additional requirements that apply.

The appropriate wiring schematic and electrical rating must be used. See unit's rating plate for required voltage.

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 J, Article 430 of the National Electrical Code, NFPA No. 70-latest edition. Check unit's rating plate for voltage and amperage ratings.

Refer to the wiring diagram for the number of wires required for main power wiring and remote wiring.

1. Wire the motor to the power supply following the instructions located on the motor.
2. Visually check the rotation of the blower wheel against the rotation arrow decal on the blower housing. The inspection cover is located near the discharge flange on the housing side. On belt-driven units, inspection covers are on top of the housing.

3. If the motor has been connected backwards, a much smaller than normal airflow will be generated into the ductwork and through the collector. *Visually check blower rotation.*

To reverse rotation, single-phase power supply:

Follow manufacturer's instructions on the motor's nameplate.

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.

Optional Equipment

Filter Bag Installation

⚠ WARNING Personal injury or property damage can result from possible combustion of dusts in the filter bag assembly or Cyclone collector. Application of a filter bag assembly and Cyclone collector must be reviewed for any risks associated with combustible dusts which may accumulate in the filter bag assembly. The risk of injury or damage can be minimized or avoided by locating the filter bag assembly and Cyclone collector outside buildings and away from normally occupied areas.

NOTICE The standard filter bag assembly is intended for indoor installations only. Locating the filter bag assembly outdoors may require special attention to protect the filter bag assembly from direct exposure to weather.

The filter bag assembly ships in several containers. Models 12FB and 16FB contain an elbow, flange assembly, and a bag. Larger model filter assemblies have a manifold assembly, transition, end-plate assembly, bags, and clamps.

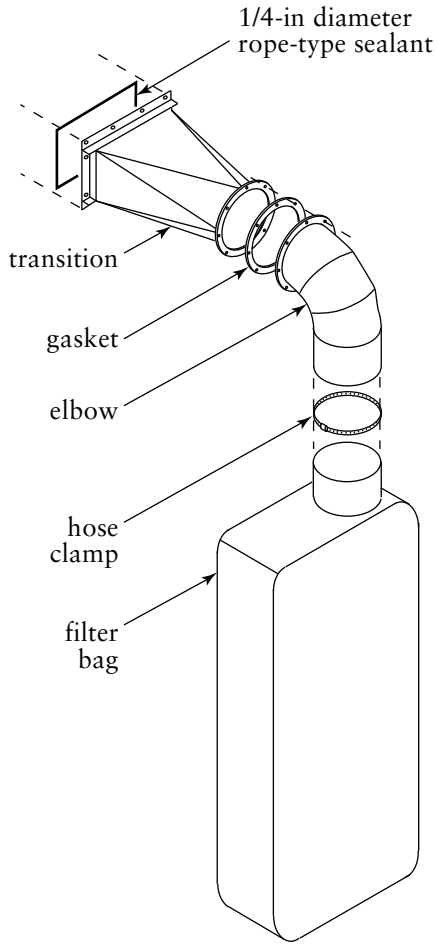
1. Apply 1/4-in diameter rope-type sealant between the housing discharge flange and the transition flange. Secure using 1/4-20 x 3/4-in bolts, washers, and nuts supplied.
2. Install ceiling supports to all top holes for the manifold section.
3. Position the filter bags on the collar with the clamps and bags past the bead on the collar.

NOTICE On units with filter bag enclosures, secure the bags at the top and bottom using the appropriate clamps, making sure the bags and clamps are past the bead on the collar.

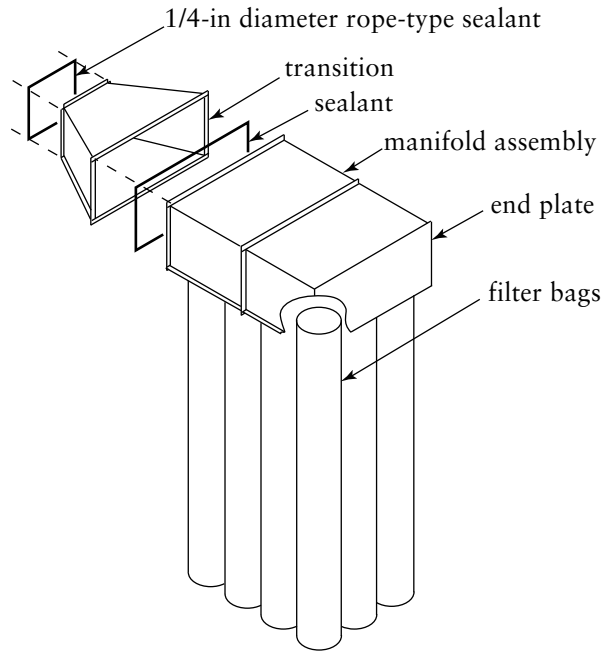
4. On units with filter enclosures, remove the side panels to install the filter bags.

5. On units without filter enclosures, connect ductwork from the collector's exhaust outlet through the roof or nearest exterior wall. Use sealant between the housing flange and the transition or collar flange furnished.

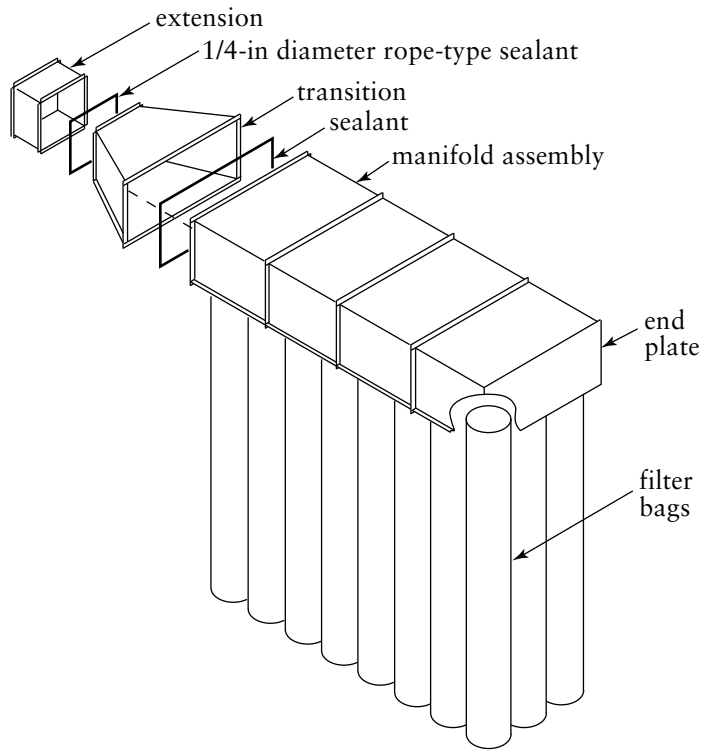
⚠ CAUTION The filter bag assembly must have adequate support. Failure to provide adequate support may result in personal injury or property damage. Contact Donaldson for assistance.



Models 12 and 16



Models 20, 24, and 30



Models 36 and 44

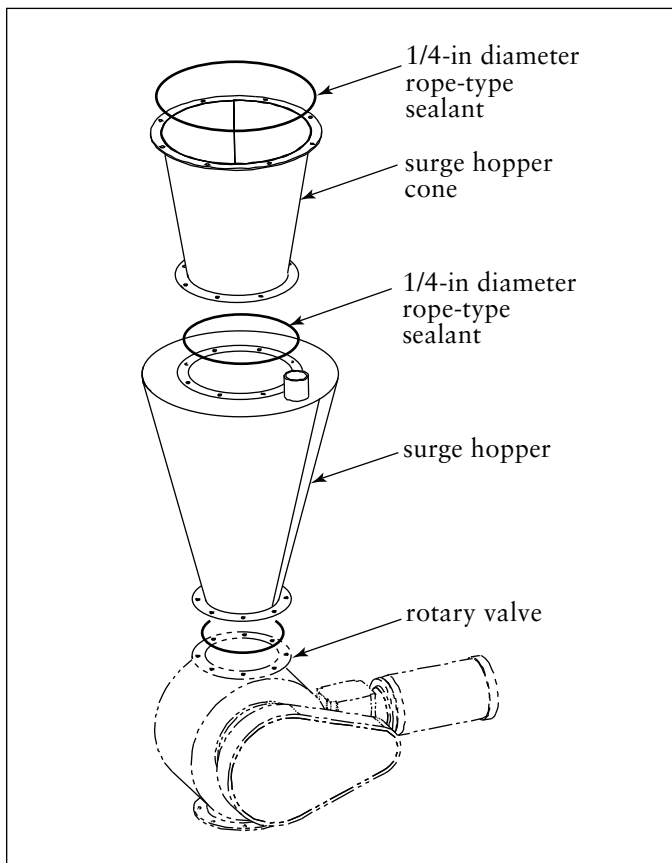
Filter Bag Installation

Surge Hopper Installation

1. Install cyclone assembly as described in Cyclone Installation on Page 10.
2. Apply 1/4-in diameter rope-type sealant toward the inside edge of the surge hopper cone's top flange.
3. Using 3/8-16 x 1 1/4-in bolts, washers, and hex nuts, secure the surge hopper cone to the cyclone assembly.
4. Apply 1/4-in diameter rope-type sealant toward the inside edge of the surge hopper's top flange.
5. Using 3/8-16 x 1-in bolts, washers, and hex nuts, secure the surge hopper to the surge hopper cone.

NOTICE

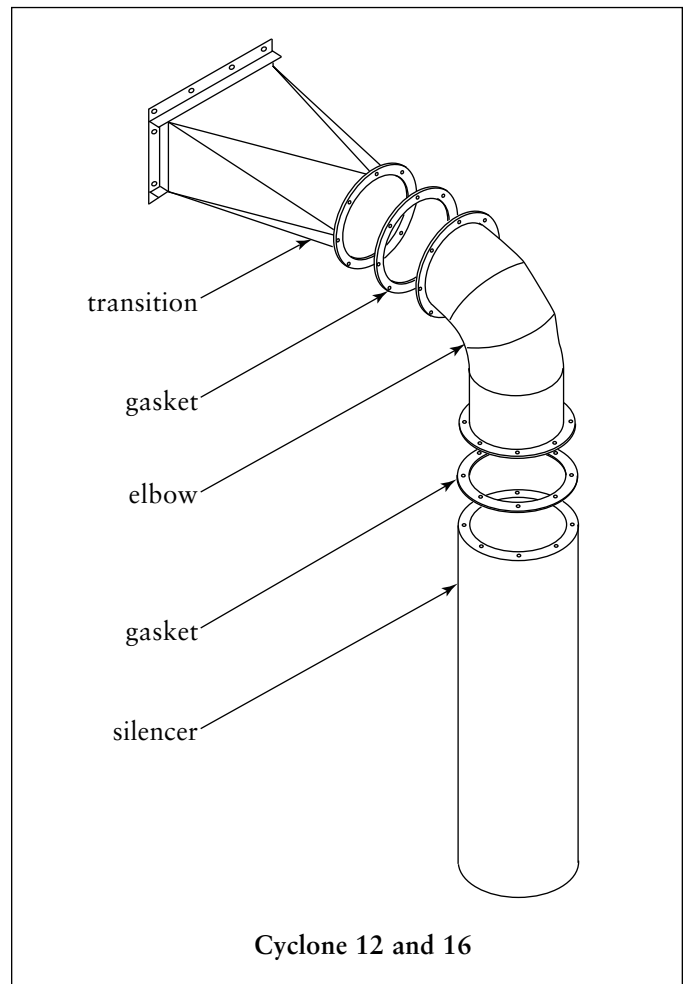
Contact Donaldson for assistance when installing a rotary valve.



Surge Hopper Installation

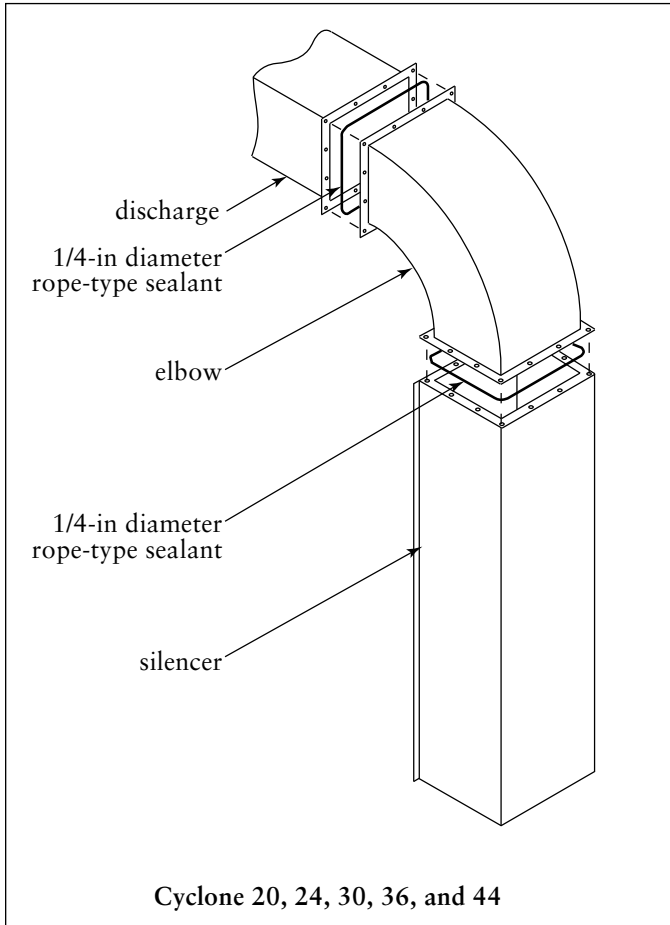
Silencer Assembly

1. For models 12 and 16, install the supplied gasket between the housing flange and the elbow's flange. On larger units, apply 1/4-in diameter rope-type sealant between the housing discharge flange the elbow's connecting flange.
2. Align bolt hole patterns and fasten elbow to housing using 1/4-20 x 3/4-in bolts, washers, and hex nuts supplied.
3. Repeat Steps 1 and 2 to attach silencer to elbow.
4. Tighten all fasteners securely.



Cyclone 12 and 16

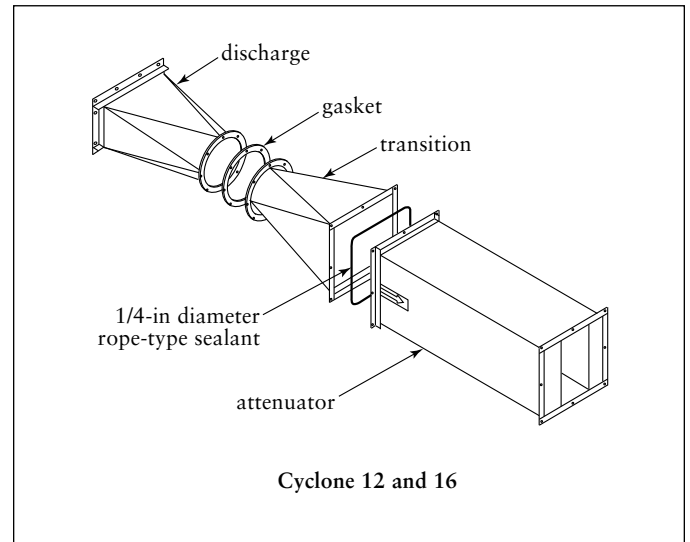
Silencer Assembly, Cyclone 12 and 16



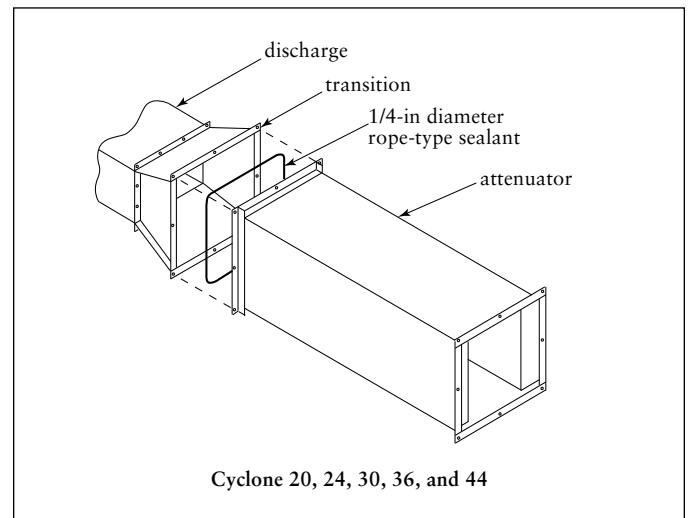
Silencer Assembly, Cyclone 20 through 44

Attenuator Installation

1. For models 12 and 16, install the supplied gasket between the transition and the attenuator flange. On larger units, apply 1/4-in diameter rope-type sealant between the housing discharge flange the elbow's connecting flange.
2. Align bolt hole patterns and fasten securely using 1/4-20 x 3/4-in bolts, washers, and hex nuts supplied.



Attenuator Installation, Cyclone 12 and 16



Attenuator Installation, Cyclone 20 through 44

Explosion Vents



WARNING

Personal injury or property damage can result from material discharge during venting.

The material discharged from an enclosure during the venting of an explosion should be directed safely to an outside location.

The risk of damage or injury can be minimized or avoided by locating vented equipment outside buildings and away from normally occupied areas.

NOTICE

Standard explosion vents are intended for outdoor installations only.

Remove all shipping materials, including covers, from the explosion relief vents prior to installation. Failure to remove shipping covers will seriously compromise explosion vent operation.

Explosion relief vents must be safely directed outdoors away from personnel, buildings, property, offices, walkways, and catwalks to reduce risk of damage to property and personal injury. Explosion venting calculations are based on formulas from NFPA-68, latest edition for outdoor applications only, with no duct or obstructions on the explosion vent panel.

Contact Donaldson for assistance in calculating safe and specific venting requirements for Torit equipment.

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 fan motor ON then OFF to check for proper rotation by referencing the rotation arrow located on the motor's mounting plate.

To reverse rotation, single-phase power supply:

Follow manufacturer's instructions on the motor's nameplate.

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.

Service Information

Operational Checklist

1. Check that the hopper discharge gates are open and that the doors, drum covers, and gaskets are firmly in place.
2. Monitor overall performance of the collector.
3. Monitor dust disposal. Empty dust drawers or drums when 2/3 full. Keep collected material a minimum of 10-inches from the end of the cone on hopper models. See Specification Control Drawing for specific model information.
4. Turn fan OFF and manually shake filter bags at the end of each shift. If adequate air volume cannot be restored by shaking, please contact your Donaldson Aftermarket Sales Representative to order replacement bags.
5. Under normal operating conditions, replace filter bags every two years. Include the unit's model and serial number when ordering replacement bags.
6. Follow the motor manufacturer's maintenance instructions. Contact the motor manufacturer for warranty and service information.

NOTICE

Do not run the motor for extended time periods unless all ductwork is in place.

Do not run the unit with the gates or dust container doors open, or with the 55-gallon drum covers off. Motor overload can occur.

Troubleshooting

Problem	Probable Cause	Remedy
Blower fan and motor do not start	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. A 10% differential is permissible.
	Input circuit down	Check power supply to motor circuit on all leads.
	Electrical supply circuit down	Check power supply circuit for proper voltage. Check for fuse or circuit breaker fault. Replace as necessary.
Motor runs hot, starter kicks out	Fan rotation backwards	Proper fan rotation is clockwise when looking down at the blower motor. See Preliminary Start-Up Check Section.
	Incorrect motor-starter installed	Check for proper motor starter and replace if necessary.
	Incorrect motor heater coil installed	Check and replace as necessary.
	Starter or supply voltage connections loose	Check all wiring connections for tightness. Loose connections can cause single phasing on three-phase circuits and heater coil damage. Motor hum or growling is an indication of this condition.
	Ducts open or major leakage in duct system	Check all ducts and confirm they are properly connected and sealed tight. Operating the collector with insufficient dust static load can overload the fan motor.
	Dust storage container leaking or 55-gallon drum cover is loose	Check for large leaks in the storage chamber. Check the 55-gallon drum cover gasket and that the drum cover is fastened securely.
	Electrical circuit overload	Check that the power supply circuit has sufficient power to run all equipment.

Problem	Probable Cause	Remedy
Insufficient airflow	Unit not wired for available voltage	Correct wiring for proper supply voltage. A 10% differential is permissible.
	Fan rotation backwards	Proper fan rotation is clockwise when looking down at the blower motor. See Preliminary Start-Up Check Section.
	Dust storage container leaking or 55-gallon drum cover is loose	Check for large leaks in the storage chamber. Check the 55-gallon drum cover gasket and that the drum cover is fastened securely.
	Large diameter branch in extended length duct system	Install a blast gate.
	Improper duct or hood size	Check and replace if necessary.
	Fan exhaust area restricted	Check fan exhaust area for obstructions. Remove material or debris. Adjust damper flow control.
	Obstruction in duct	Check and remove obstructions.
	Filterbags plugged	Check and clean or replace as necessary.
	Grinding or polishing equipment in use	Increase airflow to compensate for equipment that creates its own air circulation.

The Donaldson Torit 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, Donaldson built electrical control components 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

800-365-1331 USA

800-343-3639 within Mexico

www.donaldsonorit.com

For faster service, have unit's model and serial number,
part number, description, and quantity available.



Donaldson[®]
Filtration Solutions

Donaldson Company, Inc.
Industrial Air Filtration
P.O. Box 1299
Minneapolis, MN 55440-1299
donaldsonorit@donaldson.com

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.