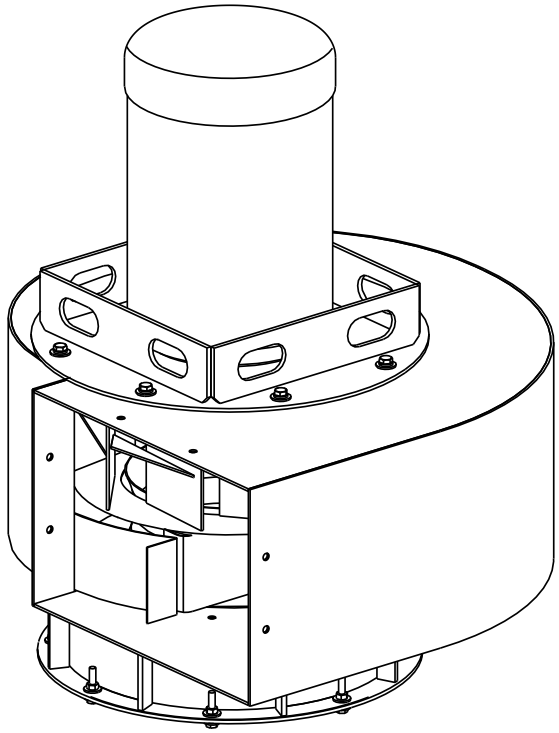
Donaldson
Torit®

Torit Backward Inclined Fan

TBI-3 to 30 (60 and 50 Cycle)

Installation and Operation Manual

Installation, Operation, and Service Information



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.

Illustrations are for reference only as actual product may vary.

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.

English
Master Language

IOM AD3934101 (ENG)
Revision 1

⚠ DANGER Rotating blades can cause serious injury.

Turn power off and lock out electrical source before performing service or maintenance work.

Keep hands, feet and loose clothing away from both inlet and outlet openings to avoid injury or damage when fan is operating.

Both the inlet and outlet of the fan should be attached to an enclosure or have a guard in place to prevent hands, feet, or loose clothing from entering the fan.

Operate fan only when all guards are correctly and securely in place.

It is not unusual for the fan to be operated from a remote location, so fans may start unexpectedly. Lock out power before servicing any fan(s).

This fan has moving parts that can cause serious bodily injury. Before operating or starting maintenance, read the installation and maintenance instructions provided with this manual and AMCA Publication 410 "Recommended Safety Practices for Air Moving Devices."

Keep body, hands and foreign objects away from the inlet, the outlet and the other moving parts of the fan such as shafts, belts and pulleys.

Do not operate at excessive speeds or temperatures.

⚠ WARNING Process owners/operators have important responsibilities relating to combustible hazards. Process owners/operators must determine whether their process creates combustible dust, fume, or mist. If combustible dust, fume, or mist is generated, process owners/operators should at a minimum:

- Comply with all applicable codes and standards. Among other considerations, current NFPA standards require owners/operators whose processes involve potentially combustible materials to have a current Hazard Analysis, which can serve as the foundation for their process hazard mitigation strategies.
- Prevent all ignition sources from entering any dust collection equipment.
- Design, select, and implement fire and explosion mitigation, suppression, and isolation strategies that are appropriate for the risks associated with their application.
- Develop and implement maintenance work practices to maintain a safe operating environment, ensuring that combustible dust, fume, or mist does not accumulate within the plant.

Donaldson recommends process owners/operators consult with experts to insure each of these responsibilities are met.

As a manufacturer and supplier of Industrial Filtration Products, Donaldson can assist process owners/operators in the selection of filtration technologies. However, process owners/operators retain all responsibility for the suitability of fire and explosion hazard mitigation, suppression, and isolation strategies. Donaldson assumes no responsibility or liability for the suitability of any fire and/or explosion mitigation strategy, or any items incorporated into a collector as part of an owner/operators hazard mitigation strategy.

Improper operation of a dust 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 collection equipment is properly selected and sized for the intended use.

DO NOT operate this equipment until you have read and understand the instruction warnings in the Installation and Operations Manual. For a replacement manual, contact Donaldson Torit.

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 Torit representative. Instruct all personnel on safe use and maintenance procedures.

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

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

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

NOTICE — **NOTICE is used to address practices not related to personal injury that may result in damage to equipment.**

Data Sheet

Model Number _____ Serial Number _____

Ship Date _____ Installation Date _____

Customer Name _____

Address _____

_____

Filter Type _____

Accessories _____

Other _____

Description

Torit Backward Inclined (TBI) Fans provide a convenient, cost-effective method of integrating a high efficiency fan with a Donaldson® Torit® dust collector. The TBI mounts directly to the clean-air outlet of the dust collector, eliminating costly transition ducts, and reducing the footprint of the system.

Operation

The TBI Fans feature a backward inclined fan wheel which provides high efficiency operation. It also has direct drive operation to eliminate maintenance of fan bearings and belts. TBI Fans have computer balanced fan and motor assemblies to ensure vibration-free operation. When mounted to a Donaldson Torit Dust collector, the fan is designed to pull dusty air through the collector to be filtered. Cleaned air then exits the collector via the outlet of the TBI Fan.

⚠ WARNING 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.

Inspection on Arrival

1. Inspect equipment and parts on delivery
2. Report any damage to the delivery carrier.
3. Request a written inspection report from the Claims Inspector to substantiate any damage claim.
4. File claims with the delivery carrier.
5. Compare equipment and parts received with description of product ordered.
6. Report incomplete shipments to the delivery carrier and your Donaldson Torit representative.
7. Remove crates and shipping straps. Remove loose components and accessory packages before lifting parts from truck.
8. Check for hardware that may have loosened during shipping.
9. Use caution removing temporary covers.
10. The fan and accessories should be inspected on receipt for any shipping damage. Turn the wheel by hand to see that it rotates freely and does not bind. If dampers are provided, check for free operation of all moving parts.

Installation Codes and Procedures

⚠CAUTION Codes may regulate recirculating filtered air in your facility. Consult with the appropriate authorities having jurisdiction to ensure compliance with all national and local codes regarding recirculating filtered air.

Safe and efficient operation of the equipment 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 collector according to the National Electric Code, NFPA No. 70-latest edition and NFPA 91 (NFPA 654 if combustible dust is present).

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

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

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

Inspect parts to ensure all hardware is properly installed and tight prior to operating equipment.

Rigging Instructions

Suggested Tools & Equipment

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

Torque Wrench (inch/lbs, 9/16-in Socket)

Hoisting Information

⚠WARNING Failure to lift the fan correctly can result in severe personal injury and/or property damage.

Use appropriate lifting equipment and adopt all safety precautions needed for moving and handling the fan.

A crane or forklift is recommended for unloading, assembly, and installation of the fan.

Location must be clear of all obstructions, such as utility lines or roof overhang.

Use all lifting points provided.

Fans should be lifted by the base, mounting supports, or lifting points only. Never lift a fan by the wheel, shaft, motor, motor bracket, housing inlet, outlet, or any fan part not designed for lifting.

Use clevis connectors, not hooks, on lifting slings.

Check the Specification Control drawing for weight and dimensions of the fan to ensure adequate crane capacity.

Allow only qualified crane or forklift operators to lift the fan.

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

Use drift pins to align holes in flanges during assembly.

Storage

Check dampers for free operation and lubricate moving parts prior to storage. Inspect the stored fan periodically. Rotate the wheel by hand every two weeks to redistribute grease on motor bearing parts.

Electrical Wiring

⚠ WARNING Electrical installation, service, or maintenance work must be performed by a qualified electrician and comply with all applicable national and local codes.

Turn power off and 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.

Do not look into fan outlet to determine rotation. Material may unexpectedly be discharged from the fan. View the fan rotation through the back of the motor.

To reverse rotation, three-phase power supply: switch any two leads on the output side of the motor starter.

⚠ WARNING Do not interchange a power lead with the ground wire. Severe personal injury and/or property damage may result.

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 collector's rating plate for required voltage.

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

Fan Installation

TBI fan wheels are dynamically balanced and assembled fans are tested at operating speeds to check the entire assembly for conformance to vibration limits. All units must be adequately supported for smooth operation.

⚠ CAUTION Do not allow the fan wheel to come loose from the motor as it may cause severe injury or property damage. To ensure proper attachment of the fan wheel:

Tighten all setscrews in fan wheel.

Repeat after 8 hours of operation.

Repeat again after two weeks of operation.

Reference Torque Value Table.

For additional information, contact the motor manufacturer.

Set screws should never be used more than once. If the set screws are loose, they must be replaced. Use only knurled, cup-point screws with a nylon locking patch.

Torque Values for TBI		
Setscrew Size Diameter	Carbon Steel Setscrew Torque*	
In.	TBI 3-10 Lb. - Ft.	TBI 15-30 Lb. - Ft.
1/4	6.2	6.2
5/16	12	12
3/8	21	22
7/16	33	30
1/2	50	55
5/8	97	100
3/4	168	150
7/8	267	165
1	400	250

*Stainless steel setscrews are not hardened and should not be tightened to more than half of the values shown.

Duct Connections and Support

Any duct or attenuator/silencer should have independent support. Do not use the fan to support duct or attenuator/silencer. Isolating the fan from duct with flex connections eliminates transmission of vibration. Fans handling hot gases require expansion joints at both the inlet and discharge to prevent excessive loads caused by thermal growth.

Side Mount Fan Blower Installation Instructions (Fan Without Inlet Spool Piece)

⚠ WARNING Electrical installation, service, or maintenance work must be performed by a qualified electrician and comply with all applicable national and local codes.

Turn power off and 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.

⚠ CAUTION Mounting a fan blower on the side of a collector requires a side power adapter to support the weight of the fan blower.

Poorly installed fan blowers may separate from the collector resulting in personal injury and/or property damage.

NOTICE When mounting fan in an outdoor or high humidity environment, mount the motor with drain holds facing down to extend motor life.

1. Disconnect power supply.
2. Apply 1/4-in diameter rope-type sealant to the outside surface of the power adapter just outside the edge of the hole pattern.
3. Install the fan housing to the power adapter using the hardware supplied.
4. Install the motor and blower assembly to the fan housing using the original fan hardware and new sealant.
5. Connect power supply to the motor. Turn the fan motor ON then OFF to check motor rotation by referencing the rotation arrow on the blower.

   To change rotation on three phase collectors, turn power supply OFF and switch any two leads on the output side of the fan motor starter.

⚠ WARNING Do not interchange a power lead with the ground wire. Severe personal injury and/or equipment damage may result.

Fan With Inlet Spool Piece Mounted to Clean Air Outlet With Weld Nuts

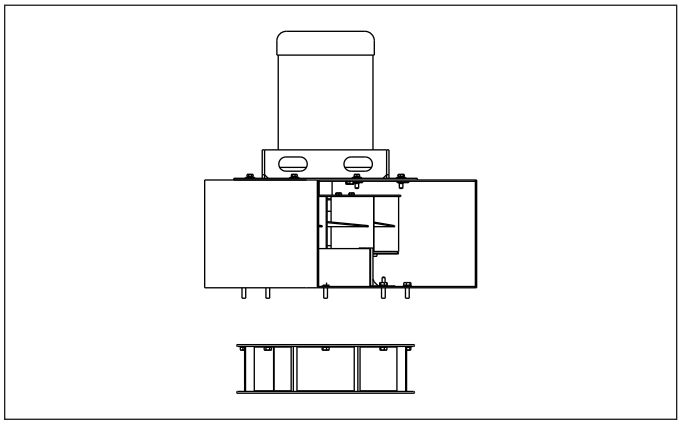
The following instructions are for a fan with an integrated inlet spool piece being mounted on collectors that have weld-nuts on the clean air outlet.

1. Apply the sealer, furnished in the installation hardware kit, to the dust collector around clean air outlet of the collector. Sealer should be applied just outside the edge of the hole pattern.
2. Position TBI fan onto the collector surface. Align mounting holes.
3. Bolt the TBI fan to the collector clean air outlet by inserting hardware supplied through the inlet spool piece and into the weld nut in the clean air plenum. Be sure to position the discharge to be free of obstructions and locate so that the motor's electrical box will be positioned for wiring convenience.
4. Inspect the installation prior to starting the fan. Check for any loose items or debris that could be drawn into the fan or dislodged by the air discharged from the fan outlet. Check the interior of the fan as well. Turn the wheel by hand to check for binding.
5. Complete the electrical connections in accordance with NEC code and state and local codes. "Bump" the starter to make sure the motor is rotating in the proper direction. (Standard TBIs are clockwise rotation as viewed from the motor endbell.)

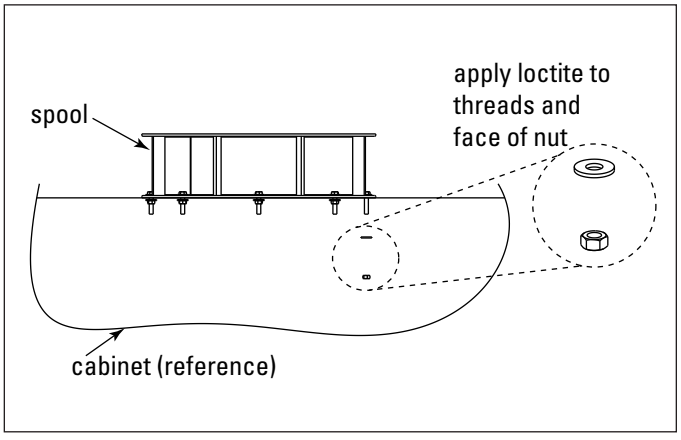
Fan With Inlet Spool Piece Mounted to Clean Air Outlet Without Weld Nuts

The following instructions are for a fan with an integrated inlet spool piece being mounted on collectors that do NOT have weld-nuts on the clean air outlet.

1. Apply the sealer, furnished in the installation hardware kit, to the dust collector around clean air outlet of the collector. Sealer should be applied just outside the edge of the hole pattern. See step 5 for installation of remaining sealer.
2. Remove the inlet spool from fan.



3. Position the inlet spool piece onto the collector surface. Align mounting holes.
4. Bolt the inlet spool piece to the collector clean air outlet by inserting the hardware supplied through the inlet spool piece and holes in clean air plenum and reaching through to secure the nuts on the inside of the clean air plenum. Be sure to put Loctite (supplied) on nut surface that will come in contact with the inside of the clean air plenum.



5. Apply the remaining sealer on the inlet spool piece and re-attach the TBI fan to the inlet spool piece. Be sure to position the discharge to be free of obstructions and locate so that the motor's electrical box will be positioned for wiring convenience.
6. Inspect the installation prior to starting the fan. Check for any loose items or debris that could be drawn into the fan or dislodged by the air discharged from the fan outlet. Check the interior of the fan as well. Turn the wheel by hand to check for binding.
7. Complete the electrical connections in accordance with NEC code and state and local codes. "Bump" the starter to make sure the motor is rotating in the proper direction. (Standard TBIs are clockwise rotation as viewed from the motor endbell.)

Fan with Inlet Spool Piece Mounted to Clean Air Outlet with Power Pack Adapter

The following instructions are for a TBI fan being mounted to a Donaldson Torit dust collector that has a side mount Power Pack Adapter.

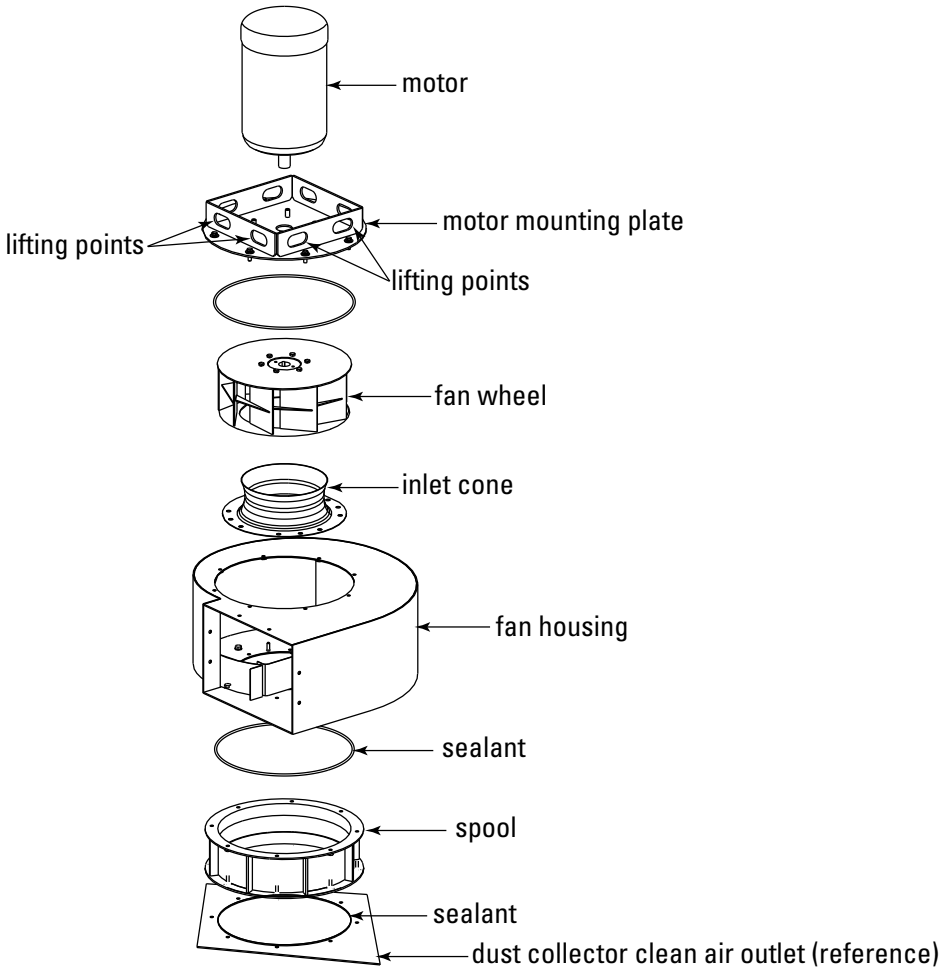
1. Apply sealer, furnished in the installation hardware kit, to the dust collector around the clean air outlet of the collector. Sealer should be applied just outside the edge of the hole pattern.
2. Bolt the TBI fan to the Power Pack Adapter by inserting the bolts on the TBI inlet into the appropriate holes of the Power Pack Adapter. Install the nuts that came with the fan. Be sure to position the discharge to be free of obstructions and locate so that the motor's electrical box will be positioned for wiring convenience.
3. Inspect the installation prior to starting the fan. Check for any loose items or debris that could be drawn into the fan or dislodged by the air discharged from the fan outlet. Check the interior of the fan as well. Turn the wheel by hand to check for binding.
4. Complete the electrical connections in accordance with NEC code and state and local codes. "Bump" the starter to make sure the motor is rotating in the proper direction. (Standard TBIs are clockwise rotation as viewed from the motor endbell.)

Fan Without Spool Piece Directly Mounted to Collector

The following instructions are for a TBI fan without a spool piece being mounted to a Donaldson Torit dust collector.

1. Apply the sealer, furnished in the installation hardware kit, to the dust collector clean air outlet around the hole for the fan's inlet. Sealer should be applied just outside the edge of the hole pattern. See step 6 for installation of remaining sealer.
2. If the fan does not already have match marking arrows, match-mark the motor mounting plate with the fan housing so they can be reassembled in the original position later in Step 6.
3. Remove the motor/wheel assembly from the fan housing. Do not remove the wheel from the motor shaft.
4. Position the fan housing onto the collector surface with the fan inlet against the collector. Align the mounting holes. Position the discharge to be free of obstructions and locate so that the motor's electrical box will be positioned for wiring convenience.
5. Bolt the fan housing to the collector surface using the hardware supplied. Put Loctite on the nut surface that will come in contact with the inside surface of the clean air plenum.
6. Apply remaining sealer on the housing. Reinstall the motor/wheel assembly onto the housing in the original position as indicated in Step 2.
7. Inspect the installation prior to starting the fan. Check for any loose items or debris that could be drawn into the fan or dislodged by the air discharged from the fan outlet. Check the interior of the fan as well. Turn the wheel by hand to check for binding
8. Complete the electrical connections in accordance with NEC code and state and local requirements. "Bump" the starter to make sure motor is rotating in the proper direction. (Standard TBIs are clockwise rotation as viewed from the motor endbell.)

Safe operating speed is a function of system temperature and wheel design. TBI fans should not be operated above 3,600 RPM.



Fan Installation

Damper and Silencer Support Bracket

Side and Top Mount

1. Install the fan blower following instructions in this manual.
2. Attach the damper to the fan exhaust outlet using the supplied hardware.
3. Attach the flange to the damper using the bolts, washers and hex nuts supplied.
4. Apply sealant to the flange and attach silencer to flange. Tighten all hardware.
5. Loosely assemble the silencer support brackets.

Top Mount Support Brackets

a. Align the pivoting support brackets to extend a minumum of 30-inches from the collector and mark the drill locations.

b. Drill pilot holes with a 0.339-in bit.

c. Screw brackets using 3/8-in thread-forming bolts.

Side Mount Support Brackets

Note: Side mount silencer support brackets require modification in the field.

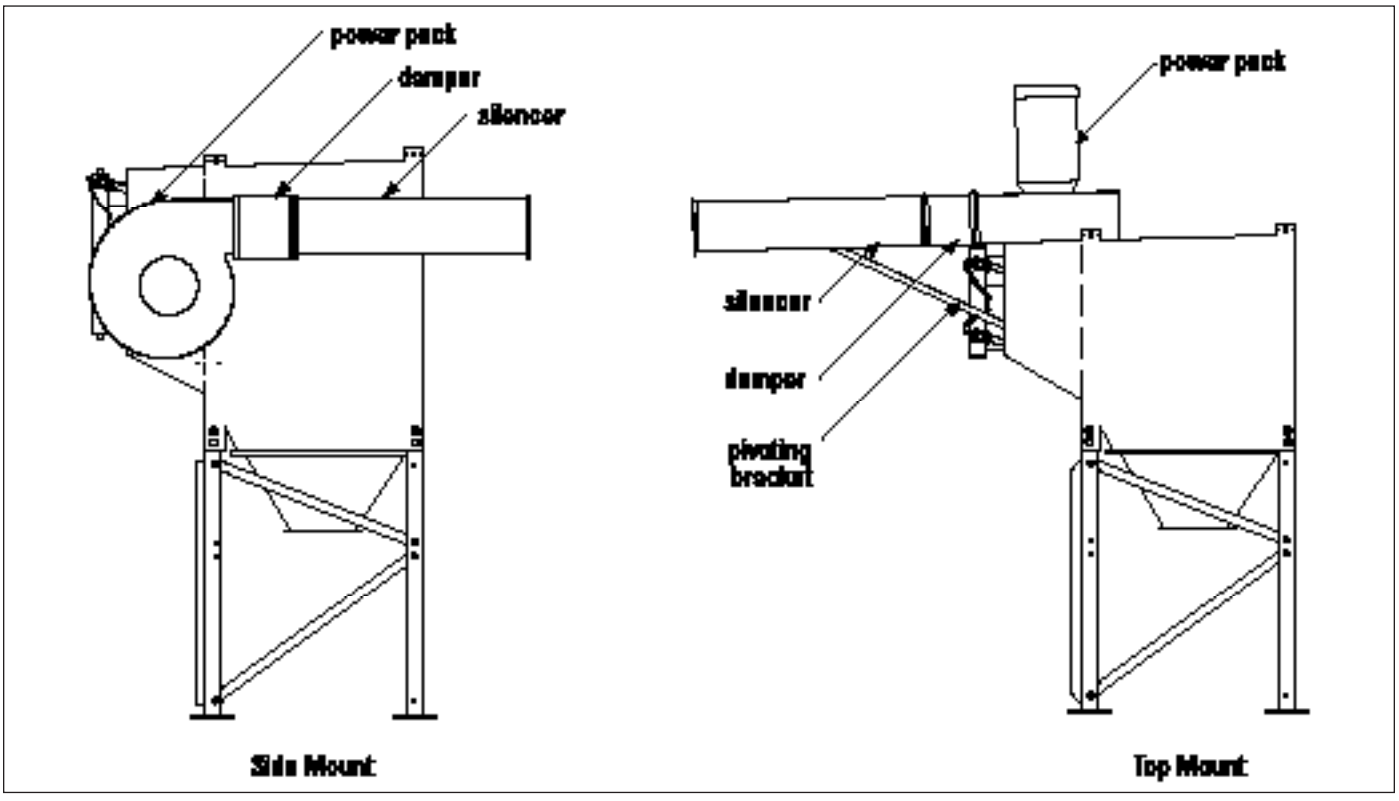
1. Loosely assemble the silencer's support brackets from silencer pack following procedure on the silencer pack drawings.

   a. Align the support bracket to the underside of the silencer, flush with the cabinet wall and mark the drill locations.

   b. Drill pilot holes with a 0.339-in bit.

   c. Secure brackets using 3/8-in thread forming bolts.

2. Loosen the wing nut on the damper and adjust from 30 to 50% closed.



Typical Side and Top-Mount Silencer and Damper Installation

Maintenance Information

Instruct all personnel on safe use and maintenance procedures.

⚠ WARNING Use proper equipment and adopt all safety precautions needed for servicing equipment.

Electrical service or maintenance work must be performed by a qualified electrician and comply with all applicable national and local codes.

Turn power off and 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.

NOTICE When mounting fan in an outdoor or high humidity environment, mount the motor with drain holes facing down to extend motor life.

For additional information, contact the motor manufacturer.

Donaldson Torit TBI fans are manufactured to high standards with quality materials and components. Proper maintenance will ensure a long and trouble-free service life.

The key to good fan maintenance is regular and systematic inspection of all fan parts. Inspection frequency is determined by the severity of the application and local conditions. Strict adherence to an inspection schedule is essential.

NOTICE Regular fan maintenance should include the following:

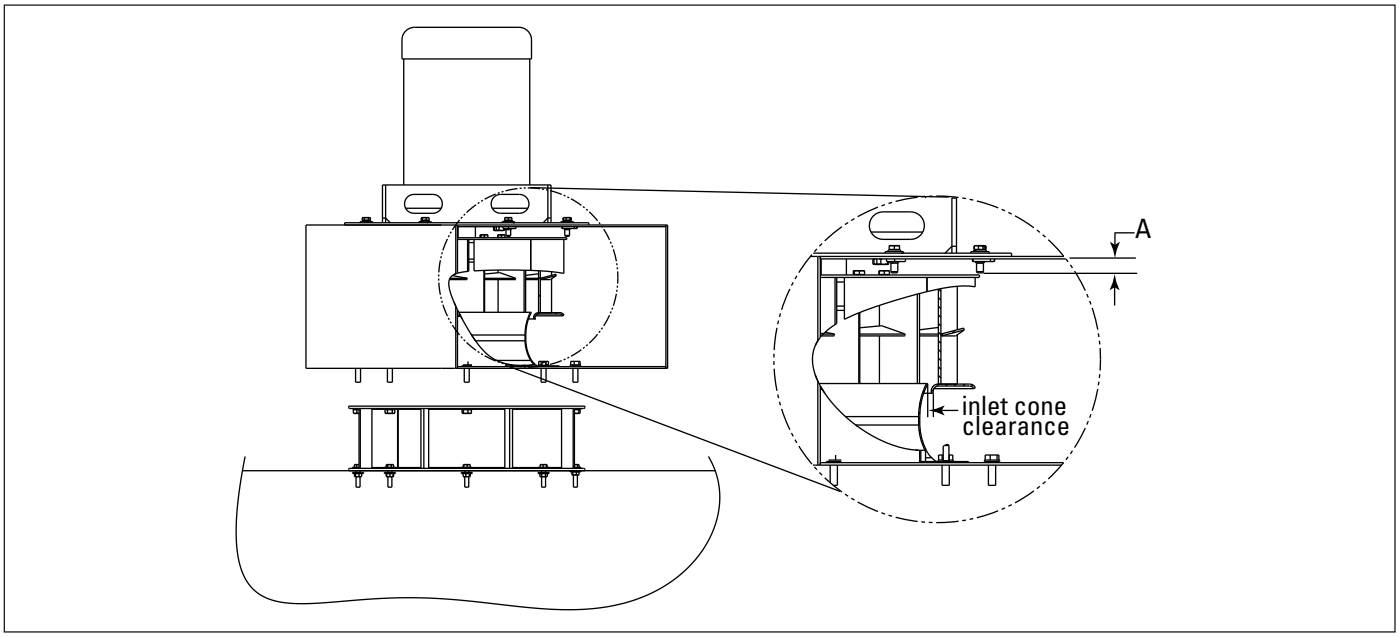
Check the fan wheel for any wear or corrosion, as either can cause catastrophic failures. Check also for the build-up of material which could cause unbalance resulting in vibration, bearing wear and serious safety hazards. Clean or replace the wheel as required.

Lubricate the bearings, but do not over lubricate.

Periodically inspect the shaft for dirt buildup, corrosion and signs of excess stress or fatigue.

During any routine maintenance, all setscrews and bolts should be checked for tightness. See Torque Value Table.

When installing a new wheel or cone, the proper wheel-to-drive side plate must be maintained as shown in Side Plate Clearance Table. Inlet cone clearance should be uniform around the circumference.



Wheel to Drive Side Plate Clearances

Side Plate Clearance		
TBI	"A" Dimension (inches)	
Size	60 hz	50 Hz
3	1-1/4	1-1/4
5	7/8	2-1/4
7.5	7/8	2-3/4
10	1/2	3-1/4
15	1-1/8	3/4
20	1-5/16	2-3/16
25	2-7/16	2-7/16
30	2-11/32	1-5/16

Tolerance ± 1/8"

Motor Maintenance

TBI Fans typically use motors with regreasable bearings, but other types of motors may have been selected for your fan.

Grease Motors

Use the following steps for regreasable motors only:

1. Inspect the motor at approximately every 500 hours of operation or every 3 months, whichever occurs first.
2. Keep the motor clean and the ventilation openings clear. If the motor is not properly ventilated overheating can occur.
3. Use an electrical insulation tester to periodically ensure that the integrity of the winding insulation has been maintained. Investigate any significant drop in resistance.
4. Grease the motor bearings using a high grade bearing grease. For standard service conditions Polyrex EM (Exxon Mobil) grease is recommended. Equivalent/compatible greases include: Texaco Polystar, Rykon Premium #2, Pennzoil Pen 2 Lube, and Chevron SRI.

   Under standard conditions, regrease every 5,500 hours. In severe dirt and abrasive dust conditions, regrease every 2750 hours. Under extreme conditions, such as an environment with iron dust, regrease every 550 hours.

Wheel Balance

Airstreams containing particulate or chemicals can cause abrasion or corrosion of the fan parts. This is often uneven and can lead to wheel imbalance over time. When such wear is discovered, a decision must be made to rebalance or replace the wheel.

The soundness of all parts should be determined making sure there is no hidden structural damage. The airstream components should also be cleaned to remove any build-up of foreign material. Specialized equipment can be used to rebalance a cleaned wheel that is considered structurally sound.

Balance weights should be rigidly attached at a point that will not interfere with the housing nor disrupt airflow.

Troubleshooting Guidelines

Use current safety practices when investigating fan or system performance problems. General safe practices and performance troubleshooting guidelines can be found in AMCA Publications 410 and 202, respectively. Fan application and field measurement procedures can be found in AMCA Publications 201 and 203.

Troubleshooting

Problem	Probable Cause	Remedy
Fan blower/fan 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.
	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.
	Damaged motor	Replace damaged motor.
Fan blower/fan motor start, but do not stay running	Incorrect motor starter installed	Check for proper motor starter and replace if necessary.
	Access doors are open or not closed tight	Close and tighten access doors. See Filter Installation.
	Hopper discharge open	Check that dust container is installed and properly sealed.
	Damper control not adjusted properly	Check airflow in duct. Adjust damper control until proper airflow is achieved and the blower motor's amp draw is within the manufacturer's rated amps.
	Electrical circuit overload	Check that the power supply circuit has sufficient power to run all equipment.
Insufficient airflow	Fan rotation backwards	Proper fan rotation is clockwise from the top of the unit. The fan can be viewed through the back of the motor. See Preliminary Start-Up Check.
	Access doors open or not closed tight	Check that all access doors are in place and secured. Check that the hopper discharge opening is sealed and that dust container is installed correctly.
	Fan exhaust area restricted	Check fan exhaust area for obstructions. Remove material or debris. Adjust damper flow control.
	Filters need replacement	Remove and replace using genuine Donaldson replacement filters. See Filter Removal and Installation.
Excessive vibration	Loose mounting bolts or set screws	Tighten loose bolts or set screws.
	Misalignment or excessive wear of wheel	Align wheel and balance fan.
	Misaligned or unbalanced motor	Balance fan.
	Bent shaft due to mishandling or material impact	Replace motor with bent shaft and rebalance fan.

Problem	Probable Cause	Remedy
Excessive vibration	Externally transmitted vibration	Isolate collector from external vibration.
	Accumulation of foreign material on the wheel	Clean the wheel.
	Excessive system pressure or restriction of airflow due to closed dampers	Open dampers far enough for fan to operate in stable flow regime.
Inadequate performance	Fan running too slowly	Check power frequency against fan motor design frequency.
	Fan wheel rotating in wrong direction or installed backwards on shaft	Proper fan rotation is clockwise from the top of the unit. The fan can be viewed through the back of the motor.
	Poor system design, closed dampers, air leaks or clogged filters	Check system for damper positions leak points. Check filter Delta P.
	Sharp deflection of airstream at fan outlet	Do not place fan discharge next to a wall.
	Missing discharge fittings	Install discharge fittings.
Excessive noise	Fan operating near “stall” due to incorrect system design or installation	Correct system or replace with correctly sized fan.
	Vibration originating elsewhere in the system	Vibration isolate collector from the system.
	Loose accessories or components	Tighten accessories or components.

Service Notes

Date	Service Performed	Notes

Service Notes

Date	Service Performed	Notes

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 and Donaldson built Afterfilters 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. To ensure proper operational performance of the equipment, use only genuine Donaldson replacement parts. 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.

Donaldson
FILTRATION SOLUTIONS

Parts and Service

For genuine Donaldson replacement filters and parts, call the Parts Express Line. For faster service, have unit's model and serial number, quantity, part number, and description available.

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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.

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