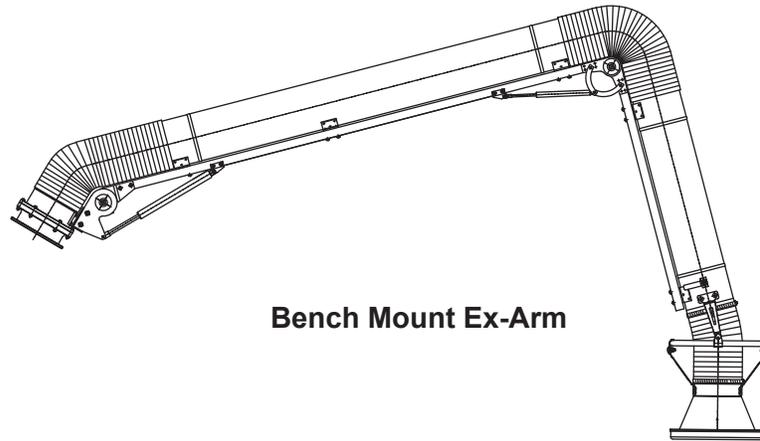


## Extraction Arm

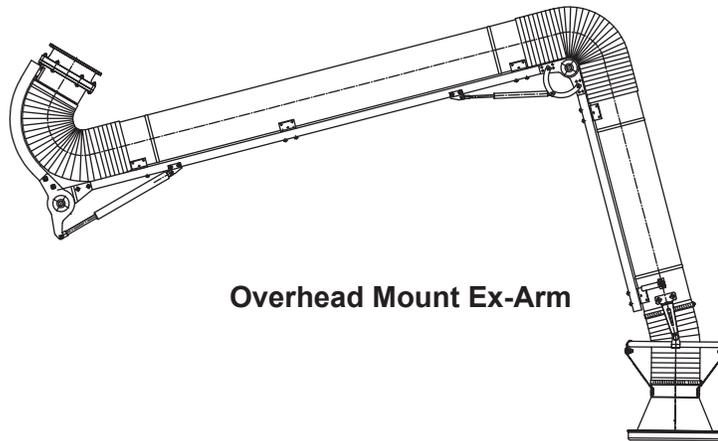
Ex-Arm 6 and 8-inch Bench and Overhead Mount  
Built After September 2019

## Installation and Operation Manual

Installation, Operation, and Service Information



Bench Mount Ex-Arm



Overhead Mount Ex-Arm



This manual contains specific precautions related to worker safety. The hazard alert image denotes safety related instructions and warnings in this manual. **DO NOT** operate or perform maintenance on this collector until you have read and understood the instruction and warnings contained within this manual.

## IMPORTANT NOTES

This manual has been supplied to assist with the installation, operation and maintenance for the collector purchased. Please read the manual before installing, operating, or performing maintenance on the collector as it contains specific precautions for worker safety. It is the owner's responsibility to ensure that this manual is available for use by installers, operators and maintenance personnel that will be working with this collector. This manual is the property of the owner and should be left with the collector when installation has been completed. **DO NOT** operate this collector until you have read and understood the instructions and warnings located in this manual.

For additional copies of this manual, contact Donaldson Torit.



The Safety Alert Symbol indicates a hazardous situation which, if not avoided could result in death or serious injury. Obey all safety messages following this symbol to avoid possible injury or death. The possible hazards are explained in the associated text messages.

### **NOTICE**

The Notice symbol indicates a potential situation or practice which is not expected to result in personal injury, but which if not avoided may result in damage to equipment.

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## 1 Safety Communication



Improper operation of dust collectors and/or dust control systems may contribute to conditions in a work area or facility which could result in severe personal injury, and product or property damage. All dust collection equipment should be used only for its intended purpose and should be properly selected and sized for its intended use.

Process owners have important responsibilities relating to identifying and addressing potential hazards in their processes. When the potential for handling combustible dust exists within a process the process owner should include combustion hazards in their risk management activities and should comply with applicable codes and standards related to combustible dust.

Electrical installation must be performed by a qualified electrician.

This equipment is not designed to support site ducts, piping, or electrical services. All ducts, piping, or electrical services must be adequately supported to prevent injury and/or property damage.

Site selection must account for wind, seismic zone, and other load conditions.

Equipment may reach peak sound pressure levels above 80 dB (A). Noise levels should be considered when selecting collector location.

Most dusts present safety and health hazards that require precautions. Wear eye, respiratory, head and other protection equipment suitable for the type of dust.

Some components may be heavier than they appear. Use appropriate lifting methods to avoid personal injury and/or property damage.

## Combustible Dust Hazards

Among other considerations, the current NFPA standards require owners whose processes involve potentially combustible materials to have a current Dust Hazard Analysis, which can serve as the foundation for their process hazard mitigation strategy. Mitigation may include but is not limited to:

- Prevention of all ignition sources from entering any dust collection equipment.
- Selection and implementation of fire and explosion mitigation, suppression, and isolation strategies appropriate for the risks in their process.
- Development and use of work practices to maintain safe operating conditions, and to ensure combustible dust does not accumulate within their plant or process equipment.

Donaldson designs, manufactures, and sells industrial air filtration products for a wide variety of applications. Some applications may include processes or materials with inherent fire and explosion hazards. Donaldson is neither an expert nor a certified consultant in fire, spark, or explosion detection, suppression, or control. Donaldson does not provide engineering consulting services related to process or dust hazard analyses, or code and standard compliance. Complying with applicable codes and standards and managing the risks associated with the process or materials remains the responsibility of the process owner/operator. Donaldson may provide referrals to consultants, suppliers of equipment or services related to the detection and/or mitigation of sparks, fires and/or explosions, but Donaldson does not assume responsibility for any such referrals, nor does Donaldson assume any liability for the fitness of a mitigation strategy or product for a particular installation or application. The process owner's final selection of dust collectors and risk mitigation strategies should be based on the outcome of a Dust Hazard / Process Hazard Analysis performed by the process owner. Although early engagement of a dust collector supplier provides helpful insights on the availability and features of various products, process owners should consult with a combustible dust expert and/or a process safety expert before making actual product and mitigation strategy selections.

Donaldson recommends that all industrial air filtration system designs be reviewed and approved by an expert consultant who is responsible for the integrity of the system design and compliance with applicable codes and standards. It is the process owner's responsibility to understand the risks in their process and mitigate those risks in accordance with all applicable laws, regulations and standards, including those published by the NFPA. Donaldson also recommends that proper maintenance and housekeeping procedures and work practices be evaluated, developed, and followed to maintain any industrial air filtration products in safe operating condition.

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the Donaldson products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, and data (airflow, capacity, dimensions, or availability) are subject to change without notice, and may vary by region or country.

## 2 Product Description

The Extraction Arm (Ex-Arm) is designed to carry airborne contamination away from the operator's breathing zone. The Ex-Arm can operate with collectors, single extraction fans and the main duct system where other extraction arms can be connected.

With its self-supporting features, the Ex-Arm is designed to maneuver easily allowing the inlet to be positioned accurately over the desired operation zone. Additionally, its special design allows maximum angle adjustment of the hood to guarantee the best extraction position possible without compromising the operator's field of view and movement capabilities.

Ex-Arms are available in 6 or 8-in. Reference the table below.

The Ex-Arm is available with the following options (see Optional Equipment section for more details):

- Optional Hood with Light: a hood with a spotlight is offered for easier visibility of the work space.
- Optional Mounting Brackets: wall mounting brackets are offered to allow the Ex-Arm to be mounted to an optional fan blower and motor.

### Intended Use

Ex-Arms are designed to carry dust, fume, and mist away from the worker's breathing zone. Typical pollutants include fume, vapor, metal dust, weed dust and plastic dust.

### Standard Equipment

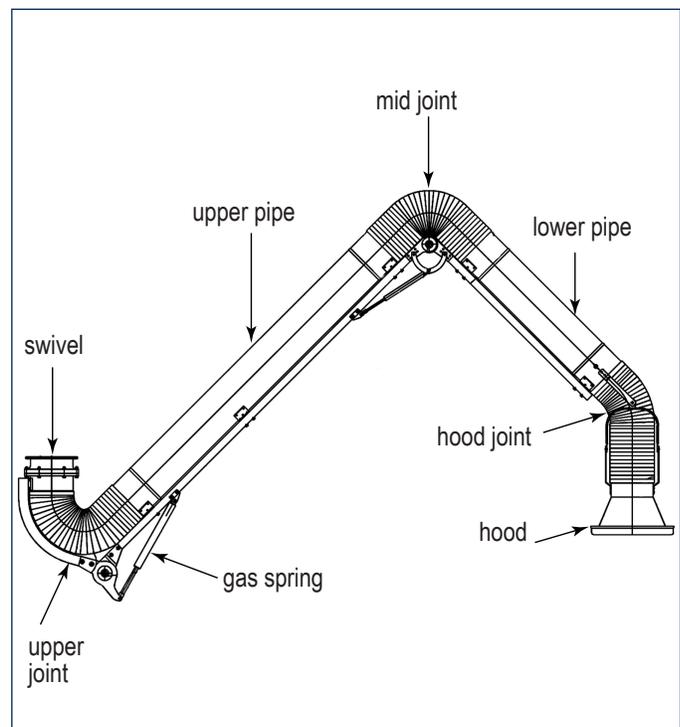
Ex-Arm major components:

- Swivel
- Joints (connector, hose section, clamps)
- Upper pipe and lower pipe (with damper, handle, and outer joint for hood maneuver)
- Hood
- Gas spring

The swivel allows the arm to rotate 360° around its vertical axis - easing hood handling and arm positioning.

**Note:** To limit 360° arm rotation, remove bolts and nuts from the swivel base and reinstall so the bolts project upward through the swivel base. Fasteners will act as a stopper to limit arm rotation.

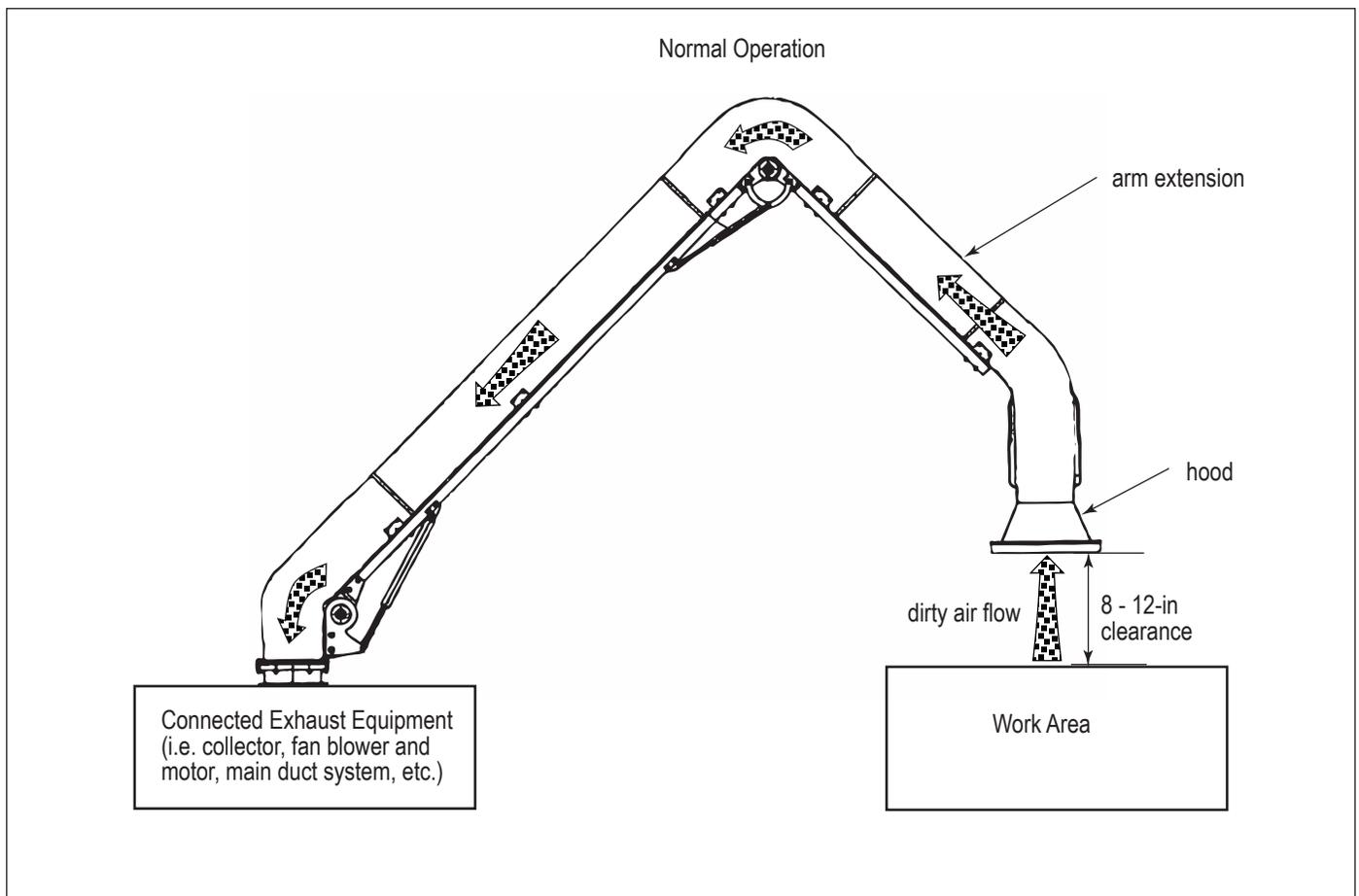
The swivel and upper pipe and lower pipe are connected together with flexible hose sections (hose clamps), which along with the hood creates a ventilation duct for air extraction. The air intake volume can be adjusted with the damper located in the lower pipe.



Ex-Arm Components, Overhead Mount Arm Shown

### 3 Operation

The Ex-Arm hood is positioned 8 to 12- inches above the work area. Contaminated air is drawn into the hood of the Ex-Arm flowing through the arm extension and exhausting out of the work area via the connected equipment (collector, fan, main duct system).



Operation (Bench Mount Arm Shown)

## 4 Product Service

Instruct all personnel on safe use and maintenance procedures.



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

Use appropriate access equipment and procedures. Note the standard collector is not equipped with access platforms unless noted on the specification drawings.

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 all power before performing service or maintenance work.

Do not install in classified hazardous atmospheres without an enclosure rated for the application.

### Operational Checklist

1. Check arm tension
2. Check flexible duct connections
3. Check joint for wear
4. Check bearing pivot for wear
5. Check damper and damper handle for wear

### General Maintenance

- Lubricate the swivel every 3 months with solid grease (lubrication nipple in the swivel flange).
- Review entire Ex-Arm annually for wear.

## Arm Adjustment



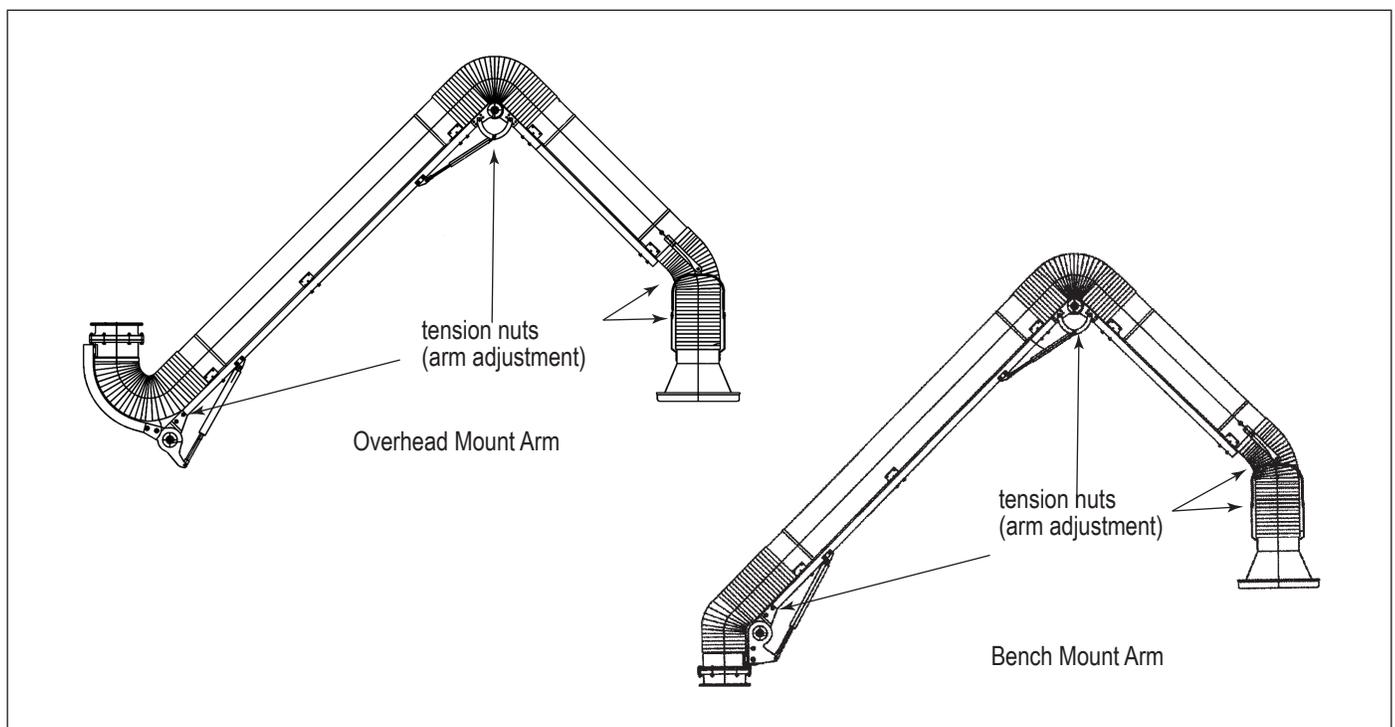
The Ex-Arm extraction arms will not pose any safety concerns if correctly mounted to the wall or another building element.

Follow proper installation guidelines in this manual. Improper installation could cause detachment and/or serious personal injury and/or property damage. Leave the extraction arm in the last operational position or in the folded position.

The Ex-Arm is designed for safe and reliable operation without continuous servicing and special handling. The adjustment of the Ex-Arm is done by regulating the frictional brakes. The frictional brakes placed in each joint give balance and self-supporting properties and easy handling during operation

The frictional brakes can be adjusted by tightening or loosening the tension of the tension nuts. Tighten the nuts to increase the motion resistance and release the nuts to reduce motion resistance using a 17 or 13 mm wrench where appropriate. The friction brake adjustment must be performed as mentioned above to ensure arm stability and self-supporting. Proper adjustment keeps the arm stable and prevents excessive resistance during arm position changes.

Adjust tension in locations shown below..



Arm Adjustment

## Troubleshooting

Problem	Probable Cause	Remedy
<b>Extraction arm is falling (out of position)</b>	Improperly adjusted frictional brake	Tighten the tension nuts.
<b>Extraction arm difficult to position (to stiff)</b>	Improperly adjusted frictional brake	Loosen tension nuts
<b>Fan blower and motor do not start</b>	Electrical supply circuit down	Check the electrical supply circuit for proper output voltage or fuse, circuit breaker fault.
	Fuses have blown in the control box	Carefully disconnect the electrical power to the Ex-Arm. Remove the electrical control box cover to access fuse(s) on the control panel. With a volt ohm meter, check for blown fuses in the electrical control box and disconnect. If fuses are blown, replace fuse or fuses. See Electrical Connection section.
	Failed transformer for 1 phase system	Using a volt ohm meter check the input voltage on terminals H1 and H4, (it should be 120 volts AC.) Next check output voltage on X1 and X2 terminals, (it should be 12 volts AC). If there is no output voltage, replace the transformer. See Electrical Connection section and the Replacement Parts List.
	Failed transformer for 3 phase system	Using a volt ohm meter check the input voltage on terminals H1 and H4 on the primary transformer feedlines. Look at the voltage rating on the transformer that is rated for the input voltage. Check that the proper shorting bars or jumper wires have been installed per input voltage requirements. Next check the fuse on the X1 terminal, and if it is blown out, replace with a MDX 3 amp fuse. Then check the output voltage on X1 and X2 terminals (it should be 120 volts AC). If there is no output voltage, replace the transformer. See Electrical Connection section.
	Relay 12 volt AC failure	With the Ex-Arm hood switch on, check with a volt ohm meter for 12 volts AC input to the relay. Next check for 120 volts AC input and output on the relay socket terminals. If there is no voltage output, replace the 12 volt AC relay. See Electrical Connection section and the Replacement Parts List.
Heater motor overload protection failure	With the Ex-Arm hood switch on, check with a volt ohm meter for voltage inputs and outputs on contactor through the heater terminals. Be sure before testing that the heater thermal protection has cooled to reset. If there is no voltage output, replace the heater overload relay. See Electrical Connection section and the Replacement Parts List.	

Problem	Probable Cause	Remedy
<b>Fan blower and motor start do not start</b>	Starter contactor failure	With the Ex-Arm hood switch on, check with a volt ohm meter for 120 volts AC input to starter coil. If there is no input, check the thermal overload protection. Next check for supply voltage input and output out of the contactor terminals. If 120 volt AC input to coil relay is okay on starter contactor and it still does not function, replace the starter contactor. See Electrical Connection section and the Replacement Parts List.
	Inadequate supply circuit	Check for sufficient amperage to run the Ex-Arm. Reference motor manufacturer's nameplate for amperage and voltage requirements. Also check to see that there is not too much other equipment on the supply circuit.
<b>Starter kicks out</b>	Excessive airflow for blower and motor	Check that all the flexible ducting is installed onto the joint assemblies and that it is not torn or damaged. If ducting is damaged, replace it. See Service section and the Replacement Parts List.
	Incorrect wire size on the supply circuit	Check for proper wire size on electrical supply lines. Too small of a supply wire will cause motor overload. Rewire per local and national codes.
	Incorrectly wired motor	Wiring is incorrect per motor manufacturer's wiring diagram. Reference motor manufacturer's wiring diagram and correct wiring per supply voltage.
<b>Insufficient airflow at hood</b>	Incorrect blower and motor rotation	Check blower motor rotation by looking down from the top of the motor. The rotation should be clockwise. Also reference rotation sticker on the blower housing. To correct blower rotation (3 phase only), change any two of the three phase wire supply leads. On the single phase motors, reference the motor manufacturer's wiring diagram.
	Ex-Arm damper is closed	Locate the Ex-Arm damper control handle and move the handle to be in line with the rigid ducting. This will be the wide open setting.
	Obstruction in ducting or hood	Check the Ex-Arm, hood, ducting, flex duct, and exhaust ducting (if used) for blockage. Remove any debris that is blocking airflow. See the Service section.

## Troubleshooting

Problem	Probable Cause	Remedy
<b>Insufficient airflow at hood</b>	Flexible ducting is torn or collapsed, or the rigid ducting is broken or collapsed	Check the flexible ducting and replace any damaged parts. Check the rigid ducting on the Ex-Arm or exhaust ducting (if applied) for cracks or collapsed section(s). See the Replacement Parts List.
	To much ducting, elbows applied to the exhaust of the Ex-Arm	Consult with your local Donaldson representative.
	Friction joints not adjusted properly(too loose or tight) or are damaged	Adjust tension nuts on arm per Arm Adjustment section.
<b>Ex-Arm light does not light</b>	Light bulb burned out or there are loose wire connections	See Service section and the Replacement Parts List.  Note: Do not touch the halogen light bulb when performing service work, as it will significantly shorten the bulb life.

# **Appendix A - Collector Installation**

## Equipment Installation



Electrical installation must be performed by a qualified electrician.

Service must be performed by trained and qualified maintenance personnel.

This equipment is not designed to support site ducts, piping, or electrical services. All ducts, piping, or electrical services must be adequately supported to prevent injury and/or property damage.

Site selection must account for wind, seismic zone, and other load conditions.

Equipment may reach peak sound pressure levels above 80 dB (A). Noise levels should be considered when selecting collector location.

## Equipment Location and Site Selection

Equipment location must conform to all codes and standards, should be suitable for the type of dust being handled and should ensure easy access for service and utility connections.

The equipment must be anchored once in final position. Foundation or support framing must be capable of supporting dead, live, wind, seismic and other applicable loads. Consult a qualified engineer for final selection of foundation or support framing.

### **NOTICE**

Two people may be required to install the Extraction Arm to the fan blower or mounting brackets.

## Delivery and Inspection

Upon arrival inspect equipment and parts and report any damage to delivery carrier. File any damage claims with the delivery carrier. Request a written inspection report from the Claims Inspector to substantiate all damage claims.

Compare the equipment and parts received with the description of product ordered. Report any incomplete shipments to the delivery carrier and your Donaldson Torit representative.

## Unloading and Positioning



Equipment should be lifted only by qualified crane or fork truck operators.

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

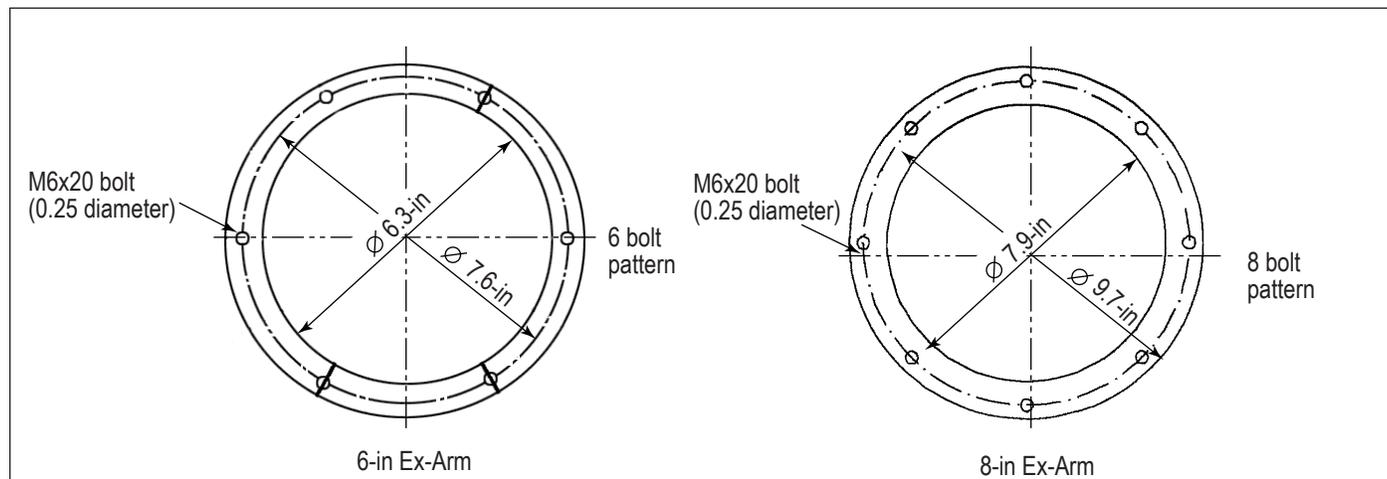
Label on pack slip and bill of lading will state weight of the equipment as delivered.

1. Remove loose components and accessory packages before lifting parts from the truck or transport container.
2. Remove any crates or shipping straps.
3. Inspect for any damage and/or missing parts and report to freight carrier.
4. Check for any hardware which may have become loose during shipment and tighten as necessary.

## Installation

### Ex-Arm Bolt Hole Pattern

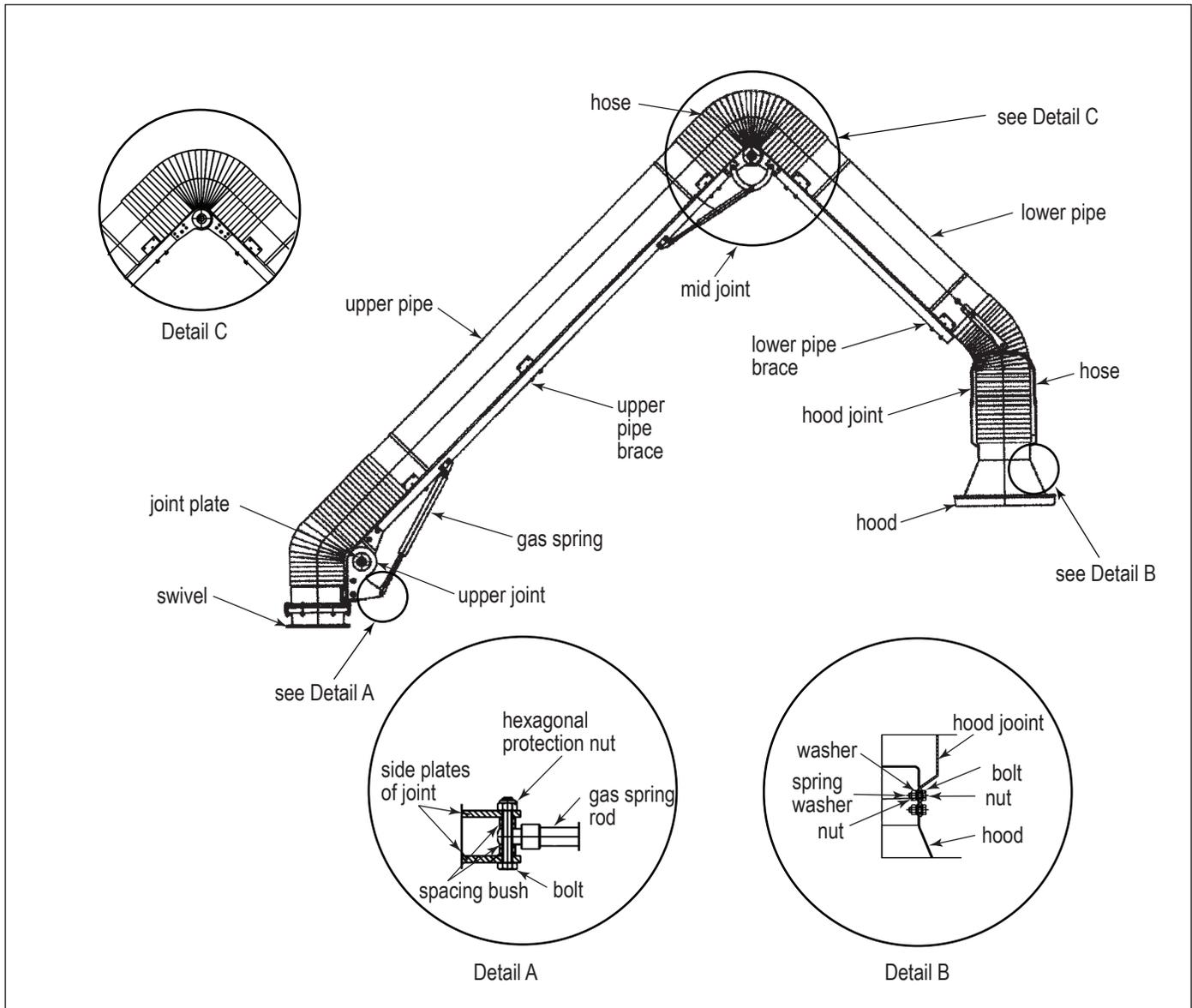
The following bolt hole patterns by arm diameter will assist in the assembly of the Ex-Arm.



Bolt Hole Patterns

## Bench Mount Arm Assembly

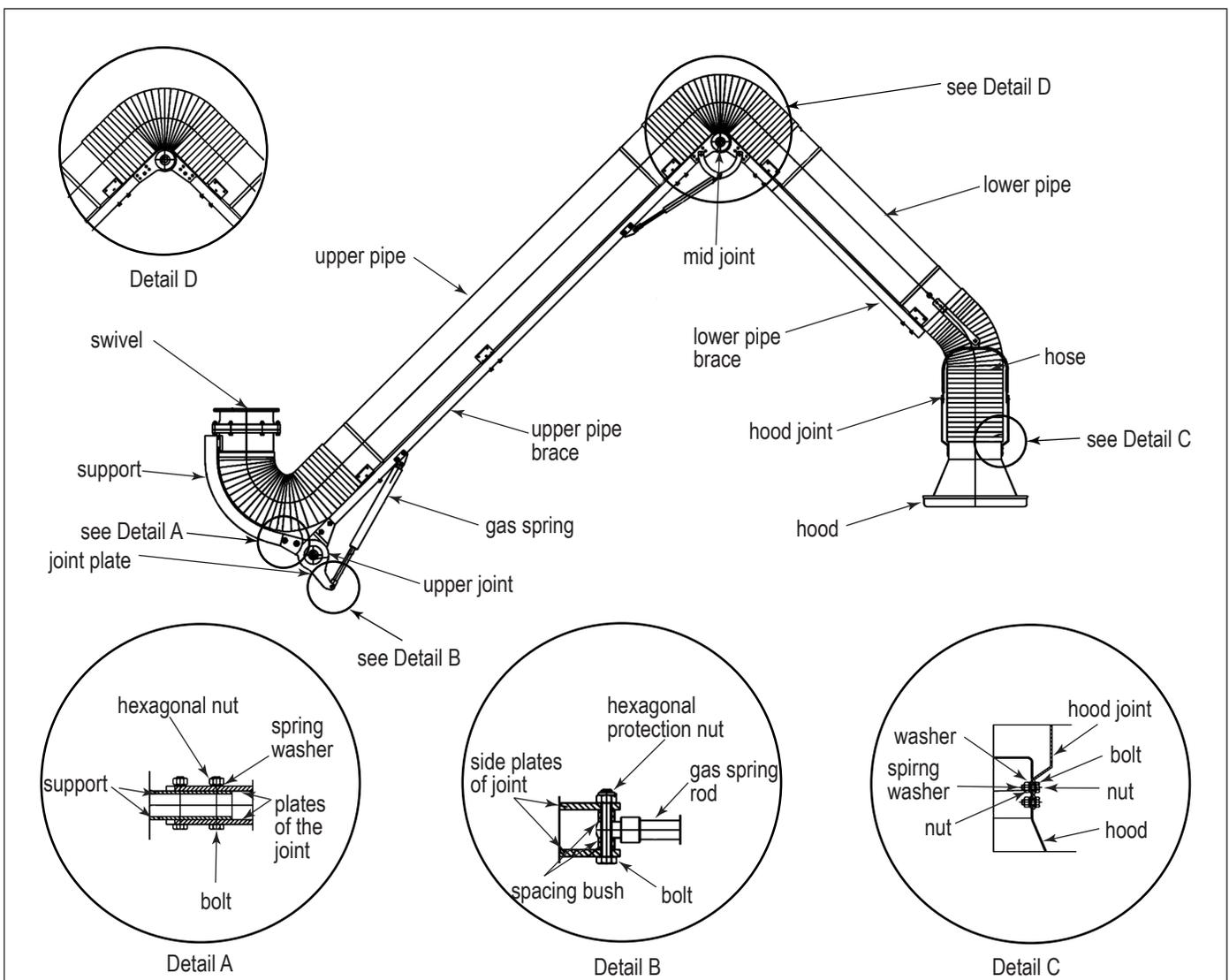
1. Remove Ex-Arm extraction arm from packaging and place on even surface.
2. Expand the arm segments at a 45° angle.
3. Tucking in loose fabric at end of the flex hose, slip flex hose over the swivel and secure with hose clamp.
4. Bolt end of gas spring to the plate of the upper joint (see Detail A).
5. Connect mid joint hose to upper pipe and lower pipe.
6. Bolt the hood joint to the hood (see Detail B). If hood is equipped with a light, follow Hood Light and Switch Installation instructions in Optional Equipment section.
7. Connect the lower pipe hose to the hood.
8. The Ex-Arm is ready to be mounted on wall bracket or collector.



Bench Mount Arm Assembly

## Overhead Mount Arm Assembly

1. Remove Ex-Arm extraction arm from packaging and place on even surface.
2. Expand the arm segments at a 45° angle.
3. Attach the swivel and support to the plate of the upper joint (see Detail A).
4. Tucking in the loose fabric at the end of the flex hose, slip flex hose over the swivel and secure with hose clamp.
5. Bolt end of the gas spring to the plate of the upper joint (see Detail B).
6. Connect mid joint hose to upper pipe and lower pipe.
7. Bolt the hood joint to the hood (see Detail C). If hood is equipped with a light, follow Hood Light and Switch Installation instructions in Optional Equipment section.
8. Connect the lower pipe hose to the hood.
9. The Ex-Arm is ready to be mounted on a wall bracket or collector.



Overhead Mount Arm Assembly

## Electrical Connection

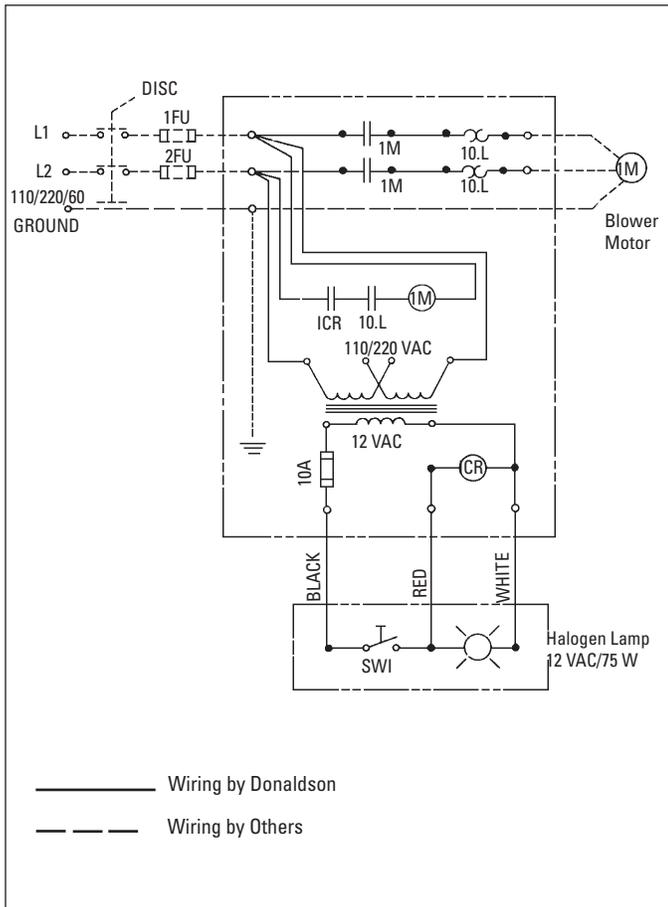


Electrical installation, service or maintenance work during installation must be performed by a qualified electrician and comply with all applicable national and local codes.

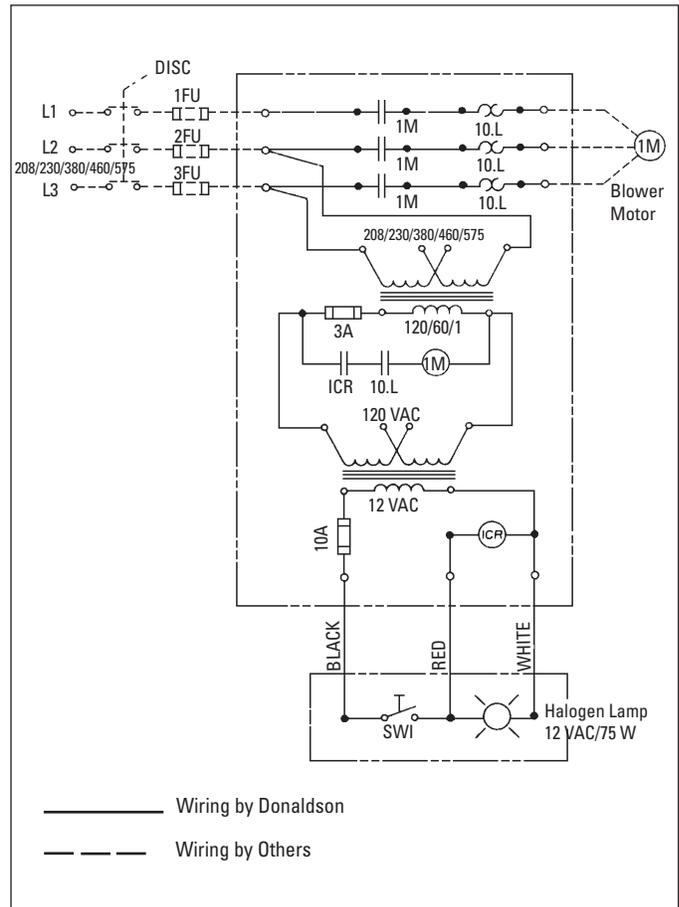
Turn power off and lock out electrical power sources before performing installation, service, or maintenance work.

Do not install in classified hazardous atmospheres without an enclosure rated for the application.

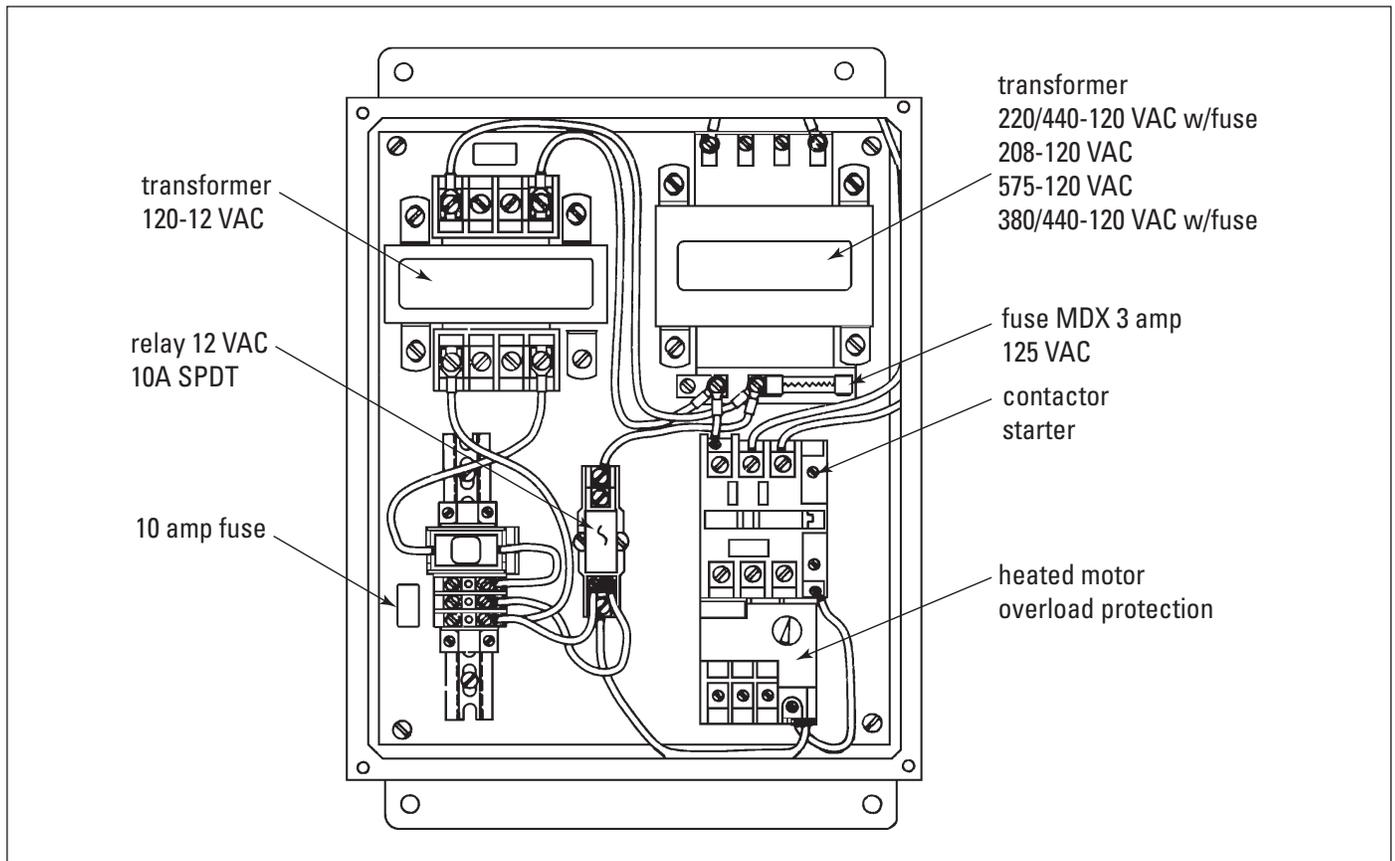
1. A fused-disconnect with fuses and electrical connections of adequate capacity are customer supplied.
2. Mount the control box in a convenient location.
3. Install conduit and wire from the power source to the extraction arm.
4. Using the below wiring diagram or referencing the electrical control box, make wiring connections to the blower motor and the light and switch cable.
5. In grounded systems, connect neutral to control box to L2 in the electrical control box. See Single Phase Wiring, Three-Phase Wiring, and Control Box Component Layout.



Single Phase Typical Wiring Diagram



Three Phase Typical Wiring Diagram



Control Box Assembly

### Hood Light and Switch Installation

The optional hood with 12 V light is controlled by a switch on the Ex-Arm hood.

1. Discard wiring included with hood.
2. Replace with supplied wiring assembly.
3. Install light bulb in hole (socket) located in the hood impactor plate.
4. Attach connectors to switch.
5. Feed wire through ex-arm by entering the hood and exiting through the hole in the swivel.
6. Attach hood to lower pipe hood joint hose.

## Optional Equipment

The optional wall mounting brackets allow the extraction arm to be mounted to an optional blower and motor or directly to ductwork (duct outlet required).

### Overhead Mount Installation



Failure to mount the wall bracket correctly can result in arm assembly collapse, personal injury or property damage.

Anchor bolts must be sized to support loads up to 500 lbs.

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

A forklift is recommended for unloading, assembly, and installation of the extraction arm.

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

1. Leveling the wall bracket with the floor, fasten the wall bracket using customer-supplied anchor bolts. Anchor bolts must be sized to support loads up to 500-lb.
2. Connect the Ex-Arm assembly to the bottom part of the wall bracket using supplied hardware.
3. Fasten duct connector (if required) to the top of the wall bracket hardware)
4. Ground the arm by connecting the points of contact with copper-strand wire with a suitable cross-sectional area. Attach to the equipment to ensure electrical continuity.

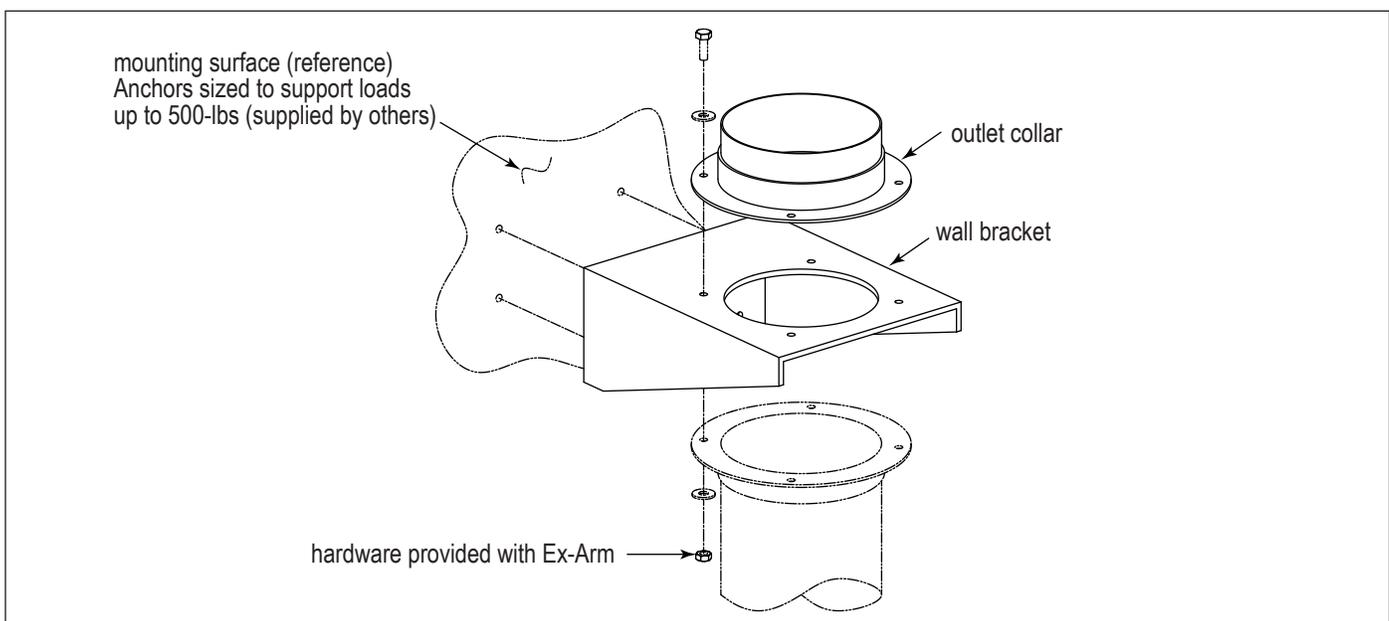


Failure to ground the arm properly can result in electrical shock. Install a proper ground to ensure personal safety

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.

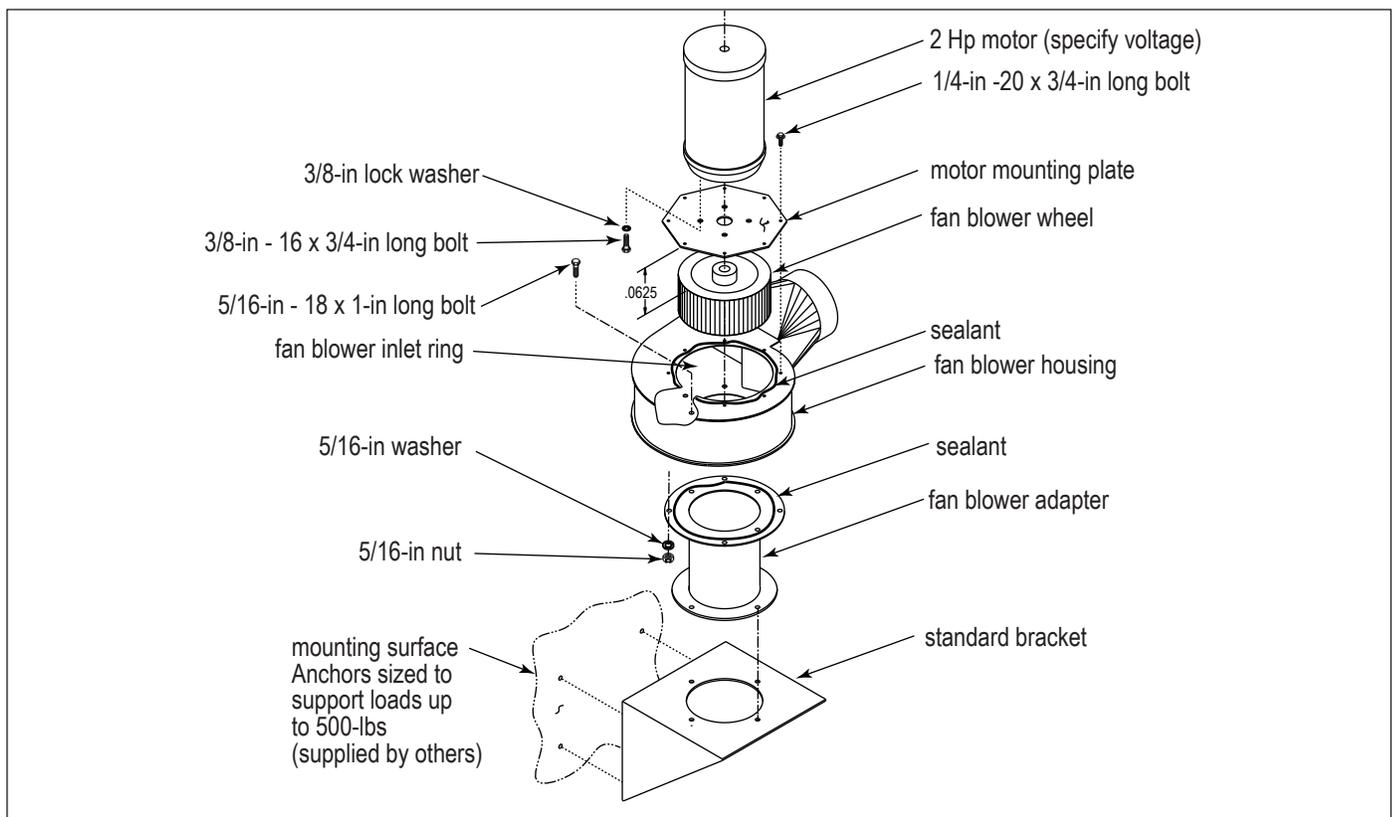


## Bench Mount Installation

1. Fasten adapter ring to the collector using the hardware provided.
2. Attach arm to adapter ring using hardware provided.
3. If hood is equipped with a light, follow Hood Light and Switch Installation instructions.

## Fan Blower and Motor Installation

1. Place the blower adapter on the wall bracket.
2. Position the blower adapter ring on the opposite side of the wall bracket.
3. Align the bolt patterns of the blower adapter and the wall bracket to the adapter ring weld nuts and secure using four 5/16-18 x 1-in bolts.
4. Position the blower housing on the top of the blower adapter using four 5/16-18 x 1-in bolts, lock washers, and hex nuts.
5. Apply sealant onto the blower housing's motor mount surface.
6. Attach the motor mount plate to the motor and fasten using four 3/8-16 x 3/4-in bolts and lock washers. Torque to 20 ft/lbs.
7. Position the blower wheel on the motor shaft.
8. Position the blower wheel so there is 1/16-in clearance between the blower wheel and the blower inlet ring located inside the blower housing.
9. Insert the key into the blower wheel and motor shaft key slot. Tighten the two setscrews to secure the blower wheel to the motor shaft.
10. Install the motor, blower wheel, and motor mount plate assembly on the blower housing by aligning the bolt patterns. Fasten using eight, 1/4-20 x 3/4-in screws.



Fan Blower and Motor

## Commissioning Equipment

Instruct all personnel on safe use and maintenance procedures.



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

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

Check that the collector is clear and free of all debris before starting.

Do not install in classified hazardous atmospheres without an enclosure rated for the application.

1. Check all electrical connections for tightness and contact.
2. Check and remove all loose items in or near the inlet and outlet of the collector.
3. Check that all remote controls and solenoid enclosures (if applicable) are properly wired and all service switches are in the OFF position.
4. Check that all optional accessories are installed properly and secured.
5. Turn power ON at source.

## Start-Up

1. Set the hood into position within 8 to 12-in from the welding arc.

Note: Welding chippings could affect the hood and the hood suction could interrupt the gas-coating. It is important for the hood to effectively capture fume without obstructing the user, which typically requires the hood to be positioned 8 to 12-inches from the welding arc.

2. Adjust the air intake volume with the damper lever to the minimum necessary to control the efficiency of dust and fume extraction without causing excessive draught.
3. Reposition the hood and adjust the damper as required during operation to maintain fume capture.
4. After the work is completed, reposition the extraction arm in the operational position or the home (folded) position if obstruction is a problem.
5. Stop the extraction fan (if the device works in a ventilation system — close the appropriate damper).

## Decommissioning Equipment

Once the equipment has reached the end of operational life it will need to be decommissioned.



During decommissioning, there is potential for exposure to the dust in the collector. Most dusts present safety and health hazards that require precautions. Wear eye, respiratory, head, and other protection equipment suitable for the type of dust when performing any decommissioning activities.

LOCK-OUT all energy sources prior to performing any decommissioning activities on the equipment.

Electrical service must be performed by a qualified electrician.

Disconnection of ducts must be performed by a qualified tinsmith or contractor.

1. Follow the typical shut-down sequence steps located in the operation section to remove as much contaminant from collector as possible.
2. Lock-Out all energy sources.
3. Disconnect electrical power from the collector and remove any associated conduit or hardware from the exterior of the collector.
4. Disconnect all ducts from the collector.
5. Proceed to disassemble collector by removing sub-assemblies in the reverse order of the steps given in Appendix A.
6. Secure all collector components to a suitable transport carrier and transport to a disposal site suitable for the dust in the collector.

**Product Information** (Process Owner to complete and retain for your records)

Model Number _____	Serial Number _____
Ship Date _____	Installation Date _____
Filter Type _____	
Collected Dust _____	
Dust Properties: Kst _____	Pmax _____ MIE _____ MEC _____
Accessories _____	
Other _____	
_____	





## Donaldson Industrial Air Filtration Warranty

Donaldson warrants to the original purchaser only that the Goods will be free from defects in material and manufacture for the applicable time periods stated below: (1) Major structural components for a period of ten (10) years from the date of shipment; (2) Non-Structural, 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 a period of twelve (12) months from date of shipment; and (3) Donaldson-built filter elements for a period of eighteen (18) months from date of shipment.

Buyer is solely responsible for determining if goods fit Buyer's particular purpose and are suitable for Buyer's process and application. Seller's statements, engineering and technical information, and recommendations are provided for the Buyer's convenience and the accuracy or completeness thereof is not warranted. If, after Seller receives written notice, within the warranty period, that any goods allegedly do not meet Seller's warranty, and Seller, in its sole discretion, determines that such claim is valid, Seller's sole obligation and Buyer's exclusive remedy for breach of the foregoing warranty or any Seller published warranty, will be, at Seller's option, either: (i) repair or replacement of such goods or (ii) credit or refund to Buyer for the purchase price from Seller. In the case of repair or replacement, Seller will be responsible for the cost of shipping the parts but not for labor to remove, repair, replace or reinstall the allegedly defective goods. Refurbished goods may be used to repair or replace the goods and the warranty on such repaired or replaced goods shall be the balance of the warranty remaining on the goods which were repaired or replaced. Any repair or rework made by anyone other than Seller is not permitted without prior written authorization by Seller, and voids the warranty set forth herein. Seller warrants to Buyer that it will perform services in accordance with the Sales Documents using personnel of required skill, experience and qualifications and in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services. With respect to any services subject to a claim under the warranty set forth above, Seller shall, in its sole discretion, (i) repair or re-perform the applicable services or (ii) credit or refund the price of such services at the pro rata contract rate and such shall be Seller's sole obligation and the exclusive remedy for breach of the foregoing warranty on services. Products manufactured by a third party ("Third Party Product") may constitute, contain, be contained in, incorporated into, attached to or packaged together with, the goods. Buyer agrees that: (a) Third Party Products are excluded from Seller's warranty in this Section 7 and carry only the warranty extended by the original manufacturer, and (b) Seller's liability in all cases is limited to goods of Seller's design and manufacture only. EXCEPT FOR SELLER'S WARRANTY OF TITLE TO THE GOODS, SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES WHATSOEVER, WHETHER, EXPRESSED OR IMPLIED, ORAL, STATUTORY, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY AND ANY WARRANTIES ARISING FROM TECHNICAL ADVICE OR RECOMMENDATIONS, COURSE OF DEALING OR OF PERFORMANCE, CUSTOM OR USAGE OF TRADE. Seller's obligations do not cover normal wear and tear or deterioration, defects in or damage to any goods resulting from improper installation, accident or any utilization, maintenance, repair or modification of the goods, or any use that is inconsistent with Seller's instructions as to the storage, installation, commissioning or use of the goods or the designed capabilities of the goods or that, in its sole judgment, the performance or reliability thereof is adversely affected thereby, or which is subjected to abuse, mishandling, misuse or neglect or any damage caused by connections, interfacing or use in unforeseen or unintended environments or any other cause not the sole fault of Seller, and shall be at Buyer's expense. Seller's warranty is contingent upon the accuracy of all information provided by Buyer. Any changes to or inaccuracies in any information or data provided by Buyer voids this warranty. Seller does not warrant that the operation of the goods will be uninterrupted or error-free, that the functions of the goods will meet Buyer's or its customer's requirements unless specifically agreed to, or that the goods will operate in combination with other products selected by Buyer or Buyer's customer for its use.

The terms of this warranty may only be modified by a special warranty document signed by a Director, General Manager or Vice President of Donaldson. To ensure proper operational performance of your equipment, use only genuine Donaldson replacement parts.

**This Product is provided subject to and conditioned upon Donaldson's Terms of Sale ("Terms"), a current copy of which is located at [termsofsale.donaldson.com](http://termsofsale.donaldson.com). These Terms are incorporated herein by reference. By purchasing or using this Product, the user accepts these Terms. The Terms are available on our website or by calling our customer service line at 1-800-365-1331.**

Significantly improve the performance of your collector with genuine Donaldson Torit replacement filters and parts. **Call Donaldson Torit at 800-365-1331.**

**Important Notice**

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.



Donaldson.

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