



BURR KING MFG. CO., INC

1220 Tamara Lane

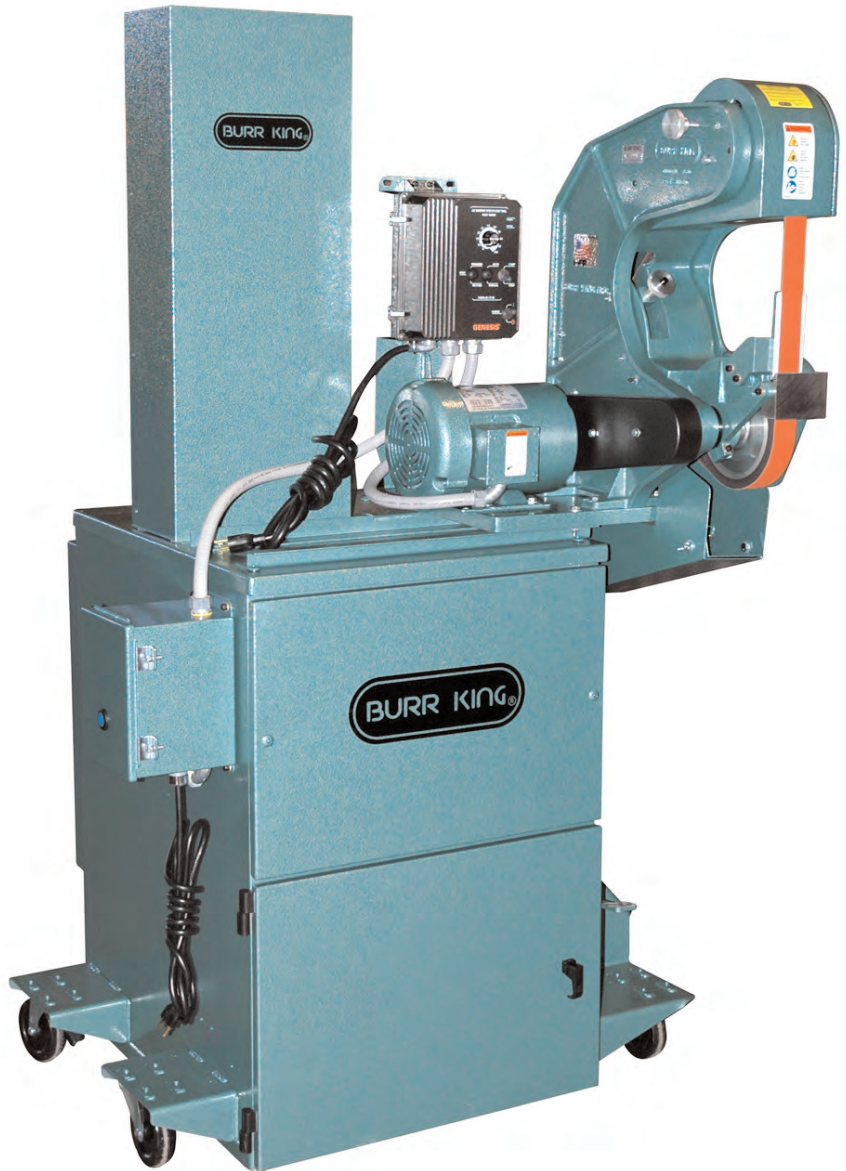
Warsaw, MO 65355

www.burking.com

(660)438-8998 • 800-621-2748

Fax (660)438-8991

**BK-75
INSTRUCTION
MANUAL**



MADE IN U.S.A.



- * GRINDERS
- * BUFFERS
- * VIBRATORY
- * DISC GRINDERS

Grinder not included

**BK-75
DUST COLLECTOR**



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Safe operation and good practice use of your BK-75 dust collection system

April 2001

The BK-75 dust collection system is designed to accept one dust inlet. Dust is drawn into the BK-75 by its onboard air suction system. The air stream and dust is passed through a filter bank where a significant amount of the dust is removed from the air stream. The air is then ducted out of the BK-75. The following minimum safe practices should be read, understood, and practiced by all users of the BK-75, and those persons who maintain the BK-75, or are present in the BK-75 work area.

To minimize fire, explosion, health and other risks to personnel and property:

Do not use your BK-75 to collect materials prone to explosion unless it has been specifically modified to be “explosion proof”.

Do not draw debris from different alloys into the BK-75 system.

Do not use water or other electrically conductive fluid in your BK-75 unless it has been specifically modified for wet operation.

Do not mix wood, plastic, paper, or other flammable material debris with metal or other high temperature dust/debris.

Do use a spark-arresting device if your BK-75 will be used to collect debris from materials that spark or otherwise create ignition level debris when worked.

Do consult with the appropriate authorities to be certain that your BK-75 installation and its intended use comply with local, state, and federal codes.

Do use approved inhalation protective devices in conjunction with the BK-75.

Do use approved protective eye, face, hand, and body protection when grinding, polishing, or otherwise creating dust and debris that you intend the BK-75 collect.

Do disconnect all power to the BK-75 (and any equipment connected to it) prior to performing adjustments, maintenance, or other activity that involves opening any cover on the BK-75.

Do read, understand, and abide by the operating and maintenance instructions provided for the BK-75.

Do use specified replacement parts and filters.

Do maintain the BK-75 in specification compliant condition.

Do call Burr King Manufacturing at 1-800-621-2748 if you need assistance.



Caution!

Application of Dust Control Equipment

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

Warning – 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.

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

Magnehelic® is a registered trademark of Dwyer Instruments, Inc.

Data Sheet

Model Number _____ Serial Number _____

Ship Date _____ Installation Date _____

Customer Name _____

 Address _____

 Filter Type _____

 Accessories _____

 Other _____

Description

Cabinet Series 50 to 80 dust collectors are self-contained, intermittent-duty collectors with envelope-style filters. Using the EZ Filter Pack™ filter system, Cabinet series collectors provide highly efficient, low maintenance air cleaning. Filters are cleaned using the standard manual filter shaker or an optional motorized filter shaker which cleans the filters automatically each time the unit is turned off. The EZ Filter Pack is designed for quick, easy filter replacement without the use of special tools.

Designed to increase the versatility of the unit, standard options include a hopper package for a 5-gallon pail or 55-gallon drum, indoor and outdoor exhaust deflectors, HEPA filter packs, and exhaust silencers. Four filter media choices and three construction options are among the many options available to customize the unit to the specific application.



Caution!

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

Purpose and Intended Use

Cabinet collectors provide excellent efficiency on nuisance dust generated in industrial operations and are a good choice for low airflow, light-load applications that do not require continuous airflow. Typical applications include grinding, buffing and polishing, abrasive blasting, batch mixing, and bag dumping. Often, individual Cabinet collectors are dedicated to one or two machines.

Four filter media selections offer a wide variety of characteristics: cotton sateen is the standard media and provides good efficiency in applications up to 180° F; polyester sateen provides the same efficiency, but has higher temperature resistance (240° F) and is more abrasion-resistant; woven polyester provides better dust release capabilities with lower efficiency; and polypropylene provides some chemical resistance up to 180° F.

Standard galvanized construction includes galvanized metal support bars, slide latches, bag clips, and hardware to support most applications.

Optional stainless-steel construction is tailored to corrosive environments. This option includes stainless steel clips and screws if the screws protrude into the dirty-air chamber. Slide latches, support bars, and other hardware located in the clean-air chamber remain galvanized steel.

Grounded, non-spark construction includes the standard frame and polyester sateen filter media, an additional stainless steel wire-mesh insert, stainless-steel bag clips, and ground wires.

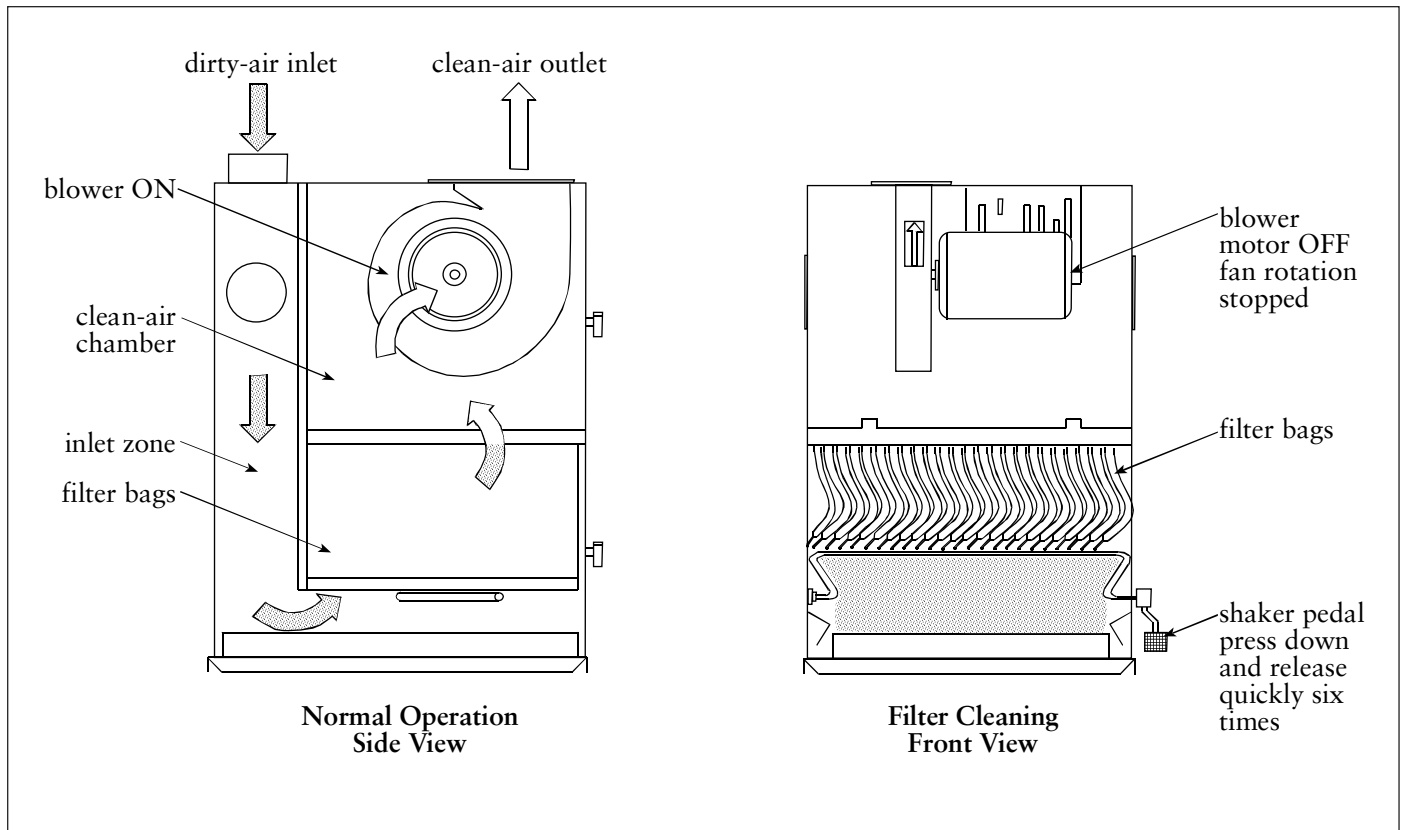
Operation

During normal operation, dust-laden air enters the unit through the dirty-air inlet and passes through the unit where the dust collects on the outside surface of the filter media. As dust collects on the filter surfaces, a dust cake forms, which actually improves the efficiency of the filters. The greater the amount of dust cake accumulated, the higher the efficiency of the filter.

The filtered air flows up through the center of the filters and into the clean-air chamber. Clean,

filtered air discharges through clean-air outlet located on top of the unit.

Pushing down on the hand- or foot-operated shaker pedal and releasing rapidly six times completes manual filter cleaning. The releasing action causes the dust cake to fracture and fall into the dust storage area. Motorized filter shakers are optional and automatically clean the filters each time the unit is turned off.



Unit Operation

Inspection on Arrival

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

Installation Codes and Procedures



Caution!

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

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

Installation

Site Selection, Grade-Mounted Units

1. The unit can be located on a reinforced concrete foundation or rooftop.
2. Wind, seismic zone, and other live-load conditions must be considered when selecting the location for rooftop-mounted units.
3. Provide clearance from heat sources and interference with utilities when selecting the location for suspended units.
4. Portable units require no special installation accommodations.

Unit Location

1. When hazardous conditions or materials are present, consult with local authorities for the proper location of the collector.
2. Foundation or roof support must be capable of supporting the entire weight of the unit, plus the weight of the collected material, piping, and ductwork.
3. Prepare the foundation in the selected location. Install anchor bolts to extend a minimum of 1 3/4-inches above foundation.
4. Locate the collector to ensure the shortest and straightest inlet- and outlet-duct length, easy access to electrical and compressed-air connections, and routine maintenance.

Electrical Wiring

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



Caution!

- Electrical installation must be performed by a qualified electrician and comply with all applicable national and local codes.
- Turn power OFF during installation or maintenance.
- Do not install in classified hazardous atmospheres without an enclosure rated for the application.

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
Large Crescent Wrench	Spreader Bars

Hoisting Information

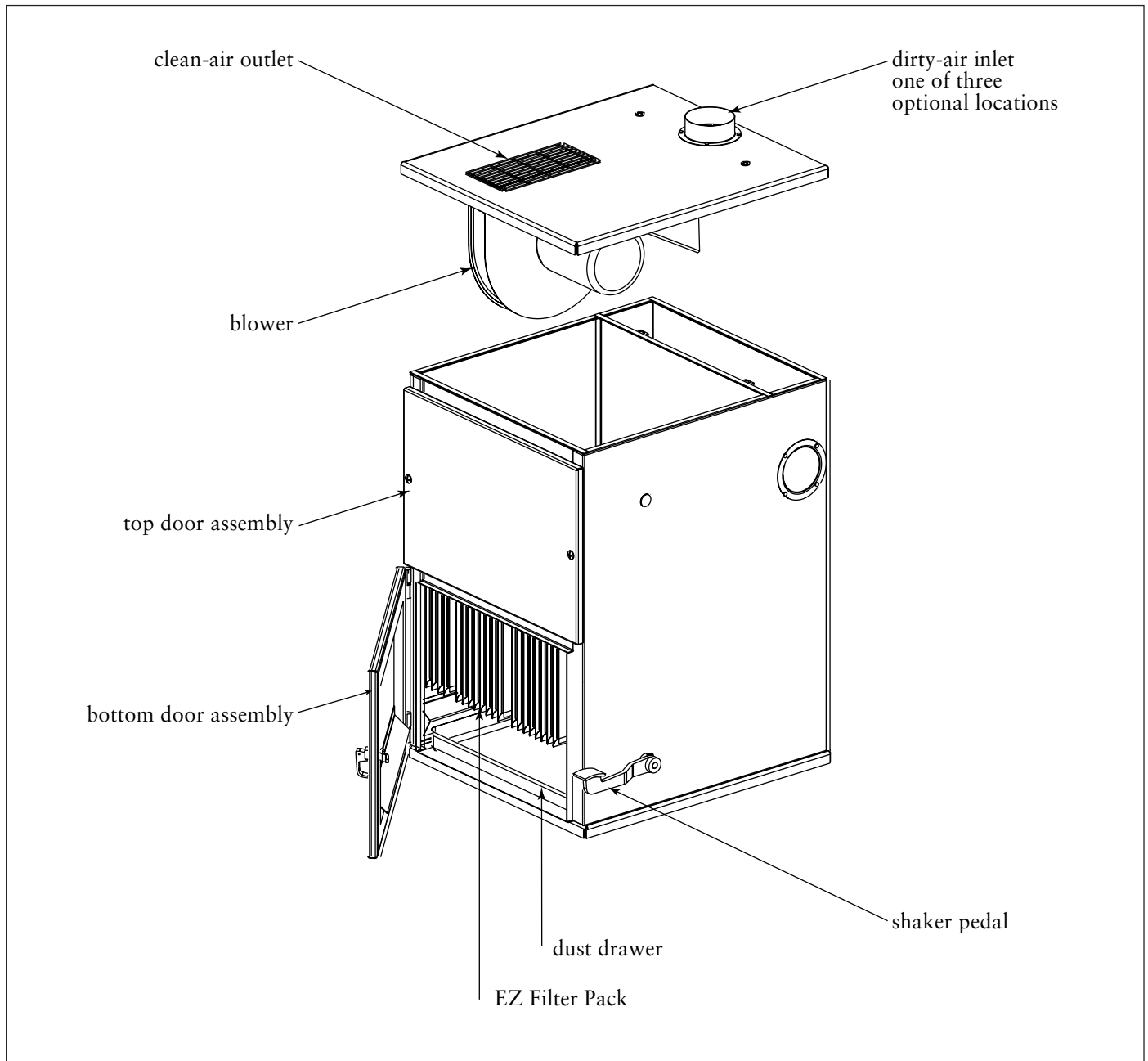
1. Use all lifting points provided.
2. Use clevis connectors, *not hooks*, on lifting slings.
3. Use spreader bars to prevent damage to unit's casing.
4. Check the Specification Control drawing for weight and dimensions of the unit, subassemblies, and components to ensure adequate crane capacity.
5.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



Caution!

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

Typical Installation



Typical Installation

Standard Equipment

Standard equipment consists of a self-contained unit housing the filters, blower, clean- and dirty-air chambers, and dust drawers. Locate the unit as close to the dust source as possible, except where explosive or flammable material is present.

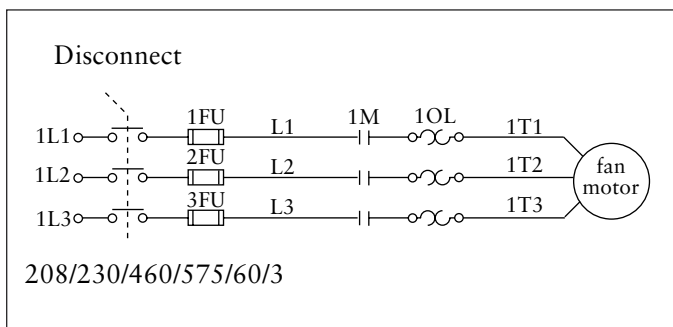
1. Make the electrical connections to the customer-supplied safety disconnect switch, blower, and blower starter.
2. Turn power ON at source.
3. Turn the blower motor ON then OFF to check for proper rotation by referencing the rotation arrow located on the blower housing. A blower running in the wrong direction will still deliver approximately 40% of its rated air volume making proper rotation extremely important.

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 fan-motor starter.



Motor Starter Wiring Diagram

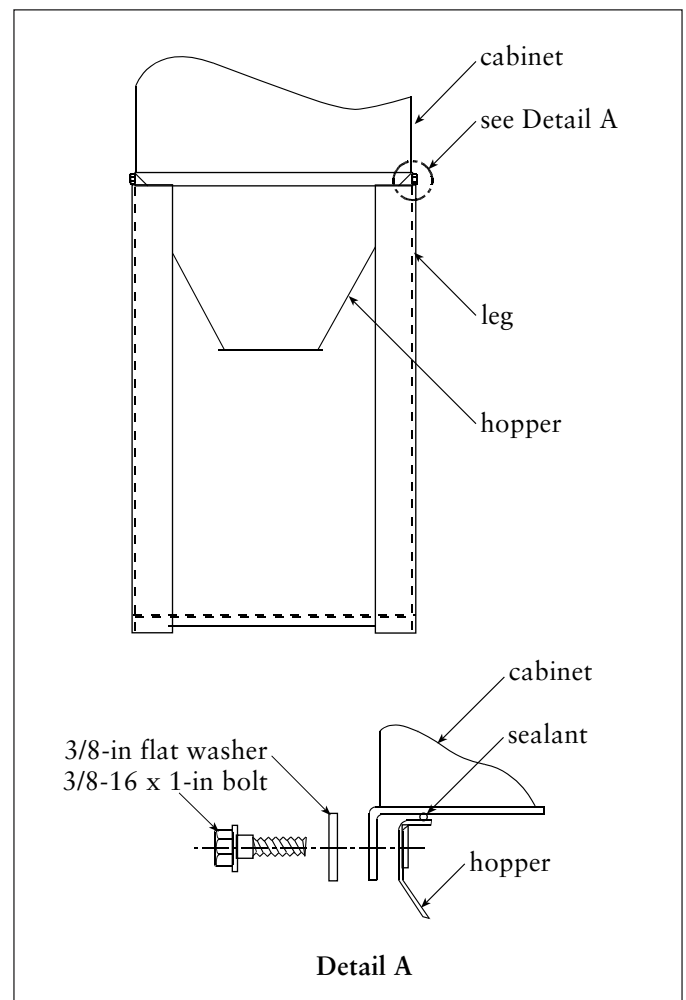
Optional Equipment

Hopper

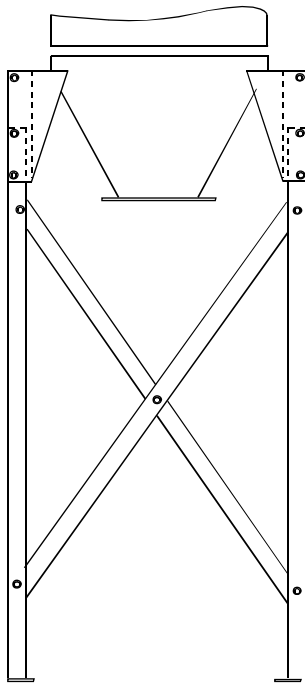
1. Attach legs and cross bracing to hopper using 3/8-16 x 1-in bolts, washers, and nuts as shown. Cross braces can be installed to allow front or back hopper access.

Note: The 5-gallon pail hopper does not require cross bracing.

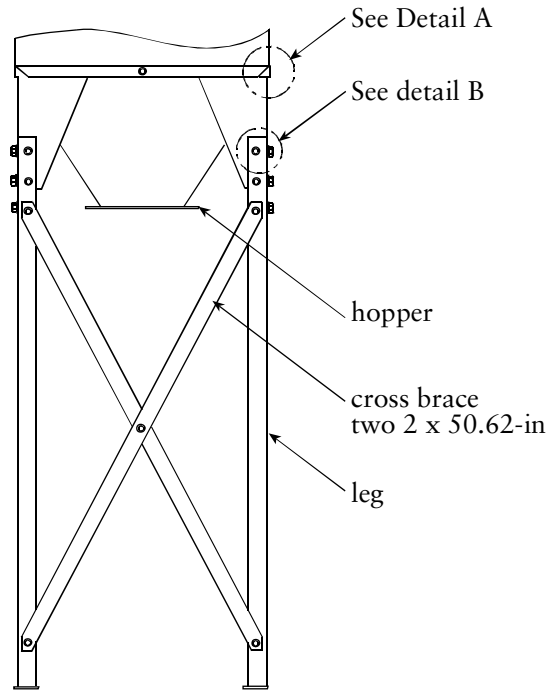
2. Position the hopper and leg assembly on the foundation's anchor bolts and fasten securely.
3. Apply 1/4-in diameter rope-type sealant to the hopper's top flange.
4. Lift cabinet over hopper and leg assembly and lower slowly.
5. Secure with bolts, washers, and nuts supplied.



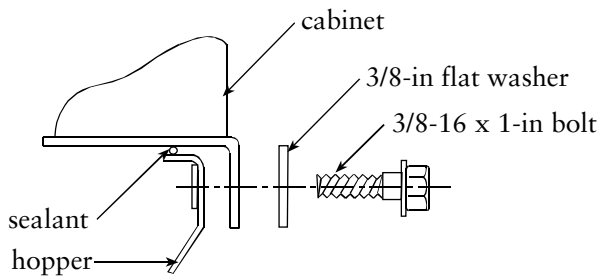
Hopper to 5-Gallon Pail Assembly



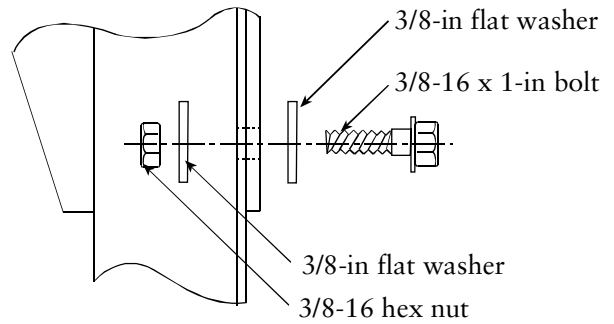
Front View



Side View



Detail A



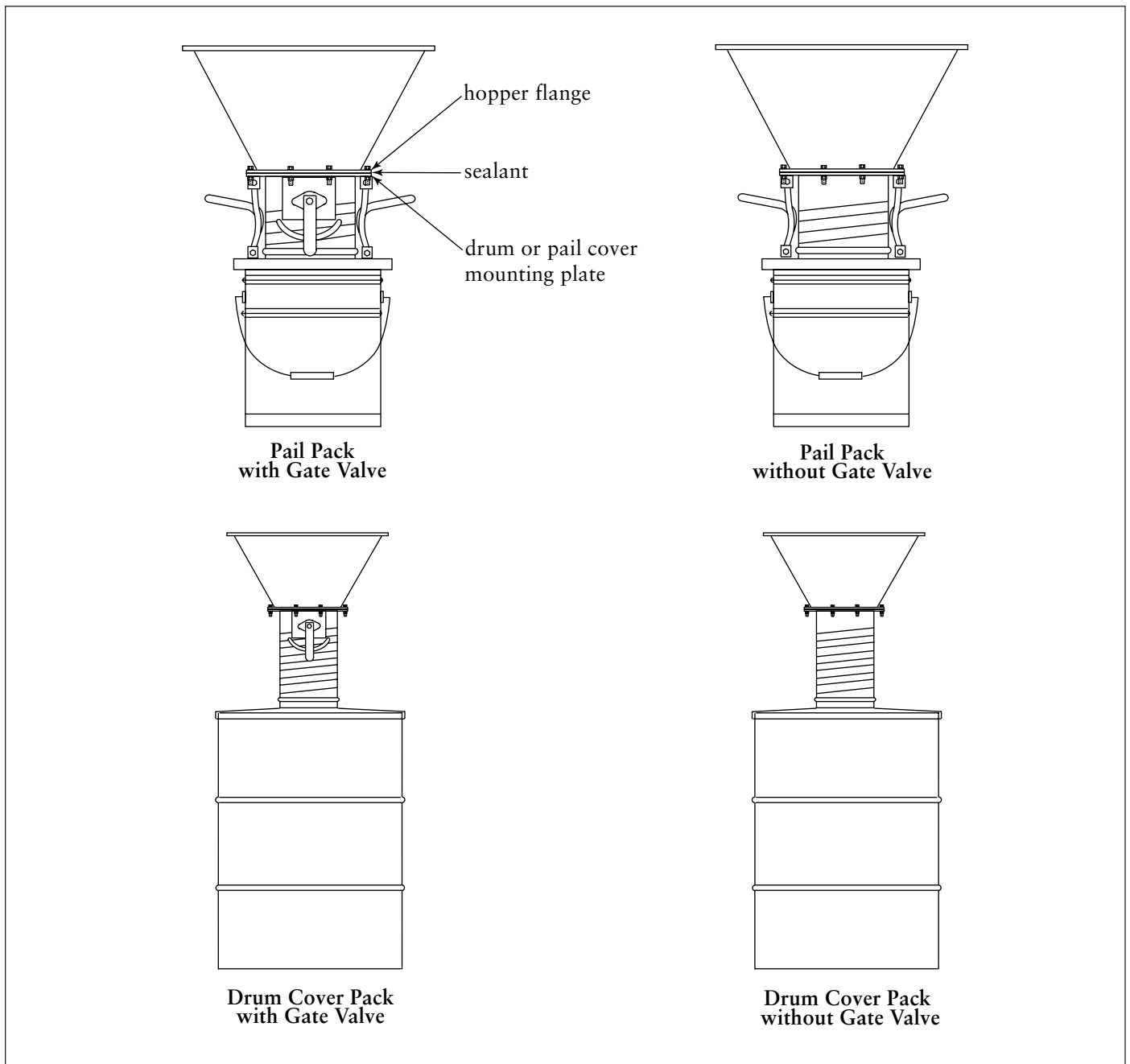
Detail B

Hopper to 55-Gallon Drum Assembly

Hopper Attachments

5- or 55-Gallon Drum Packs with or without Slide Gate

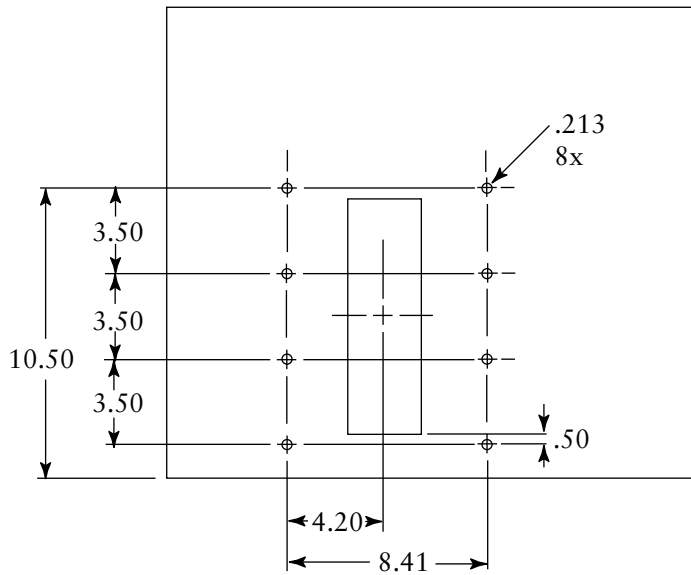
1. Apply 1/4-in diameter rope-type sealant to the drum cover mounting plate flange.
2. Fasten the drum cover assembly to the hopper flange using the hardware supplied.



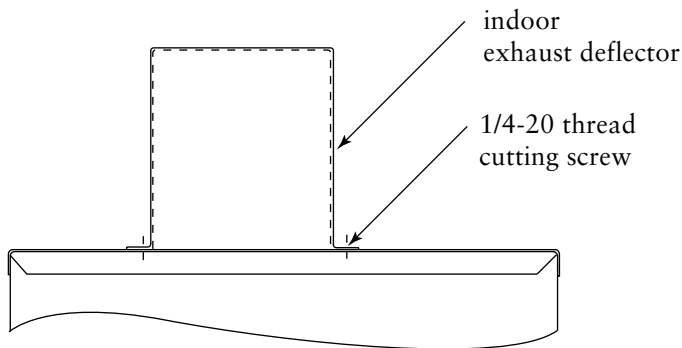
5- or 55-Gallon Drum Packs with and without Slide Gate

Indoor Exhaust Deflector

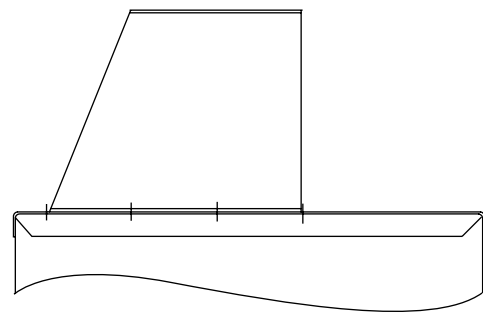
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .213-in diameter drill bit to drill eight holes as shown.
4. Position the indoor exhaust deflector on the cabinet top and fasten using eight 1/4-20 thread-cutting screws. Tighten securely.
5. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.



Drill Location



Front View

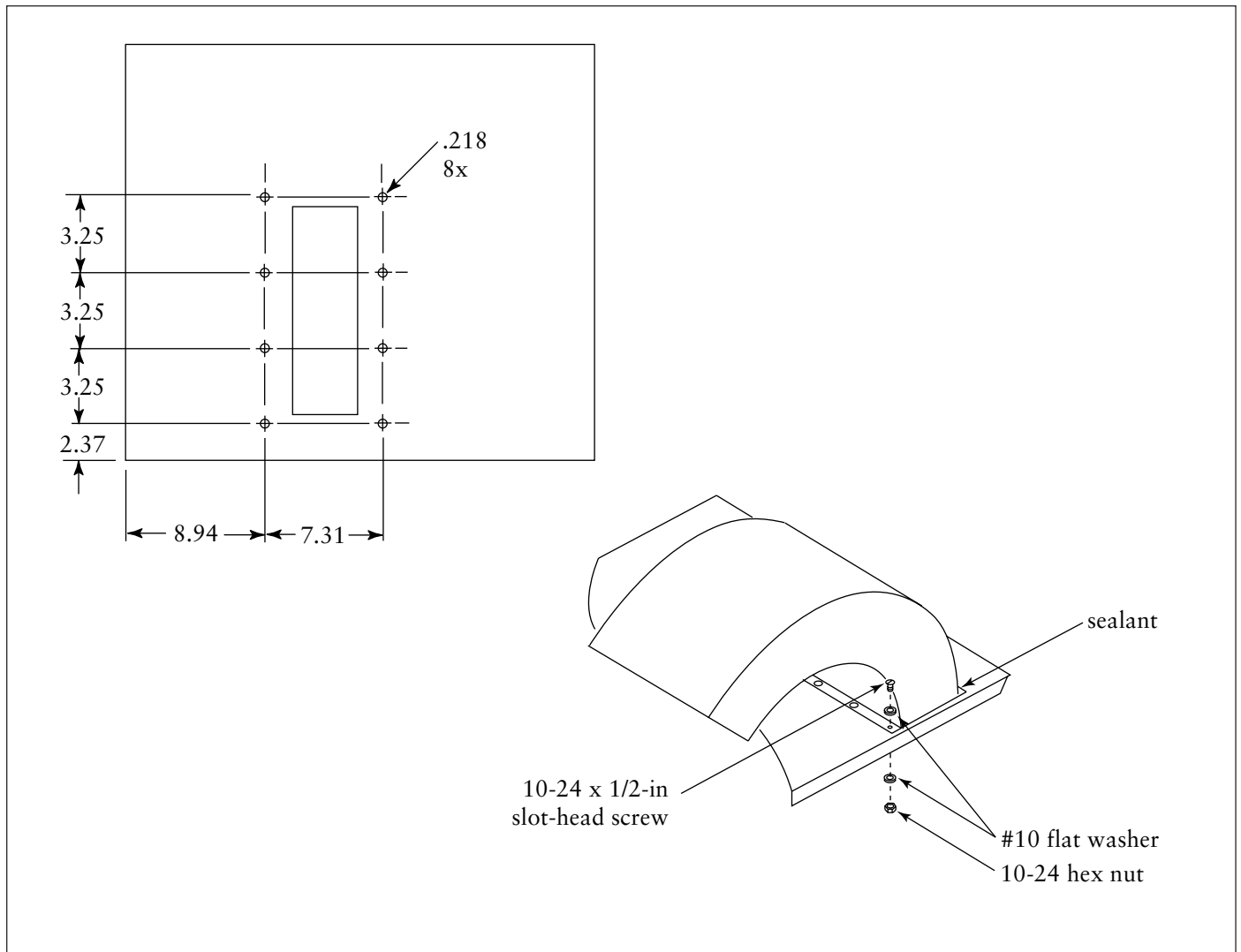


Left Side View

Indoor Exhaust Deflector

Outdoor Exhaust Deflector

1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .218-in diameter drill bit to drill eight holes as shown.
4. Position the indoor exhaust deflector on the cabinet top, align holes and fasten using eight #10-24 x 1/2-in bolts, washers, and nuts supplied. Tighten securely.
5. Apply sealant around outside edge of the exhaust deflector.
6. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.



Outdoor Exhaust Deflector

Ductwork

Note: If unit is operated with more than the maximum permissible inlet size, the fan motor can overload or dust can settle in the duct due to low air velocity.

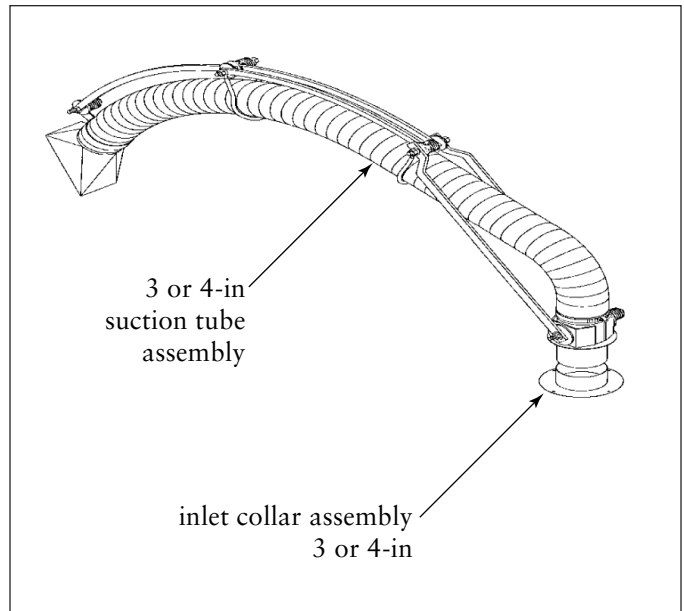
1. Inlet collars can be located on the side, top, or back of the cabinet by removing the desired inlet cover plate and installing the inlet collar using the same screws.
2. Use the shortest possible inlet duct. Avoid the use of tees or flexible, wire-molded duct except where machine motion or vibration needs to be isolated. Flexible duct has a high static pressure and reduces airflow.
3. Size duct for the recommended air velocity of the conveyed material or material may collect inside the duct.
4. Connect joints with sheet metal screws, rivets, or sealer. Finish each joint with sealer or duct tape.

Note: Sheet metal screws may cause fibrous or stringing particulate to accumulate inside duct. Use rivets or sealant in these conditions.

Suction Tube Assembly

3- and 4-Inch

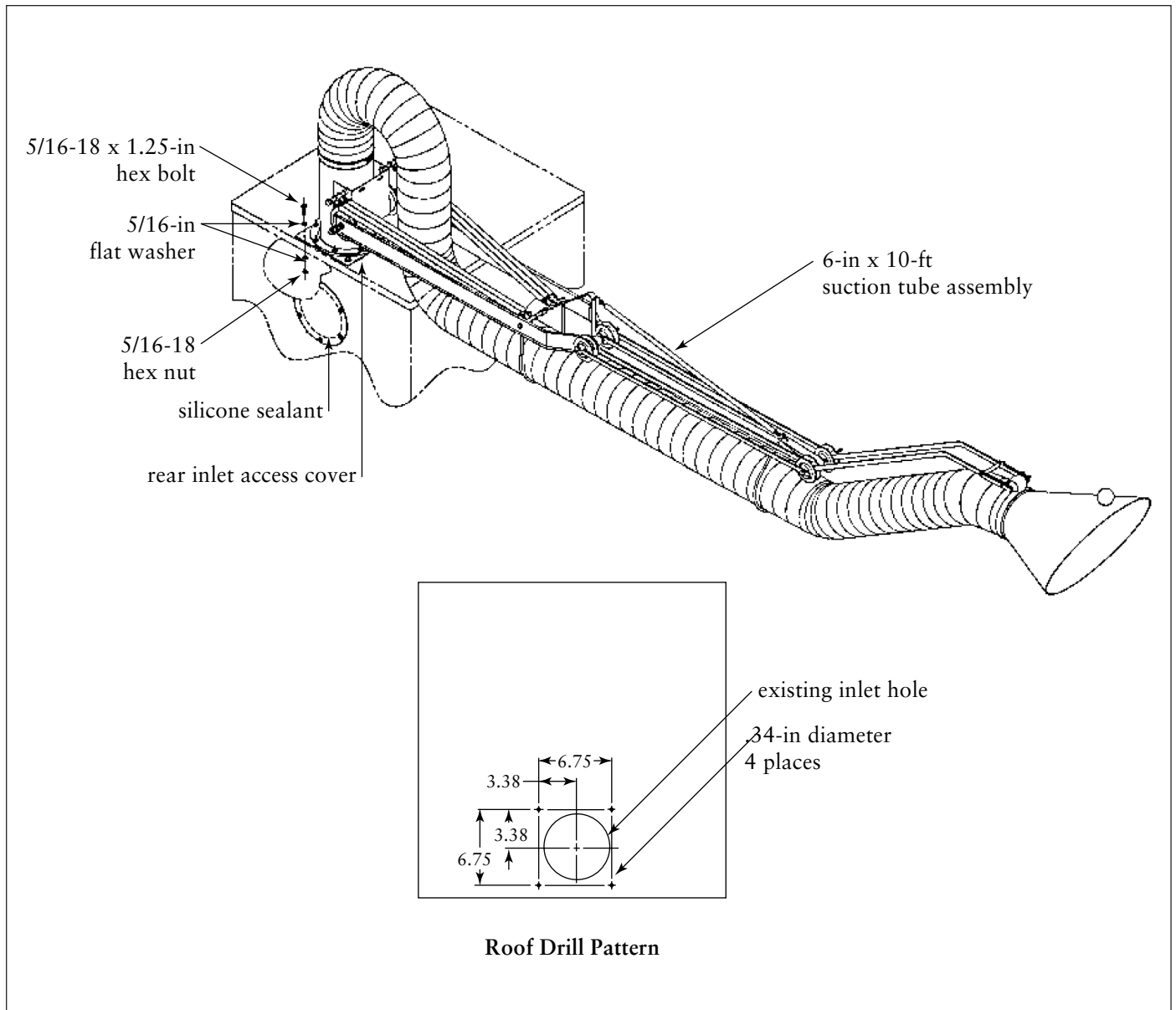
1. Apply a thin layer of grease to the inside surface of the inlet collar.
2. Slide the suction tube base into the inside of the inlet collar. Swivel the suction tube to lubricate all surfaces.



3- and 4-Inch Suction Tube Assembly

6-Inch

1. Remove the inlet access covers on the top and back of the unit and set aside.
2. Use a .343-in diameter drill bit to drill four holes in the top of the unit as shown.
3. Apply sealant around the inside edge of the bolt pattern.
4. Position the suction tube assembly on the collector top, align holes, and fasten securely using 5/16-18 x 1 1/4-in bolts, washers, and nuts supplied.
5. Replace the back access cover plate.



6-Inch Suction Tube Assembly

Magnehelic Gauge

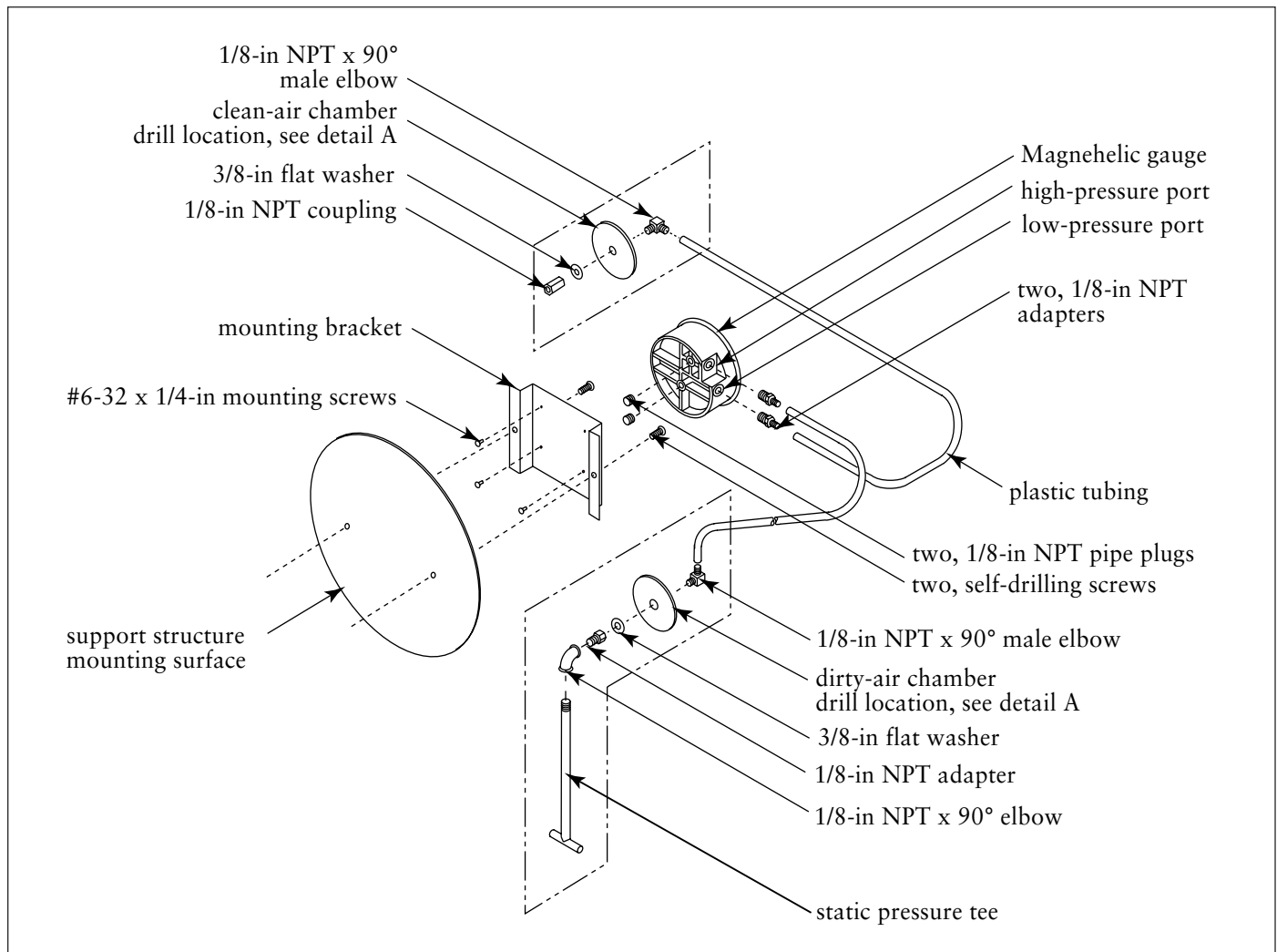
The Magnehelic is a differential pressure gauge used to measure the pressure difference between the clean- and dirty-air chambers and provides a visual display of filter change requirements. The high-pressure tap is located in the dirty-air chamber and the low-pressure tap is located in the clean-air chamber.

1. Choose a convenient, accessible location on or near the unit for mounting that provides the best visual advantage.

If unit is equipped with factory-installed pressure taps, skip to Step 5.

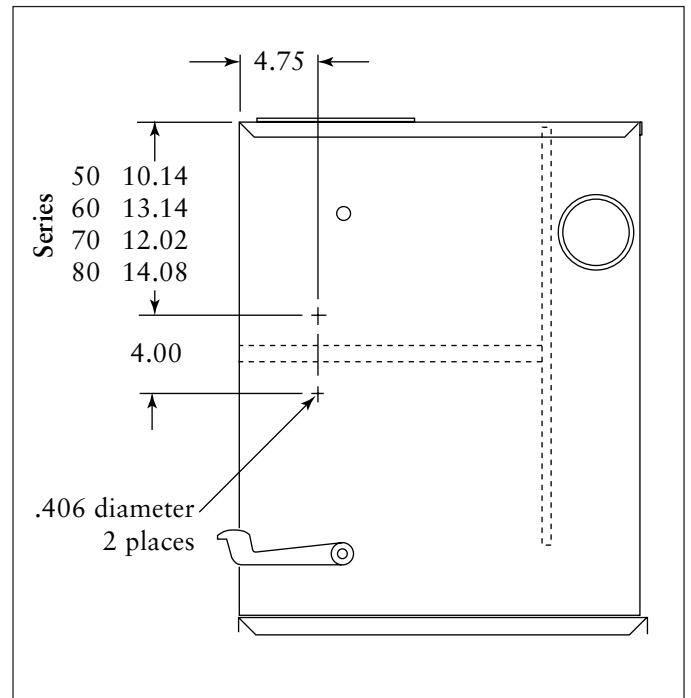
2. Before drilling, place a piece of non-combustible cloth over the filter opening in the clean-air chamber to protect them from drilling chips.

3. Place a piece of wood behind the drill location in the dirty-air chamber to protect the filters from damage by the drill bit. Use a .406-inch diameter bit to drill the holes as shown in Magnehelic Gauge, Detail A.
4. Mount the pressure tap hardware on the clean-air chamber panel. Mount the pressure tap with the tee inside the dirty-air chamber.
5. Plug the pressure ports on the back of the gauge using two, 1/8-in NPT pipe plugs supplied. Install two, 1/8-in NPT male adapters supplied with the gauge into the high- and low-pressure ports on the side of the gauge. Attach the mounting bracket using three, #6-32 x 1/4-in screws supplied.



Magnehelic Gauge Assembly

6. Mount the gauge and bracket assembly to the supporting structure using two self-drilling screws.
7. Thirty-five feet of plastic tubing is supplied and must be cut in two sections. Connect one section of tubing from the gauge's high-pressure port to the pressure fitting located in the dirty-air chamber. Connect remaining tubing from the gauge's low-pressure port to the fitting in the clean-air chamber. Additional tubing can be ordered from your representative.
8. Carefully remove the cloth protecting the filters. Close access doors and tighten securely by hand.
9. Zero and maintain the gauge as directed in the manufacturer's Operating and Maintenance Instructions provided.

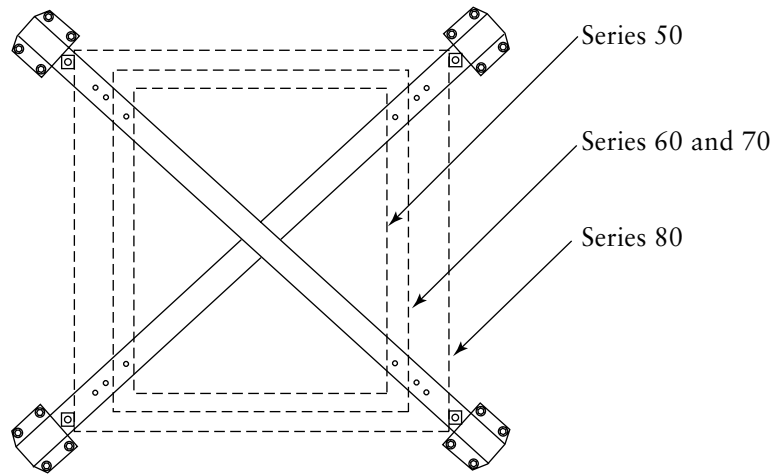


Magnehelic Gauge Detail A

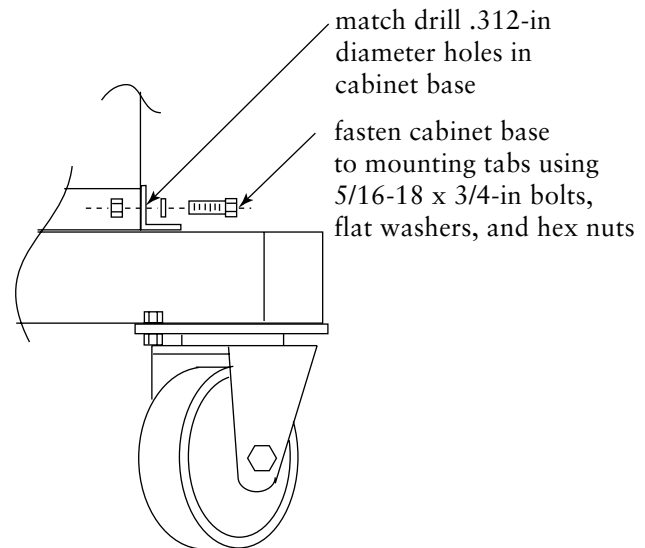
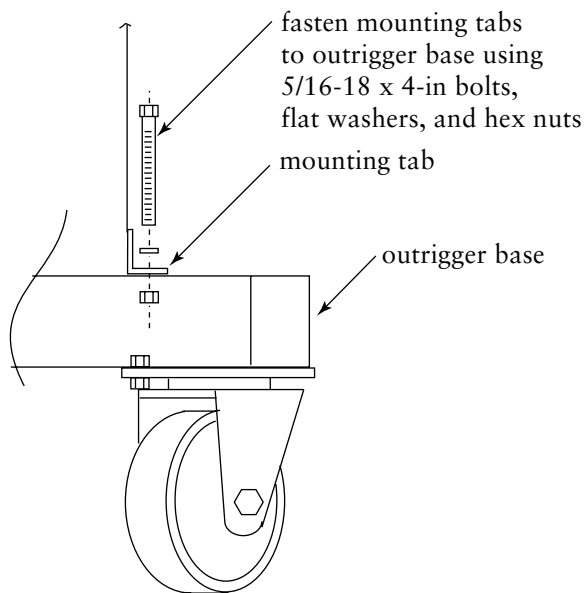
Outrigger Pack

Note: Outrigger pack is for use with dust drawer models only.

1. Center the unit on the outrigger pack aligning the appropriate bolt patterns.
2. Fasten the four mounting tabs to the outrigger base using four 5/16-18 x 4-in bolts, washers, and nuts. Tighten securely.
3. Drill four .312-in diameter holes in the cabinet base using the mounting tab holes as a guide.
4. Attach the cabinet base to the mounting tabs using four 5/16-18 x 3/4-in bolts, washers, and nuts. Tighten securely.



Center the unit on the outrigger pack aligning the appropriate bolt patterns.

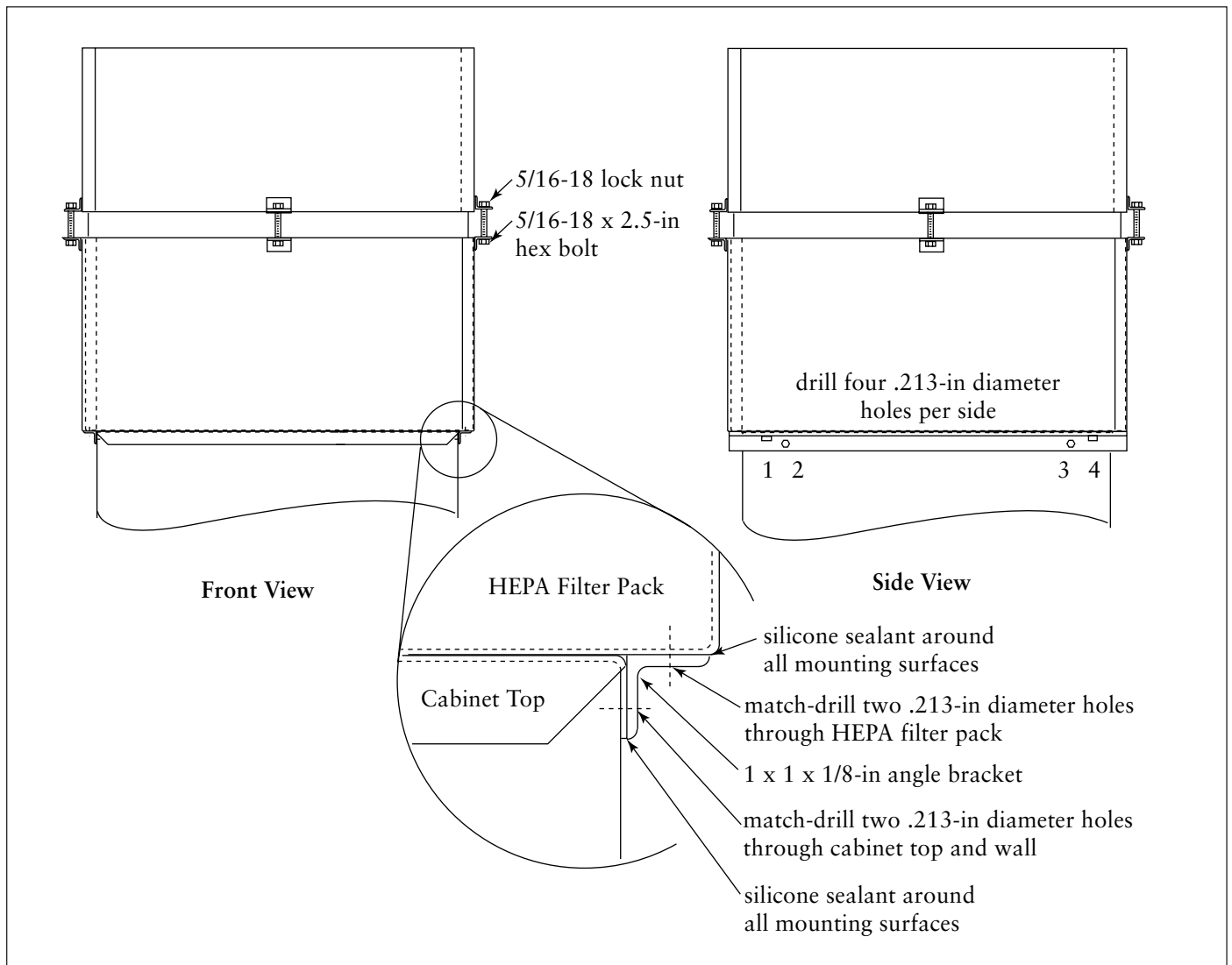


Outrigger Pack Assembly

HEPA Filter

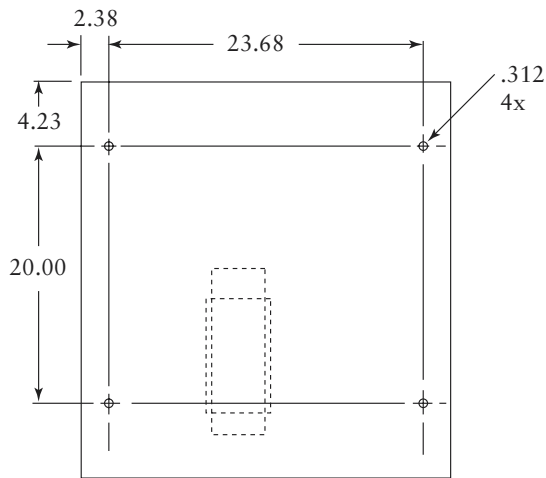
Models 60 and 70

1. Position the HEPA filter pack on top of the unit as shown.
2. Remove the top door assembly and set aside.
3. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
4. Position angle bracket on each side of the unit flush with the top and under the HEPA filter brackets as shown.
5. Using the holes in the angle brackets as a guide, drill two .213-in diameter holes in the cabinet side and two in the HEPA filter pack.
6. Remove HEPA filter pack and apply silicone sealant around mounting surface.
7. Fasten angle bracket to cabinet using four 1/4-20 thread-cutting screws supplied.
8. Align holes in the HEPA filter pack angle brackets with the holes drilled in the bracket top surfaces and secure using four 1/4-20 thread-cutting screws.
9. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.

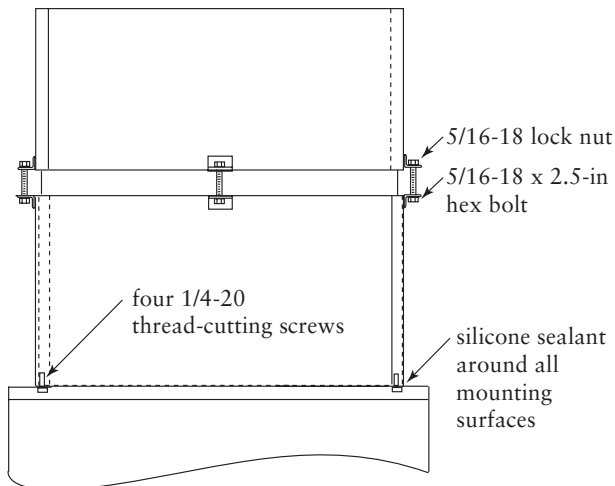


Model 80

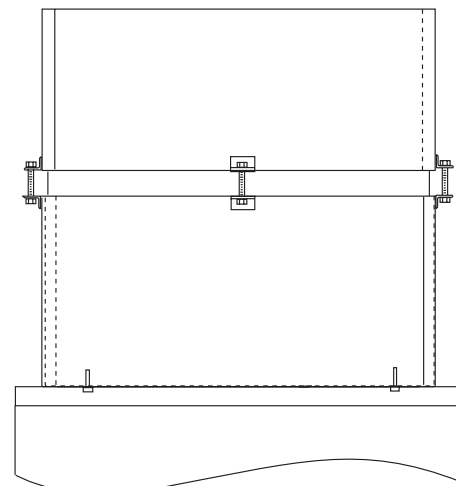
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .312-in diameter drill bit to drill four holes in the collector top as shown.
4. Apply sealant around sealing surface on cabinet top.
5. Position the HEPA filter pack on top of the unit aligning holes.
6. From inside the clean-air chamber, fasten the filter pack to the top using four 1/4-20 thread-cutting screws.
7. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.



Top View Drill Location



Front View



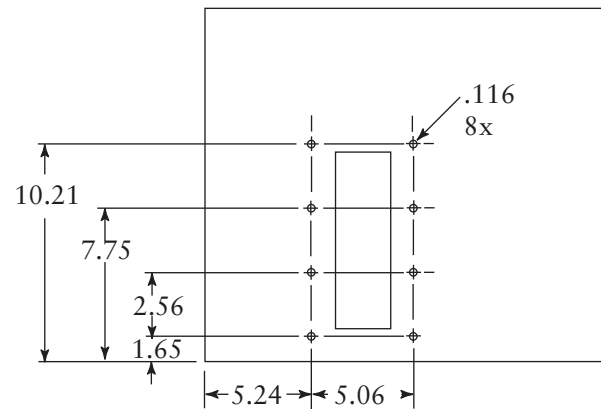
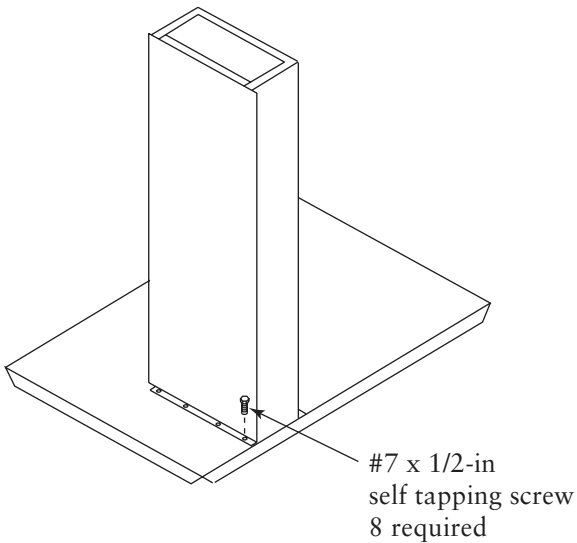
Right Side View

Exhaust Silencer

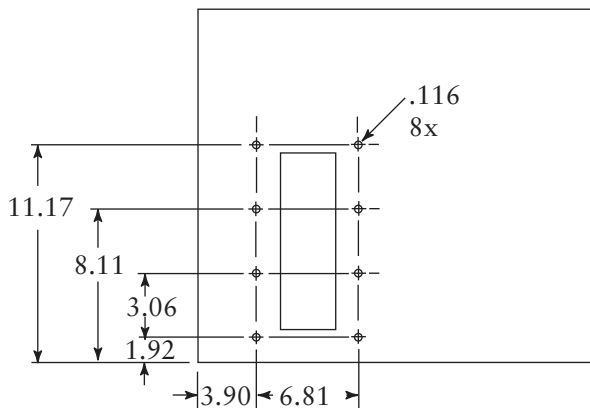
If an exhaust silencer was ordered with the unit, the mounting holes are pre-drilled.

To install an add-on silencer:

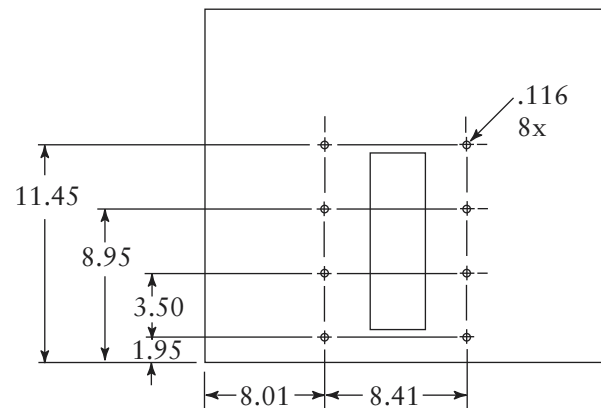
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .116-in diameter drill bit to drill eight holes in the collector top as shown.
4. Position the exhaust silencer, align holes, and fasten securely with #7 x 1/2-in screws supplied.
5. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.



Series 50 Drill Location



Series 60 and 70 Drill Location



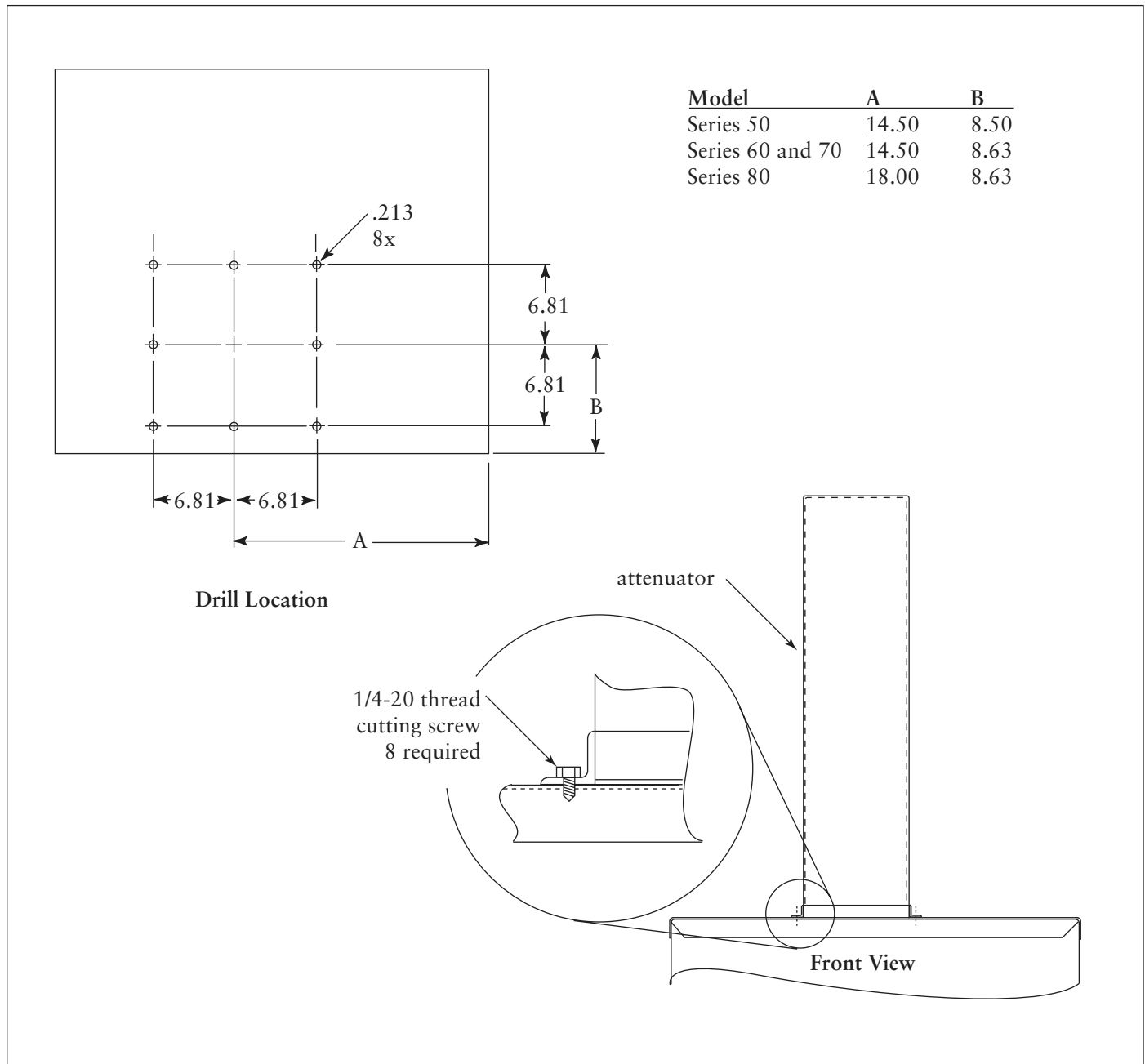
Series 80 Drill Location

Attenuator

If an attenuator was ordered with the unit, the mounting holes are pre-drilled.

To install an add-on attenuator:

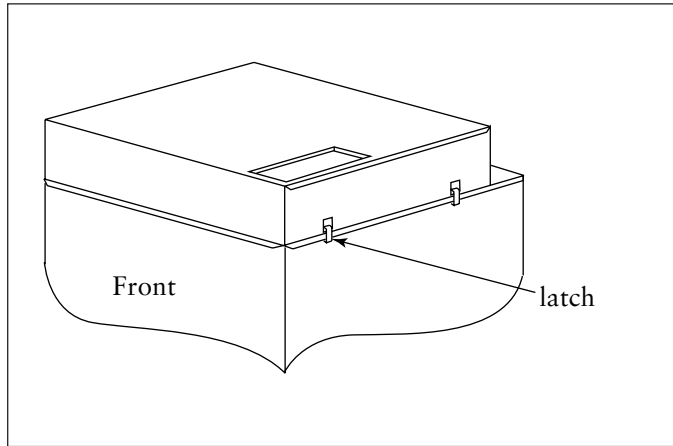
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .213-in diameter drill bit to drill eight holes in the collector top as shown.
4. Position the attenuator assembly, align holes, and fasten securely using eight 1/4-20 thread-cutting screws supplied.
5. Carefully remove the cloth protecting the filters. Replace the top door assembly and tighten securely by hand.



Attenuator Installation

Chamber Silencer

1. Place the chamber silencer over the clean-air outlet on top of the unit.
2. Position silencer flush with the front of the unit and the exhaust opening facing the front.
3. Secure with all four latches.



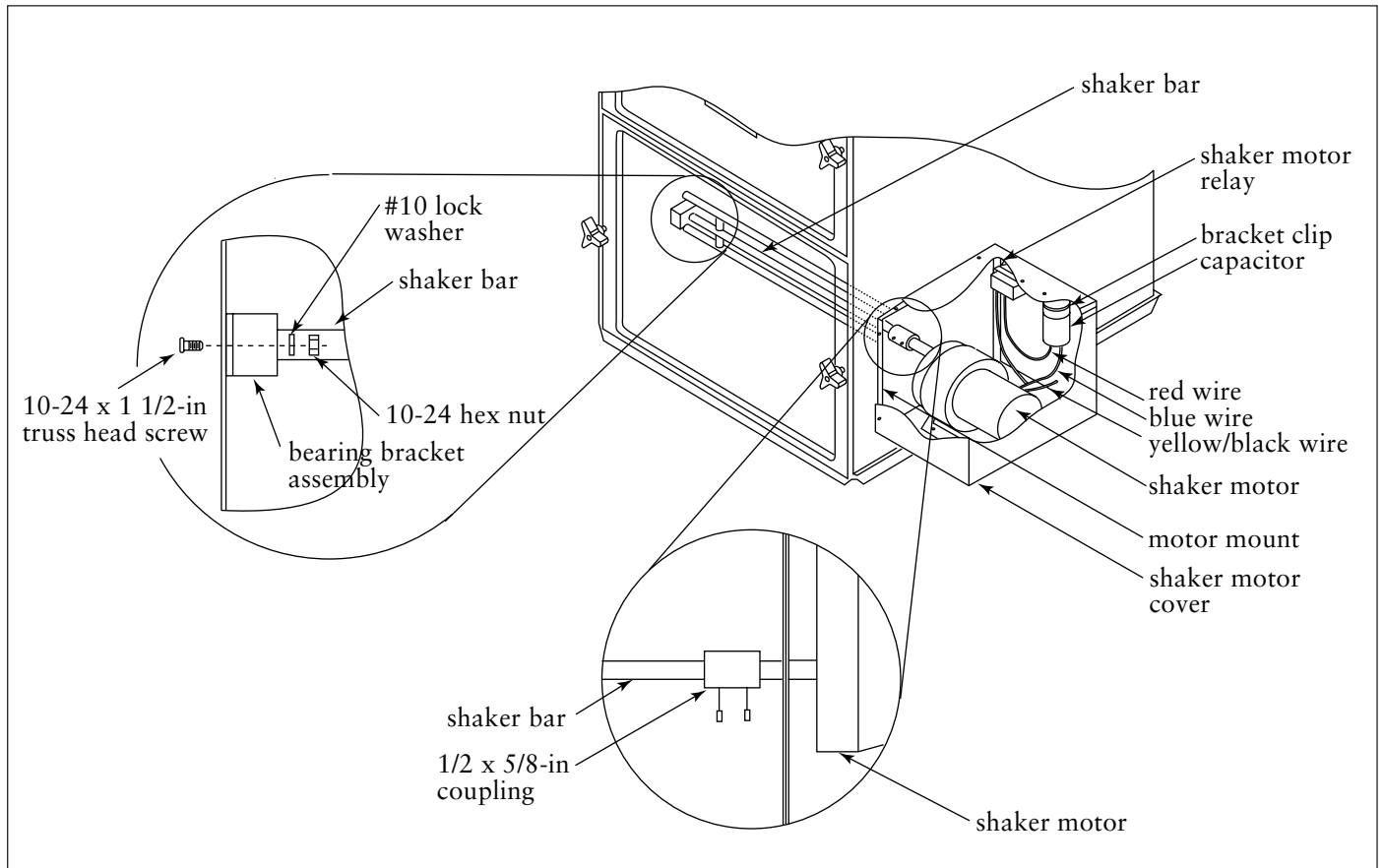
Chamber Silencer

Automatic Shaker

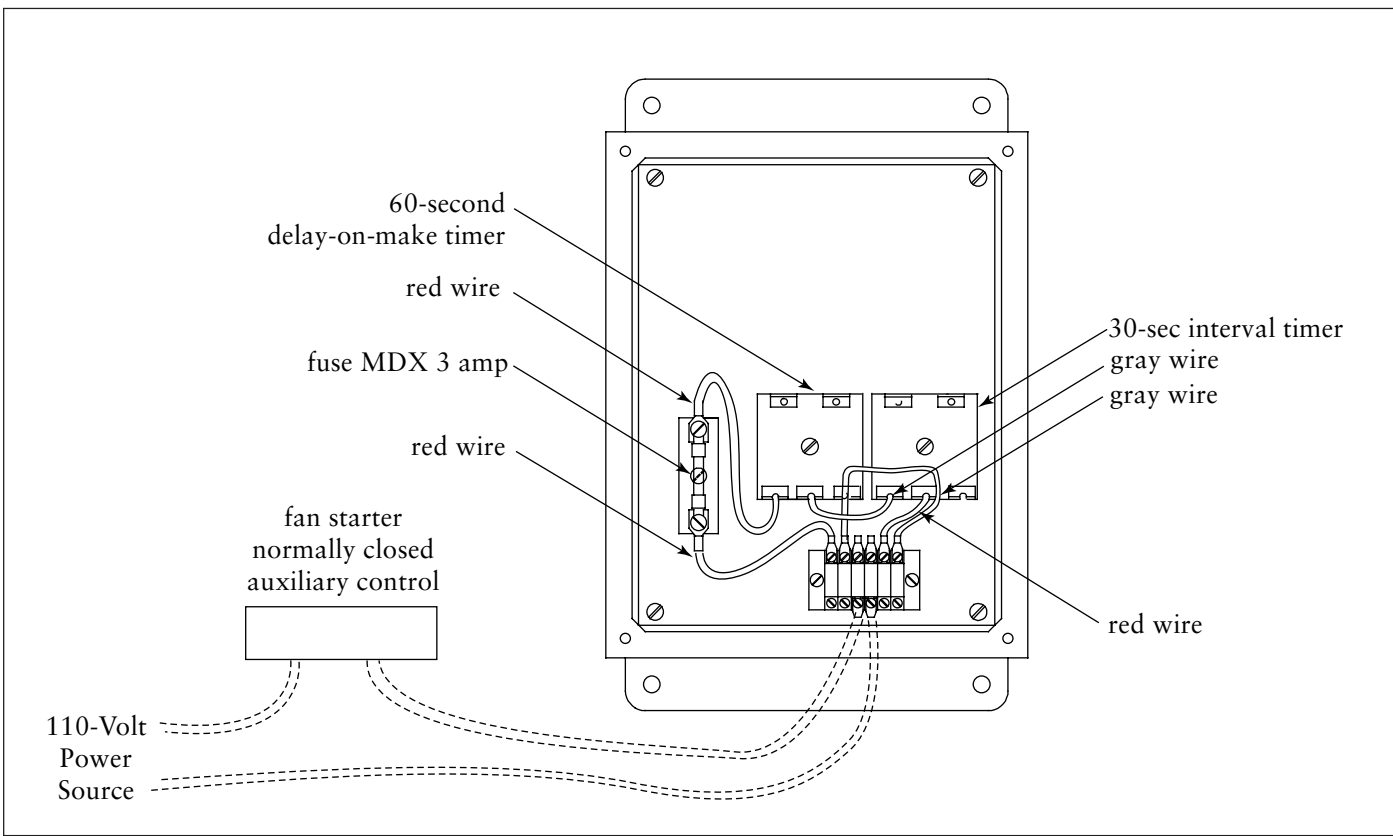
The automatic shaker is driven by a 1/10 Hp TENV gear motor controlled by a solid-state timer. The timer control box can be ordered with or without step-down transformers. A timer control box without the transformer requires a 120-Volt AC power supply controlled by a customer-supplied fan starter. Input power is supplied to the timer on fan motor shutdown, through the normally-closed auxiliary contact of the fan starter. After a 60-second delay, the timer energizes and the shaker motor starts for a 30-second fixed time. Turning the unit ON and OFF initiates the shaker sequence.

Wiring

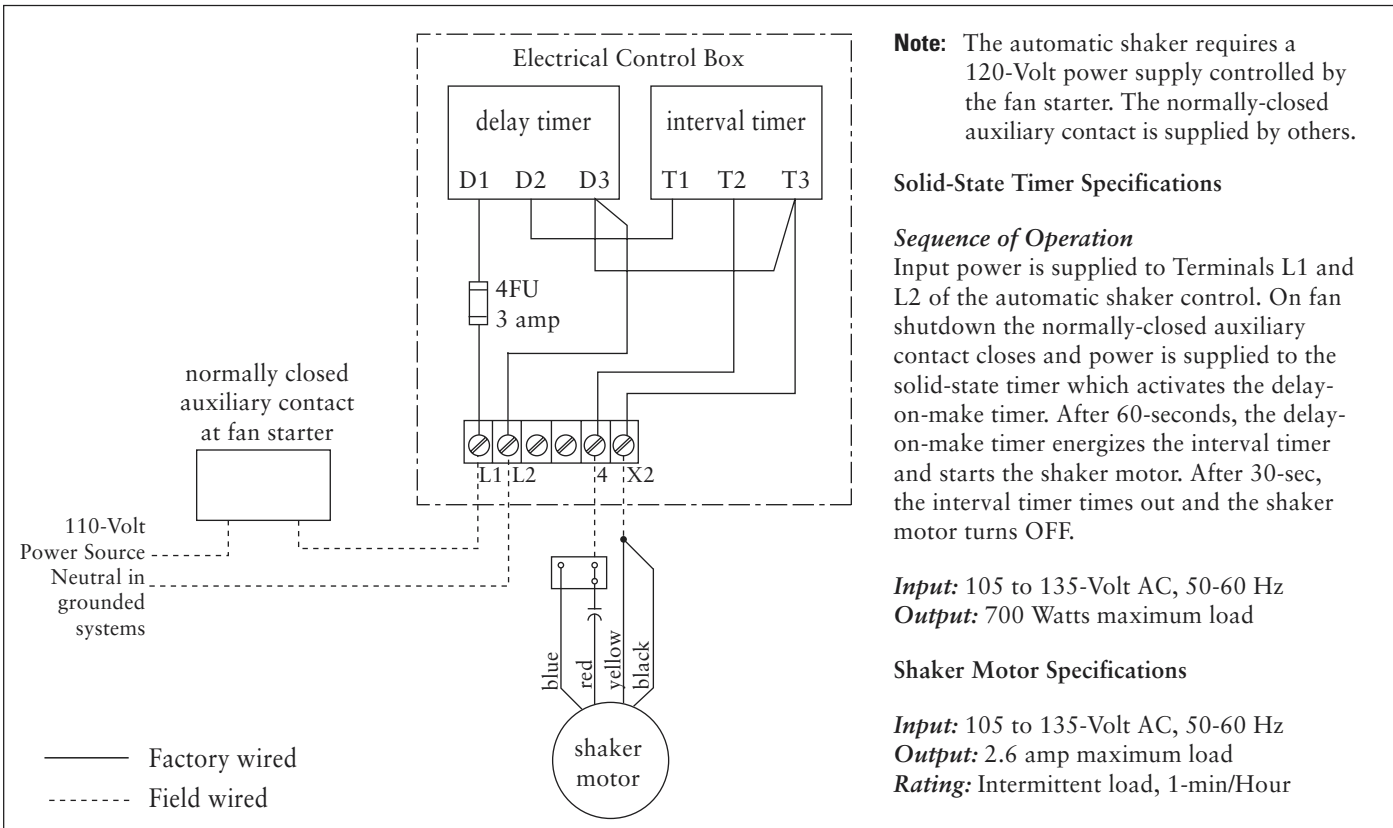
1. Mount the timer control box in a convenient, accessible location on or near the unit.
2. Complete the wiring to the fan starter, timer, and shaker motor according to the appropriate wiring diagram.



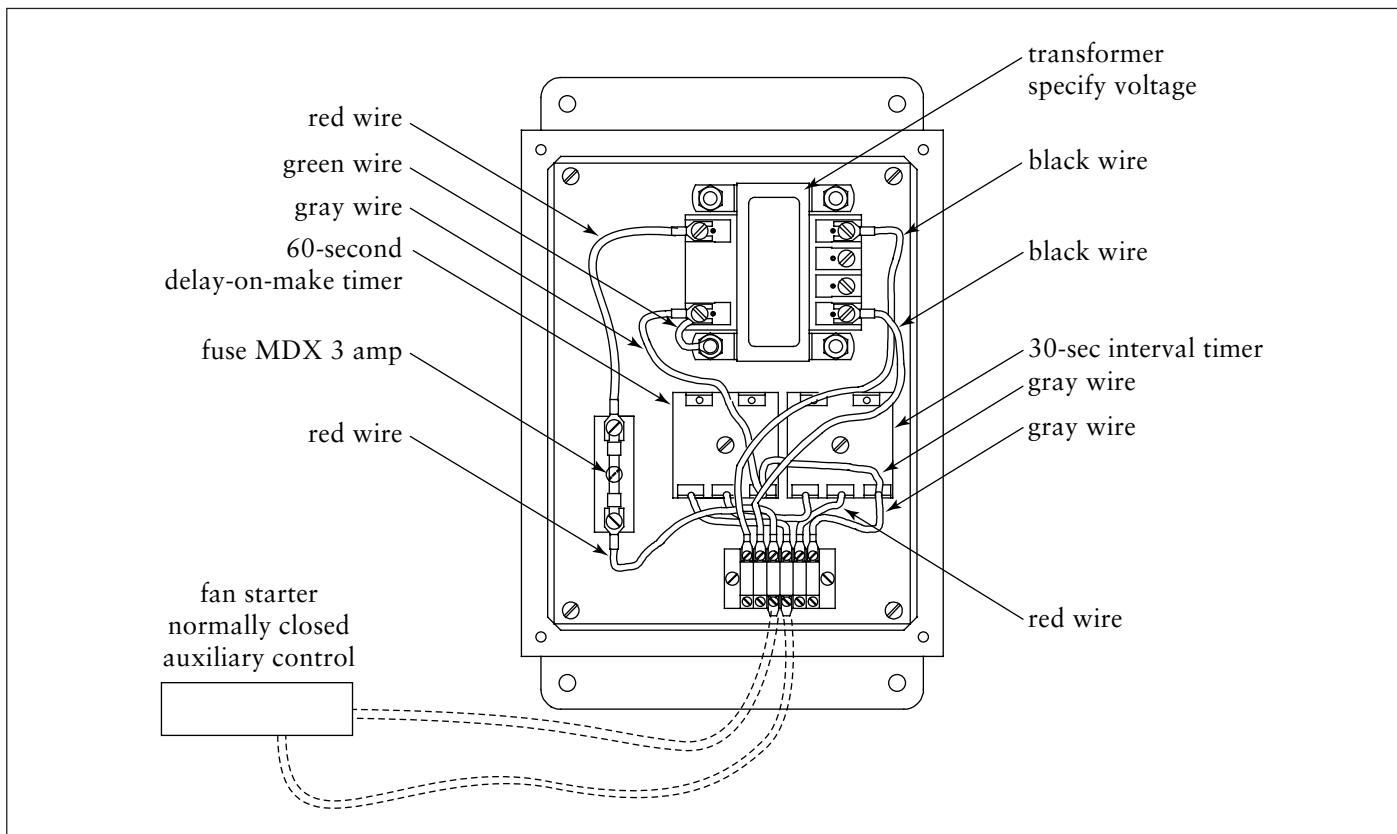
Automatic Shaker Installation



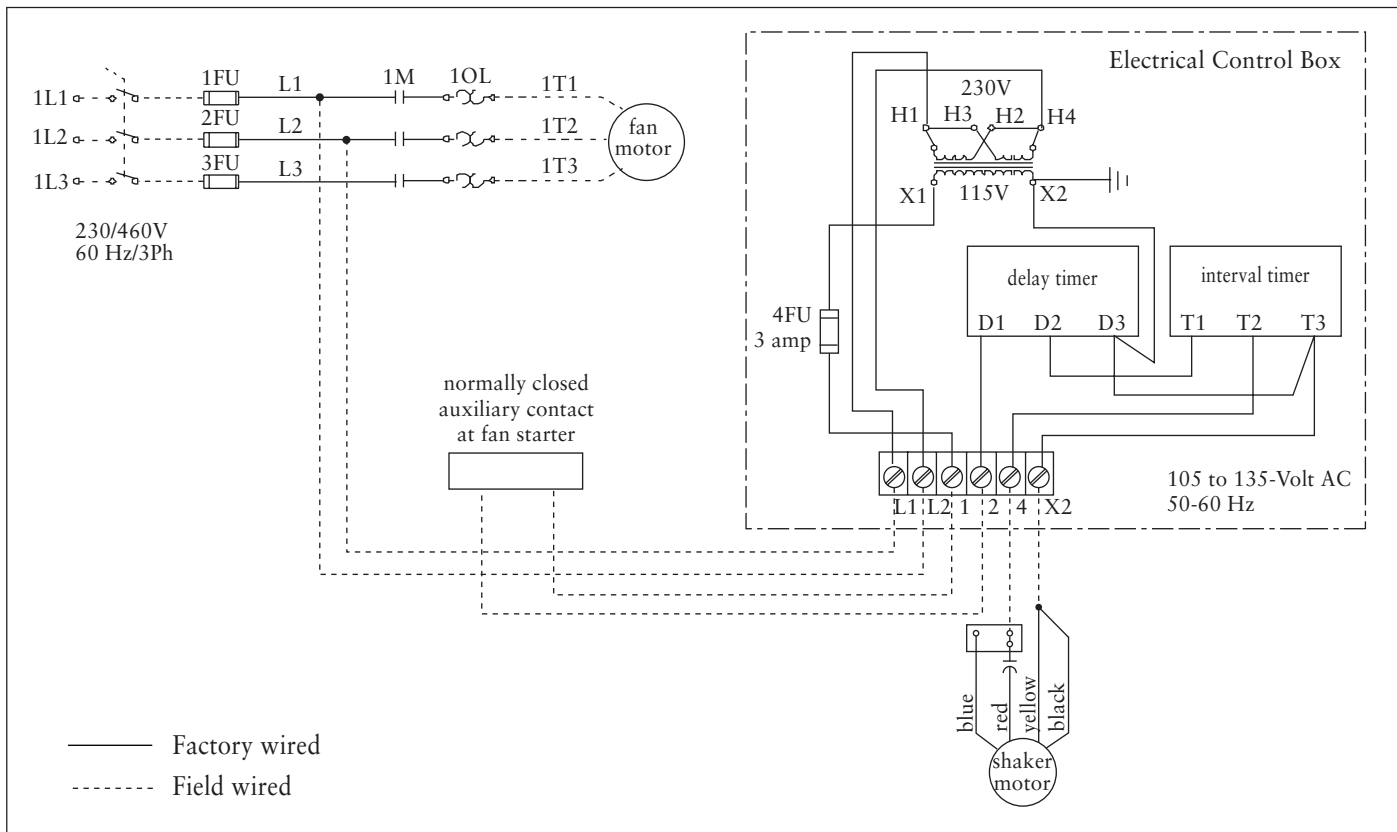
Series 50 to 80 Automatic Shaker without Transformer



Series 50 to 80 Automatic Shaker without Transformer Wiring Diagram



Series 50 to 80 Automatic Shaker with Transformer



Series 50 to 80 Automatic Shaker with Transformer Wiring Diagram

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. Excess airflow to the blower will cause electrical failure.
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:

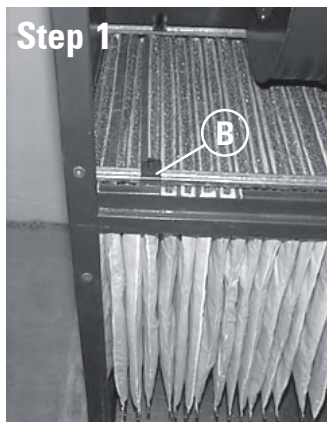
Turn electrical power OFF at source and switch any two leads on the output-side of the fan-motor starter.

Start-Up

1. Turn power ON at source.
2. Turn unit ON.
3. On hopper models with 5- or 55-gallon drum storage, check that hopper discharge is open and the storage container is sealed, if equipped. Excess airflow to the blower will cause electrical failure.
4. When airflow diminishes, turn the unit OFF and manually shake the EZ Filter Pack.

Service Information

EZ Filter Pack Installation

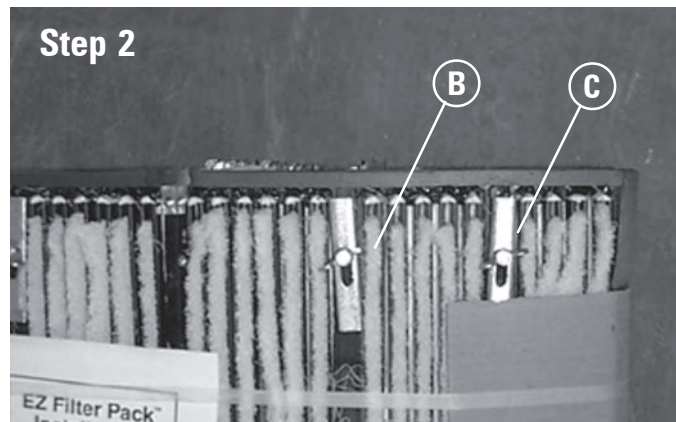


Step 1

- A. Remove top and bottom doors and set aside.
- B. Remove and discard set screws and hold-down channels.
- C. Remove and discard envelope bags.
- D. Clean bottom of cabinet ledge with stiff brush.

Note: The EZ Filter Pack seals against the bottom of the cabinet ledge.

- E. Remove and empty dust drawer.



Step 2

- A. Remove banded EZ Filter Pack from box. Do not remove bands.
- B. Loosen wing screws fully.
- C. Move slide latches back, away from the gasket.



Step 3

- A. Insert banded EZ Filter Pack over shaker bar.
- B. Cut and remove bands.
- C. Remove cardboard protectors.



Step 4

- A. Insert one hand midway under each side of the EZ Filter Pack.
- B. Push EZ Filter Pack to bottom of the cabinets filter frame.



Step 5

- A. Place one hand under the center of the EZ Filter Pack.
- B. Hold filter back against bottom of cabinet ledge.
- C. Push each slide latch over cabinet ledge.
- D. Do not tighten wing screws at this time.



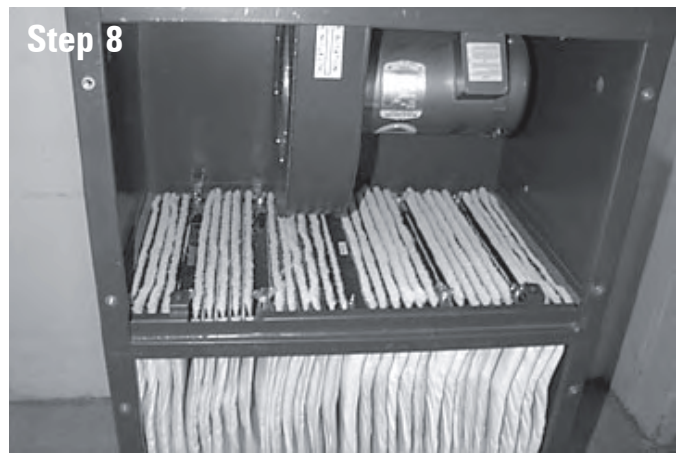
Step 6

- A. Distribute filter envelopes evenly.
- B. Finger-tighten wing screws.



Step 7

- A. Place support bar over center of EZ Filter Pack.
- B. Insert small wing screws through holes in support bar.
- C. Hand tighten all wing screws.



Step 8

- A. Inspect filter seal.
- B. Replace clean dust drawer.
- C. Replace cabinet doors and tighten securely by hand.

EZ Filter Pack Maintenance

1. Manually or automatically clean the filters once each day depending on load circumstances.
2. A good practice is to clean filters at break, lunch, and end of day.

Dust Disposal

1. Turn unit OFF and empty dust container as necessary to minimize dust in the hopper.
2. If the optional 5- or 55-gallon drum attachment is used, empty when drum is 2/3 full.
3. If optional slide gate is used, close gate before servicing drum.
4. Reinstall drum and open gate.

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.
	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.
Blower fan and 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.
	Hopper discharge open	Install slide gate or drum cover arrangement to hopper discharge. See Hopper Attachments on Page 11.
	Blower fan 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.
	Inlet too large for collector rating.	Contact Donaldson.
	Electrical circuit overload	Check that the power supply circuit has sufficient power to run all equipment.

Problem	Probable Cause	Remedy
Insufficient airflow	Fan rotation backwards	Proper fan rotation is clockwise when looking down at the blower motor. See Preliminary Start-Up Check on Page 26.
	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 optional attachments are installed correctly. See Hopper Attachments on Page 11.
	Fan exhaust area restricted	Check fan exhaust area for obstructions. Remove material or debris. Adjust damper flow control.
	Dust storage area overfilled or plugged	Clean out dust storage area. See Dust Disposal on Page 29.
	Collapsed or plugged duct	Clean duct of all debris. Replace collapsed duct.
	Improper duct sizing	Contact Donaldson for assistance.
	EZ Filter Pack plugged	Shake filter packs a minimum of once a day. Brush or manually clean filter packs plugged with sticky or fibrous material. Replace filter packs that do not clean properly by shaking. See EZ Filter Pack Installation on Page 27.
Automatic shaker mechanism not working	Manual shaker mechanism malfunctioning	Check that the roll pin is in place. Replace if necessary.
	Mechanical binding or debris in mechanism	Check and clean obstruction or debris from the shaker mechanism.
	No voltage to the transformer	Check supply voltage at transformer Terminals H1 and H4. If no voltage is present, check fuses and replace as necessary. Check and repair supply lines.
	No voltage from the transformer	Check for 115-Volt output at transformer Terminals X1 and X2. If no voltage is present, replace transformer. See Automatic Shaker Wiring Diagram on Page 24.

Troubleshooting continued

Problem	Probable Cause	Remedy
Automatic shaker mechanism not working continued	Delay-on-make timer	Check input voltage to the delay-on-make timer's Terminal D1. After the 60-second delay, check for voltage on Terminal D2. If input voltage is present, but no output voltage, replace the delay-on-make timer.
	Interval timer	After the 60-second delay, check for voltage at the interval timer Terminal T1. If input voltage is present, check output voltage at Terminal T2. Replace interval timer if no output voltage is present. See Automatic Shaker Wiring Diagram on Page 24.
	Shaker motor relay	Locate the motor relay under the shaker cover. Check input voltage at the relay's Terminal 4, wait the 60-second delay and check output voltage on the relay Terminal 2. Replace the relay if no output voltage is present.
	Capacitor	Check input voltage to the capacitor's input terminal. After the 60-second delay, check for voltage on the output terminal. If input voltage is present, but no output voltage, replace the capacitor. See Automatic Shaker Wiring Diagram on Page 24.
	Defective shaker motor	Check input voltage to the shaker motor. Check and repair loose or worn terminal connectors. If voltage, terminals, and components are good, replace shaker motor. See Automatic Shaker Wiring Diagram on Page 24.
Shaker motor runs, but filter pack is not being cleaned	Shaker motor and shaker bar coupling damaged, loose, or missing	Lockout electrical circuit and remove the bottom door assembly. Check that the coupling that connects the shaker motor to the shaker bar is secure. Tighten the set screws in the coupling to the shaft flats if necessary. Replace damaged components.
Shaker motor tries to start, but blows fuse	Debris lodged in shaker mechanism	Lockout electrical supply and remove the bottom door assembly. Check for and remove debris. Check that EZ filter pack is installed properly. See EZ Filter Pack Installation on Page 27. Adjust the shaker bar by loosening the set screws joining the shaker motor and shaker bar. Adjust gap between shaker bar and cabinet walls equally. Tighten set screws. Replace fuse.

The Donaldson Torit Warranty

Donaldson Company, Inc. warrants to the original purchaser that for a period of ten (10) years from the date of shipment, the product described herein shall be free from defects in materials and workmanship if properly installed, maintained and operated under normal conditions. Donaldson Company makes no warranty against damage due to corrosion, abrasion, normal wear and tear, modification or misapplication and makes no warranty whatsoever as to any goods manufactured or supplied by others. After Donaldson Company has been given adequate opportunity to remedy any defects in material or workmanship, Donaldson Company retains the option to accept the return of the product, with return freight paid by the purchaser, and to refund the purchase price for the product after confirming the product is returned undamaged and in usable condition. Such a refund will be the full extent of Donaldson Company's liability and Donaldson Company shall not be liable for any other costs, expenses or damages whether direct, indirect, 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 Company. Failure to use genuine Donaldson replacement parts will cancel 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.

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

800-365-1331

www.donaldsontorit.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
dustmktg@mail.donaldson.com

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