



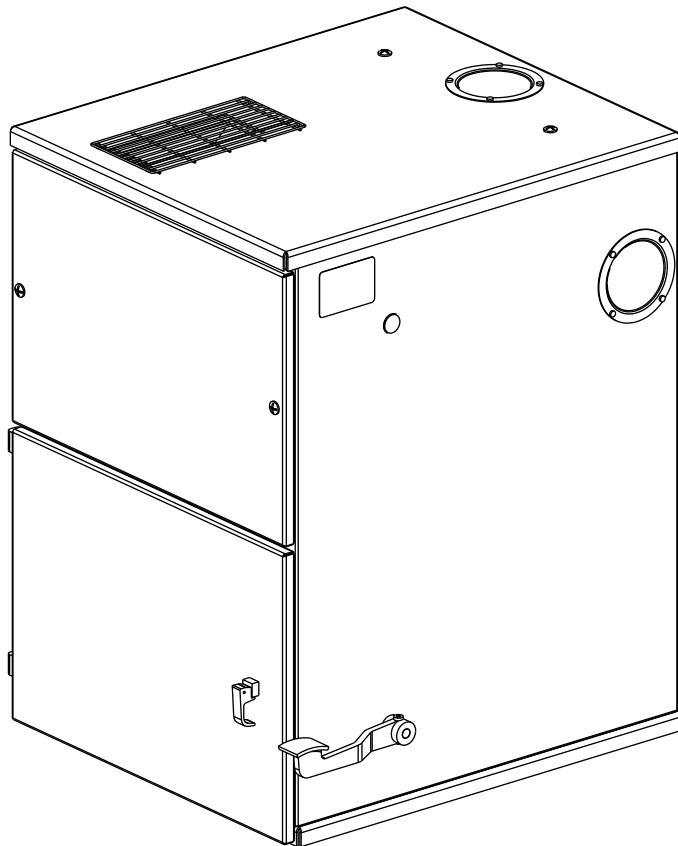
Cabinet Collector

Series 50-90

Models 54, 64, 66, 75, 81, 84, 90

Installation and Operation Manual

Installation, Operation, and Service Information



Models 54-84 Shown

This manual is property of the owner. Leave with the collector 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.

 **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.

Description

Cabinet Series 50 to 90 dust collectors are self-contained, intermittent-duty collectors with envelope-style filters. The Cabinet series collectors provide highly efficient, low maintenance air cleaning. Filters are cleaned using the standard manual filter shaker.

Designed to increase the versatility of the collector, standard options include a dust drawer, 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 collector to the specific application.

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.

Note: Standard collectors (Models 54-90) are limited to 150°F because of internal blower motor.

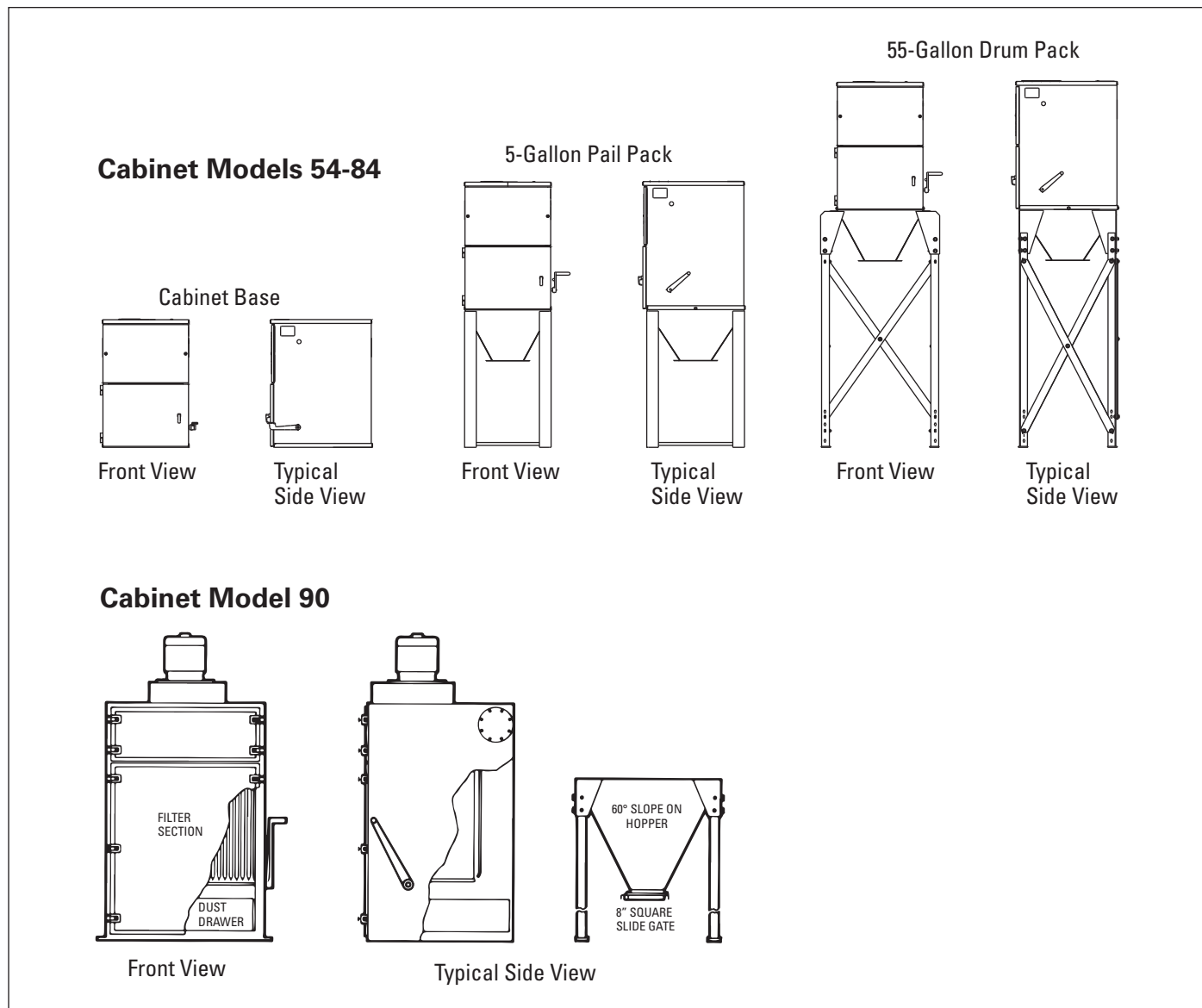
WARNING

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.

Rating and Specifications



Collectors are rated for the following loads as calculated per relevant sections of the IBC 2015 code*:

Basic Wind Speed & Exposure90 mph, Exposure C
115 mph, Exposure C (90 only)
 Seismic Spectral Acceleration, S_s 1.5 g
 Seismic Spectral Acceleration, S_1 0.6 g
 Installed Collector Base ElevationGrade
 Risk Category II
 Housing rating, inches water gauge +/- 20
 Control power 120-Volt 50/60 Hz

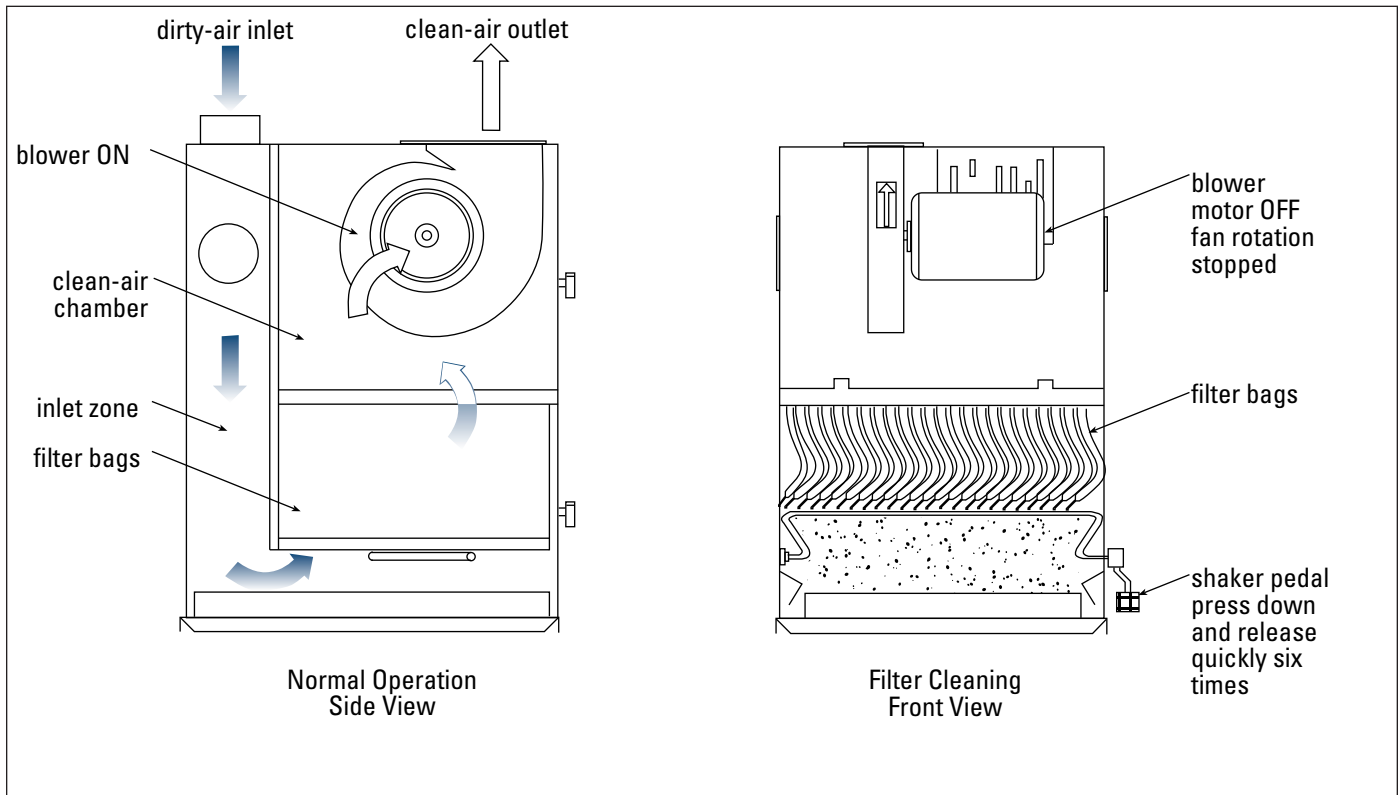
*If collector was supplied with a Record Drawing, the specifications on the drawing will supersede the standard specifications above.

Operation

During normal operation, dust-laden air enters the collector through the dirty-air inlet and passes through the collector 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 collector.

To clean the filters the fan must first be shut off. 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.



Collector Operation (Cabinet 54-84 Shown)

Inspection on Arrival

1. Inspect collector upon 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 collector 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 collector from truck.
8. Check for hardware that may have loosened during shipping.
9. Use caution removing temporary covers.

Installation Codes and Procedures



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 collector 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 collector installation.

NOTICE

Failure to remove shipping materials from the collector will compromise collector performance.

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

Installation



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.



Site selection must account for wind, seismic zone, and other

load conditions when selecting the location for collectors.

Codes may regulate acceptable locations for installing dust collectors. Consult with the appropriate authorities having jurisdiction to ensure compliance with all national and local codes regarding mist collector installation.

Collectors must be anchored in a manner consistent with local code requirements. Anchors must be sufficient to support dead, live, seismic, and other anticipated loads.

Consult a qualified engineer for final selection of anchorage.

The collector is suitable for either indoor or outdoor installations. Reference the Rating and Specification Information.

Foundations or Support Framing

Prepare the foundation or support framing in the selected location. Foundation or support framing must comply with local code requirements and may require engineering.

Foundation and 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.

Collector Location

WARNING

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

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

CAUTION

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

Locate the collector to ensure easy access to electrical and compressed air connections, to simplify solids collection container handling and routine maintenance, and to ensure the straightest inlet and outlet ducts.

Site Selection

This collector can be located on a foundation or structural framing.

Provide clearance from heat sources and avoid any interference with utilities when selecting the location.

Portable collectors require special installation accommodations.

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 collector 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 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.

Use all lifting points provided.

Use clevis connectors, not hooks, on lifting slings.

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

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

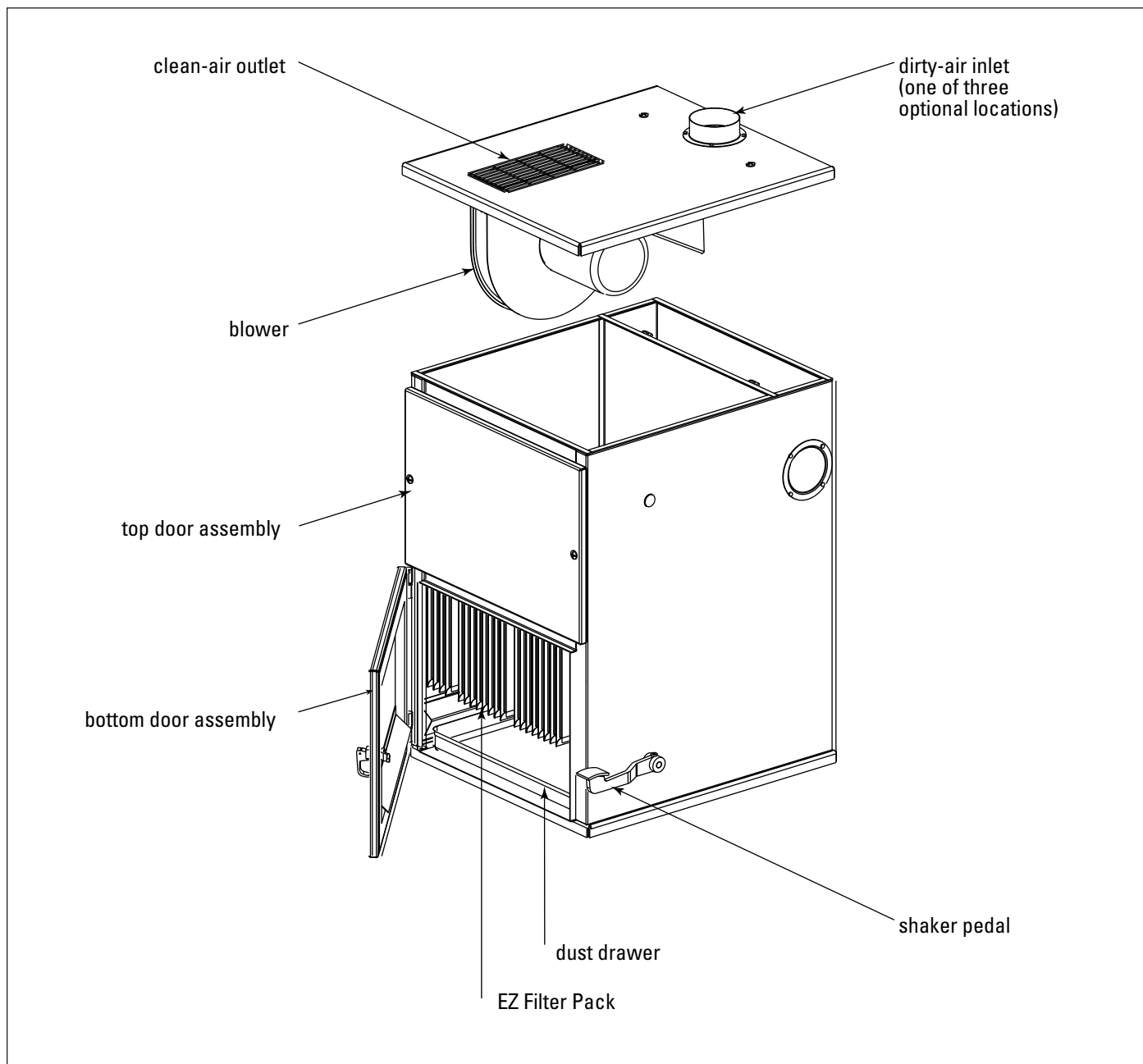
Allow only qualified crane or forklift operators to lift the equipment.

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

Lift collector and accessories separately and assemble after collector is in place.

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

Typical Installation



Typical Installation (Cabinet 54-84 Shown)

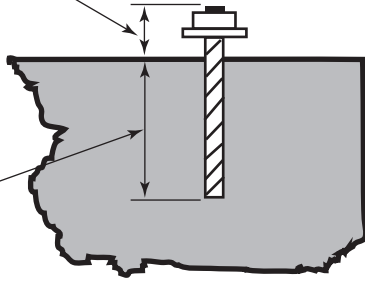
Standard Equipment

Provisional Anchor Bolt Recommendations

1. Consider Hilti HIT-HY 200 Anchor System or equivalent. Quantity of anchor bolts should match the number of holes provided in the base plates.
2. Anchor diameter is typically 1/8-in less than baseplate hole diameter.
3. Corrosive environment or outdoor installation may require stainless steel anchors.

Anchor should project a minimum of 1 3/4-in and account for nut, washer, base plate and shims/grout.

Embedment depth (suitable for the physical properties of the foundation).



Typical Foundation Anchor for Collectors With Hopper and Leg Assemblies

Electrical Wiring



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.

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.

An electric disconnect switch having adequate amp capacity shall be installed in accordance with Part IX, Article 430 of the National Electrical Code (NFPA No. 70-latest edition). Check collector's rating plate for voltage and amperage ratings.

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

Preliminary Start-Up Check

Instruct all personnel on safe use and maintenance procedures.

WARNING

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 electrical power sources 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 for proper rotation as noted on the fan and/or hopper discharge device housing.

To reverse rotation, single-phase power supply:
Follow manufacturer's instructions on the motor's nameplate.

To reverse rotation, three-phase power supply:
Switch any two leads on the motor junction box.

WARNING

Do not look into fan outlet to determine rotation. View the fan rotation through the back of the motor.

Check that the exhaust plenum is free of tools or debris before checking blower/fan rotation.

Stand clear of exhaust to avoid personal injury.

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

3. All access panels should be sealed and secure.
4. Check that the dust container (if provided) is properly sealed and clamped.

5. Check that fan exhaust damper (if provided) is set to the fully-closed position.
6. Check and remove all loose items in or near the inlet and outlet of the collector.
7. Check that all remote controls are properly wired and all service switches are in the OFF position.
8. Check that all optional accessories are installed properly and secured.
9. Turn power ON at source.
10. Turn fan motor ON.
11. Adjust airflow with the exhaust damper, if applicable.

NOTICE

Excess airflow can shorten filter life, cause electrical system failure and fan motor failure.

12. When airflow diminishes, turn the collector OFF and manually shake the filter pack.

Maintenance Information

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 electrical power sources before performing service or maintenance work.

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

Operational Checklist

1. Monitor the physical condition of the collector and repair or replace any damaged components.

Routine inspections will minimize downtime and maintain optimum system performance. This is particularly important on continuous-duty applications.

2. Monitor pressure drop across filters.

Abnormal changes in pressure drop may indicate a change in operating conditions and possibly a fault to be corrected.

3. Monitor exhaust.
4. Monitor dust disposal.

Filter Removal and Installation



Use proper safety and protective equipment when removing

contaminants and filters.

Dirty filters may be heavier than they appear.

Use care when removing filters to avoid personal injury and/or property damage.

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

Do not operate with missing or damaged filters.

Filter Pack Maintenance

1. Clean the filters once each day depending on load circumstances.
2. Shut off fan.
3. Allow fan to coast down.
4. Depress the cleaning pedal or handle.
5. Release to allow cleaning pedal or handle to drop rapidly.
6. Repeat step 4 six to eight times.
7. Allow dust to settle.
8. Open filter access door and remove any dust which has now accumulated in the dust drawer.
9. Close the filter access door.
10. A good practice is to clean filters at break, lunch, and end of day.

EZ Filter Pack Removal - Models 54-84

1. Remove upper door and open lower door.



Step 1

2. Loosen the filter pack slide latch wing screws and move the slide latches away from the gasket by sliding them inward. Note, this is easier when the filter pack is supported with one hand on the bottom side.



Step 2

3. Remove the center support bar by unscrewing the wing screws on each end. Note, this is easier when the filter pack is supported with one hand on the bottom side.

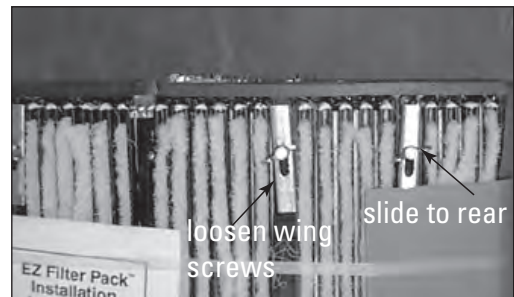


Step 3

4. Allow the filter pack to collapse in the center and remove it by guiding it out the bottom side of the sealing frame.

EZ Filter Pack Installation - Models 54-84

1. Remove banded EZ Filter Pack from box. Do not remove bands.
2. Fully loosen wing screws.
3. Move slide latches to the rear—away from gasket.



Steps 1-3

4. Insert banded EZ Filter Pack over shaker bar.



Step 4

5. Rest banded EZ Filter Pack on shaker bar.



Step 5

6. Cut and remove bands and cardboard protectors.



Step 6

7. Insert one hand midway under each side of the EZ Filter Pack. Push EZ Filter Pack to bottom of cabinet filter frame.



Step 7

8. Important - place one hand under center of EZ Filter Pack. Holding EZ Filter Pack against bottom of cabinet ledge, push each slide latch over cabinet ledge.

Do not tighten wing screws at this time.



Step 8

9. Adjust EZ Filter Pack for good fit. Finger tighten wing screws.



Step 9

10. Remove support bar from box.



Step 10

- Place support bar over center of EZ Filter Pack



Step 11

- Insert small wing screws through holes in support bar. Hand tighten all wing screws.



Step 12

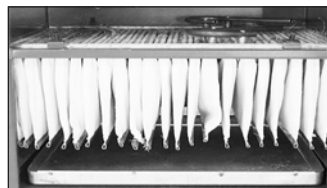
- Inspect filter seal.
- Insert clean dust pan.
- Install and close doors.



Steps 13-15

Filter Removal - Model 90

- Remove upper and lower doors to access the filters.
- Loosen both set screws on the front and rear hold down brackets.



Step 1



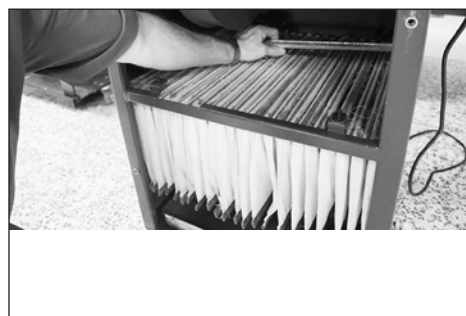
Step 2

- Remove front hold down bar.



Step 3

- Remove rear hold down bar.



Step 4

5. Insert rear filter inserter as shown with long arm towards the front. Insert the right angle plate as shown BETWEEN two filters. DO NOT insert the angle bracket inside of a filter. Insert the rear angle bracket in the space between the filter to the left of the front angle bracket and the next filter to the left so both angle brackets are straddling one filter.



Step 5

6. Swing the long arm of the filter inserter from left to right to open a space around the filter that the inserter is straddling. Make sure the inserter is pushed all the way to the back of the bags.



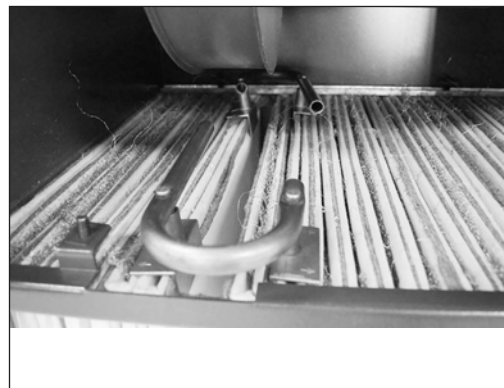
Step 6

7. Install the front filter inserter with the long arm towards the back as shown and the angle brackets inserted into the spaces created by the rear filter inserter.



Step 7

8. Swing the long arm of the filter inserter from right to left while keeping the inserter tight to the front of the bags. This will create a space that will allow the removal of the first bag.



Step 8

Filter Installation - Model 90

9. Remove the filter that is between the filter inserts.



Step 9

1. Install the bags into the collector. All but the last bag should be able to be installed easily.
2. Slide the rear hold down bar beneath the set screws at the back of the collector.



Steps 1-2

10. Remove the filter inserters and the rest of the filters.



Step 10

3. To create space to install the last filter, install the rear filter inserter so the right and left angle brackets straddle one filter. Position the filter inserter so the long arm of the inserter is towards the front.



Step 3

4. Swing the long arm of the filter inserter from left to right to open a space around the filter that the inserter is straddling. Make sure the inserter is pushed all the way to the back of the bags.



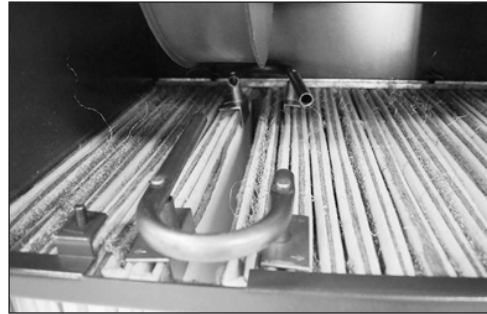
Step 4

5. Install the front filter inserter with the long arm towards the back as shown and the angle brackets inserted into the spaces created by the rear filter inserter.



Step 5

6. Swing the long arm of the filter inserter from right to left while keeping the inserter tight to the front of the bags. This will create a space that will allow the installation of the last bag.



Step 6

7. Insert the final filter in the space created by filter inserters. When done with the final filter, release the filter inserters and rest them on top of the bags so they are easy to locate for future use



Step 7

8. Install the front hold down bar.



Steps 8

9. Tighten both front and rear hold down bar set screws.



Step 9

10. To make sure all bags are sealed properly, shine a light up between each set of filters. If no light can be seen from the top side, the bags are properly sealed. If light can be seen, insert the filter inserter inside the bag with the bent frame to expand the inside width of the bag. In addition, it may be necessary to install a bag clip (refer to the replacement parts list) at the location of the leak and adjacent bag.



Step 10

Dust Disposal

1. Turn collector 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.

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 Access



WARNING

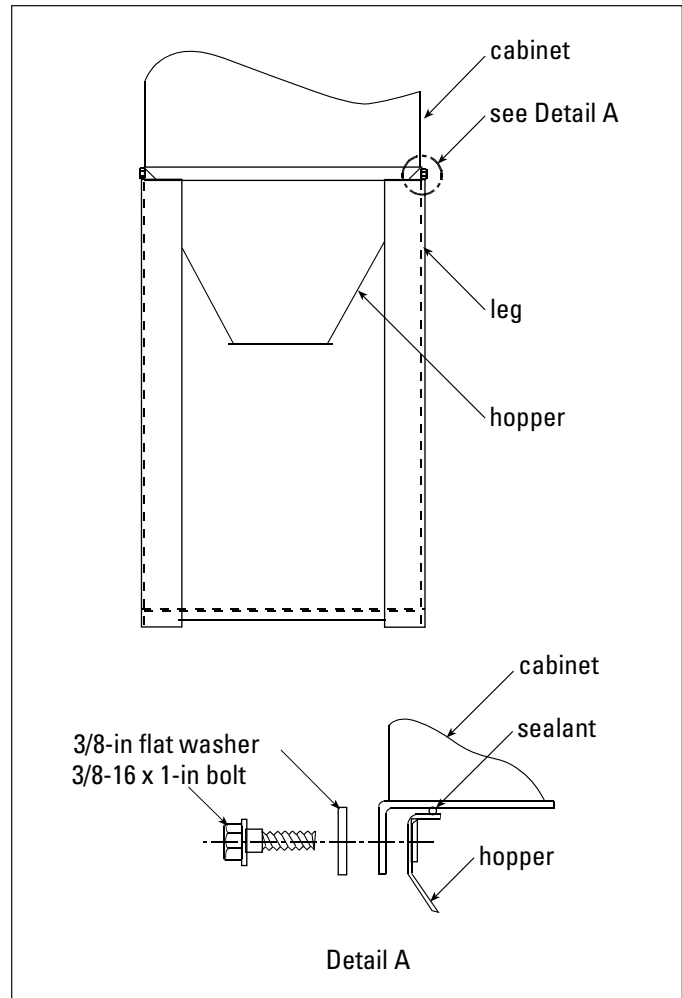
Completely turn off and lock out all dust collector and ancillary

equipment before accessing the inside of the hopper.

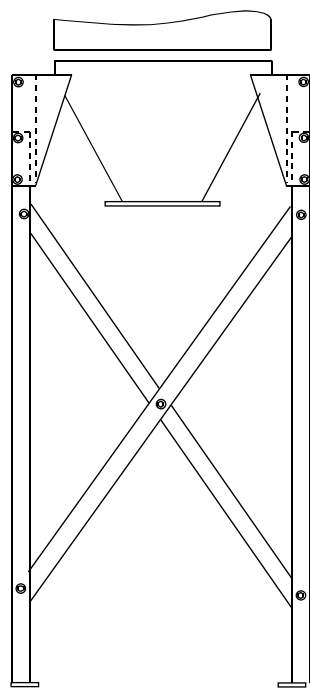
Dust may build up behind hatch and fall out when opened. Position yourself so dust will not hit you.

Most dusts present safety and health hazards that require precautions.

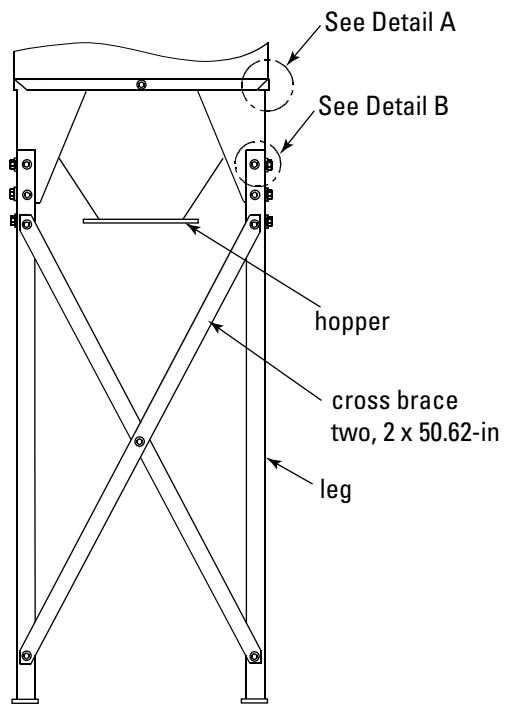
Wear eye, respiratory, head and other protective equipment suitable for the type of dust.



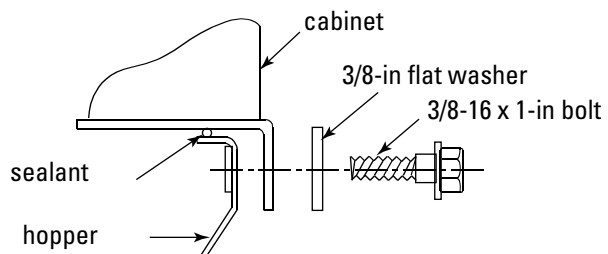
Hopper to 5-Gallon Pail Assembly
(Size 90 hopper is welded to cabinet)



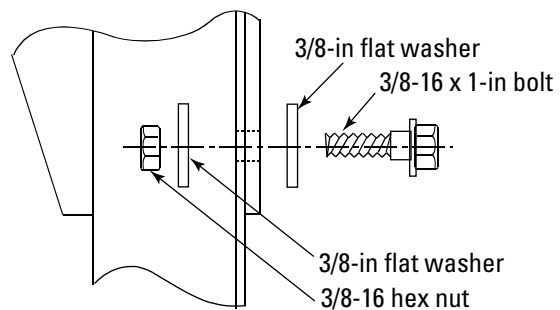
Front View



Side View



Detail A



Detail B

Hopper to 55-Gallon Drum Assembly
(Size 90 hopper is welded to cabinet)

5-Gallon Pail Pack

1. Apply sealant to the hopper flange or the pail cover mounting plate flange toward the inside edge of the bolt pattern.
2. Fasten the pail pack to the hopper using the bolts, washers, and nuts supplied.
3. Place pail beneath seater mechanism.
4. Tighten clamps on either side by pulling down.

55-Gallon Drum Pack

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



Sharp edge of slide gate may result in personal injury while closing the slide gate. Keep hands clear when operating the slide gate.

With Slide Gate

1. Place the 1/8-in gasket spacer between the hopper flange and slide gate as shown.
2. Attach the drum pack and slide gate to the hopper flange using 3/8-16 bolts, washers, and hex nuts.
3. Attach the drum cover to the 55-gallon drum.
4. Use latches to secure the cover to the drum, if equipped.
5. Connect the flexible hose between the drum cover and slide gate. Secure with hose clamps.

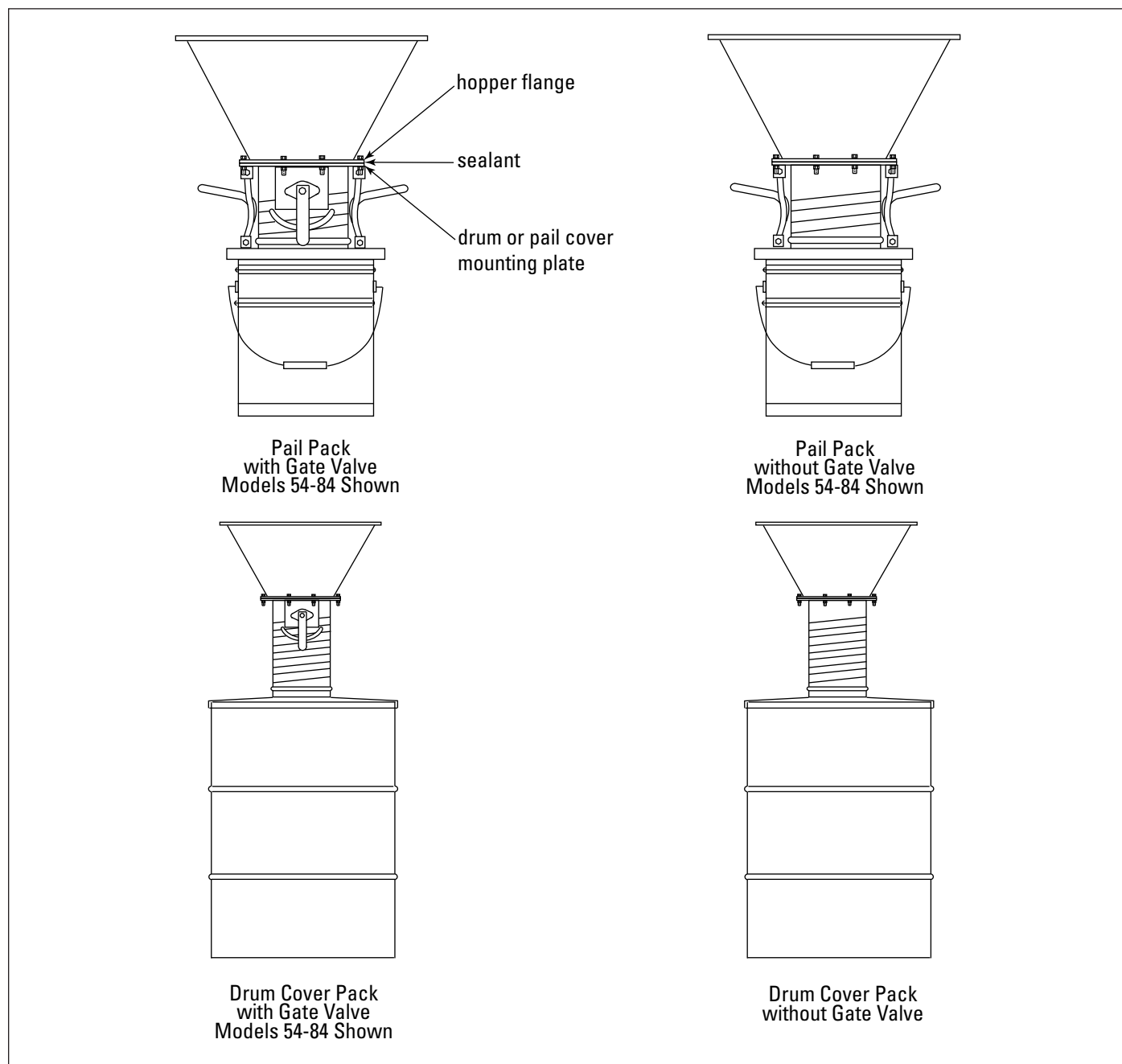
Without Slide Gate

1. Place 1/4-in diameter rope-type sealant between the hopper flange and the drum cover mounting flange toward the inside edge of the bolt pattern.
2. Fasten using the bolts, washers, and nuts supplied.
3. Attach the drum cover to the 55-gallon drum.
4. Use latches to secure the cover to the drum, if equipped.
5. Connect the flexible hose between the drum cover and the adapter. Secure with hose clamps.

Hopper Attachments

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

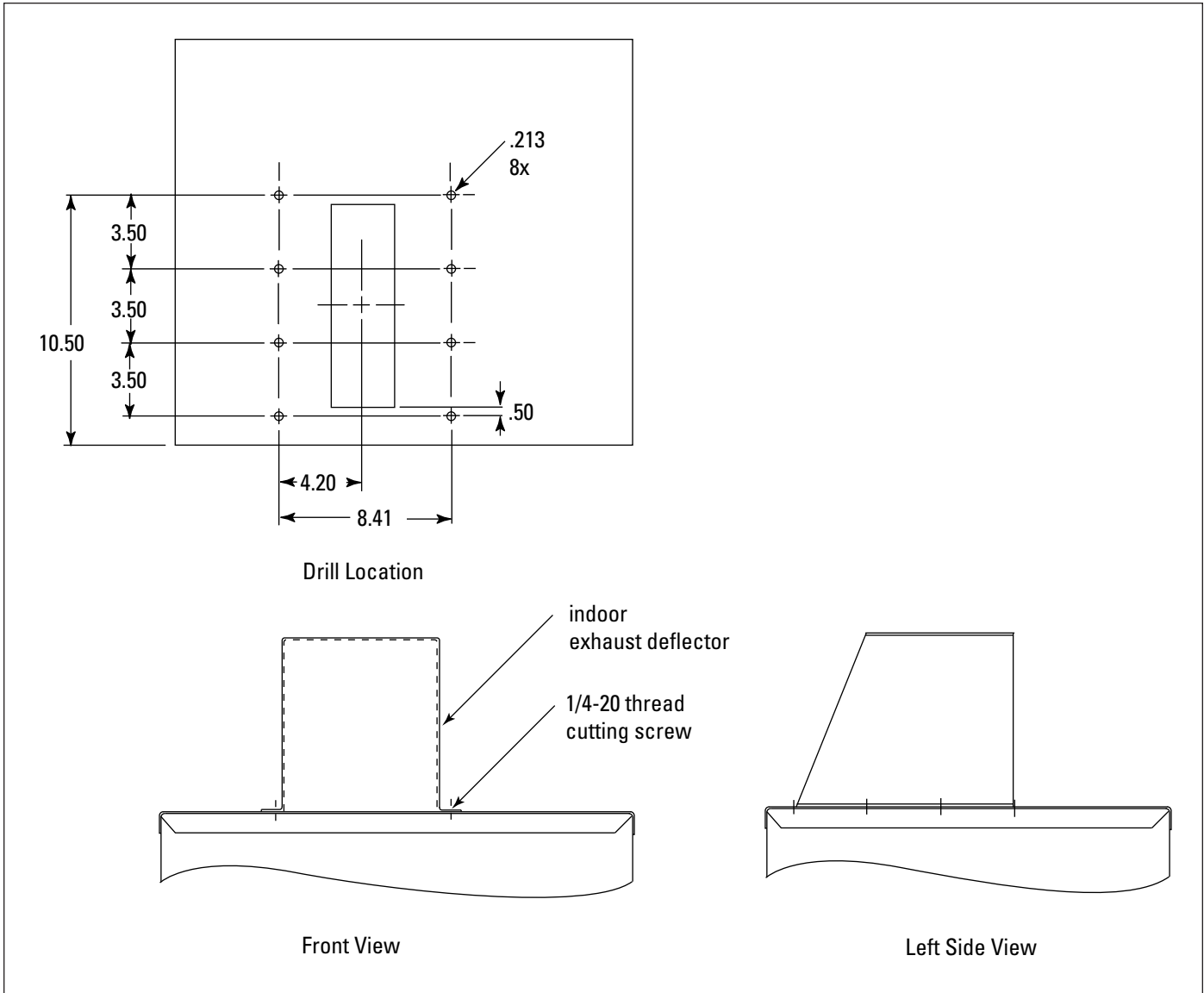
1. Apply 1/4-in diameter rope-type sealant to the drum cover mounting plate flange.
2. Fasten the drum cover assembly to the hopper flange using the hardware supplied.



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

Indoor Exhaust Deflector

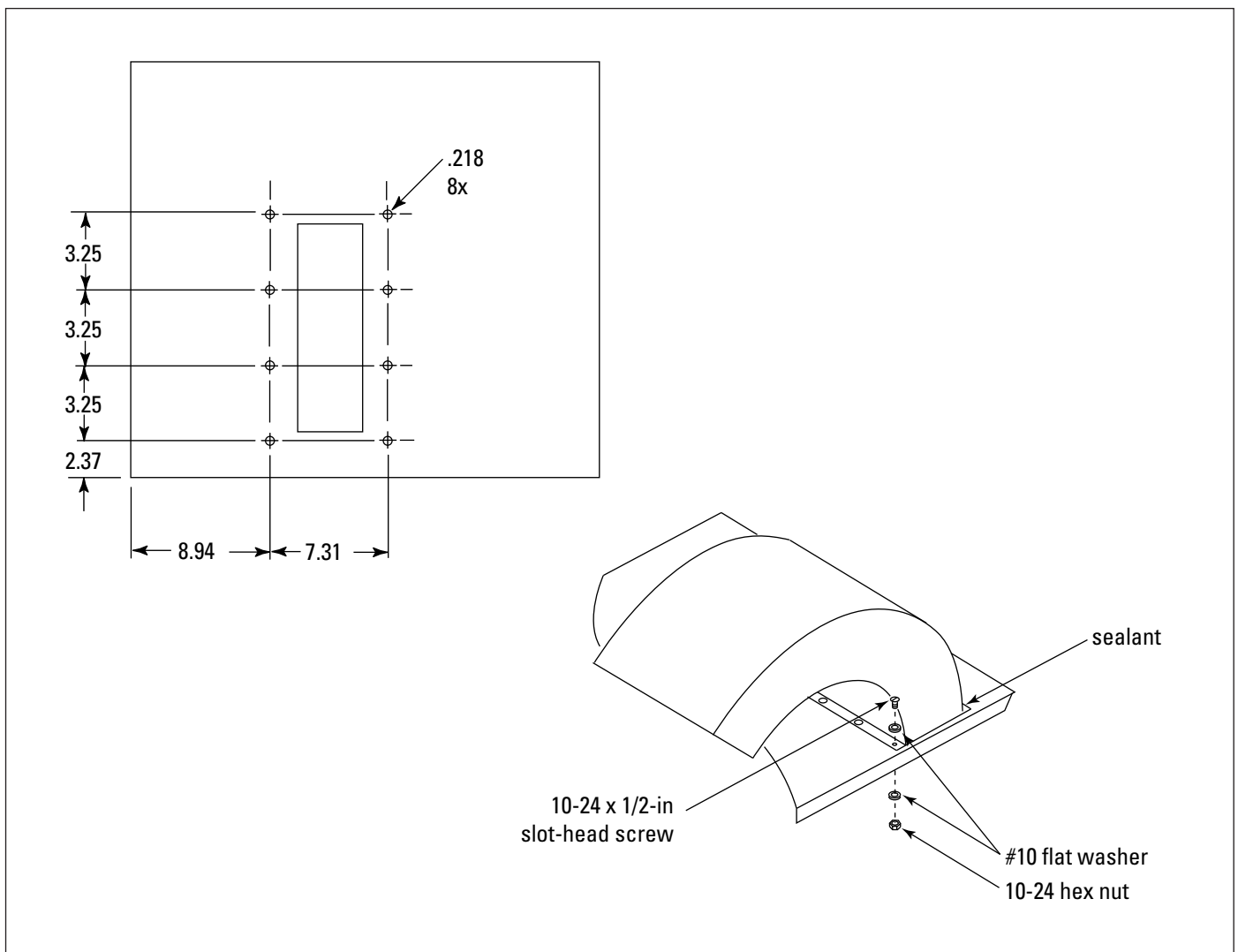
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .213-in diameter drill bit to drill eight holes as shown.
4. Position the indoor exhaust deflector on the cabinet top and fasten 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.



Indoor Exhaust Deflector (only available on models 54-84)

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 outdoor 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 (only available on models 54-84)

Ductwork

NOTICE

If collector 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.

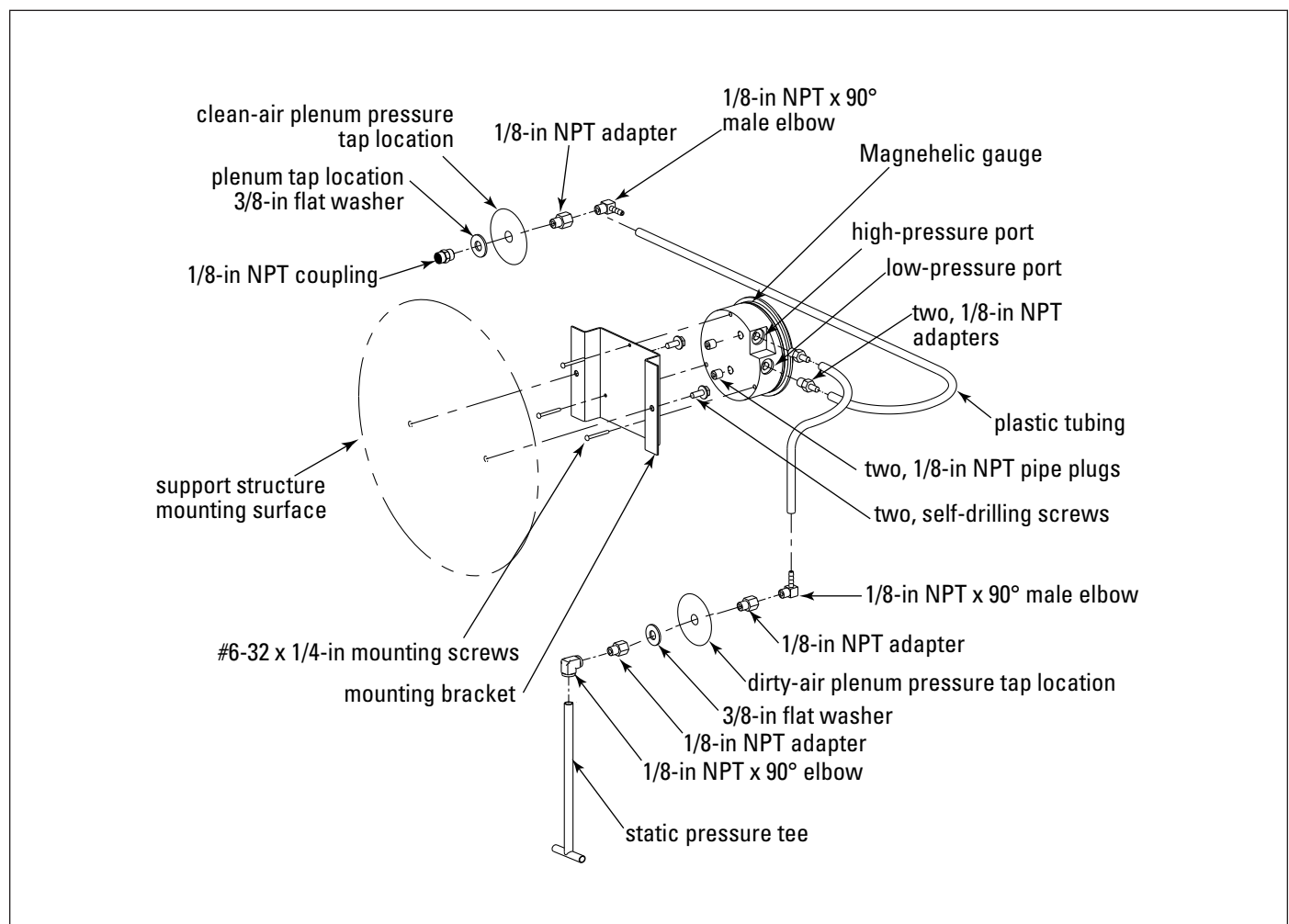
1. Inlet collars can be located on the side, top, or back of the cabinet by removing the desired inlet cover plate and installing the inlet collar using the same screws.
2. Use the shortest possible inlet duct. Avoid the use of tees or flexible, wire-molded duct except where machine motion or vibration 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.

Magnehelic® Gauge

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

1. Choose a convenient, accessible location on or near the collector for mounting that provides the best visual advantage.
2. 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.
3. Attach the mounting bracket using three, #6-32 x 1/4-in screws supplied.
4. Mount the gauge and bracket assembly to the supporting structure using two, self-drilling screws.
5. 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 plenum. Connect remaining tubing from the gauge's low-pressure port to the fitting in the clean-air plenum. Additional tubing can be ordered from your representative.
6. Zero and maintain the gauge as directed in the manufacturer's Operating and Maintenance Instructions provided.



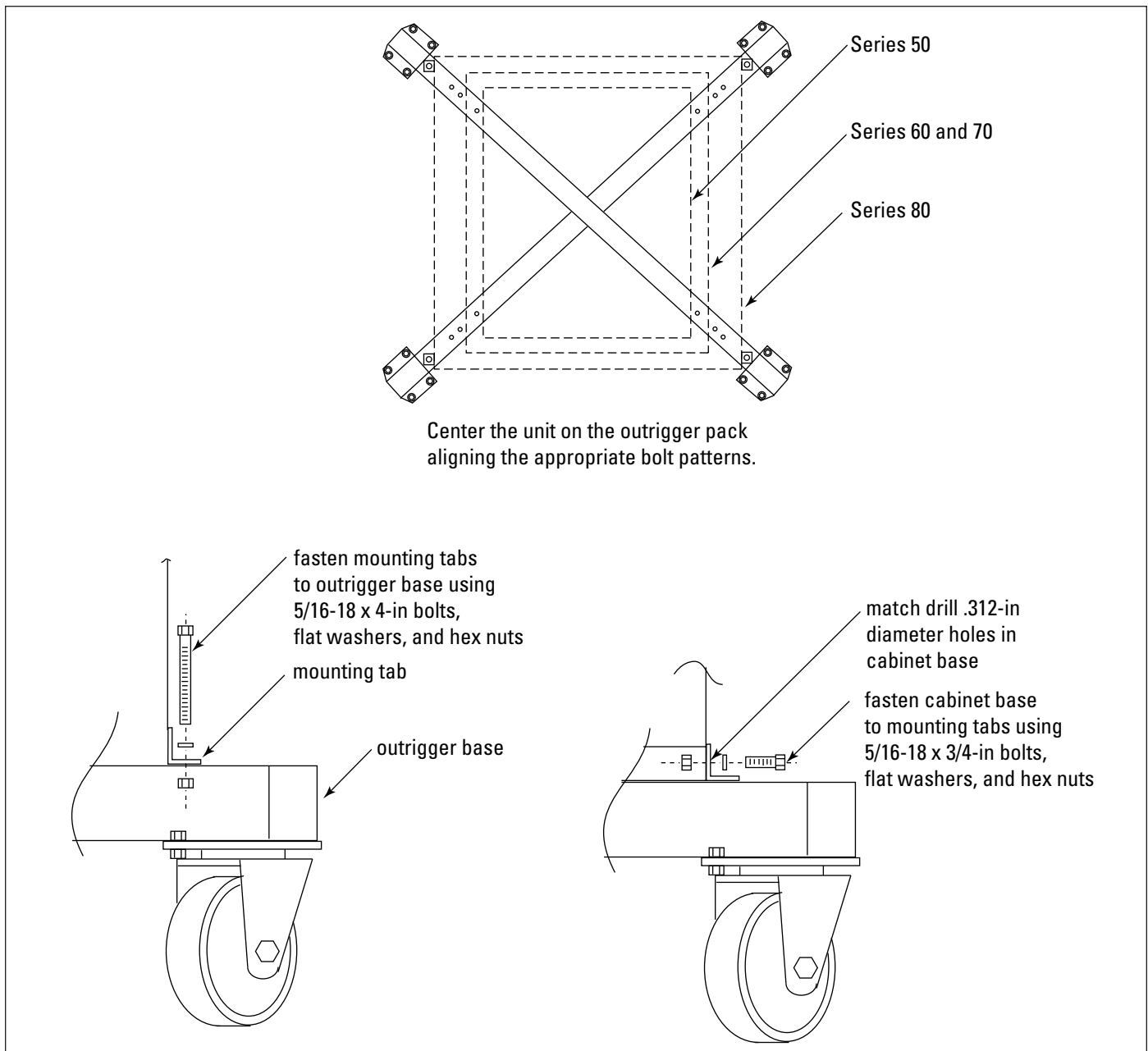
Magnehelic Gauge Assembly

Outrigger Pack

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

Outriggers are standard for Model 90.

1. Center the collector 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.

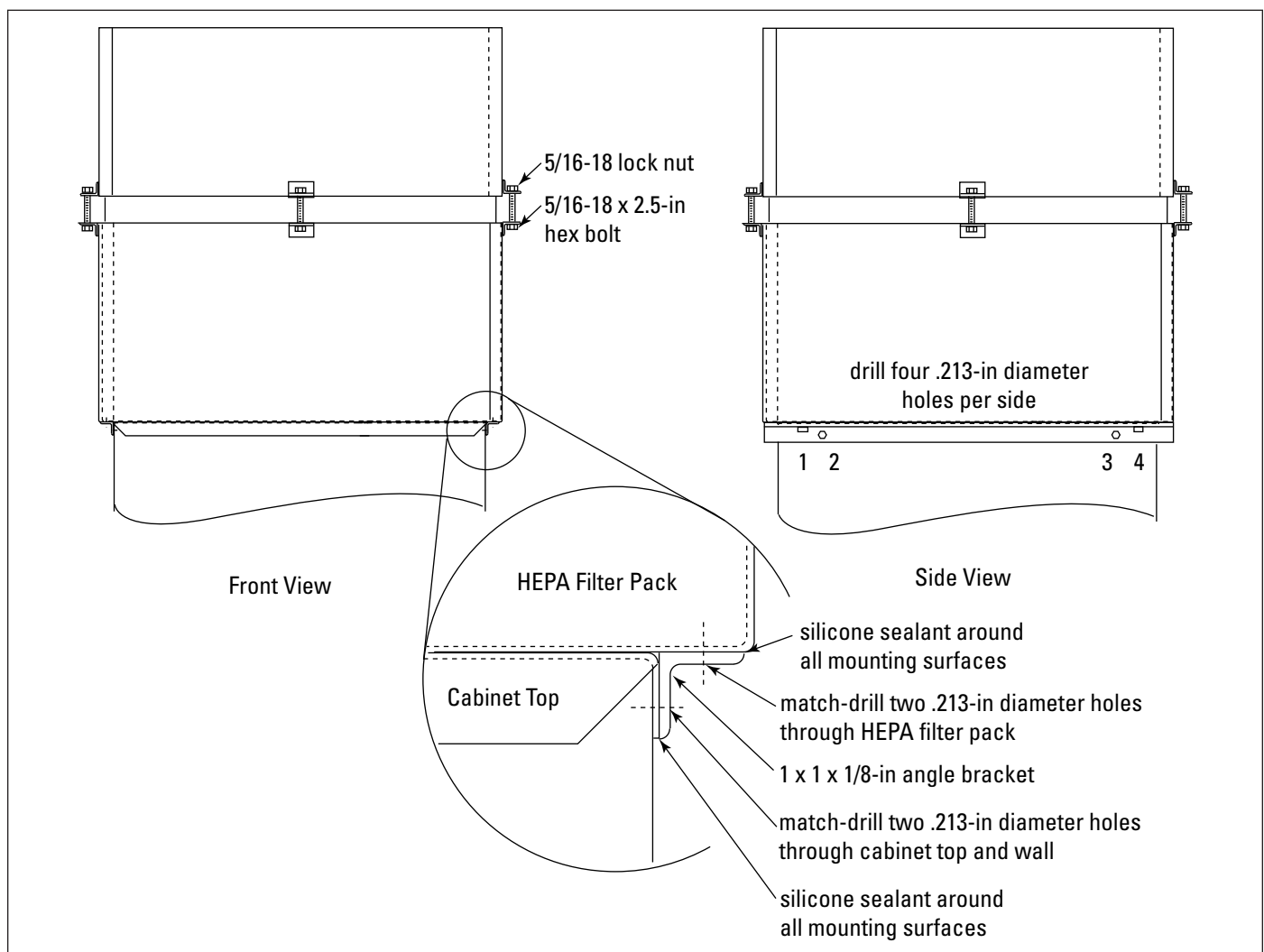


Outrigger Pack Assembly (casters are optional on models 90-3 and 90-5)

HEPA Filter

Models 60 and 70

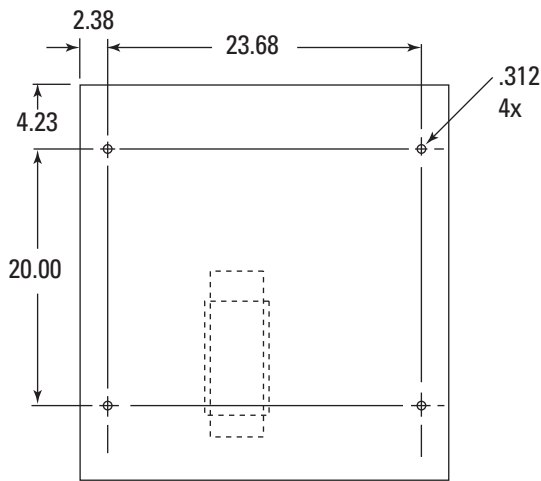
1. Position the HEPA filter pack on top of the collector as shown.
2. Remove the top door assembly and set aside.
3. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
4. Position angle bracket on each side of the collector flush with 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.



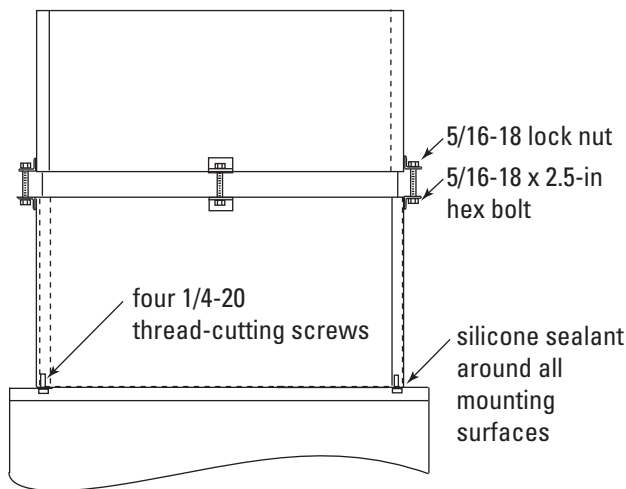
HEPA Filter Models 60 and 70

Model 80

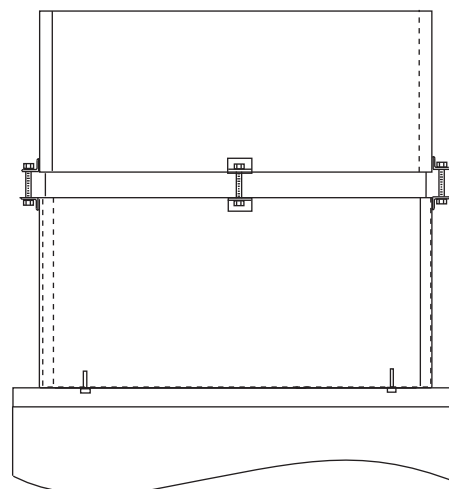
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .312-in diameter drill bit to drill four holes in the collector top as shown.
4. Apply sealant around sealing surface on cabinet top.
5. Position the HEPA filter pack on top of the collector 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

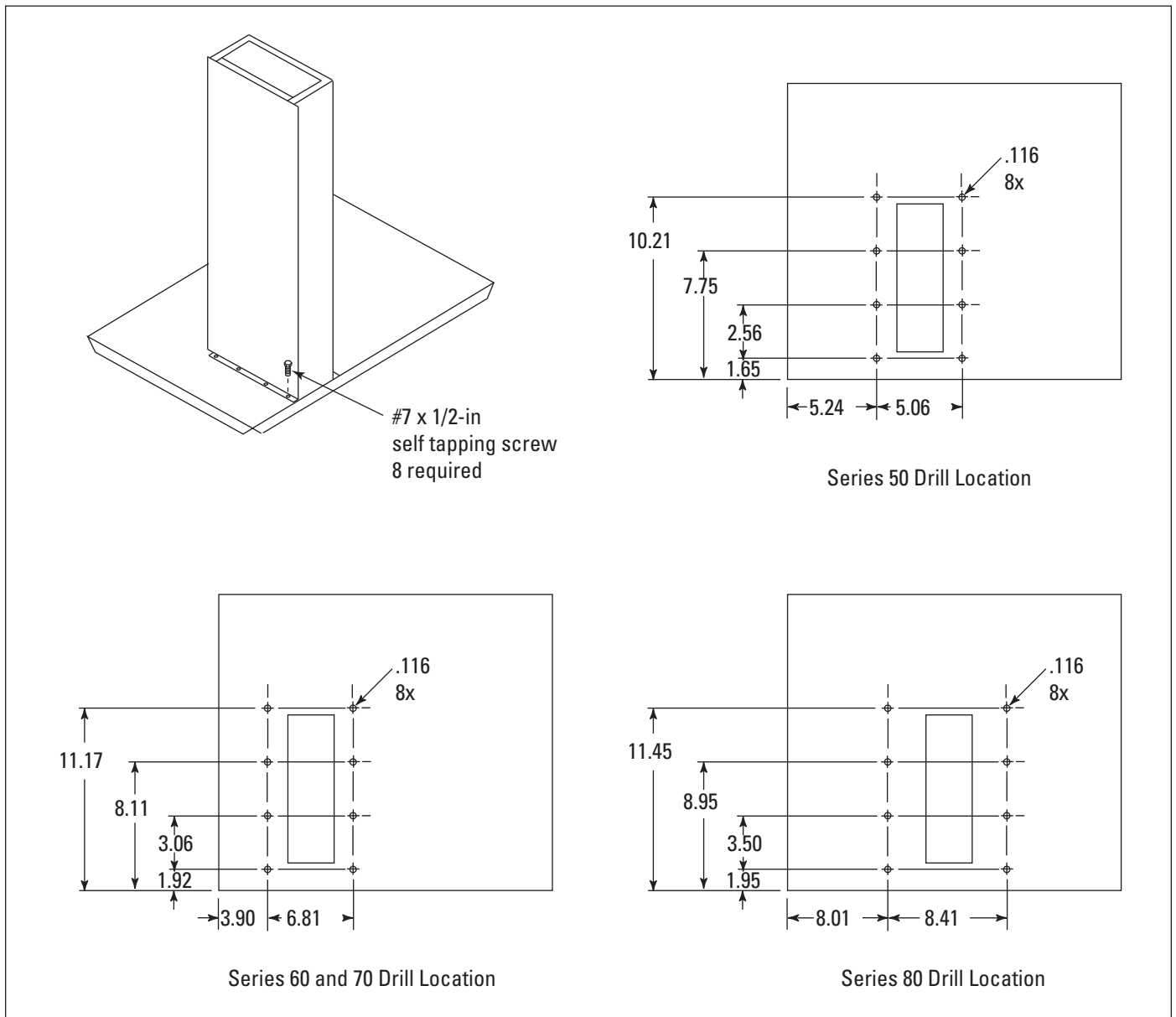
HEPA Filter Model 80

Exhaust Silencer

If an exhaust silencer was ordered with the collector, 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.



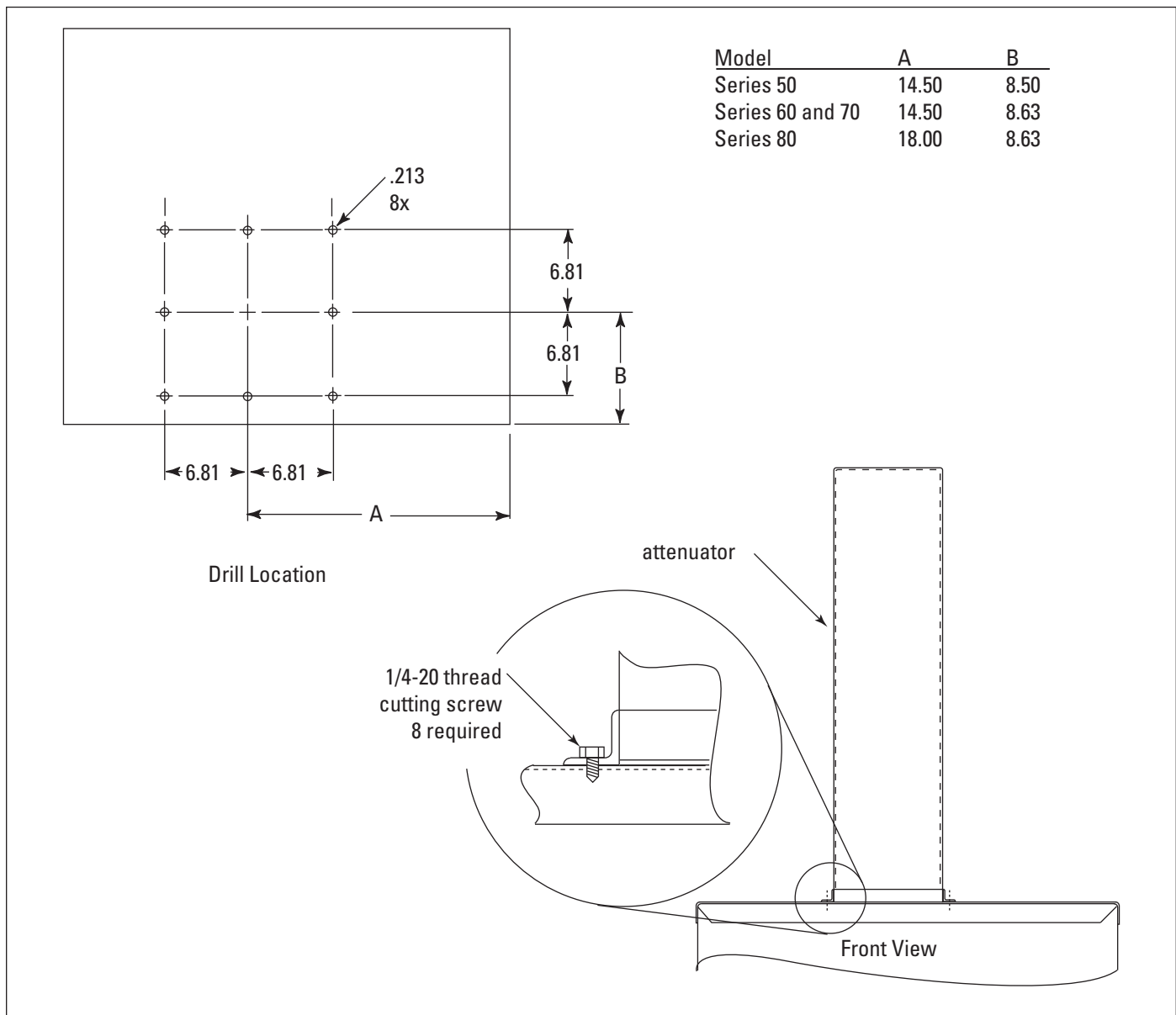
Exhaust Silencer Installation (only available on models 54-84)

Attenuator

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

To install an add-on attenuator:

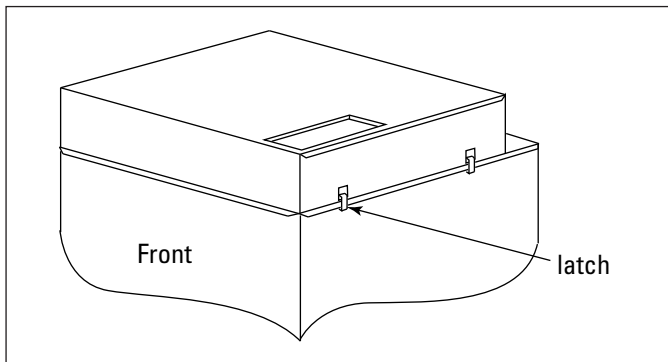
1. Remove the top door assembly and set aside.
2. Place a piece of non-combustible cloth over the filters in the clean-air chamber to protect them from drilling chips.
3. Use a .213-in diameter drill bit to drill eight holes in the collector top as shown.
4. Position the attenuator assembly, align holes, 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 (only available on models 54-84)

Chamber Silencer

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



Chamber Silencer (only available on Models 54-84)

Troubleshooting

Problem	Probable Cause	Remedy
Fan blower 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.
	Collector 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.
Fan blower 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. 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.
	Inlet too large for collector rating	Contact installer of dust collection equipment.
Insufficient airflow	Fan rotation backwards	Proper fan rotation is clockwise from the top of the collector. 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.
	Dust storage area overfilled or plugged	Clean out dust storage area. See Dust Disposal.

Problem	Probable Cause	Remedy
Insufficient airflow	Collapsed or plugged duct	Clean duct of all debris. Replace collapsed duct.
	Improper duct sizing	Contact installer of dust collection equipment.
	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.
	Manual shaker mechanism malfunctioning	Check that the roll pin is in place. Replace if necessary.

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

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

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.

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Donaldson
FILTRATION SOLUTIONS

Parts and Service

For genuine Donaldson replacement filters and parts, call the Parts Express Line. For faster service, have collector'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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