

Shaker Dust Collector Owner's Manual

Model SDC



ENGINEERING **YOUR** SUCCESS.

KNOW YOUR EQUIPMENT

READ THIS MANUAL FIRST

Your SDC system should provide many years of trouble-free service. This manual will help you understand the operation of your SDC unit. It will also help you understand how to maintain it in order to achieve top performance. For quick future reference, fill in the system and filter information in the spaces below. Should you need assistance, call the Parker Hannifin, Inc. Customer Service number shown below. To expedite your service, have the following information available when contacting Parker.

ORDER #: _____

UNIT MODEL #: _____

UNIT SERIAL #: _____

FILTER PART #: _____

SYSTEM ACCESSORIES:

INSTALLATION DATE: _____

Parker Hannifin Customer Service

1-800-343-4048

Table of Contents

Safety Precautions - Read Before Using.....	ii
1. Important Notice.....	1
2. Introduction.....	1
2.1. Description and Operation.....	1
2.2. Cleaning Sequence	3
3. Installation.....	3
3.1. Installation Planning.....	3
3.2. Standard Equipment Assembly	5
3.2.1. Hopper Assembly	5
3.2.2. Single Module Hopper Assembly	5
3.2.3. Double Module Hopper Assembly.....	5
3.2.4. Filter Module Assembly	9
3.3. Electrical Installation	9
3.3.1. Mounting of the Controls.....	9
3.4. Optional Equipment Assembly	10
3.4.1. Magnehelic® Gage.....	10
3.4.2. Explosion Venting	12
4. Operation	12
4.1. Start-Up Checklist.....	13
4.2. Shut-Down and Filter Cleaning.....	13
5. Service	14
5.1. Filter Removal and Replacement	14
5.2. Dust Removal	15
5.3. Servicing the Shaker Mechanism.....	15
5.4. Servicing the Blower	16
6. Troubleshooting Guide	17
7. Warranty Replacement Parts	18

Magnehelic® and Photohelic® are registered trademarks of Dwyer Instruments, Inc.

SAFETY PRECAUTIONS

We have provided important safety messages in this manual for your SDC dust collector. Always read and obey all safety messages.

This is the safety alert symbol.



This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and the word “DANGER”, “WARNING”, or “CAUTION”. These words mean:



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



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



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

IMPORTANT SAFETY INSTRUCTIONS

WARNING

To reduce the risk of fire, electric shock, or injury when using your dust collector, follow these basic precautions:

- Wear protective clothing and safety glasses when handling collection filters or servicing the dust collector.
- Use proper lifting and rigging equipment to install your dust collector.
- The dust collector must be properly grounded.
- Disconnect power before servicing.
- Replace all access panels before operating.
- Electrical connections should only be made by qualified personnel, and be in accordance with local and national codes and regulations.
- Do not use in explosive atmospheres unless the dust collector is equipped with the appropriate accessories.
- Keep flammable materials and vapors, such as gasoline, away from the dust collector.
- The unit should be inspected frequently and dirt removed to prevent excessive accumulation which may result in flash-over fire damage.
- The SDC system should not be used to support personnel or material.
- Operate only in a safe and serviceable condition.
- Do not allow any individual to put lit cigarettes or any burning objects into the hood or ducting of a dust collector system.

COMBUSTIBLE DUST HAZARDS – SMOG-HOG[®] and DUST-HOG[®] Pollution Control Systems

Pursuant to National Fire Protection Agency (NFPA) Standards, the owner/user is required to test their dust mixtures to evaluate and understand potential combustion or deflagration hazards that may exist. In addition, NFPA standards require the owner/user to perform and have record of a Dust Hazard Analysis (DHA) if there is potentially a combustible material involved within or exposed to the process.

The DHA serves as a systematic review of the process to:

- 1) Identify where fires and explosions can occur;
- 2) Identify the potential causes and consequences, and;
- 3) Determine if existing and proposed safeguards are sufficient.

It is the responsibility of the owner/user to evaluate, interpret and document any associated risk in their process including adherence and compliance to any and all applicable local, state and federal codes, standards, laws and regulations.

It is the sole responsibility of the equipment owner/user of record to coordinate and perform sample material collection and combustion/explosivity testing of any and all dust and material that will be extracted and filtered by the Air Pollution Control (APC) filtration equipment and to notify Parker of the results prior to any discussion involving equipment specification and solution recommendation. It is recommended to utilize a Certified Industrial Hygienist (CIH) or certified safety expert that is properly trained, licensed and approved and to use a licensed and approved dust testing facility for proper dust and material analysis, testing protocol and reporting procedures. A sample of testing facilities and list of Industrial Hygiene (CIH) and other occupational and environmental health and safety (OEHS) consultants can be located through AIHA (American Industrial Hygiene Association) website.

To minimize the risk of fire or explosion, user must ensure proper installation, operation and maintenance of Parker equipment. Since application, installation, operation and maintenance are beyond the control of Parker, Parker disclaims any liability or responsibility for damage from fires or explosions regardless of origin. Parker recommends that all APC dust collection equipment, installation and application conform to any and all applicable local, state and federal standards, codes, laws and regulations including the addition of appropriate fire or explosion protection systems including but not limited to venting, mitigation, suppression and isolation when and where required. Installation of Parker equipment should be by a licensed contractor that is also experienced in potential fire and explosion hazards and adheres to related local, state and federal codes, standards, laws and regulations. Parker is not an expert nor certified design consultant in relation to spark, fire or explosion mitigation including but not limited to detection, mitigation, suppression and isolation of combustible dusts and materials. Therefore, Parker recommends that any industrial air filtration system recommendation, design or solution be reviewed, approved, stamped and signed by an industry expert consultant in air filtration systems, combustible dust/materials or certified safety expert such as a Certified Industrial Hygienist (CIH) or a Certified Professional Engineer (PE) who is a licensed and certified expert with industrial filtration system design and application including adherence and compliance to any and all applicable local, state and federal codes, standards, laws and regulations.

If requested and ordered by the Buyer or owner/user and approved by Parker IOU engineering, sprinkler connection couplers may be supplied and factory installed with certain DustHog dust collector models such as the MCB, SDC, and SFC. The buyer or owner/user is responsible to supply, install and test the sprinkler head and any related or required fire control system devices, components or accessories. It is the responsibility of the buyer or owner/user to test functionality and operation of the fire control system including but not limited to correct water pressure, water leakage, correct installation, appropriate fire control system component location, correct operation and appropriate application while strictly adhering to any and all prescribed AHJ, OSHA, NFPA, Federal, State/Provincial and Local codes, standards, regulations and instructions applicable to industrial dust collectors, fire control systems and any related or required components and processes.

Pursuant to Parker's Offer of Sale (terms and conditions) and by accepting the purchased equipment, Buyer and owner/user agree to defend, indemnify, and hold harmless Parker, its successors, assignees, suppliers, shareholders, directors, officers, employees, agents, and affiliated companies from all losses, costs, damages, demands, claims, liabilities, fines, penalties or any other expenses (including attorneys' fees, court costs, and expert fees) (collectively "losses"), caused or contributed to in any way by Buyer or owner/user's failure to follow these instructions and/or failure to properly install, apply, operate, or maintain the equipment purchased from or supplied by Parker, or losses caused or contributed to in any way by Buyer's and owner/user's failure to provide accurate information, specifications or dust explosivity values.

Page intentionally left blank

1. Important Notice

This manual contains important safety information and precautionary measures. It is impossible to list all potential hazards associated with weld fume collection systems across unique applications. Proper use of the equipment should be discussed with Parker Hannifin, Inc. (Parker) or your local Parker representative. Operating personnel should be aware of, and adhere to, the most stringent safety procedures.

DANGER

EXPLOSION HAZARD

- Avoid mixing combustible materials such as aluminum, paper, wood, or other organic dusts with dusts generated from grinding materials. A fire hazard could develop from sparks entering the dust collector. When collecting flammable or explosive materials, the dust collector should be located outdoors and incorporate the appropriate safety measures and/or accessories.
- When collecting emissions from spark-producing processes, care must be taken to reduce any potential fire hazards. System design should include methods to prevent sparks from entering the dust collector. Dust collectors do not contain fire extinguishing equipment unless specifically ordered. Experts in the field of fire extinguishing equipment should be consulted for recommendations concerning proper fire detection and suppression systems.
- Some dust collection systems require explosion venting. Consult your insurance underwriter, NFPA (National Fire Protection Association) manual and your local fire authorities to determine the requirements for explosion venting.
- Be careful and conscientious – consult national and local fire codes, waste disposal, safety and other appropriate authorities. Comply with their recommendations for the proper installation and operation of dust collection equipment.
- Your dust collector was selected for a particular application. Consult Parker prior to making any application or system changes.

2. Introduction

Thank you for selecting Parker fume extraction equipment to assist you in your commitment to a clean and safe working environment. We trust that in purchasing this Parker product you have recognized our commitment to providing air cleaning solutions engineered for each pollution control need which are manufactured to the highest quality standards. If at any time you have questions about the application or operation of your equipment, please do not hesitate to call your local Parker representative, or visit our website at www.parker.com/igfg for more information.

The SDC is designed to collect process generated dusts. The optimized shaker cleaning system, coupled with the engineering features of this product, create the most dependable and maintenance-friendly shaker dust collector on the market.

2.1 Description and Operation

The SDC unit is a high-efficiency, bag dust collector designed to collect dust generated from intermittent duty processes. Contaminants are captured at the source(s), then conveyed through ducting to the hopper inlet of the unit. A baffle located inside the hopper knocks down any large particulate into the dust collection drum and distributes the remaining dust evenly throughout the bag filter section (dirty air section) where the dust is filtered. Clean air is then discharged from the unit through the clean air discharge located on the top of the cabinet.



Figure 1. Unit Operation

2.2 Cleaning Sequence

The SDC applies a high frequency, low amplitude shaking mechanism to the filter bags to dislodge the collected dust. The dislodged dust falls from the filter, through the hopper and into the collection drum.

Cleaning sequences are initiated each time the dust collector blower is powered down and begins with a 70-second delay to minimize airflow through the filters.

CAUTION

The shaking system contains moving parts. Do not open the filter access door during cleaning.

3. Installation

The SDC dust collection system ships standard in two individual assemblies: the filter module and hopper assembly. Additional accessories or options (silencers, storage drums, afterfilter assemblies, control panel assemblies, etc.) may be packaged separately.

DANGER

TIP OVER HAZARD

Lift the dust collector components by the packing skids or the lifting locations provided on the filter module. Do not lift the filter module of the dust collector by placing lift truck forks through the filter access door(s). This is unsafe and could result in significant damage to the dust collector.

Upon receipt of your unit, check for any shipping damage. A damaged carton indicates that the equipment may have received rough handling during shipping that could have caused internal damage to the dust collector. Notify your delivery carrier and enter a claim if any damage is found.

3.1 Installation Planning

The proper location of your dust collection equipment is very important. Refer to Figure 2 on page 4 for typical installation details.

Certain items should be considered when locating the unit, such as emptying of the dust storage drum(s), filter removal requirements, access to the clean air plenum, the shaker mechanism, electrical connections, and air inlet and discharge location. The shortest duct length with a minimum number of elbows and losses will maximize the performance of the unit. Ease of maintenance should also be considered when selecting the location and orientation of the system.

DANGER

In the case of spark-producing processes, system design should incorporate measures to prevent live sparks from entering the dust collector. Consult local authorities for the location of the unit and any additional precautions to consider when collecting combustible, explosive or hazardous dusts. General warning and cautions are provided on page ii and in Section 1.

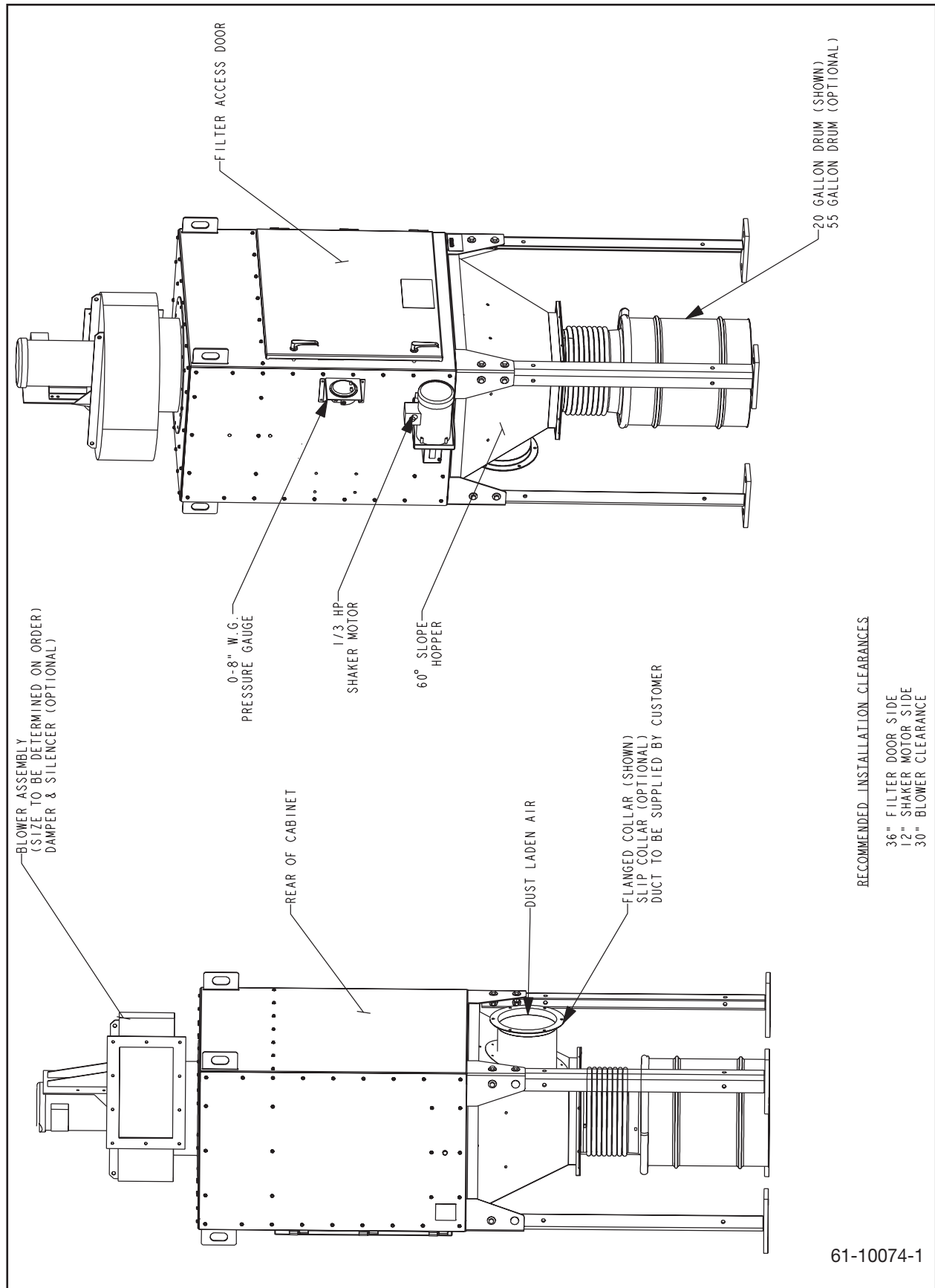


Figure 2. Installation Details

⚠ DANGER**TIP OVER HAZARD**

The SDC dust collector should be mounted on a solid, level, reinforced concrete foundation. Other mounting options are also possible. Each standard SDC unit has been designed to meet Seismic Zone 4 and 100 MPH wind loading conditions. Structural calculations for the foundation or other mounting arrangements must include the weight of the collected material and the weight of all auxiliary equipment installed with the dust collector (ducting, silencers, afterfilter assemblies, etc.). Consult a professional engineer when designing the foundation for the unit.

Interconnecting ducting should be properly sized to meet the recommended air velocities for the material being collected. Follow ducting design methods as listed in the Industrial Ventilation Manual, as recommended by the American Conference of Governmental Industrial Hygienists.

3.2 Standard Equipment Assembly**⚠ DANGER****CRUSH AND ELECTROCUTION HAZARD**

Use adequate safety measures when lifting and assembling any heavy components. Consult your local plant safety personnel for recommendations.

In preparing to attach the filter module to the hopper, connect lifting slings and spreader bars to all filter module lifting points with clevis pins. Use spreader bars to distribute the load evenly. Location must be clear of all obstructions, such as utility lines or roof overhangs.

Remove all crating, strapping and hold-down bolts. Locate all hardware bags, sealant and other assembly materials provided with your unit.

3.2.1 Hopper Assembly

The SDC unit is designed to mount directly on top of the hopper assembly. The hopper assembly consists of a hopper bin, legs, sway-bracing (on larger models), optional flex duct, hose clamps, 20 or 55-gallon drum, drum lid and drum clamp. A hardware kit is also included to bolt the filter module to the hopper.

3.2.2 Single Module Hopper Assembly

Assemble the four leg weldments to the hopper with the shown hardware (refer to Figure 5; Detail A) and making sure the base pads are oriented as illustrated. Secure hopper/leg assembly to concrete mounting pad with appropriate mounting hardware. Anchors should be provided by customer or contractor according to local codes.

3.2.3 Multiple Module Hopper Assembly

Position multiple hoppers side by side and bolt through corner gussets as illustrated in Figure 6, Section A-A on page 7. Locate and attach the leg weldments to the hopper assembly per Figure 6, Detail A. Locate the diagonal support braces and attach it to the hopper corner brackets on left, right and rear sides of hopper referencing Figure 6, Detail B making sure the base pads are oriented as illustrated in Figure 6. Secure hopper/leg assemblies to concrete mounting pad with appropriate mounting hardware. Anchors should be provided by customer or contractor according to local codes.

⚠ WARNING

Secure hopper/leg assemblies to concrete mounting pad with appropriate mounting hardware. Anchors should be provided by customer or contractor according to local codes. Base pads are to be oriented as illustrated in Figure 5 & 6.

Shaker Dust Collector SDC Series

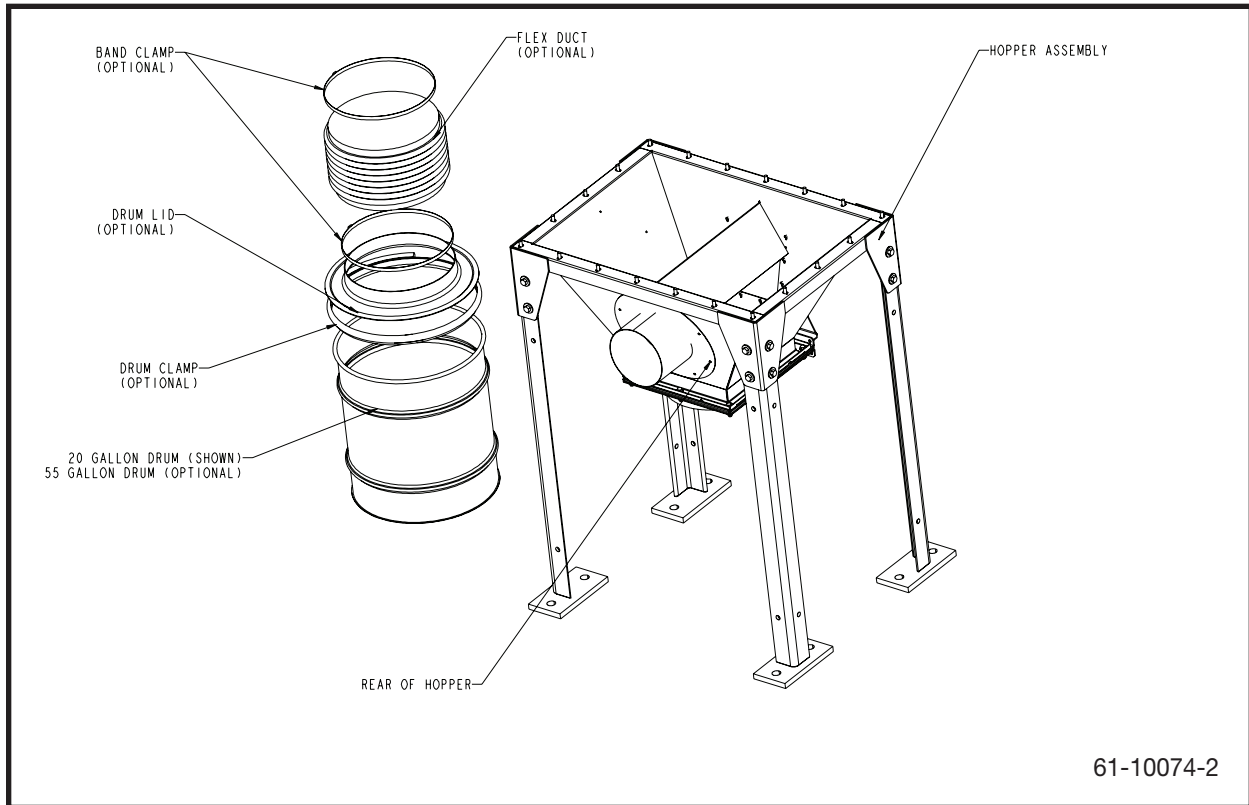


Figure 3. Drum Assembly

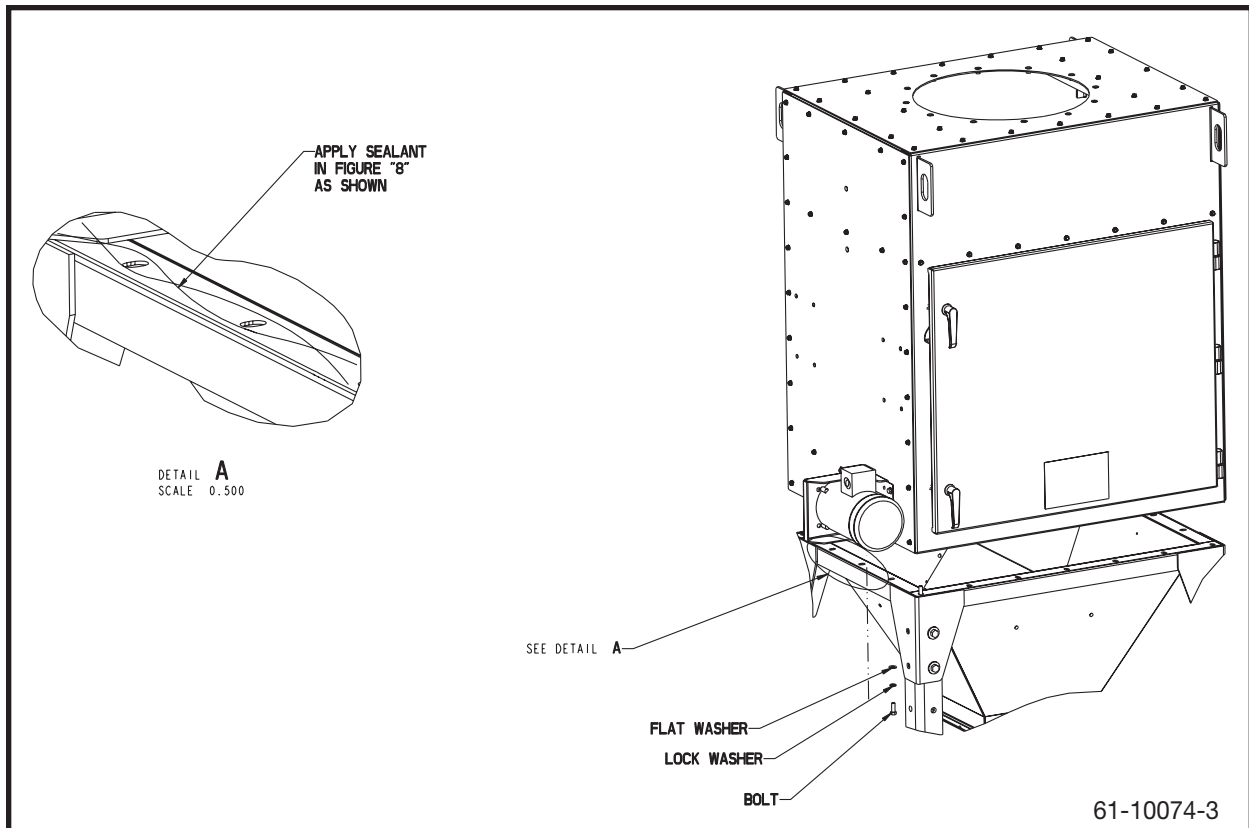


Figure 4. Unit to Hopper Assembly

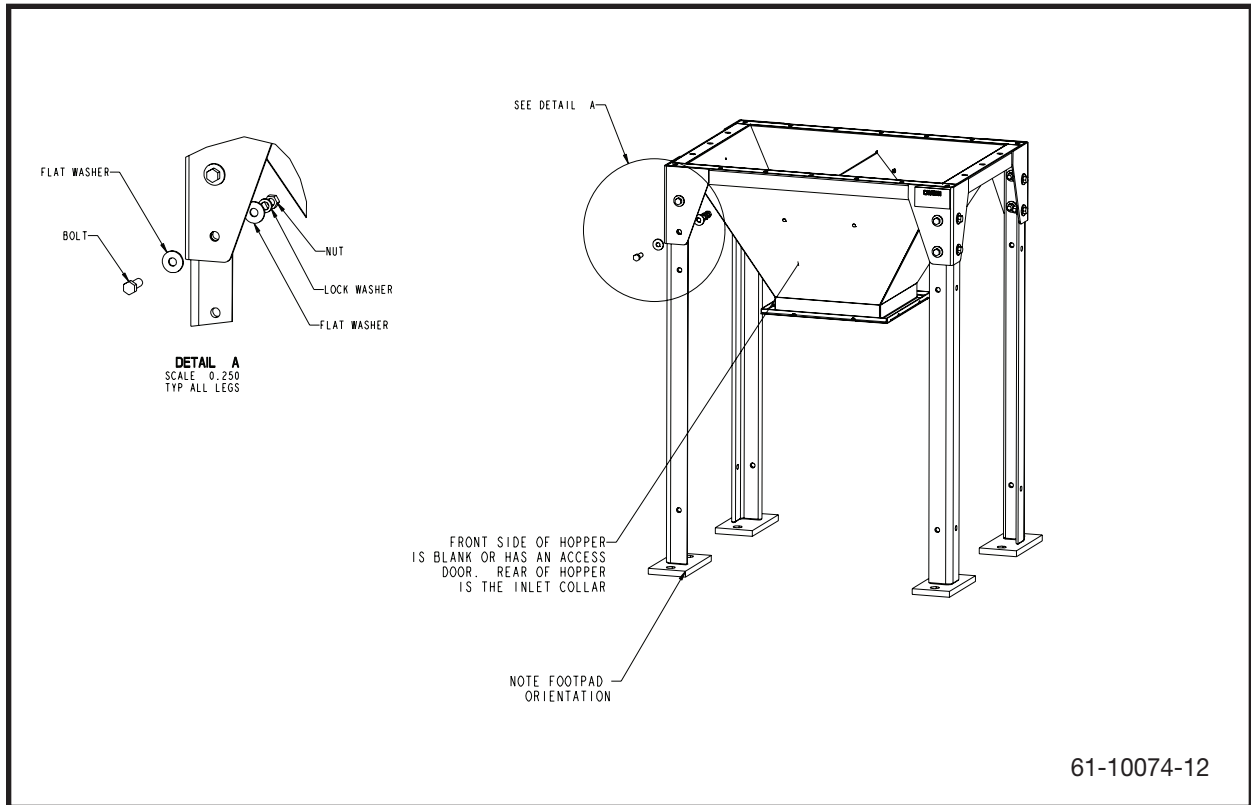


Figure 5. SDC-140-350 Hopper Assembly

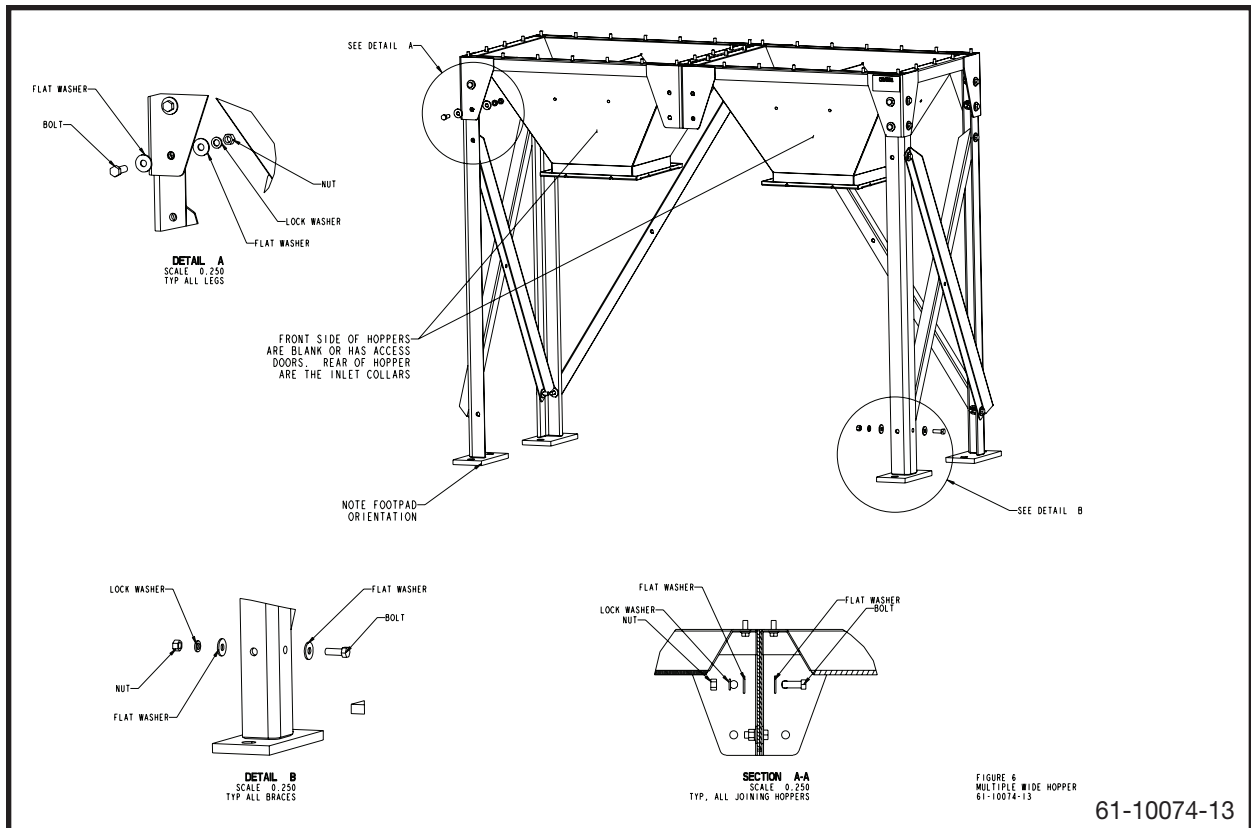
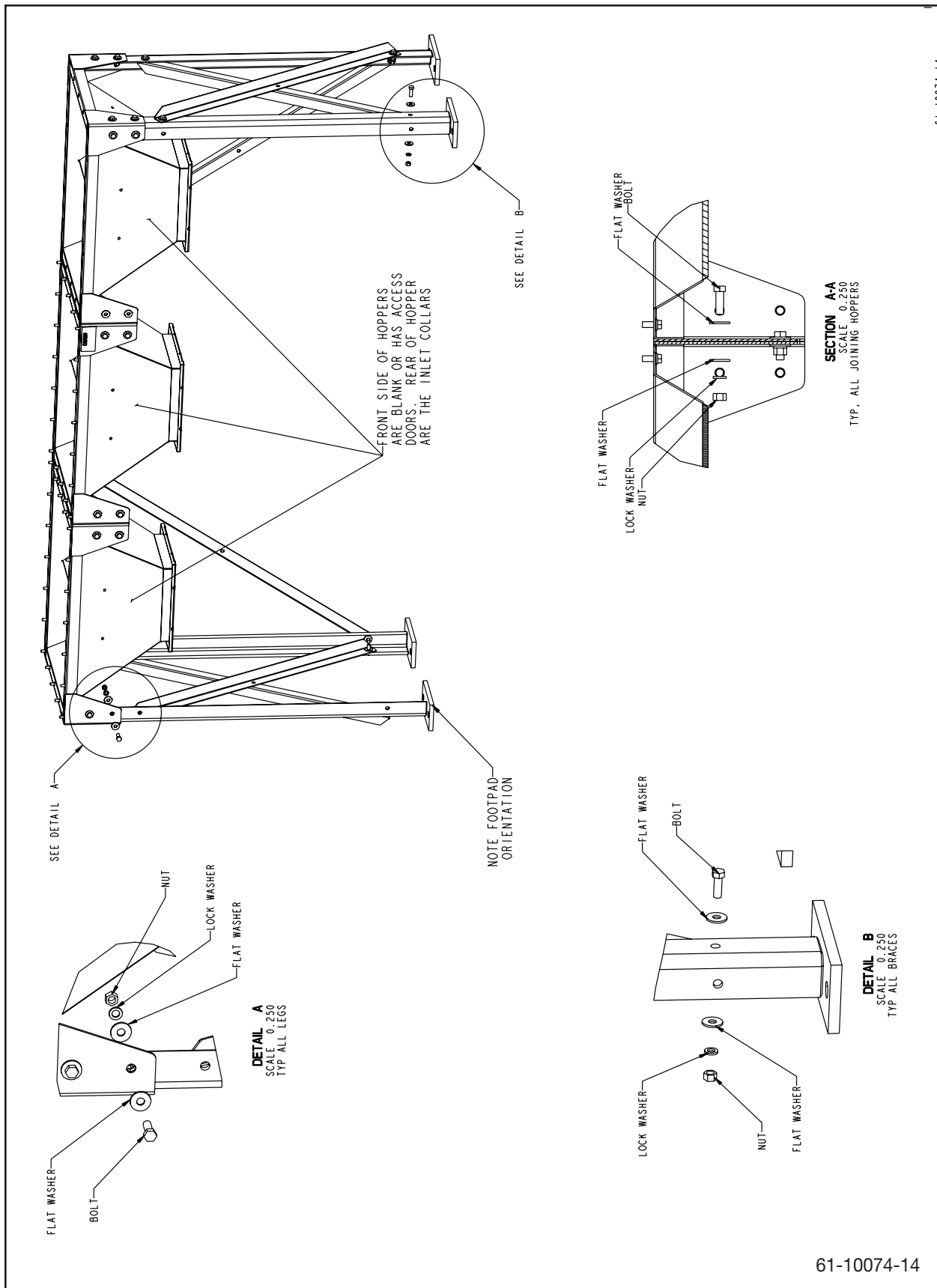


Figure 6. SDC-420-700 Hopper Assembly



61-10074-14

Figure 7. SDC-840-1050 Hopper Assembly

3.2.4 Filter Module Assembly

Prior to mounting the filter module to the hopper assembly, apply two ribbons of sealant to the hopper flange to create a figure “8” pattern around the mounting holes. This technique is shown in Figure 4 -Detail A (pg. 6).

Place the filter module onto the hopper assembly (as shown in Figure 4). Drift pins may be required for aligning holes between the two assemblies.

With the filter module still supported, use hardware (refer to Figure 4) to bolt the hopper and filter module together. Securely tighten all hardware at the filter module and hopper. Check leg assembly sway braces (if applicable) to ensure they are tight.

Disconnect lifting slings and spreader bars used for installation.

3.3 Electrical Installation

WARNING ELECTRICAL SHOCK HAZARD

All electrical work should be performed by a qualified electrician in accordance with local electrical codes. Disconnect electrical power before installing or servicing any electrical component.

General

Several types of standard electrical components can be installed to control and monitor your dust collection equipment. A properly sized fused disconnect or circuit breaker should be installed to adequately protect the equipment. Refer back to the nameplate on the SDC unit or control enclosure to verify the control configuration purchased with your unit for proper sizing. Refer to Figures 8-11 (pg 10-14).

3.3.1 Mounting of the Controls

The control enclosure require access at the beginning and end of every shift of operation. Location should be in a convenient, accessible area. The Parker control enclosure contains the motor starters for both the blower and shaker motors.

It is recommended that the controls be mounted on a wall or pedestal subject to minimal vibration and electrical noise. It is also suggested that the unit be located in a convenient location with the controls as to allow the customer easier access to wire to the unit blower and shaker motors.

3.4 Optional Equipment Assembly

3.4.1 Magnehlic® Gage

Magnehlic® gage is used to monitor the pressure drop across the filter in your SDC unit. This helps you to monitor the performance of your equipment and alerts you to when the filter requires replacement.

The SDC unit cabinet comes with two pre-drilled holes located on the left side of the cabinet for the pressure taps and (4) dimples to locate and install the Magnehlic® gage. The holes are plugged when unit is shipped. Remove the snap in plugs using a flat head screw-driver and install the (2) pressure taps in the SDC panels. To tighten the pressure taps, access to the inside part of the cabinet is required.

Removal of the filter cassette will be necessary to complete this installation. Drill out the (4) locating dimples (closest to the door side) to allow clearance for 1/4” supplied hardware (5/16 drill bit is recommended). Access the inside of the cabinet to tighten down the bracket hardware.

Install the gage into the bracket using the supplied hardware.

After the pressure taps are installed, run 1/4” tubing from the SDC cabinet to the Magnehlic® gage and connect to the dirty air side of the cabinet to the pressure port marked “High” and the clean air side to the pressure port marked “Low”. Take care not to kink the tubing during installation.

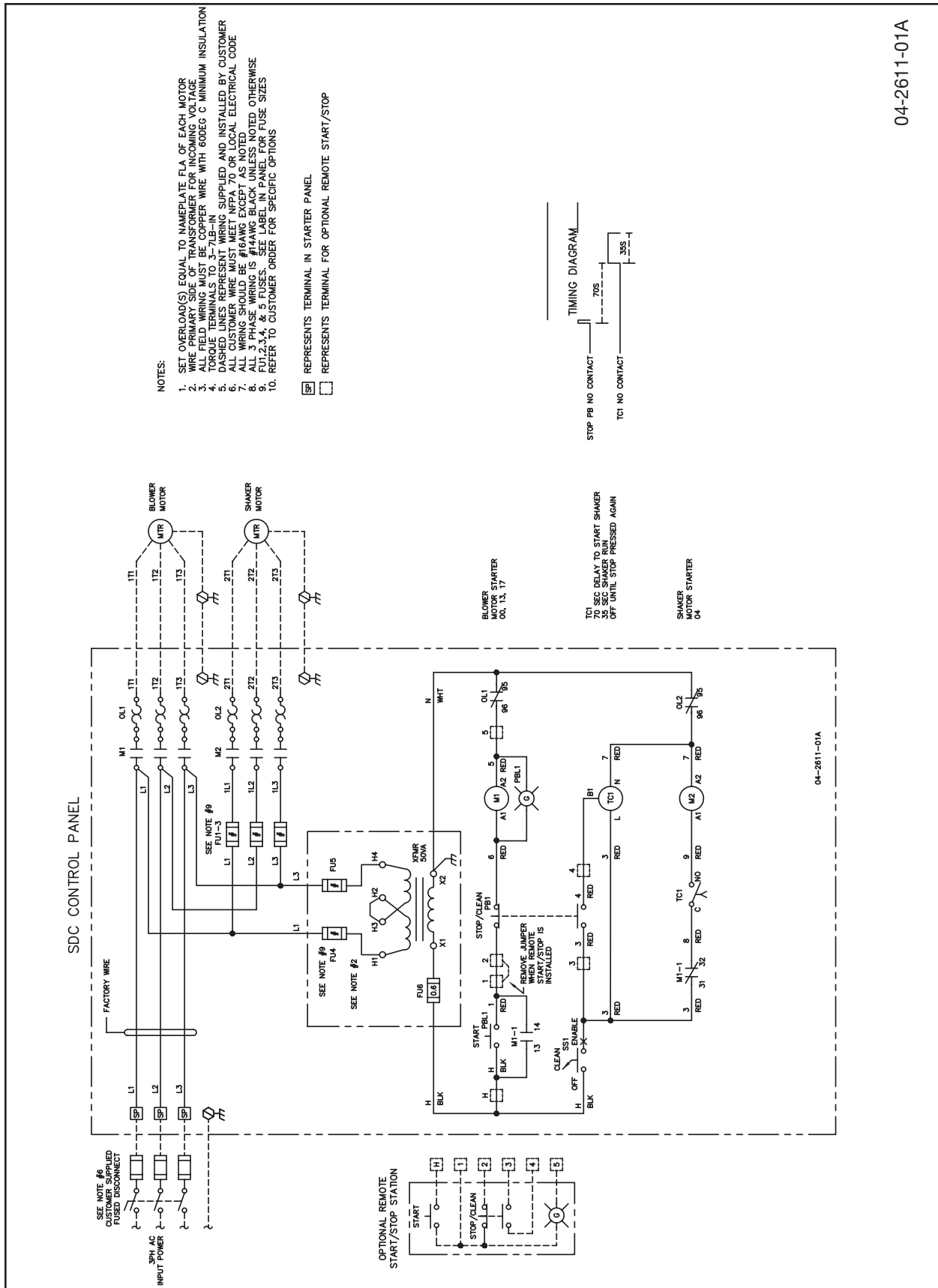
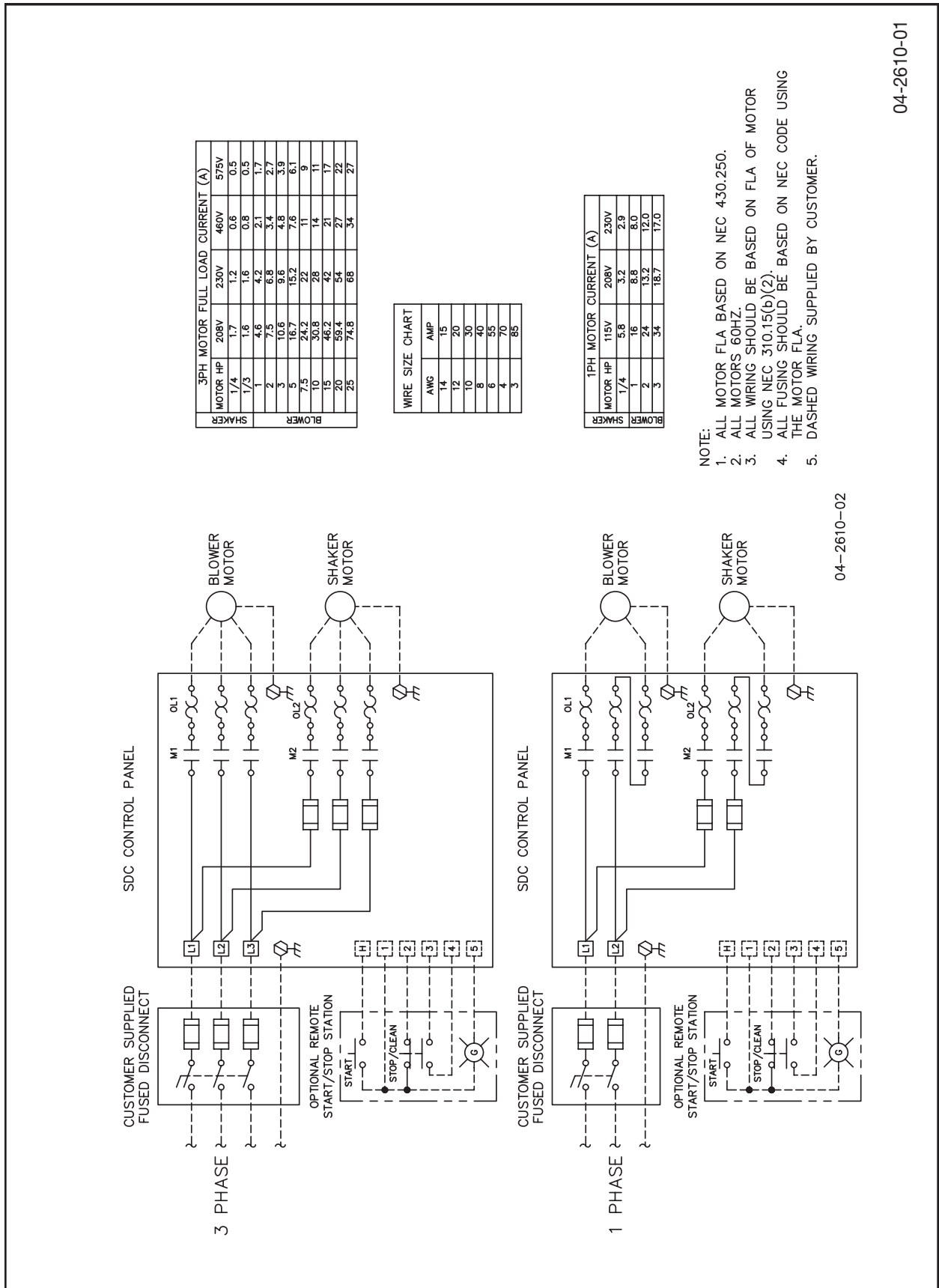


Figure 8. Wiring Diagram



3PH MOTOR FULL LOAD CURRENT (A)				
MOTOR HP	208V	230V	460V	575V
1/4	1.7	1.2	0.6	0.5
1/3	1.6	1.6	0.8	0.5
1	4.6	4.2	2.1	1.7
2	7.5	6.8	3.4	2.7
3	10.6	9.6	4.8	3.9
5	16.7	15.2	7.6	6.1
7.5	20.2	18.7	9.4	7.5
10	24.2	22.2	11.1	9
15	30.2	28	14	11
20	36.2	32	16	13
25	42.2	38	19	15
30	48.2	42	21	17
40	59.4	54	27	22
50	74.8	68	34	27

WIRE SIZE CHART	
AWG	AMP
14	15
12	20
10	30
8	40
6	55
4	70
3	85

1PH MOTOR CURRENT (A)				
MOTOR HP	115V	208V	230V	230V
1/4	5.8	3.2	2.9	
1	16	8.8	8.0	
2	24	13.2	12.0	
3	34	18.7	17.0	

- NOTE:
1. ALL MOTOR FLA BASED ON NEC 430.250.
 2. ALL MOTORS 60HZ.
 3. ALL WIRING SHOULD BE BASED ON FLA OF MOTOR USING NEC 310.15(b)(2).
 4. ALL FUSING SHOULD BE BASED ON NEC CODE USING THE MOTOR FLA.
 5. DASHED WIRING SUPPLIED BY CUSTOMER.

04-2610-01

04-2610-02

Figure 9. Interconnect Diagram

3.4.2 Explosion Venting

The SDC unit can be built to accommodate applications where explosion vents are required. All explosion vented installations should comply with the guidelines described in NFPA 69. Consult your local authorities or insurance provider for any specific regulations that may apply to your location.

Design changes are required such as strengthening of the cabinet and the filter access doors. The explosion vent(s) are mounted on the rear of the cabinet or the opposite side of the filter access doors. Placement of the unit and the vent orientation should be in accordance with the appropriate national safety guidelines in NFPA 69.

Figure 10 illustrates a typical explosion vented installation along with the re-enforced filter access door(s). Refer to Parker explosion vent manual (Part Number 44-10284-0001) for further installation details.

Placement of the unit and the vent orientation should be in accordance with the appropriate national safety federal and local regulations.

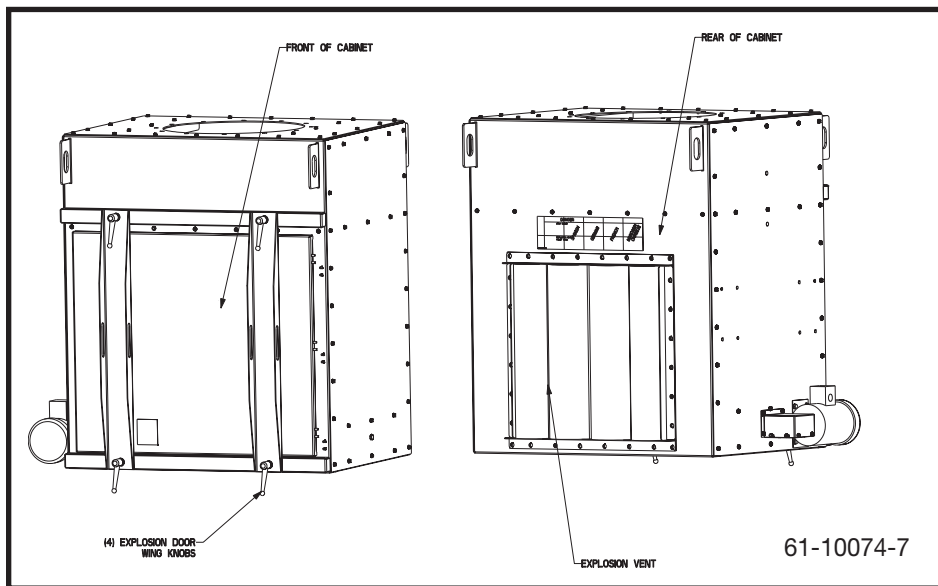


Figure 10.
Typical Explosion
Vented Unit

4. Operation

⚠ DANGER

Place the unit disconnect switch in the off position, and lock out all electrical power to the dust collector prior to performing service work.

⚠ CAUTION

Prior to unit start-up, all installation set-up instructions must be completed as specified by this manual. Refer to Section 4.

4.1 Start-Up Checklist

1. Inspect the installation area and make certain that no tools, parts, etc., have been left anywhere on or inside the SDC unit. Check discharge area(s) on unit to make sure they are free from obstructions.
2. Check that all accessories are properly and securely installed, including the hopper assembly and drum. Ensure that there are no air leaks in the ducting or hopper connections.
3. Turn power on at the source (fused disconnect).
4. Make sure the selector switch titled “Clean” is in the off position, pressing the “Start Fan” button and then the “Stop Fan & Clean” button.
5. The blower should be checked for proper rotation. The wheel should be rotating clockwise when looking at the drive side or top of the motor. If the blower is rotating in the opposite direction, disconnect the power to the unit and interchange any two wires from the blower motor within the SDC junction box. Refer to Figure 10 (opposite page).

NOTE: Proper blower rotation is required to move the designed amount of airflow. A blower rotating in the incorrect direction will only move approximately 40% of design airflow.

6. The shaker motor should also be checked for proper rotation with the correct direction being clockwise from the drive side or top of the motor. If the motor is rotating the wrong direction, some threaded fittings may have a tendency to loosen during normal operation. Disconnect power to the unit and interchange any two wires from the shaker motor within the SDC junction box. Refer to Figure 8 (pg. 10).
7. You are now ready to begin using the unit for production. Press the “Start Fan” button on the control panel and turn the “Clean” button to the on position.

IMPORTANT

It is recommended that you document the static pressure in critical locations throughout your process when the filters are clean and your system is running as intended. This will aid in troubleshooting your installation and allow you to accurately predict when it is time to change your filters.

Initially, some dust may discharge from the unit and may last for several minutes. As the filters season and begin to build up a dust cake, the discharge should remain visibly clear.

If you are operating the unit in short intervals, it may be necessary to leave the cleaning button in the off position during the first several intervals until a sufficient dust cake is obtained.

4.2 Shutdown and Afterfilter Cleaning

Press the “Stop Fan & Clean” button on the control panel with the selector switch in the “Clean” position. This will place the SDC off line and initiate a cleaning sequence. The unit will pause for approximately 70 seconds to allow the blower to coast down to a speed where it is no longer pulling a significant amount of air through the cabinet.

At the end of the 70 seconds, the shaker motor will be on line. The bags will be shaken at a high frequency, low amplitude vibration for 35 seconds, and will dislodge collected dust from the bags. The dust will then gravitate to the hopper and collect in the drum below the unit.

If required, this sequence can be repeated by pressing the “Stop Fan & Clean” button again. This will initiate a cleaning sequence after a 70-second delay.

5. Service

! DANGER

- Wear appropriate protective clothing.
- Disconnect electrical power to the unit and control panel.
- Collected dust may be hazardous. Consult proper authorities for handling and disposal.
- Collected dust may be a potential fire hazard. Welding, grinding or operations involving open flames should not be performed without fire protection measures in place. Refer to Section 1 of this manual for additional safety precautions.
- Disposal of collected dust must be according to federal, state and local regulations and all appropriate authorities.

5.1 Filter Removal and Replacement

To remove the SDC filter assembly(s), first open the filter access door. The filter is held in place by a cambar mechanism located on each side of the filter cassette. This mechanism is illustrated in Figure 11.

When in the locked or sealed position, the cambar handles will be in a horizontal position towards the center of the filter assembly. To unlock the filter, each cambar handle must be rotated down 90 degrees. The filter will become loose and drop into a position from which it can be removed from out of the unit.

! CAUTION

Filters can weigh in excess of 125 lbs. Please use extreme caution when removing from cabinet.

Slide the cassette from the cabinet, as shown in Figure 12 (pg 17). This will require two people (or a fork truck), due to the weight of the filter and the collected dust. When the cassette is removed from the cabinet, inspect the gasket on the underside of the tubesheet for damage. If there are cracks or tears it is recommended that the gasket should be replaced. Refer to Section 7 for replacement parts.

To replace the filter, remove the inserts from each pocket as shown in Figure 12. When this is complete, release the snap band that secures the filter to the cassette and then lift the filter up through the support rods and free of the cassette.

Reverse the above directions to install the new filter. Take care to make sure the filter fabric seats properly in the filter frame. As the filter cassette is slid into the cabinet, thread each pocket through the shaker mechanism teeth. Make sure the wear strips, located on the bottom-center of each pocket, are in contact with the shaker fingers.

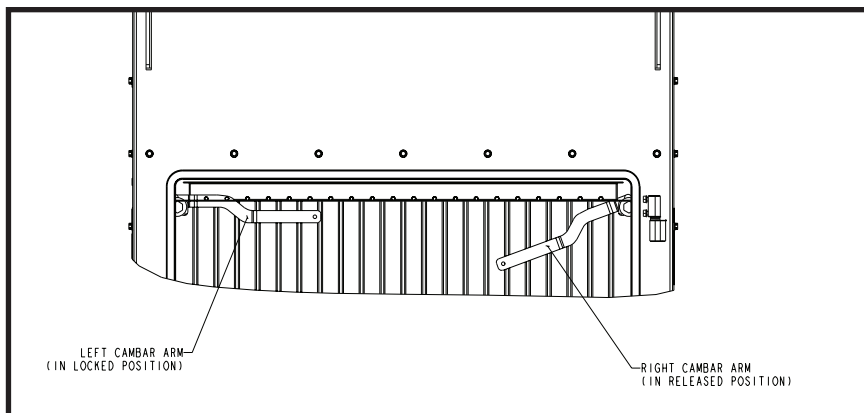


Figure 11.
Filter Sealing Mechanism

5.2 Dust Removal

As the SDC system cleans, dust collects in the drum. The dust should be removed periodically to prevent re-entrainment, eliminating dust piling up into the hopper section. Your application will determine the appropriate intervals between emptying the drums.

To remove the drum barrel, disengage the drum clamp and lift up the drum lid.

Reverse these directions to replace the drum barrel.

5.3 Servicing the Shaker Mechanism

On a quarterly basis, remove the shaker mechanism cover plate and inspect the moving parts of the shaker mechanism. Refer to Figure 13, Detail A.

Check that all hardware is tight, including the set-screws attaching the hub to the motor shaft, the shoulder bolt that is threaded into the hub and the nuts that secure the drive shaft to the shaker fingers. If hardware requires tightening, use a thread locker to secure. Inspect all bushings for signs of wear. Also inspect the rubber grommet that seals the mechanism to the cabinet for tears or excessive wear.

If it is not time to replace the bags, inspect them for wear or abrasion around the shaker fingers.

It is recommended that you grease shaker motor every 3,600 hours with high grade gall bearing grease (i.e. Shell Dolium or Chevron SRI-2).

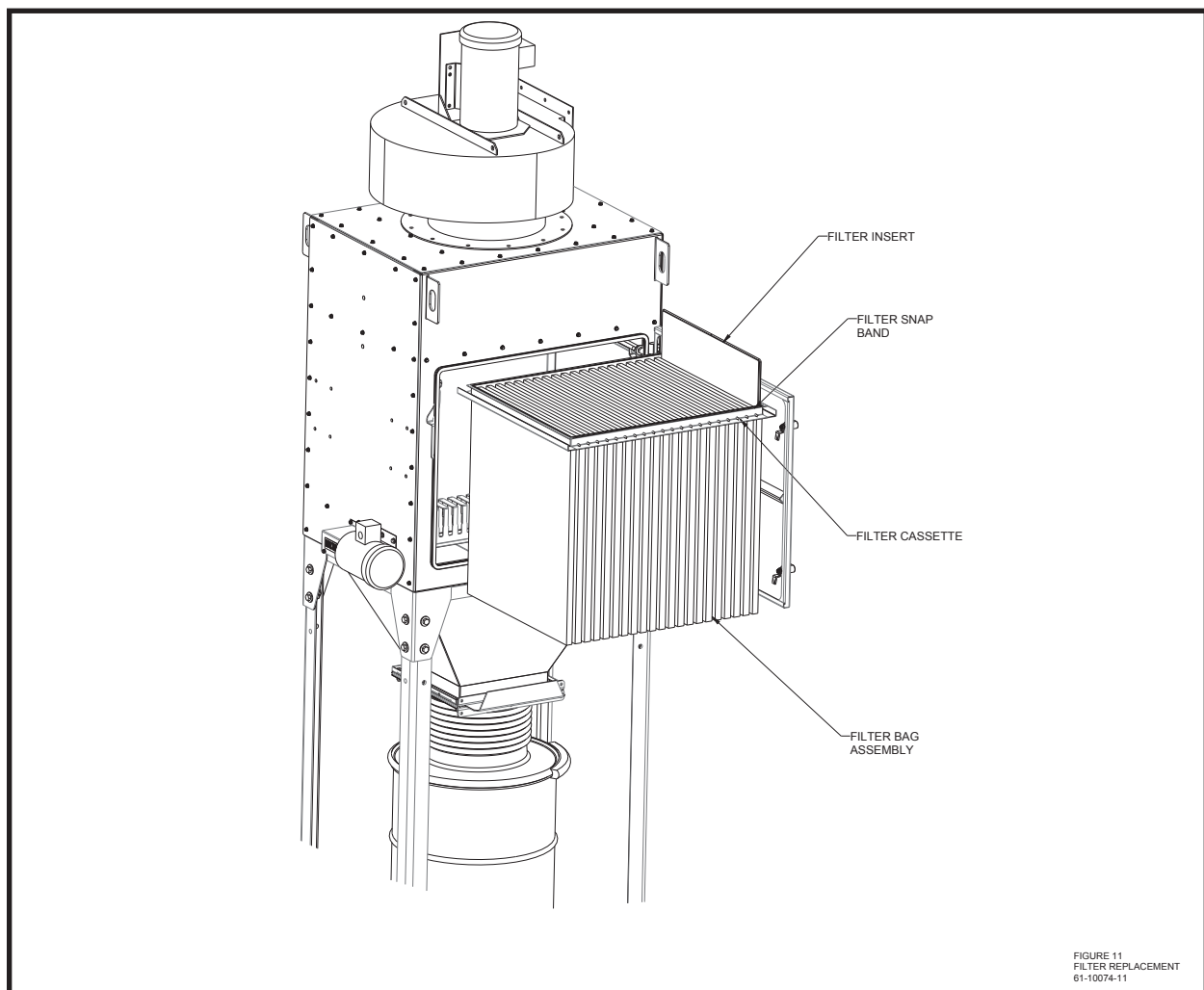


Figure 12. Filter Replacement

5.4 Servicing the Blower

DANGER

ELECTRIC SHOCK HAZARD

All electrical work should be performed by a qualified electrician in accordance with local electrical codes. Disconnect electrical power before installing or servicing any electrical equipment.

Periodically inspect the fan blades to ensure proper fan life. Clean the fan blades of any deposited material. Grease the blower motor every 3,600 hours with high grade gall bearing grease (i.e. Shell Dolium or Chevron SRI-2).

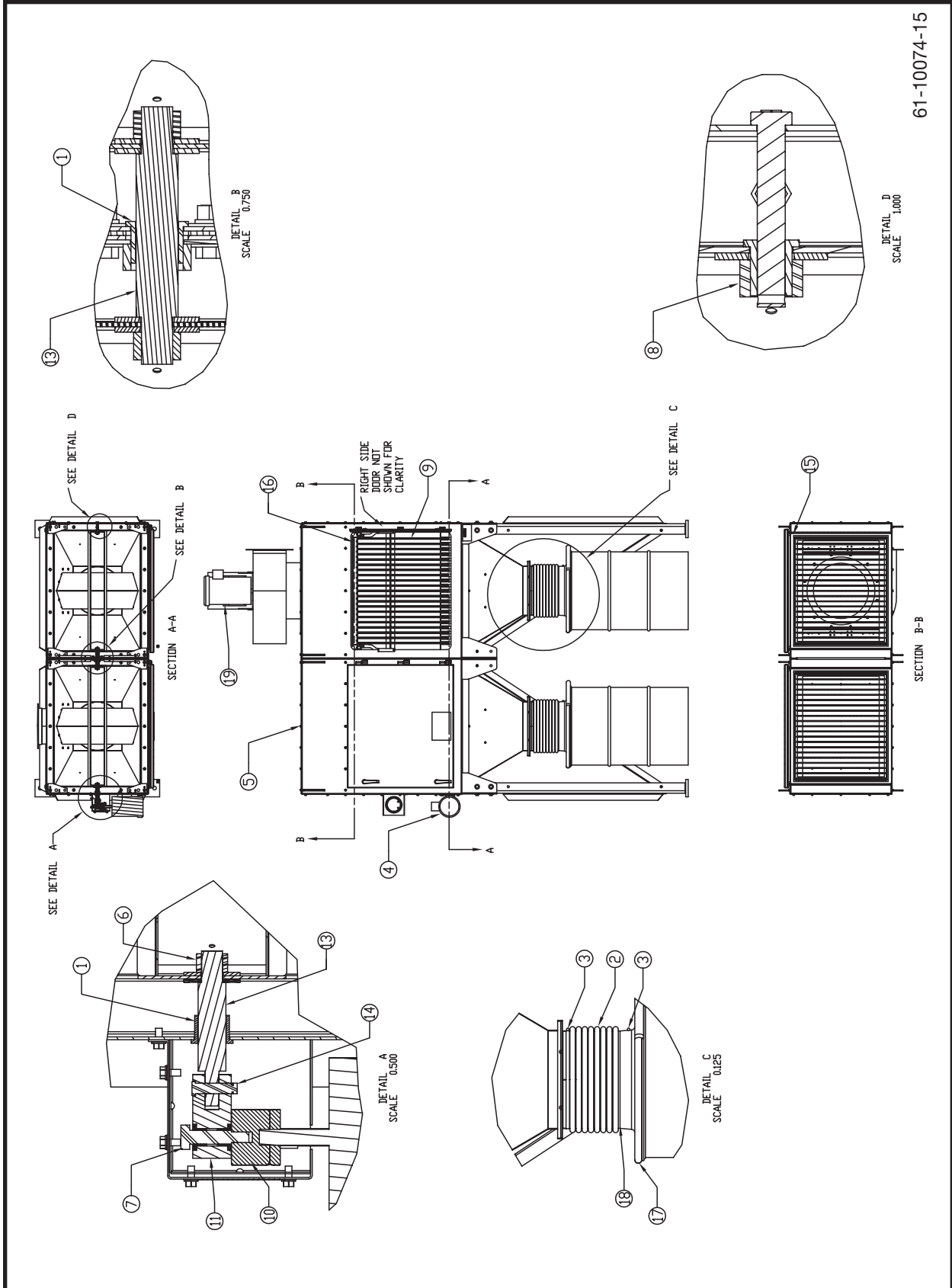
6. Troubleshooting

Problem	Possible Cause	Recommended Solutions
Motors for Blower or Shaker Will Not Start	Supply Power Not Operational	Check input power to motor circuits for proper voltage on all legs.
	Improper Electrical Wiring	Check and correct internal motor wiring for proper connections based on the incoming line voltage. Check control voltage power supply (i.e. fuses, transformer, overloads etc.).
Dust Emissions From Clean Air Discharge	Filter Not Installed Properly	Check to make sure cambars are in the upright and locked positions. Inspect gasket on underside of tubesheet for damage.
	New Filters are Not Seasoned	Allow filters to seed during normal operation. Emissions should dissipate after several hours of dust loading.
Insufficient Airflow	Blower Rotation is Reversed	All blower packages on the SDC should be rotating clock-wise when looking at the drive side of the motor.
	Leak Downstream of Collection Hood	Check to make sure the filter access door of the cabinet is tightly closed. Check the drum connection and ductwork between the process and collector for leaking connections.
	Filters Plugged	The filters either need to be cleaned or are at the end of their useful life.
Continual, Excessive Pressure Drop	Shaker Cleaning System Not Functioning Properly	Remove shaker mechanism access panel and inspect. Make sure all connections are tight and the drive shaft is securely attached to the shaker fingers.
	Dust Storage Drum is Full	Empty drum and clean out hopper.
	Filters Plugged	The filters either need to be cleaned or are at the end of their useful life.
	Air Inlet and/or Ducting is Undersized	Increase air inlet and/or duct size to minimize static pressure losses. Follow ductwork design methods as listed in Industrial Ventilation Manual by American Conference of Governmental Industrial Hygienists.

7. Warranty Replacement Parts

For replacement parts not listed in the table below, please contact Parker Customer Service at 1-800-343-4048 for additional information. To assure optimum performance of your dust collection equipment, replacement filter bags should be purchased from Parker Hannifin.

Part No.	Part No.	Description
1	10-12510-0001	Bronze Bushing
2	15-0202	Flex Duct
3	15-0233	Band Clamp
4	22-10031-0001	Motor, 1/3hp, 230/460/3/60, 1140rpm, 56C
5	30-10055-0500-W	Screw
6	30-10072-0001	1-1/4-12 Half Hex Nut
7	30-10071-0001	Shaker Shoulder Bolt
8	32-10045-0001	Shaker Drive Bushing (fixed end)
9	33-10086-0001	Filter Insert (SDC-70)
	33-10086-0002	Filter Insert (SDC-140, 210, 420)
	33-10086-0003	Filter Insert (SDC-280, 350, 560, 700, 840, 1050)
10	35-10019-0001	Shaker Hub
11	35-10031	Shaker Drive Shaft
12	35-10032	Shaker Connector
13	35-10032	Shaker Drive Shaft Long
14	39-10048	Clevis Pin
15	42-10060-0140	SDC-140 Tubesheet Gasket
	42-10060-0210	SDC-210 Tubesheet Gasket
	42-10060-0280	SDC-280 Tubesheet Gasket
	42-10060-0350	SDC-350 Tubesheet Gasket
16	45-10072	Door Gasket
17	45-10022-0020	20 Gal. Drum Lid Clamp
	45-10022-0055	55 Gal. Drum Lid Clamp
18	45-10022-0055	20 Gal. Alum. Drum Lid
	45-10034-0055	55 Gal. Alum. Drum Lid
19	Consult Parker	Fan Package
20	Refer to Unit Label	Filter Assembly



Product Warranty – SMOG-HOG[®] and DUST-HOG[®] Pollution Control Systems

1. Subject to the terms and conditions hereof, Parker-Hannifin Corporation (PARKER) warrants that major structural components on MCB, PNP, SDC, SFC, and SHM series will be free from defects in materials and workmanship for ten (10) years from the date of shipment from Parker. Subject to the terms and conditions hereof, warrants to the original Buyer of any Parker product (PRODUCT) installed and used as recommended by PARKER in normal service, that if the PRODUCT fails or is materially defective within twenty-four (24) months from date of installation or thirty (30) months from the date of shipment (whichever is earlier), of such PRODUCT, then PARKER, at PARKER'S sole option, will replace the PRODUCT with the same or equivalent PRODUCT, repair the PRODUCT or refund the original purchase price for the PRODUCT. Such replacement, repair or payment by PARKER shall be in complete satisfaction of any and all liability of PARKER and its agents with respect to such PRODUCT. Excluded from any Parker warranty are hose, electrical motors or consumable products such as flexible hose, belts, filter cartridges, filter media, ESP cells, electrical components, gasketing, or any component defined by PARKER as a consumable item.

2. Parker IGFG's warranty policy covers defects that are due to manufacturing quality. Equipment must be installed, commissioned and maintained in accordance with Parker IGFG recommendations as documented in the specific user manual related to your dust or wet collector product. This warranty does not cover defects due to poor environmental conditions, improper installation, or wear and tear items. This warranty shall be void in case of:

- a) Any buyer's modifications not explicitly approved by Parker IGFG Division,
- b) Misuse or failure in maintenance - not in accordance with Parker's product recommendations,
- c) Use of unauthorized or non-genuine Parker replacement parts,
- d) Damage caused by corrosion, abrasion, abnormal use or misuse, misapplication, or normal wear and tear,
- e) Equipment not properly installed, operated and maintained under normal conditions and recommended applications.

As Buyers exclusive remedy for any defects in the equipment, Parker will exchange or repair any defective parts during the warranty period, provided such parts are returned, prepaid, to Parker factory. The obligation of Parker is limited to furnishing replacement parts EXW Parker factory or making repairs at Parker factory of any parts that are determined, upon inspection by Parker, to be defective. In no event will Parker be responsible for labor or transportation charges for the removal, reshipment or reinstallation of the parts. Replacement parts will be provided via INCOTERMS EXW from Parker's Lancaster NY location. Parker makes no warranty as to goods manufactured or supplied by others.

3. THE FOREGOING IS THE ONLY WARRANTY, GUARANTEE OR REPRESENTATION OF ANY KIND MADE WITH RESPECT TO THE SUBJECT PARKER PRODUCTS. NO IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF NONINFRINGEMENT, DESIGN, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, APPLIES TO THE PRODUCT, AND NO OTHER EXPRESS WARRANTY OR GUARANTY, EXCEPT AS MENTIONED ABOVE, GIVEN BY ANY PERSON, FIRM OR CORPORATION WITH RESPECT TO THE PRODUCT SHALL BIND PARKER. PARKER SHALL NOT BE LIABLE FOR LOSS OF REVENUES OR PROFITS, EXPENSE FOR SUBSTITUTE EQUIPMENT OR SERVICE, STORAGE CHARGES, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY THE USE, MISUSE OR INABILITY TO USE THE PRODUCT REGARDLESS OF THE LEGAL THEORY ON WHICH THE CLAIM IS BASED, AND EVEN IF PARKER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOR SHALL RECOVERY OF ANY KIND AGAINST PARKER BE GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE PRODUCT SOLD BY PARKER AND CAUSING THE ALLEGED DAMAGE. WITHOUT LIMITING THE FOREGOING, YOU ASSUME ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO YOU AND YOUR PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING OUT OF USE, MISUSE OR INABILITY TO USE THE PRODUCT NOT CAUSED DIRECTLY BY THE NEGLIGENCE OF PARKER. THIS LIMITED WARRANTY IS GIVEN ONLY WITH RESPECT TO A PRODUCT PURCHASED FROM PARKER OR AN AUTHORIZED PARKER DISTRIBUTOR.

4. IN NO EVENT IS PARKER LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR AS THE RESULT OF, THE SALE, DELIVERY, NON-DELIVERY, SERVICING, NONCOMPLETION OF SERVICES, USE, LOSS OF USE OF, OR INABILITY TO USE THE PRODUCT OR ANY PART THEREOF, LOSS OF DATA, IDENTITY, PRIVACY, OR CONFIDENTIALITY, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT PARKER'S WRITTEN CONSENT, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL PARKER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCT.

5. Defective PRODUCTS must be documented via PARKER support "Case Number" within thirty (30) days after the date of the alleged failure or defect and within the warranty period by contacting Parker Technical Support via email or phone:

smoghog@parker.com or dusthog@parker.com
800-343-4048, option 2

The claim must specify in reasonable detail:

- 1) Product Serial Number or Parker Sales Order # and approximate Date of Purchase;
- 2) Where or from whom the product was originally purchased;
- 3) Description of problem symptom;
- 4) Description of troubleshooting effort details;
- 5) Description of physical location and/or environment details. The Buyer shall cooperate with PARKER in its investigation and provide full information and documentation concerning the PRODUCT and its usage.

Upon receipt of the claim, Parker IGFG will review and determine if the parts replaced need to be returned for quality evaluation and root cause investigation. If a part is required to be returned, Parker IGFG will issue a Return Material Authorization (RMA) to Return via email. Parts should be returned to Parker IGFG, freight collect, within 45 days accompanied by the RMA packing slip placed on the package. If the repaired part does not need to be returned you will be advised to field scrap it and the claim will be processed. Proof of the defect (written description and pictures of the parts units in question) is required.

NOTE: ANY PART NOT RETURNED WITHIN THE REQUIRED 45 DAYS WILL NOT BE REIMBURSED ON THE CLAIM.

On claims that require repaired parts return, the claim will be processed after the part has been evaluated by the Parker IGFG Quality Department for verification of failure mode. The claims will be paid in the form of a credit to the customer's account. Parker reserves the right to withdraw any quotation or proposal or reject any purchase order without liability.

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Industrial Gas Filtration and Generation Division

Lancaster, NY
716 686 6400
www.parker.com/igfg

Haverhill, MA
978 858 0505
www.parker.com/igfg

Engine Filtration

Racor

Modesto, CA
209 521 7860
www.parker.com/racor

Holly Springs, MS
662 252 2656
www.parker.com/racor

Hydraulic Filtration

Hydraulic & Fuel Filtration

Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Laval, QC Canada
450 629 9594
www.parkerfarr.com

Velcon
Colorado Springs, CO
719 531 5855
www.velcon.com

Process Filtration

domnick hunter Process Filtration SciLog

Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Water Purification

Village Marine, Sea Recovery,

Horizon Reverse Osmosis

Carson, CA
310 637 3400
www.parker.com/watermakers

Europe

Compressed Air Treatment

domnick hunter Filtration & Separation

Gateshead, England
+44 (0) 191 402 9000
www.parker.com/dhfns

Parker Gas Separations

Etten-Leur, Netherlands
+31 76 508 5300
www.parker.com/dhfns

Hiross Zander

Essen, Germany
+49 2054 9340
www.parker.com/hzfd

Padova, Italy
+39 049 9712 111
www.parker.com/hzfd

Engine Filtration & Water Purification

Racor

Dewsbury, England
+44 (0) 1924 487 000
www.parker.com/rfde

Racor Research & Development

Stuttgart, Germany
+49 (0)711 7071 290-10

Hydraulic Filtration

Hydraulic Filter

Arnhem, Holland
+31 26 3760376
www.parker.com/hfde

Urpjala, Finland
+358 20 753 2500

Condition Monitoring Parker Kittiwake

West Sussex, England
+44 (0) 1903 731 470
www.kittiwake.com

Process Filtration

domnick hunter Process Filtration

Parker Twin Filter BV

Birtley, England
+44 (0) 191 410 5121
www.parker.com/processfiltration

Asia Pacific

Australia

Castle Hill, Australia
+61 2 9634 7777
www.parker.com/australia

China

Shanghai, China
+86 21 5031 2525
www.parker.com/china

India

Chennai, India
+91 22 4391 0700
www.parker.com/india

Parker Fowler

Bangalore, India
+91 80 2783 6794
www.johnfowlerindia.com

Japan

Tokyo, Japan
+81 45 870 1522
www.parker.com/japan

Korea

Hwaseon-City
+82 31 359 0852
www.parker.com/korea

Singapore

Jurong Town, Singapore
+65 6887 6300
www.parker.com/singapore

Thailand

Bangkok, Thailand
+66 2186 7000
www.parker.com/thailand

Latin America

Parker Comercio Ltda.

Filtration Division

Sao Paulo, Brazil
+55 12 4009 3500
www.parker.com/br

Pan American Division

Miami, FL
305 470 8800
www.parker.com/panam

Africa

Aeroporto Kempton Park, South Africa

+27 11 9610700
www.parker.com/africa

© 2020 Parker Hannifin Corporation. Product names are trademarks or registered trademarks of their respective companies

IOM_PKR_SDC_032020
P/N 44-10480-0001 Rev-



Parker Hannifin Corporation

Industrial Gas Filtration
and Generation Division
4087 Walden Avenue
Lancaster, NY 14086
phone 800 343 4048
www.parker.com/igfg

