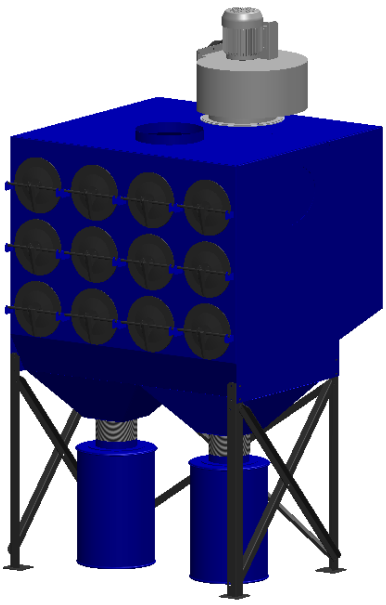
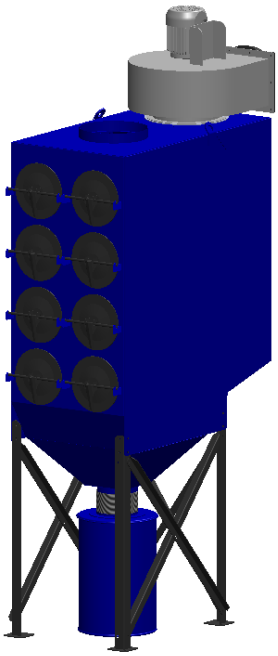
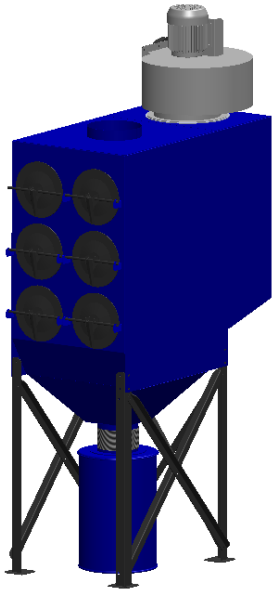
Dust Collectors



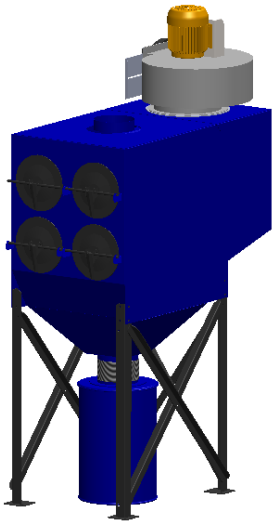
DCF2412
12000cfm@14"
SP 25hp Blower



DCF1680
8000cfm@12" SP
15hp Blower



DCF1260
6000cfm@ 12"SP
10hp Blower



DCF840
4000cfm@ 8"SP
7.5hp Blower

Installation & Operation Manual

Contents

1. Introduction And Warranty

1.1 Introduction

Congratulations on the purchase of a JBH Mfg. Clean Air Dust Collector

This product has been designed and manufactured to the strictest specifications.

Read and understand this manual before using this equipment. Follow all safety instructions. Keep this manual handy for frequent reference at all times. Call JBH Mfg. if you need assistance or information.

Information provided in this manual is current as of issue date. JBH Mfg. reserves the right to make design changes without further notice or liability.

Do not modify equipment from original design. Modifications may compromise safe operation of the equipment subjecting users to serious injury or death and may void any remaining warranty.

This Operator's Manual does not replace, nor does its use release the owner from observing all safety codes and operating limitations. Follow all applicable federal, state, provincial or local regulations.

1.2 Warranty

JBH Mfg. warrants this equipment under its one (1) year limited warranty. This warranty covers all electric and pneumatic valves and components. This warranty does not cover paint, corrosion, fans, filters, or excessive wear and tear.

2. Safety

2.1 Safety Alert Symbol And Signal Words

You must read, understand, and follow all instructions given by the operating unit manufacturers, as well as the instructions in this manual.

If you do not understand any part of this manual or are unsure about any aspect of this machine, contact JBH Mfg. at 226-748-4559 before proceeding.

The safety information in this manual is denoted by the safety alert symbol:

This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
The level of risk is indicated by the following signal words:

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

NOTICE

NOTICE - Indicates a situation that could result in damage to the equipment or other property.

2.2 Installation Hazards

WARNING

Prevent serious injury or death.

Electrical and mechanical installation must be performed by qualified technicians

Installation must conform to all national, local, and provincial codes and standards.

WARNING

Prevent serious injury or death.

Use adequate lifting devices to raise, move and install machine.

2.3 Operational Hazards

WARNING

Prevent serious injury or death.

Read and understand this manual before operating equipment.

WARNING

Prevent serious injury or death.

Allow only properly trained and qualified personnel to operate this equipment.

WARNING

Prevent serious injury or death from moving parts.

Moving parts can crush and dismember.

Do not operate without guards and shields in place.

Disconnect and lockout power source before adjusting or servicing.

Carefully read all safety messages in this manual and on equipment safety signs. Keep safety signs in good condition and replace missing or damaged safety signs.

New equipment components and repair parts must include the current safety decal.

Keep your equipment in proper working condition.

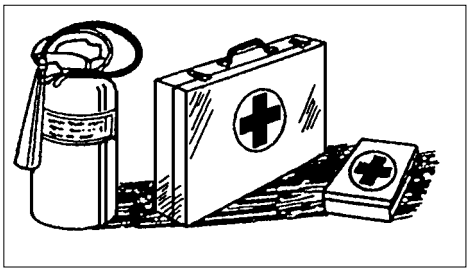
Learn how to properly operate equipment. NEVER operate or work around this equipment without proper instruction, if feeling ill or under the influence of alcohol, prescription or non-prescription medication.

Know the local laws and regulations that apply to you and your industry. This manual is not to replace any laws or regulations. Additional information may be found at:
www.nfpa.org or www.osha.gov.

2.3.1 Prepare For Emergencies

Keep a fire extinguisher and first aid kit close to the machine.

Keep emergency phone numbers close to your phone.



2.4 Hazards From Modifying Equipment

Do not make any modifications to your equipment. Modifying may cause your equipment to be unsafe and may void the manufacturers' warranty.

2.5 Maintenance Hazards

Before servicing, disconnect and lockout power source. Read and understand this manual. If you do not understand any part of the manual, contact JBH Mfg. at 226-748-4559.

Always wear face and/or eye protection, safety shoes, and other protective equipment appropriate for the job. Remove jewelry, confine long hair, and do not wear loose articles of clothing.

Do not make unauthorized modifications. Modifications may compromise safe operation of machine, subject users to serious injury or death. Contact JBH Mfg. at 226-748-4559 before you weld, cut/drill holes, or make any other modifications.

Always use JBH Mfg. replacement parts.

⚠ WARNING

Prevent serious injury or death.

Equipment maintenance must be performed by qualified technicians

⚠ WARNING

Before performing inspections, service or maintenance disconnect and lockout power source.

⚠ WARNING

Keep clear of moving components. Moving parts can crush and cut.

Follow lockout procedure before servicing.

⚠ WARNING

Entanglement hazard.

Keep clear of moving components.

Wear proper protective equipment appropriate for the job.

2.6 Pressurized Air Hazards

Compressed air can cause serious injury or death.

⚠ WARNING

Do not use compressed air for any other purpose than that for which it is provided.

Never direct a stream of compressed air towards your body or the body of another person.

Before using, check all components for damage or wear. Make sure connections are tight and hoses are in good condition.

2.7 Safety Warning Label

⚠ WARNING

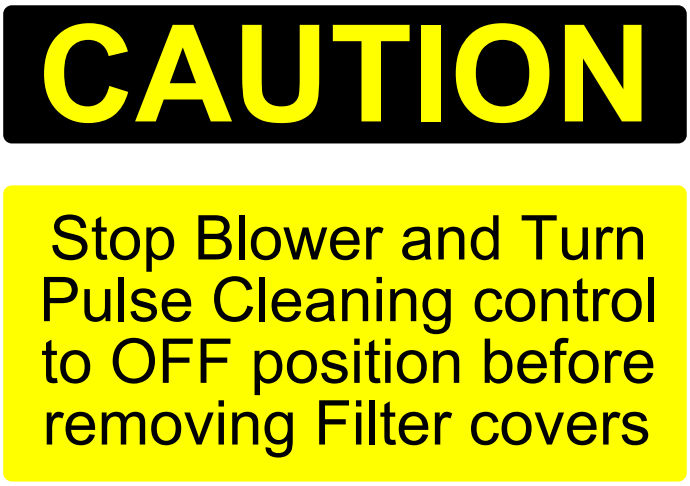
To protect you and others against death or serious injury, all labels shown must be on machine and must be legible.

If any of these labels are missing or cannot be read, contact JBH Mfg. for replacement labels.

3. Safety Label Location

Replace missing or damaged safety label.

Replacement safety labels are available from JBH Mfg.



4. Installation

Safe and efficient operation of this machine depends on proper installation.

A qualified technician must complete installation and service of this equipment. Follow all regulations and local codes.

⚠ WARNING

Prevent serious injury or death.

Refer to machine weight listed below.

Use adequate lifting devices to lift this machine.

Never go under a raised machine supported with lifting devices.

1. Refer to list below for machine weight.

Model	Weight
DCF840	1,556 lbs
DCF1260	2,334 lbs
DCF1680	3,112 lbs
DCF2412	4,668 lbs

2. Use adequate lifting devices to lift machine.

3. Securely anchor the Clean Air structure to a concrete foundation using holes in the foot pads.

4.1 Compressed Air Installation

1. Remove the pipe plug from end of air manifold(s) and connect the compressed air line. Use thread sealing tape or pipe sealant on all compressed air connections.

2. Install a customer supplied shut-off valve, bleed-type regulator with gauge to be set at 90psi max, filter, and automatic condensate valve in the compressed air supply line.

Note: All compressed air components must be sized to meet system requirements.

NOTICE

Do not increase supply pressure above system reccomendation. Component damage can result.

3. Contamination in compressed air used to clean filters will result in poor cleaning, reduced filter life, cleaning valve failure, and poor collector performance. The compressed air supply must be oil and moisture free. Purge compressed air lines to remove debris before connecting to the units compressed air manifold.

4. Turn off compressed air supply and bleed lines before performing service or maintenance work.

4.2 Electrical

⚠ WARNING

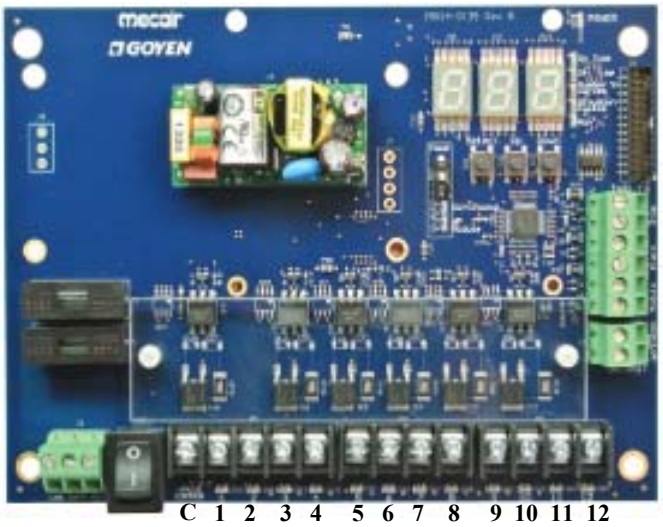
Electrical installation must be performed by a qualified electrician

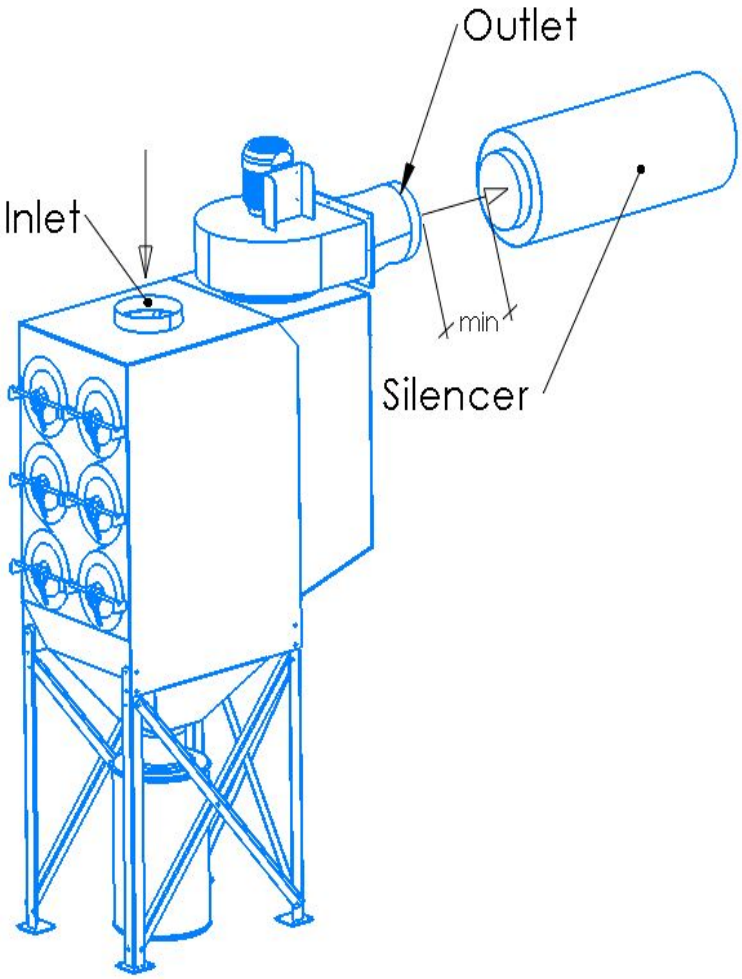
Installation must conform to all national, local, and provincial codes and standards.

Electrical wiring and connections, including grounding must be made in accordance with all national, local, and provincial codes and standards.

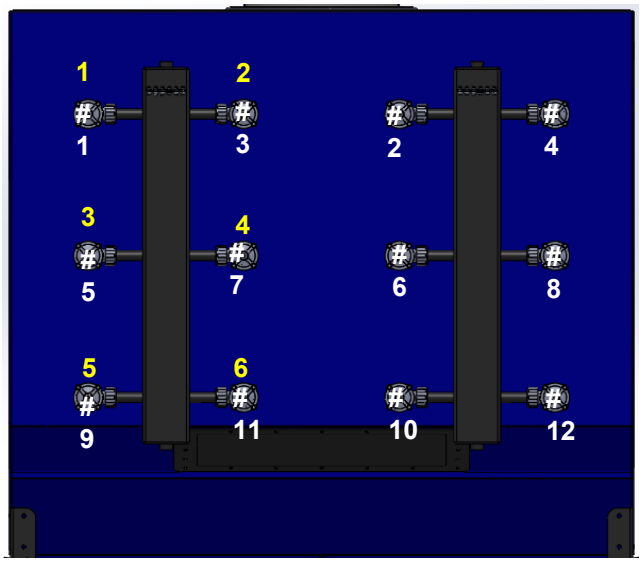
Refer to specifications for required voltage and amperage.

4.2 Electrical





Valves On Dust Collector



White Numbers if the unit has 2 manifolds
Yellow Numbers if the unit has only one manifolds

5. Sequential Controller Timer

The Dust Collector Controller is programmed to control pulse valves. It provides timed sequential energizing of the pilot solenoid valves.

A digital LED readout screen indicates programmed settings of various functions. control allows adjustments of on and off times,

Pressure Switch Control: Provision is made to allow the addition of a photohilic pressure switch to operate only when pressure switch contacts are closed on the low set point. A memory feature enables timer to energize the next output in sequence when pressure switch calls for timer to restart. When electrical power is disconnected, timer will restart at valve number 1 when power is restored.

Automatic Slowdown: Allows timer to continue to operate for off line cleaning for complete cycle when Blower fan is turned off. Blowdown cycle is initiated by the closing of auxiliary contacts on fan motor control when fan is stopped.

Switch Functions

Auto

When control switch is set to auto the Dust Collector Controller is programmed to automatically start/stop with the Remote start/ stop wired in the control pulse valves. It provides timed sequential energizing of the pilot solenoid valves to pulse clean the filters

OFF

When control switch is set from ON or AUTO to OFF the dust collector controller is in OFF mode.

ON

When control switch is set to ON the DustCollector Controller is programmed to Continuously run the fan and control pulse valves. It provides timed sequential energizing of the pilot solenoid valves to pulse clean the filters , monitored by the differential pressure

5.1 Programming Master Controller

5.1.1 Off Time

See Pentair Manual in controller box (Page 3of21)

Recommended setting: 5-10sec

5.1.2 On Time

See Pentair Manual in controller box (Page 3of21)

Recommended setting: 250 msec

5.1.3 Defaults

dP Low: 2.0
dP High: 4.0
dP Units: H2
High dP Alarm: 0
On Time: 250
Off Time: 8
Blowdown: 1

6. Startup

6.1 Checklist

1. Check all hardware. Tighten as needed.
2. Check all electrical connections.
3. Verify duct connections are sealed properly.
4. Verify filters are installed properly.
5. Verify compressed air is on and regulated to system recommendation. (90psi max)
6. Verify timer controller is on and properly programmed.
7. Verify all access doors and dust container are properly sealed and secure.
8. Verify pressure ports on body of equipment are plumbed to timer controller.(High/Low ports)
9. Verify Master Controller is wired to solenoid valves on body of equipment
10. Turn power on at source.
11. Turn blower fan motor ON.
12. Verify fan is rotating in the proper direction.

⚠ WARNING

Prevent serious injury or death.

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

NOTICE

Operating machine above the design CFM will reduce filter life

7. Maintenance

7.1 Filter Handling And Replacement

NOTICE
Improper handling of filter can ruin filt .

Filter Handling

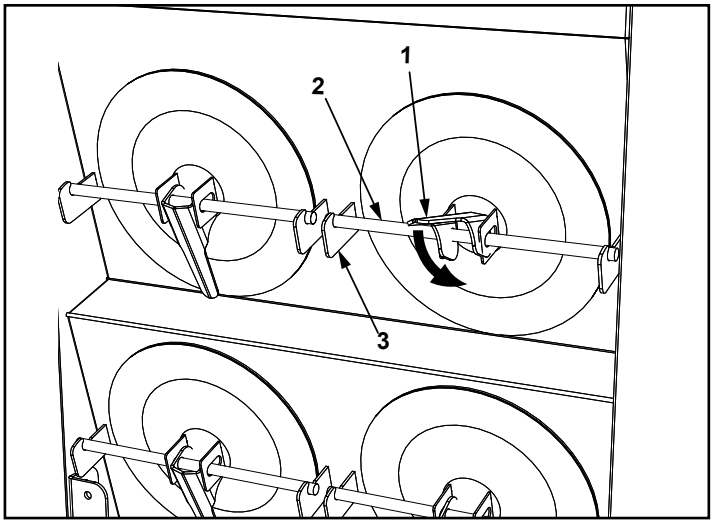
Handle filters by the top and/or bottom steel pan. Handling paper media can result in tearing, resulting in leaking through media.

Filter Replacement

⚠ WARNING
Use proper safety and protective equipment when removing filters and contaminants. **Improper handling can cause serious injury or death.**

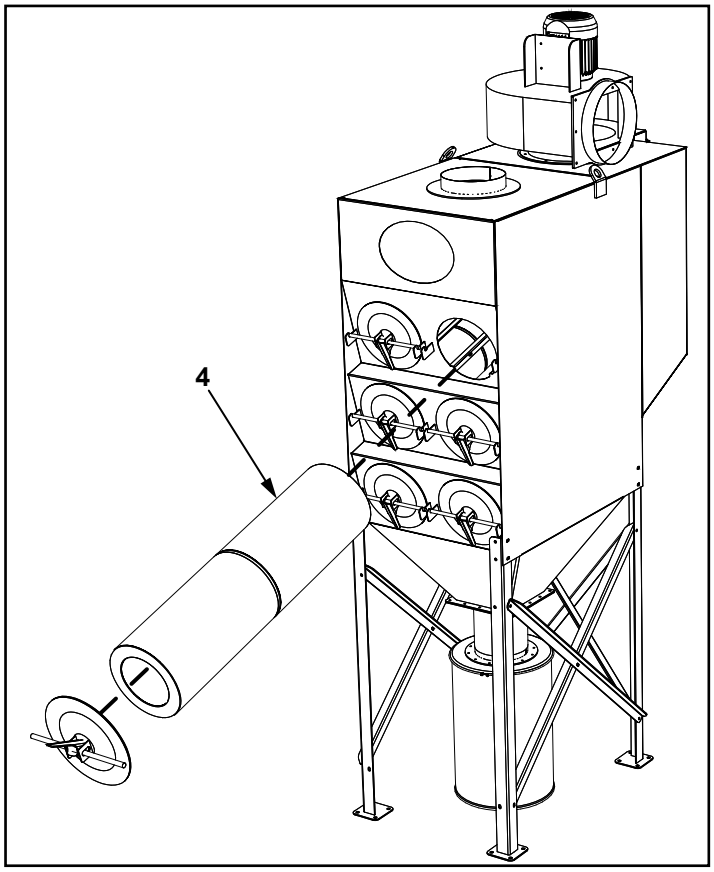
1. Turn power to machine OFF.

2. Rotate handle (1) upward and lift rod (2) off brackets (3) to remove door.



3. Slide filter (4) out and dispose of properly.

4. Clean sealing surfaces with damp cloth.



NOTICE
Clean dust from gasket sealing area to ensure filter gasket seal.

5. Install new filter into machine. Insert gasket end first.

6. Wipe door gasket clean.

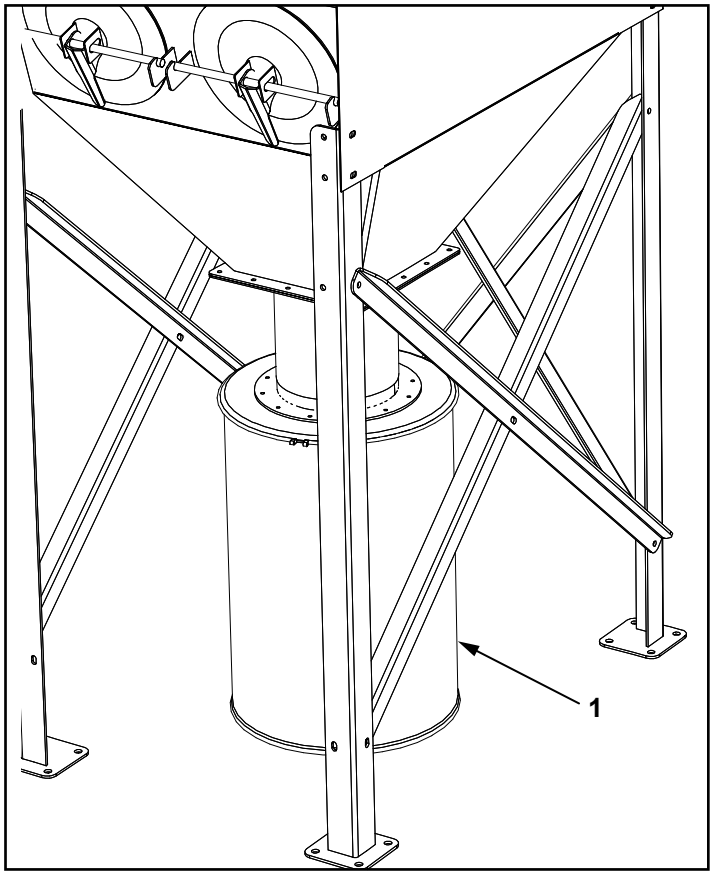
7. Insert rod (2) into brackets (3). Rotate handle (1) downward to lock.

8. Repeat this procedure for all filters.

7.2 Dust Disposal

1. Turn power to machine OFF.

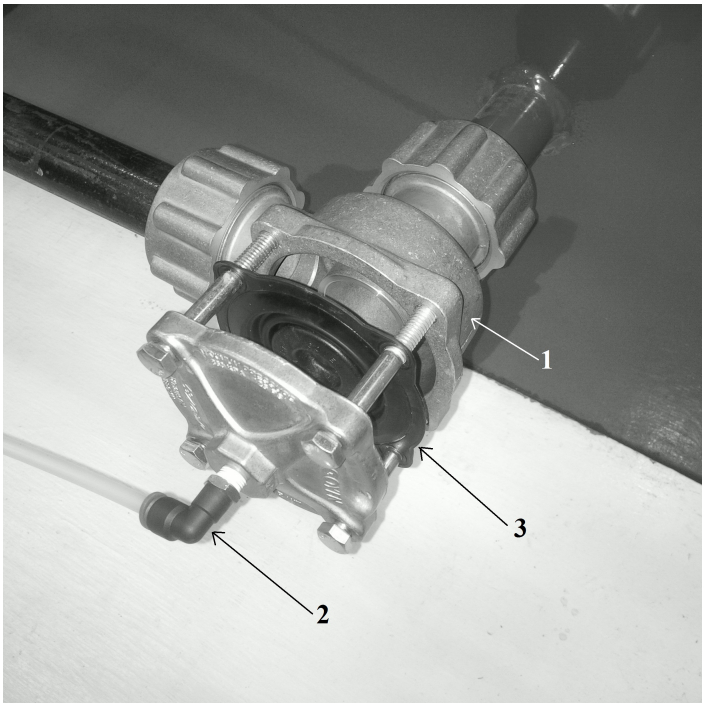
2. Remove and empty dust container (1) as necessary.



3. Install dust container.

7.3 Spare Parts

	Part	Part Number
	Filter	22211
1	Valve Assembly	RCAC25DD4002
2	Valve Elbow	206-04017
3	Valve Gasket	K2546



8. Specification

Dust Collector				
Model	**DC840**	**DC1260**	**DC1680**	**DC2412**
Filters	**8**	**12**	**16**	**24**
2,032 sq. ft. filter media	X			
3,048 sq. ft. filter media		X		
4,064 sq. ft. filter media			X	
6,096 sq. ft. filter media				X
Rated for up to 4,000 CFM	X			
Rated for up to 6,000 CFM		X		
Rated for up to 8,000 CFM			X	
Rated for up to 12,000 CFM				X
Weight	1,556 lbs	2,334 lbs	3,112 lbs	4,668 lbs
Dimensions	92”D 45”W 156”H	92”D 45”W 183”H	92”D 45”W 216”H	92”D 85”W 183”H

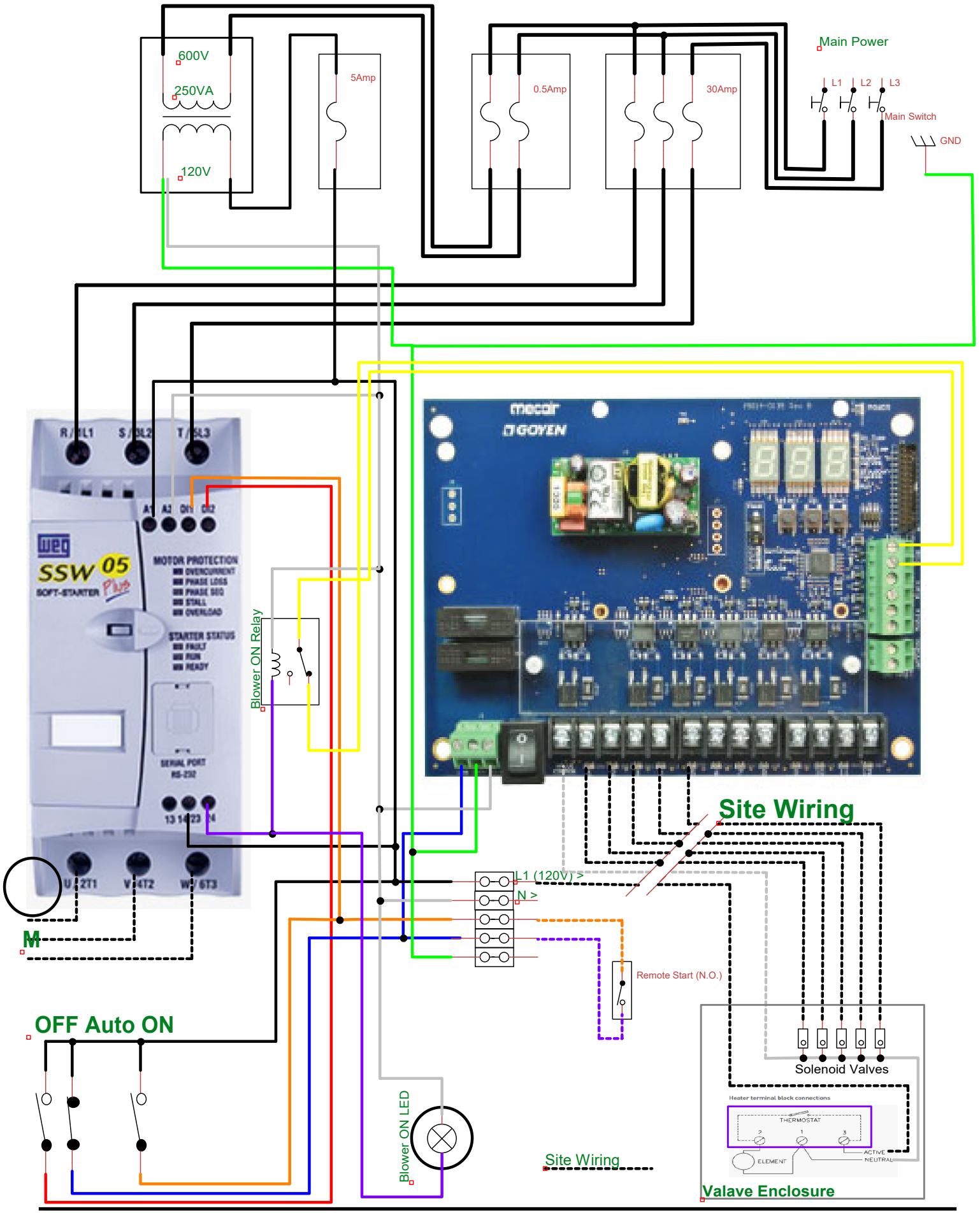
Nanofiber Filter	
Composition	100% Fire-Retardant Nanofiber
Maximum Continuous Temp:	170 Degrees F
Weight:	1666#/3000 ft2
Thickness:	.022”
Air Permeability:	28cfm Frazier
Filtration Efficiency:	MERV 15. BIA Classification U, S, G, and C. 99.9% when tested against quartz dust with 90% particles lying between 0.2um and 2 um. Filtration Velocity = 3.36 m/min.

9. Troubleshooting

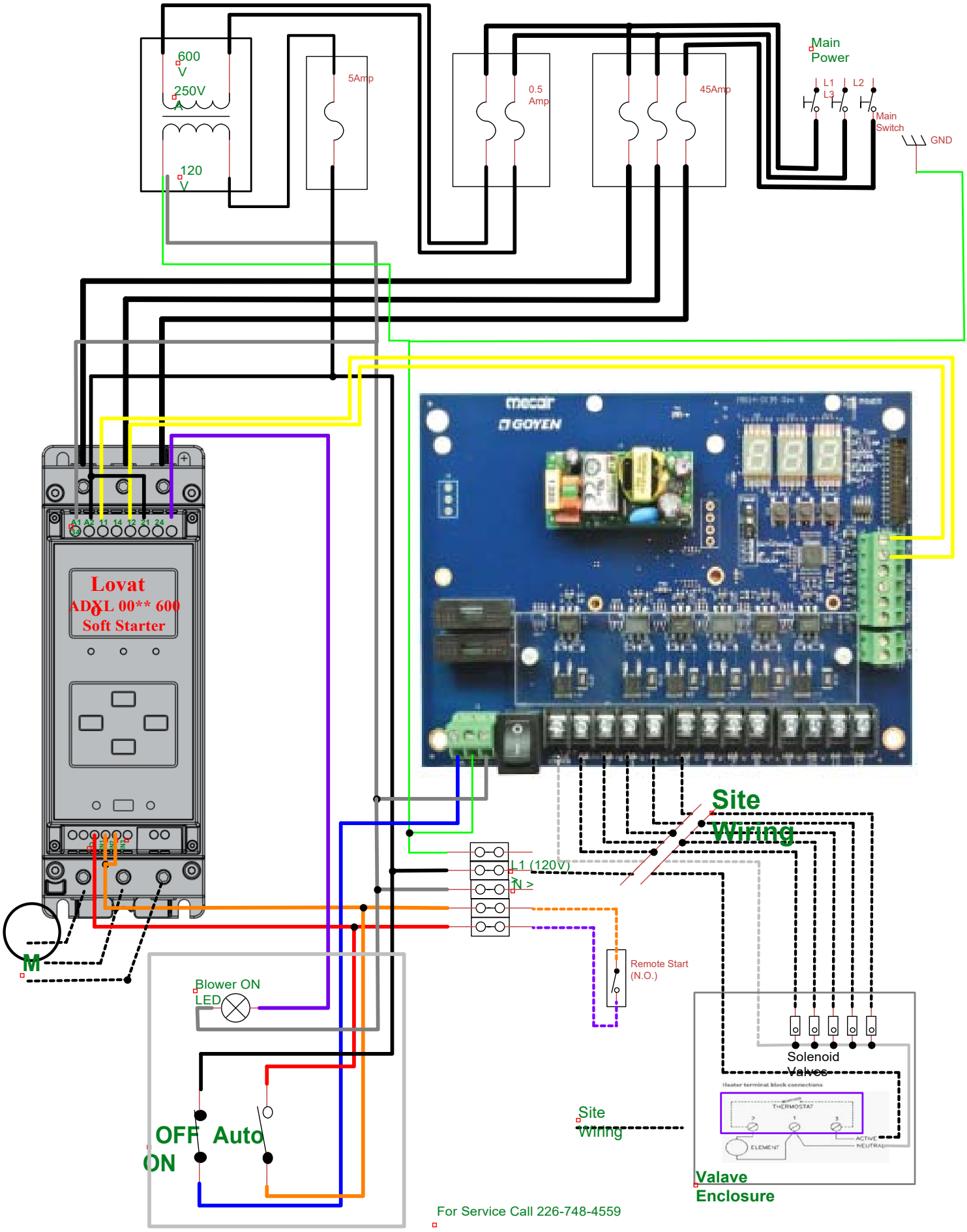
PROBLEM	PROBABLE CAUSE	SOLUTION
Blower fan motor does not start.	Electrical supply circuit down.	Check the power supply circuit for proper voltage. Check for any fuse or circuit breaker fault. Replace as necessary.
	Input circuit down.	Check power supply to motor circuit on all leads.
	Improper motor wire size.	Rewire using the correct wire gauges as specified by national and local codes.
	Motor not wired for available voltage.	Correct the wiring for the supply voltage.
	Motor not wired properly.	See motor manufacturers wiring diagram. Check and correct motor wiring for the supply voltage present. Follow wiring diagram and the National Electric Code.
Blower fan motor starts, but does not stay running.	Electrical circuit overload.	Check that supply power circuit has sufficient power to run all the equipment.
Clean air outlet discharging dust or smoke.	Filter damage, dents in the end caps, gasket damage or holes in pleated media.	Replace filters as necessary. Use only genuine JBH Mfg. authorized replacement filters.
	Filters need to be changed.	Replace filters.
	Filters not installed properly.	See filter installation.
Insufficient airflow.	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 the optional attachments are installed correctly.
	Dust storage area overfilled or plugged.	Clean out dust storage area.
	Exhaust fan exhaust area restricted.	Check fan exhaust area for obstructions remove material or debris. Adjust fan outlet damper, if equipped.
	Fan rotation backwards.	Compare rotation to the blower manufacturers rotation arrow.
	Filters need replacement.	Replace filters as necessary. Use only genuine JBH Mfg. authorized replacement filters.
	Lack of Compressed air.	Check that a minimum of 75-psig is available See compressed air installation.
	Pulse cleaning not energized.	Use a voltmeter to check supply voltage to the timer board.
	Pulse valves leaking compressed air.	Lock out all electrical power to the unit and bleed the compressed air supply. Check for debris, valve wear, or diaphragm failure by removing the diaphragm cover on the pulse valves. Check for solenoid leaks or damage. Check for leaks in the tubing from the pulse valve to the solenoid valves. Replace as necessary.

PROBLEM	PROBABLE CAUSE	SOLUTION
Alarm light is ON.	Alarm setpoint too low.	Adjust to a higher value.
	Excess pressure drop.	Check compressed air supply and cleaning system. Replace filters if filters do not clean down.
	Pressure tubing disconnected or plugged.	Check tubing for breaks, blockages, kinks, contamination, or loose connections.
Insufficient airflow.	Display on Goyen doesn't return to zero when at rest.	Recalibrate DCP pressure module with pressure tubing attached as described in timer controller installation.
On Demand pressure cleaning does not start.	High setpoint not adjusted for system conditions.	Check tubing for kinks, breaks, contamination, or loose connections.
	Pressure tubing disconnected or plugged.	
Pulse Cleaning never stops.	Bypass terminals on the timer board jumpered.	Remove jumper wire on solid state timer board bypass terminal.
	High or low setpoint not adjusted for system conditions.	Adjust setpoints to current conditions.
	Pressure tubing disconnected or plugged.	Check tubing for kinks, breaks, contamination, or loose connections.
Cleaning output lights flash but system is not functioning.	Improper wiring.	Check wiring between the timer control board and the solenoid valve coils.
	Defective solenoids.	Check all solenoid coils for proper operation.
	Timer board not powered.	Check power on light on timer board's LED display. If not illuminated, check the fuse on the timer board. Replace as necessary.

Wiring diagram for Modal: DCF840



Wiring diagram for Modal: DFC1260 , DCF1680 , DCF2412



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