T·A·P®

PEST CONTROL INSULATION


# OWNER'S MANUAL

## Model #575PCO

Manufactured Exclusively for Pest Control Insulation, LLC by Krendl Machine Co.

CONGRATULATIONS ON YOUR PURCHASE OF KRENDL EQUIPMENT

# Model #575PCO
# Owner's Manual

FOR ASSURED SAFETY AND CONFIDENCE, PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLING AND OPERATING YOUR MACHINE.

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# INTRODUCTION

Thank you for purchasing a **KRENDL INSULATION MOVING MACHINE**. With over sixty years experience in manufacturing insulation moving equipment, we have designed and built your machine with the highest quality to provide years of reliable service.

This manual has been prepared to help you obtain the maximum efficiency and service from your Krendl equipment. The machine is designed to condition and apply insulation with the utmost in dependable performance. Our primary objective is to build equipment which will provide complete satisfaction so that your may confidently recommend Krendl to others.

We do not manufacture or sell insulation. Our interest lies only in the proper performance of the equipment we manufacture. We make no recommendations or guarantees concerning various insulations.

**CAUTION:**
This manual contains important information regarding the safe assembly and operation of your machine. We urge you to read it carefully and follow the instructions provided. If your questions are not answered in this manual, may we hear from you? We want to be able to operate this unit safely and confidently.

**UNPACKING:** Store and unpack carton with the correct side up. Unpack your machine IMMEDIATELY and check for damage in shipping. Place any damage claim with delivering carrier, saving all packing materials for inspection Our warranty covers manufacturer's defects only. DO NOT return to shipper.

**FILL IN AND RETAIN:**

Pest Control Insulation, LLC
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Lula, GA 30554

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For your protection in the event of theft or loss, please fill in the information requested for your own records. This information will be needed for in-warranty repairs. You may also want to attach a copy of your invoice.

Machine Model Number: _____

Serial Number: _____

Blower(s) Serial Number(s): _____

Supplier: _____

Blower Motor Manufacturer: _____

Gear Motor Manufacturer: _____

Gear Motor Serial Number: _____

Date of Purchase: _____

The model and machine serial numbers are located on the hopper of the machine unit. The blower and gear motor serial numbers are located on the motor housing of each unit.

# GENERAL SAFETY INFORMATION

**Important:** Read all instructions before operating this unit. This equipment can be potentially dangerous and must be used in strict accordance with instructions.

**Disclaimer Notice:** The manufacturer will not be legally responsible for any injury or damage resulting from the improper use of this equipment or the failure to follow instructions.

## Unpacking

Handle cartons with care to avoid damage from dropping or bumping. Store and unpack cartons with the correct side up. Completely remove machine from the packaging and from any shipping pallet or skid to which it might be attached. In addition, completely remove all shipping materials from inside the machine including wheel package, manual, etc.

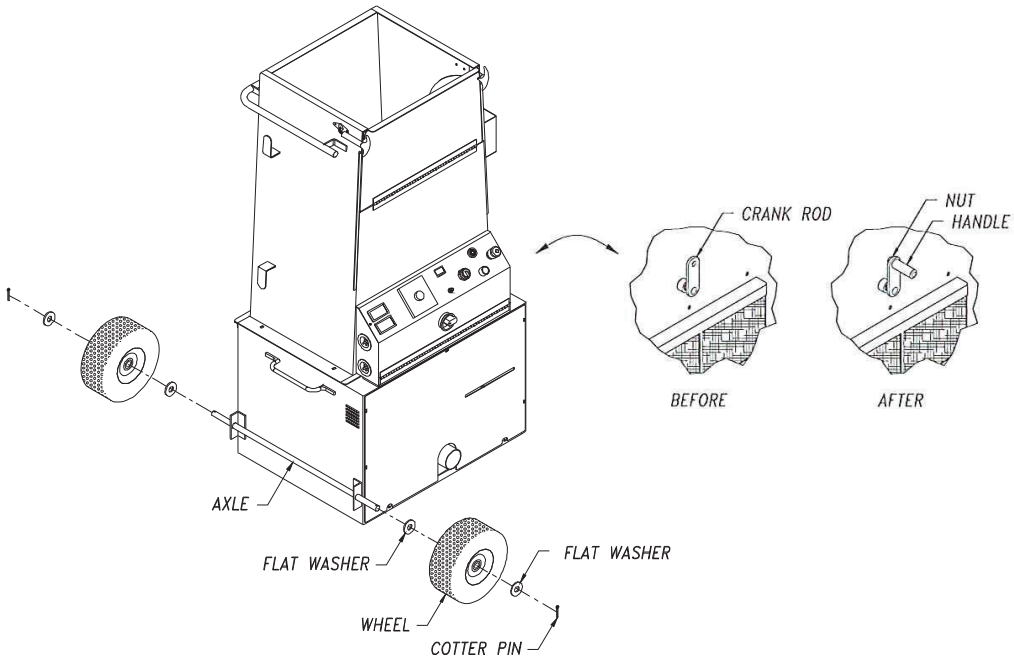
## Assembly

### WHEEL INSTALLATION INSTRUCTIONS:

1. Slide axle through axle mounts (see Illustration A).
2. Assemble one 12" wheel on either side of the machine using two 3/4" flat washers and one cotter pin per wheel. Be sure to place a flat washer on each side of the wheel (see Illustration A).
   **Note: Install the wheel with hub and grease zerk facing in.**

### CRANK HANDLE INSTALLATION INSTRUCTIONS:

1. Mount the handle to the crank rod and secure with a nut (see Illustration A).




(Illustration A)

## General Safety

1. Read this manual carefully and become familiar with your machine unit. Know its applications, limitations, and any hazards involved.

2. This machine was designed and manufactured for specific applications. Do not attempt to modify the unit or use it for any application it was not designed for. If you have any questions about your intended use or the machine's suitability, ask your dealer/distributor or consult the factory. The manufacturers could not possibly anticipate every circumstance that might involve a hazard. For that reason, warnings in the manual and warning tags or decals affixed to the unit are not all-inclusive. If you intend to handle, operate, or service the unit by a procedure or method not specifically recommended by the manufacturer, first make sure that such a procedure or method will not render this equipment unsafe or pose a threat to you and others.

## Electrical Safety

- The **National Electric Code** (NEC) in the United States and many international electrical codes require frame and external electrically conductive parts of this machine to be properly connected to an approved earth ground. Local electrical codes may also require proper grounding of machine. Consult with local electricians for grounding requirements in your area.

- Never handle any kind of electrical cord or device while standing in water, while barefoot or while hands or feet are wet. Dangerous electrical shock will result.

- Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area (metal decking or steel work).

- Reference NFPA 79, 70E, or OSHA safe work practices when performing energized work procedures.

## Safety/Caution

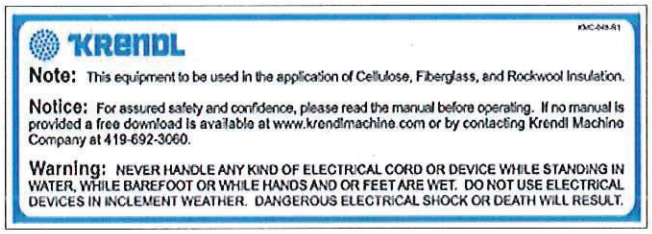
- **Be Safe** – Keep away from moving parts.
- **Be Safe** – Make sure all guards and hipper bar are in proper place before operating machine. Guards and safety devices/switches should not be removed, modified, or bypassed. Hands should never pass below hopper bar.
- **Be Safe** – Do not remove motors or lift hopper when unit is connected to power supply.
- **Be Safe** – Make sure machine is properly grounded. Protect all electrical supply cords from sharp objects, moisture, and other potentially hazardous materials. Keep power cords in good repair. Electrical service must be performed by a qualified electrician.
- **Be Safe** – Disconnect power supply before inspecting or adjusting unit.
- **Be Safe** – Consult a qualified technician to answer questions before attempting to operate, or injury may result.
- **Be Safe** – Do not operate alone.
- **Be Safe** – Do not leave machine unattended and energized.
- **Be Safe** – Turn machine off and disconnect electricity before clearing and feeding jam or attempting to remove any object dropped in the hopper.
- **Be Safe** – Keep hands, loose clothing, jewelry, and hair away from agitators, gears, chains, and other moving parts.
- **Be Safe** – Use proper lifting when moving insulation and loading machine.
- **Be Safe** – Keep work area clear of debris.
- **Be Safe** – Wear proper safety equipment, including protective gear, such as respirators and eye/ear protection.
- **Be Safe** – Violation of the Owner's Manual or safety precautions may void warranty.

## Make Sure!

- Hopper is empty of foreign objects before starting.
- Adequate electrical power is supplied or damage to unit will result.
- Blower filter is kept clean and in place when blower is on.
- Machine is turned off immediately if the hose is plugged, or blower will overheat.
- Machine must be on before adding insulation.
- Blower(s) must be on, when agitators are running, or machine will bind.
- Agitator motor is not run with hopper empty for more than a few minutes, or damage to seals will result.
- Sprockets, chains, belts, and pulleys are correctly aligned and tensioned.
- Pieces of bag are not left in the machine as this can bind and stall your machine.
- This machine should only be used with good quality insulations that are dry, undamaged, and that meet a certain industry specification or quality standards.
- Set screws or tension bar inside hopper have not backed out due to vibration. This could cause material to get underneath the base and damage motors. Failure to check will void the warranty on motors.

# DECALS


Manufacturer information is provided here along with machine model and serial number.




Identifies what type of insulation should be used with this machine and that the manual should be read before operating. Warns to be careful around electrical components! This can cause serious injury or death.


Identifies position of material slide gate.


Indicates which employee inspected the equipment and on what date.


Indicates which way opens and closes the material feed gate, which, in turn, controls the production and specified that keeping the filter clean will result in longer blower life and better performances.

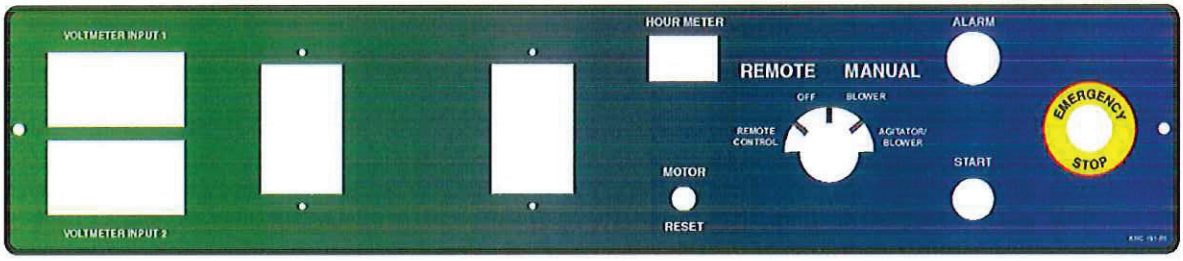

Rotating parts can be dangerous! You can snag clothes, hair, hands, etc. This can cause serious injury or death.


Made in the U.S.A.

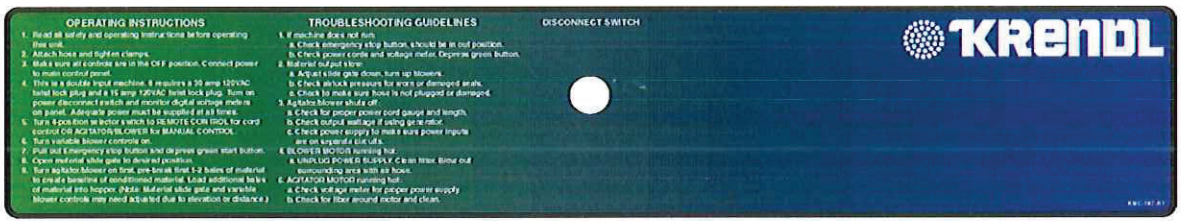

General safety information intended to reduce the risk of serious injury or death.


Indicates this unit has two power sources that should be disconnected before servicing to reduce the risk of serious injury or death.

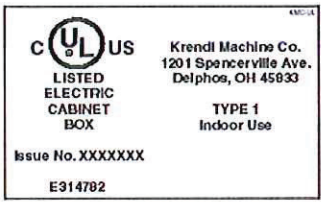

Rotating parts will be moving in this direction.




Indicates the controls that start, stop, and run the machine.

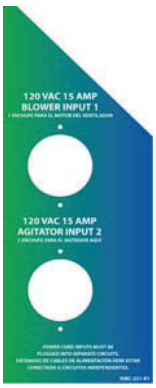



Provides the necessary instructions to properly operate and troubleshoot the machine. Failure to follow these instructions could result in damage to the machine.




Indicates that the electrical box on the machine is in compliance with UL codes.


Part number for identification and tracking.




Specifies the voltage and amps this outlet is rated for.


Identifies the two outlets on this side of the machine.

Remote Control Outlet – Indicates that this outlet is intended for only the remote control outlet. Each time machine cycle starts, and audible alarm warns the operator that the machine is about to come on.

24VAC On/Off Outlet – Specifies the voltage this outlet is rated for.

# WARRANTY

Krendl Machine Company (Company) warrants to each original purchaser (Buyer) of its machines that such products will be free of manufacturing defects for a period of 2 years from the date of shipment to the Buyer. (This does not include accessories, pumps, blowers, wall scrubbers, etc.)

No warranty is made with respect to:

1. Components or accessories manufactures and warranted by others. Warranties for purchased component parts as supplied from vendor such as engine, electric motor, blower, gearbox, transmission, etc., if furnished by the manufacturer of the component, are on file at the Company's main office and copies will be furnished at request of Buyer. Component(s), shipping costs prepaid, shall be sent to Company who in turn shall forward to vendor for evaluation and warranty determination.
2. Any defect caused by repair, alteration, and/or adjustment performed by Buyer or customer/vendor of Buyer without the express written authorization or the Company.
3. The labor costs of replacing parts by parties other than the company.
4. Any machine that has not been operated and/or maintained in accordance with normal industry practice and the written recommendations of the Company (e.g. machine operated with an improperly-sized, worn, or damaged hose, improper or inattention to preventative maintenance, etc.).
5. The product has been subjected to misuse, negligence, accident, or results of any application or use of the blowing equipment not in accordance with the Company recommendations.

This limited warranty does not cover the free replacement of component parts that become inoperative due to wear and usage and need to be replaced on a regular basis, including but not limited to: airlock seal(s), agitators(s), shredder(s), auger(s), fuse(s), switch(es), clutch(es), hose(s), shaft seal(s), chain(s), belt(s), sprocket(s), pulley(s), bearing(s), cable(s), battery(ies), filter(s), fan(s), etc.

The Company's obligation under this warranty is limited to repairing or replacing (at Company option) any part that is determined by the Company to be suffering from a manufacturing defect. The Company (at Company option) will provide any required parts and labor to the Buyer.. If the equipment or parts must be returned to the Company for repair, all transportation costs shall be the Buyer's responsibility.

THIS LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER GUARANTEES AND/OR WARRANTIES, ORAL OR WRITTEN, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY. NO WARRANTY, EXPRESS OR IMPLIED, OTHER THAN THE AFORESAID WARRANTY IS MADE OR AUTHORIZED BY COMPANY. COMPANY SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES TO PROPERTY OR INJURY TO ANY PERSON OR COSTS ASSOCIATED WITH LOSS OF PRODUCTION RESULTING IN LOSS OF REVENUE, PROFITS, OR LOSS OF EQUIPMENT THROUGH THE USE OF THIS EQUIPMENT.

**Note:** Special job circumstances incurring costs for specialized repair and next day delivery of parts will not be reimbursed by the manufacturer unless authorized by factory.

# RETURNED GOODS PROCEDURE

When returning products for repair, first obtain a return goods authorization, at which time you will be given shipping instructions. The product must be shipped **PREPAID**.

**Pest Control Insulation, LLC**
5285 Mountain Center Plaza
Lula, GA 30554

Phone: (770) 766-6050
Fax: (770) 766-6051
Email: hello@TAPinsulation.com
Website: TAPinsulation.com

Once a unit is received, it will be inspected. In-warranty units will be repaired and returned immediately. An estimate of repair charges will be provided for out-of-warranty units.

# SPECIFICATIONS

| | U.S. |
|---|---|
| MODEL#: | 575PCO |
| HEIGHT: | 63" (160 cm) |
| WIDTH (DEPTH): | 28" (71 cm) |
| LENGTH: | 38" (97 cm) |
| WEIGHT: | 382 pounds (173 kg) |
| ELECTRICAL: | Double Input, 15amps each/120volt/60hz |
| BLOWER PRESSURE: | 4 1/2 PSI maximum |
| HOSE OUTPUT: | 3" diameter (7.6 cm) |

MAXIMUM FEED RATES:

| | | | |
|---|---|---|---|
| CELLULOSE: | 2600-2800 lbs/hr | (1179-1270 kg/hr) | 87-93 bags per hour |
| FIBERGLASS: | 800-1000 lbs/hr | (363-454 kg/hr) | 27-33 bags per hour |

**WARNING:** Recommended hose size, type, and length must be used to achieve maximum results. Krendl cannot guarantee performance of the machine if hoses are undersized, worn, damaged, or hoses other than those we recommend are used.

BEFORE YOUR RUN THIS MACHINE, PLEASE READ THE REST OF THIS MANUAL!!

# BASIC COMPONENTS

This is a view of basic components of your 575PCO machine. It shows the location of each item and gives the function of each. Use this as a guide throughout the manual.

A) **BASE UNIT** — Lower frame unit supporting blower, gearmotor, airlock, and hopper.

B) **AIRLOCK –** Traps air and insulation while providing metered flow.

C) **MOTOR & REDUCER** — Provides driving power of agitation system. Increases output power while decreasing speed of the agitators and airlock.

D) **BLOWER** — Creates air pressure to blow insulation out of airlock.

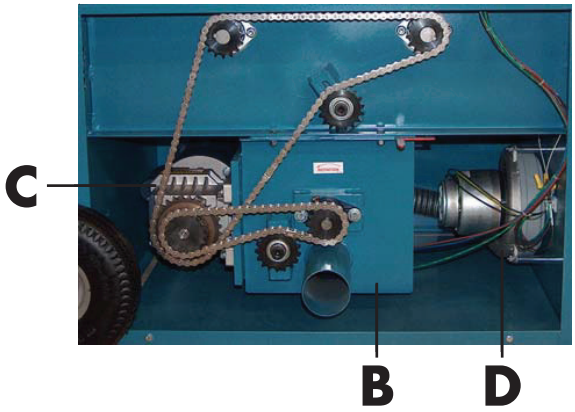
E) **AGITATORS (2)** — Conditions insulation in the hopper.

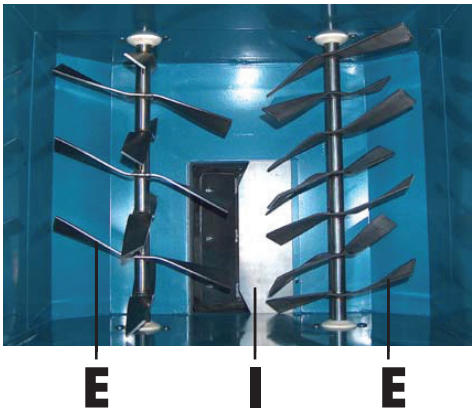
F) **HOPPER** — Upper unit of machine holding insulation.

G) **MAIN CONTROL PANEL** — Connects with main power, allowing operation of unit at machine.

H) **EMERGENCY STOP BUTTON** — Safety device for immediate stopping of machine (located on electrical box).

I) **SLIDEGATE** — Meters the amount of insulation dropping into airlock by controlling size of airlock opening.

# OPERATING INSTRUCTIONS

## Machine Hook-Up

This unit comes ready for connection to insulation hose, power cords, and accessories.

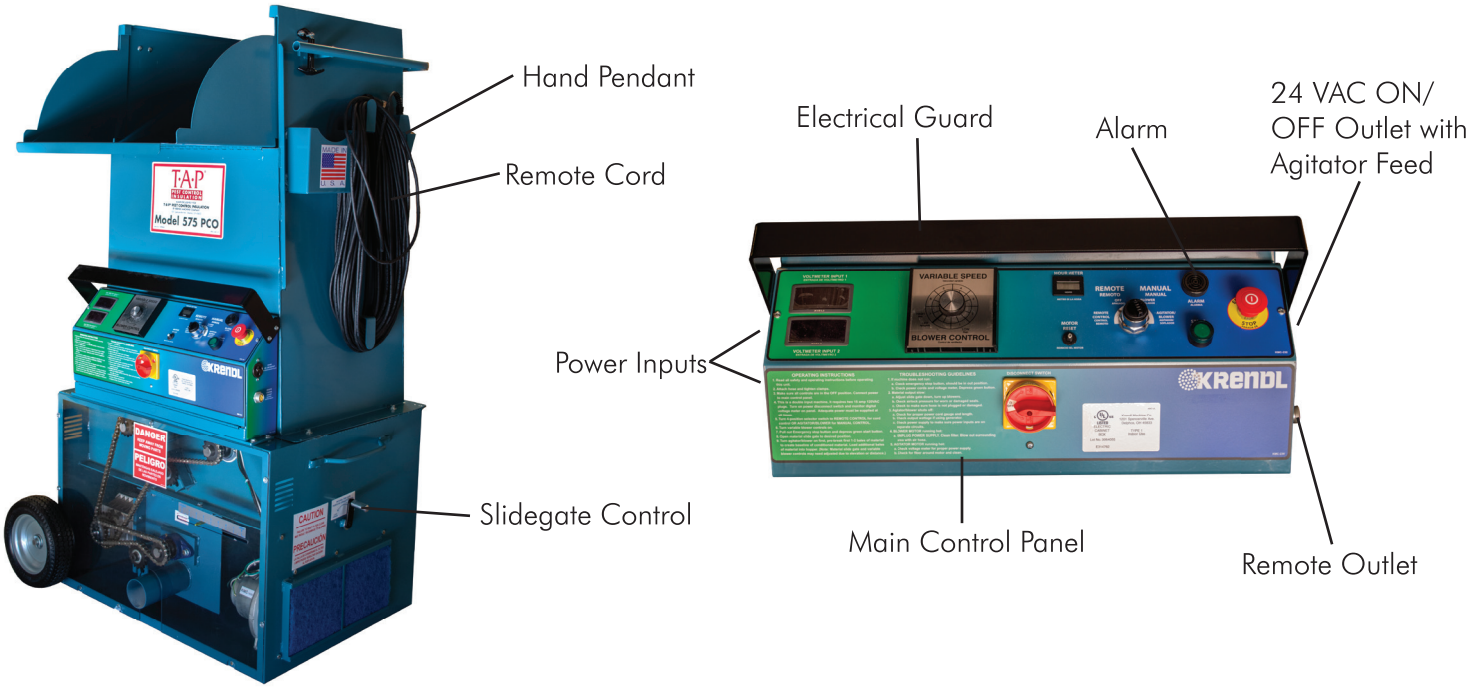
The 575PCO provides a direct connection to a 3" insulation hose. Slide hose on to outlet and secure with a hose clamp. All hose connections must have hose clamps to prevent air leakage from blower to nozzle. This helps to prevent hose plugging.

Remove remote control cord, packet, accessories, etc. from hopper and plug remote control cord into Main Control Panel located on the machine (see Illustration B).

The first bag of insulation into the hopper should be well broken by hand to assist agitator action. Caution: NEVER put hands in hopper when machine is running or force feed material by pushing down on insulation.

When assembling unit, make sure remote control hand pendant switch is in the off (middle) position and close slidegate.

Connect power to Input(s) located on the side of the Main Control Panel (see Illustration B). On double input units, both inputs must be supplied with power from two separate sources/circuits for unit to work properly. The 15 amp plugs must be plugged into separate circuits. This is a 120volt, 60hz machine, and both extension power cords should have an input wire gauge size of #10-3. The extension power cords should not exceed 100' in length (see voltage drop chart).




(Illustration B)

## VOLTAGE DROP CHART

Typical voltage drop values based on conductor size and one-way length* (60 C termination and insulation)

| 25 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 1.98 | 1.24 | 0.78 | 0.49 | 0.31 | 0.25 | 0.19 | 0.15 |
| | 30 | | 1.86 | 1.17 | 0.74 | 0.46 | 0.37 | 0.29 | 0.23 |
| | 40 | | | 1.56 | 0.98 | 0.62 | 0.49 | 0.39 | 0.31 |
| | 50 | | | | 1.23 | 0.77 | 0.61 | 0.49 | 0.39 |
| | 60 | | | | | 0.93 | 0.74 | 0.58 | 0.46 |

| 50 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 3.95 | 2.49 | 1.56 | 0.98 | 0.62 | 0.49 | 0.39 | 0.31 |
| | 30 | | 3.73 | 2.34 | 1.47 | 0.93 | 0.74 | 0.58 | 0.46 |
| | 40 | | | 3.13 | 1.97 | 1.24 | 0.98 | 0.78 | 0.62 |
| | 50 | | | | 2.46 | 1.55 | 1.23 | 0.97 | 0.77 |
| | 60 | | | | | 1.85 | 1.47 | 1.17 | 0.92 |

| 75 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 5.93 | 3.73 | 2.34 | 1.47 | 0.93 | 0.74 | 0.58 | 0.46 |
| | 30 | | 5.59 | 3.52 | 2.21 | 1.39 | 1.10 | 0.87 | 0.69 |
| | 40 | | | 4.69 | 2.95 | 1.85 | 1.47 | 1.17 | 0.92 |
| | 50 | | | | 3.69 | 2.32 | 1.84 | 1.46 | 1.16 |
| | 60 | | | | | 2.78 | 2.21 | 1.75 | 1.39 |

| 100 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 7.90 | 4.97 | 3.13 | 1.97 | 1.24 | 0.98 | 0.78 | 0.62 |
| | 30 | | 7.46 | 4.69 | 2.95 | 1.85 | 1.47 | 1.17 | 0.92 |
| | 40 | | | 6.25 | 3.93 | 2.47 | 1.96 | 1.56 | 1.23 |
| | 50 | | | | 4.92 | 3.09 | 2.45 | 1.94 | 1.54 |
| | 60 | | | | | 3.71 | 2.94 | 2.33 | 1.85 |

| 125 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 9.88 | 6.21 | 3.91 | 2.46 | 1.55 | 1.23 | 0.97 | 0.77 |
| | 30 | | 9.32 | 5.86 | 3.69 | 2.32 | 1.84 | 1.46 | 1.16 |
| | 40 | | | 7.81 | 4.92 | 3.09 | 2.45 | 1.94 | 1.54 |
| | 50 | | | | 6.15 | 3.86 | 3.06 | 2.43 | 1.93 |
| | 60 | | | | | 4.64 | 3.68 | 2.92 | 2.31 |

| 150 FEET | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 AWG | 10 AWG | 8 AWG | 6 AWG | 4 AWG | 3 AWG | 2 AWG | 1 AWG |
| AMPERES | 20 | 11.85 | 7.46 | 4.69 | 2.95 | 1.85 | 1.47 | 1.17 | 0.92 |
| | 30 | | 11.18 | 7.03 | 4.42 | 2.78 | 2.21 | 1.75 | 1.39 |
| | 40 | | | 9.38 | 5.90 | 3.71 | 2.94 | 2.33 | 1.85 |
| | 50 | | | | 7.37 | 4.64 | 3.68 | 2.92 | 2.31 |
| | 60 | | | | | 5.56 | 4.41 | 3.50 | 2.77 |

Ex: A two-wire 20-ampere circuit using 12 AWG with a one-way distance of 25 feet will drop 1.98 volts; 120 volts - 1.98 volts = 118.02 volts as the load voltage

**CAUTION:** Operating unit with less than required voltage, more than required voltage, or inadequate generator size will result in damage to electrical components. This machine is marked on the side of the Main Control Panel with the correct input voltage required. Note: Agitator motor and blower(s) should only be operated with steady or constant flow of electricity. Do not operate machine with less than or more than required voltage. Damage to motors and other electrical parts will result, voiding the warranty. Check voltmeter(s) on Main Control Panel when machine is running.

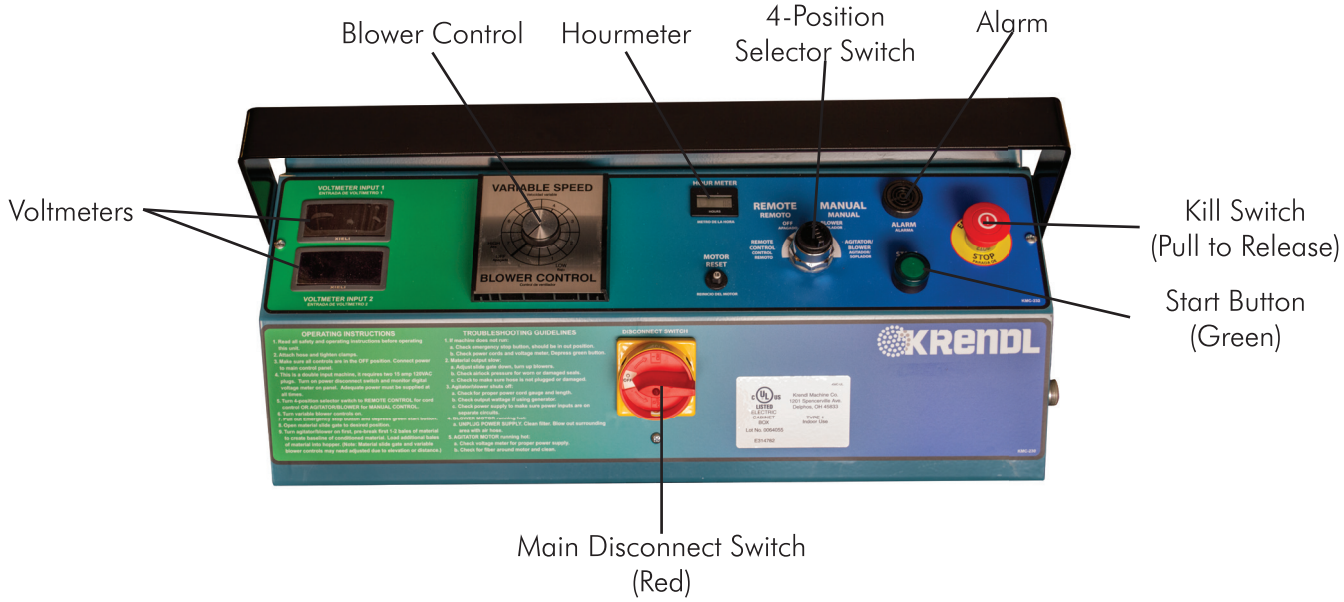
## Electrical Operation

Press Kill Switch to Immediately Stop the Machine at Any Time!

1. Make sure Kill Switch is out by pulling (see Illustration C).
2. Turn red Main Disconnect Switch to ON position (see Illustration C).
3. Set 4-Position Selector Switch to OFF (see Illustration C).
4. Press green Start Button. Machine will not run unless start button is pressed after Kill Switch is out and red Main Disconnect Switch is on (see Illustration C).
5. Select operating mode on 4-Position Selector Switch from one of the following options:

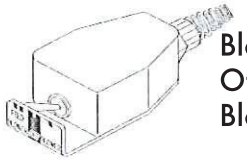
| | |
|---|---|
| **Remote:** | Remote control hand pendant will control machine |
| **Off:** | Machine will not run (overrides hand pendant). |
| **Blower:** | Only the blower will run continuously (manual control at machine). |
| **Agitator-Feed/Blower:** | Both the blower and the agitator-feed with run continuously (manual control at the machine). |

## Main Control Panel (Lid Closed)




## (Illustration C)

6. When operating in Remote Mode, the 4-Position Selector Switch must be set to Remote position (see Illustration C).



| | |
|---|---|
| **Blower-Feed:** | Operates both blower motor and agitator-feed motor simultaneously. |
| **Off (Middle Position):** | All functions stop. |
| **Blower:** | Operates the blower motor only. |

## (Illustration D)

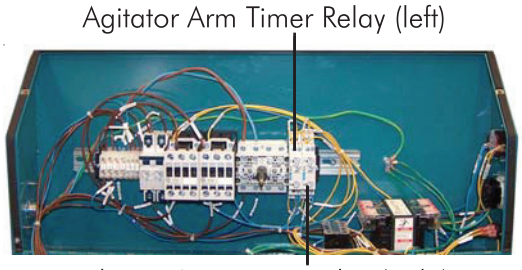
7. Remote control hand pendant positions will be selected from the following:
8. If using Internal Wetting System (IWS), connect IWS cord to 24 VAC Outlet on Main Control Panel (see Illustration B).

## Electrical Operation (cont.)

9. Adjust blower(s) and slidegate to desired settings (see pages 15 and 16).
10. To adjust alarm time for agitators and blowers, follow the procedure below (see Illustration E):

- Unplug machine from power source.
- Turn off red Main Disconnect Switch, loosen two screws in door, and open Main Control Panel Lid.
- Turn Timer Relay Knob for the agitator (timer on left) to desired setting (clockwise to **increase** warning time).
- Turn Timer Relay Knob for blower (timer on right) to desired setting. Note: By turning the Blower Relay Knob clockwise by 1 second more than the Agitator Relay, it will reduce hose plugging and power draw.
- Close lid, tighten two screws in door, plug in machine, turn on red Main Disconnect Switch and press green Start Button.
- Retest Machine.

### Main Control Panel (Lid Open)




(Illustration E)

## Mechanical Settings

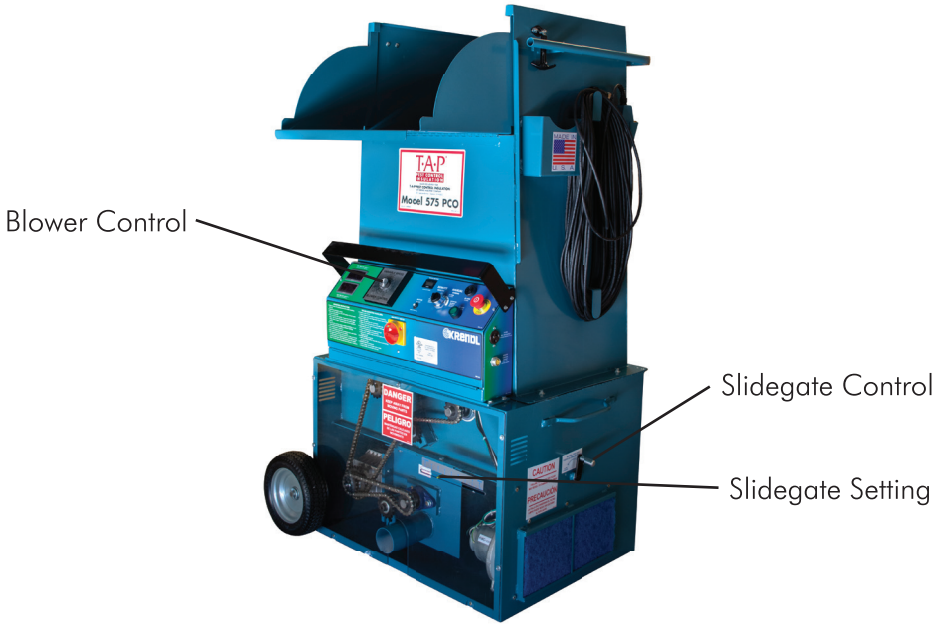
Your machine contains blower and slidegate controls used to adjust your machine for each application and type of insulation (see Illustration F for machine model and location of controls). Blower control (air) and **slidegate** (material feed) are adjusted according to:

**Application:** Open blow, retro-sidewall and spray-on applications require varying amounts of control

**Type of Material:** Cellulose, fiberglass, and mineral fiber have different textures and densities that respond to machine settings.

**Hose:** Corrugations or roughness of interior surface, diameter, length, and elevation of hose will also require varying adjustments.

**Weather Conditions:** Temperature and humidity may require day-to-day adjustment of machine settings.




(Illustration F)

## BLOWER CONTROL AND SLIDEGATE GENERAL SETTINGS:

Blower control can increase or decrease the amount of air in the system, affecting the velocity (speed) and spread rate (coverage) of insulation (see Illustration F). The blower control dial operates clockwise, from HIGH to LOW, controlling air pressure and amount of air.

Opening or closing slidegate (material feed) controls the amount of insulation dropping into the airlock which changes the production rate (lbs. per hour, see Illustration F). For calibration purposes the scale located on the right side of the machine indicates how many inches the airlock slidegate is opened.

The blower and slidegate controls **working together** affect the distance insulation can be blown through a hose without plugging. These controls also affect the accurate blowing of insulations for spraying applications.

These settings control the following:

- **Density** of insulation blown in retro-sidewall application.
- **Velocity** of material impact when spraying.
- **Dust** on open blow.
- Material **spread rate** or coverage.
- **Production** rate (lbs. per hour blown).

## GENERAL BLOWER CONTROL AND SLIDEGATE SETTINGS FOR OPEN BLOW:

With the **slidegate** closed, turn **agitator-feed motor on** and variable speed blower control(s) on low. Fill hopper with insulation and adjust **blower control** and **slidegate**. In making adjustments, move control proportional to each other (i.e., if variable speed **blower control** is half-speed, **slidegate** should be half open). Open slidegate to allow insulation to drop into the airlock providing good production, but not beyond the point where the hose plugs. As hose length is increased, the **blower control** speed is increased while closing the slidegate proportionally. This will increase the distance insulation can be blown through the hose and improve material coverage rate, while decreasing the blowing production rate (lbs. per hour blown). These adjustments are for open blow. If specialty application or retro sidewall work is done, refer to General Blower/Slidegate Settings Chart (below) or insulation manufacturer (see Illustration F).

## GENERAL BLOWER/SLIDEGATE SETTINGS:

Since specific settings need to be determined by each operator, the following are only suggested guidelines. Consult the insulation manufacturer for additional recommendations specific to their product.

| APPLICATION | BLOWER CONTROL | SLIDEGATE |
|---|---|---|
| Open Blow | High | Full Open |
| Sidewall-Retrofit | Low-Medium | 1/3 Open – 1/2 Open |
| Wall Cavity Spray | Medium | Half Open |
| Commercial Spray (Adhesive) | High | 1/3 Open |

# GENERAL MAINTENANCE

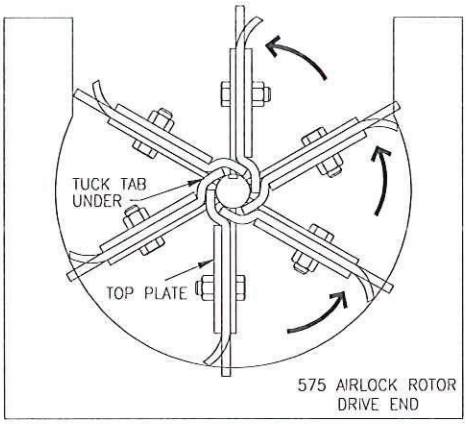
Periodic preventative maintenance will add years of life to your equipment. Reviewing the information in this manual will go a long way in reducing downtime. Remove hopper for easy maintenance of lower base unit.

**KEEP CLEAN:** During operation, keep material from accumulating on Blower Filter and keep vent holes on the side of the machine clear of debris by blowing with compressed air. Always keep the Blower Filter in place while operating the machine. After each use, remove insulation from hopper and blow out hose.
**Caution:** Be sure to unplug the machine before servicing.

**Note:** For certain models, the gear box located on the side of the airlock may contain a vent cap. Keep the airlock upright to prevent oil from leaking out of the vent cap.

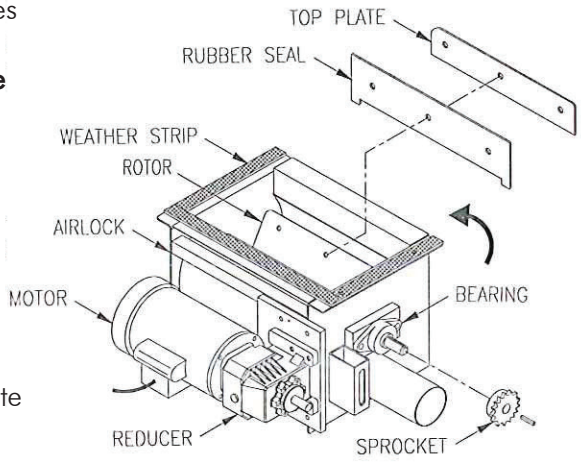
## AIRLOCK:

SEAL REPLACEMENT: The purpose of the airlock seal is to trap air and insulation until it rotates 180° to the 6:00 position. At this point, insulation is pushed by air from the blower, out of the chamber. Worn or damaged seals allow air and insulation to escape back into the hopper, thus reducing production and coverage. When it is necessary to replace seals, follow these directions:




(Illustration G)

Remove hopper from base unit. Check airlock rotor plates for damage (bent). If damaged (bent), the entire airlock will need to be replaced (refer to Airlock Replacement below). Take out rubber seal by removing the three plate fastening bolts and top plate. Install new seal. Seal should be inserted tight against the rotor plate, pressing the lower tabs of the seal down under the adjacent seal with a flat head screwdriver (see Illustration G). Before tightening the bolts, make sure all bolt holes are aligned while each side of the seal is equally pressed against the end plates. The seal should be bend backwards for **counterclockwise** rotation.




(Illustration H)

Airlock Replacement:

1. Remove the chain guard, chain, and hose from the airlock.
2. Lay machine down and remove bottom guard and two bolts that secure the airlock to the machine. Take note of electrical connections and unhook gear motor drive wires.
3. Remove the airlock from the machine.
4. Remove the top plate and seal from rotor. Check seal and top plate for wear and/or damage (see Illustration H).
5. Remove gear motor and bearings from the old airlock.
6. Install gear motor and bearings on the new airlock. Tighten set screws on locking collar of bearings (see Illustration H).
7. Install seal and top plate. As the seal and top plate and installed, press the bottom tab of the seal under the adjacent seal with a flat head screwdriver (see Illustration G).
8. Install weather stripping on top outer edge of the airlock (see Illustration H).
9. Place the airlock back into the machine and reattach with bolts. Reinstall the chain and sprocket. **Note:** When inserting the airlock back into the machine, make sure the back lip of the airlock slides into the airlock track before fastening the bolts. Also, make sure the slide gate is in the slidegate track.

## General Maintenance (cont.)

Make sure the seal and top plate are assembled on the **correct** side of the rotor plate before assembling it in the airlock. The Seal should press backward towards the top plate when installed correctly into the airlock chamber. The airlock runs **counterclockwise** viewing it from the sprocket drive shaft (see Illustration G).

**Caution:** If installed improperly, damage to the seals will result and put undue stress on the agitator motor. This causes overheating and poor production. The seal should be bent backward to allow for a **counterclockwise** rotation of the rotor.

**CHAIN:** (#40 Nickel Plated)
ADJUSTMENT: A smooth operating chain drive should have a slight sag on the idler side of the chain. New chains should be installed under slight tension as they will elongate a small amount due to seating of pins and bushings during the first few days of operation. Excessive chain tension or loose chain will cause shortened life of bearings, chain, and sprocket. The chain should be kept in good condition by proper lubrication (dry film lubricant Dow 321) and occasional cleaning. Soaking the chain in a container of 10 weight oil will provide for internal lubrication of pins and bushings. However, excess oil must be drained and wiped away as excessive lubrication will cause insulation accumulation on the chain. Worn out chain should be replaced. When the chain is replaced, worn sprockets should also be replaced, preventing further damage to the new chain.

**SPROCKETS:**
CHECK THE SPROCKETS FOR WEAR. Misalignment and/or loose sprockets and improper chain tension causes the premature wear of the chain and sprockets. All sprockets, except the idler sprocket, have been secured with a medium grade Loctite (general purpose thread locker), to prevent gradual movement. The set screws and key are also inserted with a medium grade Loctite. If the sprocket is difficult to remove, it may be heated with a propane torch to loosen.

**Caution:** Do not overheat the sprocket or damage to the bearing will result. A pulley or bearing puller can then be used to remove the sprocket and key. Replace new sprocket on the shaft with key and medium grade Loctite applied to the shaft. Align the sprocket with the corresponding sprocket, using a straightedge placed along the face of the teeth and tighten the set screw. The gear motor sprocket does **not** require Loctite.

**BEARINGS:**
AGITATOR BEARINGS in the base unit are pre-lubricated, double-sealed, self-aligning ball bearings. **No** lubrication is necessary. If the bearings produce noise or heat (too-hot-to-touch), replace the bearings.

AGITATOR BEARING REPLACEMENT: Spray the area with rust penetrant (WD-40). Remove the sprocket (see Sprocket section above). Remove the two bolts from the bearing flange and the outer flange from the bearing insert. Loosen the set screws on the bearing hub at each end of the agitator shaft. Since all set screws are installed with a medium grade Loctite, a propane hand torch may be used to assist in removing them. Do not overheat the unit, which will cause the shaft to expand. Using a rubber mallet, drive the agitator shaft an inch in one direction, creating a space between the hopper and the bearing unit. A bearing puller can then be used to remove the bearing. Eliminate any metal burrs from the shaft with a file and install the new bearings with felt seals. Use a medium-grade Loctite on the set screws before securing the bearing to the shaft.

AIRLOCK BEARINGS are pre-lubricated, double-sealed, self-aligning ball bearings. Lubrication is required at three month intervals of normal running time, or sooner if bearings produce a noise or become too-hot-to-touch. Re-lubraication at the grease fittings is done with a lithium-based grease conforming to a NLGI GRADE TWO consistency. The grease should be pumped in slowly until a slight bead forms around the seals. This bead, in addition to acting as a indicator of adequate lubrication, provides additional protection against the entry of foreign matter. **Important:** If a slight bead does **not** form, indicating a failure of lubrication, or if the bearing shows signs of wear, replace the bearing.

## General Maintenance (cont.)

AIRLOCK BEARING REPLACEMENT: Remove two bolts from the bearing and follow steps on the previous page for agitator bearing replacement.

### SPEED REDUCER:

Periodically check the oil level in the reducer. If the speed reducer malfunctions because of improper oil level or type used, the **warranty is voided**. Oil seals at the input and output drives are considered to be replaceable maintenance items and can affect the oil level. These are available at power transmission distributors. Your speed reducer has been filler with a synthetic lubricant (Mobilgear SHC 320).

LUBRICATION: This speed reducer was filled with oil at the factory to operate within -25°F to 113°F ambient temperature. This reducer will not require regular oil changes under normal industrial operating conditions. However, if the reducer is operated in severe environments (i.e. high or low temperatures, high altitudes, etc.), oil changes may be required.

### AGITATOR MOTOR:

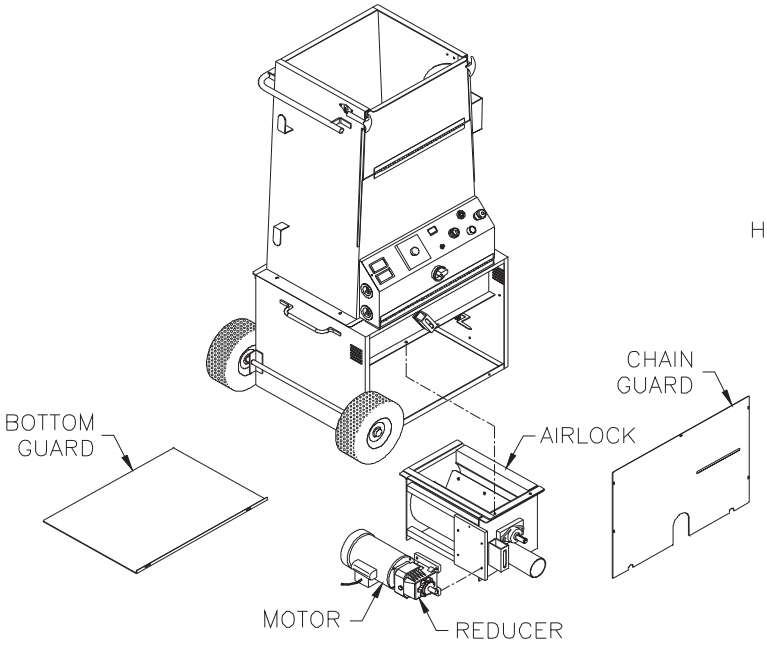
If the agitator motor runs hot, the unit may shut off. Wait for the motor to cool, then activate the manual reset on the Main Control panel by depressing the button. If the unit does not run properly, refer to troubleshooting sections of the manual. The agitator motor should start quickly and run smoothly. If not, shut the motor off **immediately** and check the cause. Low voltage, incorrect power supply, bad bearings, or mis-connected wiring could cause motor failure. **These conditions void the motor warranty.** Overload conditions can be detected by checking the electrical current (amperage) compared with nameplate current (amperage) located on the body of the motor.

AGITATOR MOTOR REPLACEMENT: See Illustration I. Disconnect power from the machine. Remove the chain guard and drive chain. Lay the machine down and remove the bottom guard. Take note of the electrical connections and unhook the motor drive wires. Loosen the hose clamp on the rear airlock input tube. Slide the hose off the airlock. Remove the airlock and motor drive assembly from the base. **Note: When the agitator motor is replaced, reverse this procedure for assembly.** Remove four reducer flange bolts with a 9/16" socket wrench. If the bolts are difficult to reach, remove the reducer unit from the airlock for better access. Pry the motor from the speed reducer a slight distance, using a large flat head screwdriver placed in one of the slots where they join together. Pull the motor unit straight away from the speed reducer, retaining the key. If the motor does not separate easily, contact the factory for assistance. Before installing the replacement motor, refer to the motor nameplate. Check the connection of the new cord for correct voltage (low or high) and proper rotation of the **motor** output shaft (**counterclockwise** facing the output shaft). Rotate the keyways of the motor shaft and quill (input) of the speed reducer to a 12:00 position. Assemble the key 3/4" off the end of the motor shaft and coat the motor shaft with anti-seize compound. Align and insert the motor shaft carefully into the input quill. A flat head screwdriver may be helpful to keep the key in place as the motor shaft is inserted or centerpunch the motor shaft. Secure to the flange with four hex bolts.

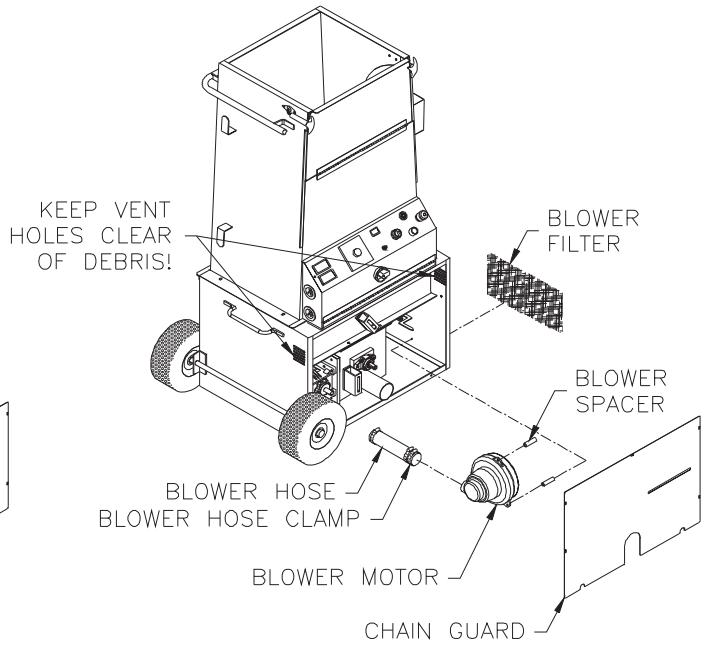
**Caution:** If the motor does not readily seat itself, check to determine if the **key** has moved axially along the motor shaft, causing interference. Tightening the motor to the reducer with excessive pressure against the key will cause premature bearing failure and overheating of the motor and the reducer. Reconnect the motor drive wires and check for the correct rotation of the **speed reducer** out put shaft (**counterclockwise**). Reconnect the assemble unit for operation.

BLOWER MOTOR:
Periodically lay the machine on its side and vacuum any material that has accumulated around the blower motor. Blow out any remaining debris around the motor and intake orifice of the fan with compressed air. This will extend the life of the blower significantly. Blower filter life can be extended by occasionally removing and blowing through it with compressed air. The filter should be replaced periodically depending on use. If the blower produces noise or heat, refer to the troubleshooting section of the manual.

BLOWER REPLACEMENT: See Illustration J. Disconnect power from the machine. Remove the chain guard. Loosen the hose clamp on the blower and slide the hose off the blower. Take note of the electrical connections on the blower and unhook the blower wires. Remove three bolts and spacers from the machine and remove the blower. Reverse the procedure for assembly. **NOTE: Do not over tighten the bolts on re-assembly, as it may damage the blower and void the warranty.**




(Illustration I)




(Illustration J)

# TROUBLESHOOTING

**IMPORTANT: DO NOT** attempt to service the unit. Contact your dealer for further information.

1. If the machine does not run:
   - Make sure the emergency stop button on the **CONTROL PANEL** is pulled out and the start button is pressed.
   - Check the manual reset button on the **CONTROL PANEL**. Press to reset.
   - Check the **REMOTE CONTROL CORD** for broken connections.
   - Check the power cords for proper connection.
   - Check the breakers inside the **CONTROL PANEL**.

2. If there is a loud knocking sound:
   - **UNPLUG** the power supply. Check the machine agitators and airlock for foreign objects.
   - **UNPLUG** the power supply. Check for misaligned sprockets or a loose chain.

3. If there is poor output from the machine or uneven flow through the hose:
   - Open the **SLIDEGATE**.
   - Turn the **BLOWER CONTROL** up.
   - **UNPLUG** the power supply. Check for material bridging in the hopper
   - If there is low voltage, try another electrical source. Check the extension cord wire size (see page 12).
   - **UNPLUG** the power supply. Check for worn or damaged rubber airlock seals.

4. If there is too much dust on open blow:
   - Open the **SLIDEGATE**.
   - Turn the **BLOWER CONTROL** down.

5. If the **BLOWER MOTOR** is running hot:
   - **UNPLUG** the power supply. Clean the filter. Blow out the surrounding area with an air hose (see Illustration J).
   - **UNPLUG** the power supply. Check for restriction in the blowing hose.
   - **UNPLUG** the power supply. Check for buildup of insulation around the blower.

6. If the **AGITATOR MOTOR** is running hot:
   - **UNPLUG** the power supply. Check for insulation buildup around the motor and blow it out with an air hose.
   - Low voltage can cause this condition. Try another electrical source.
   - **UNPLUG** the power supply. Debris may be jamming the airlock. Rotate the airlock manually and clean it out.
   - **UNPLUG** the power supply. Check for sprocket misalignment and bearing wear.

7. If there is hose plugging:
   - **UNPLUG** the power supply.
   - Turn **off** the red Main Disconnect Switch, loosen two screws in the door, and open the Main Panel lid.
   - Turn the Timer Relay knob for the blower (timer on the right) to desired setting. Note: By turning the Blower Relay Knob clockwise by 1 second more than the Agitator Relay, it will reduce hose plugging and power draw.

## SPARE PARTS LIST

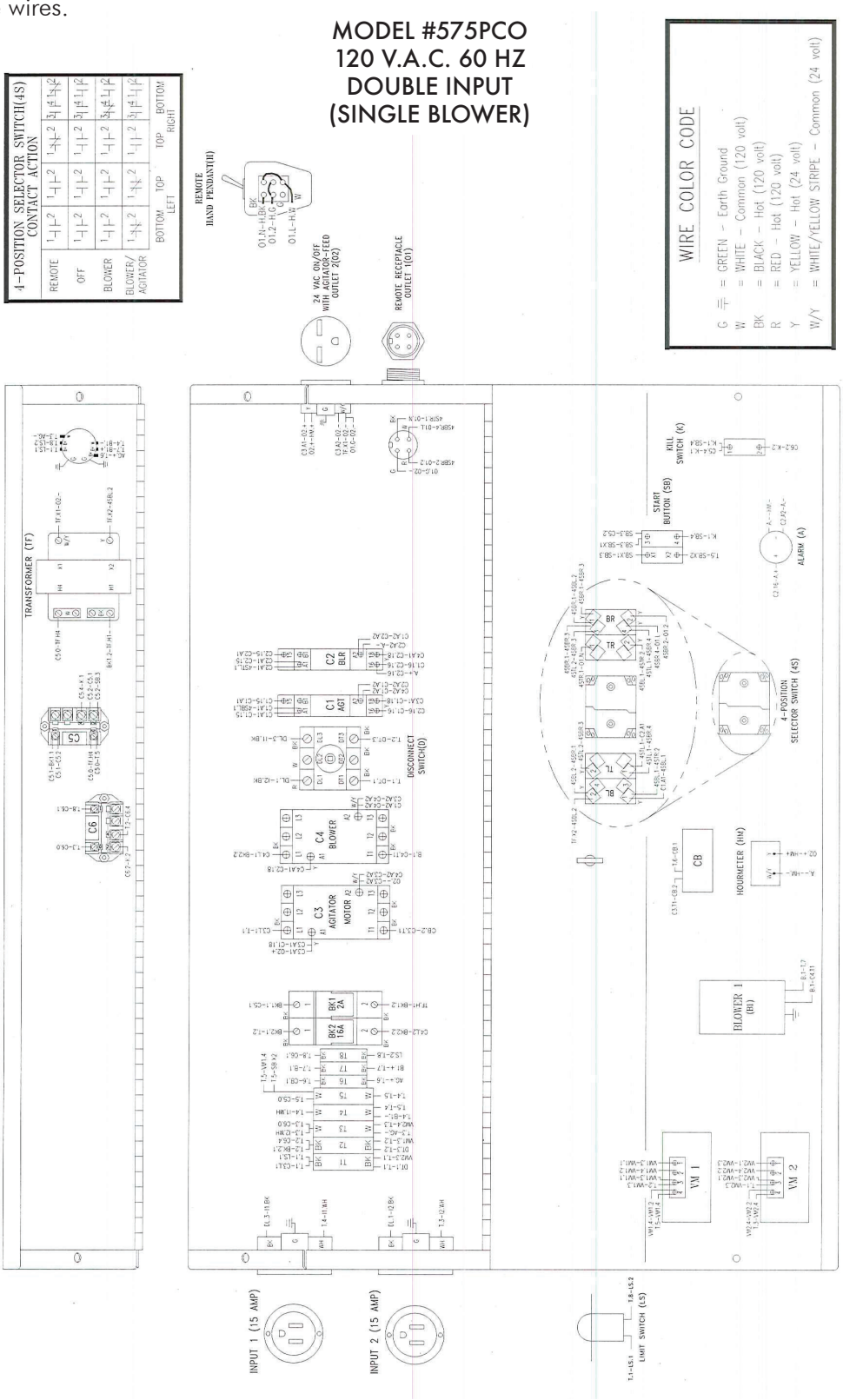
The following is a recommended spare parts list. To keep your machine up and running, these are the parts we suggest you keep on hand for your Model #575PCO Machine.

| PART NUMBER | DESCRIPTION | QUANTITY REQUIRED |
|---|---|---|
| 563 | Agitator Bearings (Insert Only) | 4 |
| 564 | Agitator Bearing Felt Seals | 4 |
| 8036-2 | Airlock Bearings | 2 |
| 517-7 | Airlock Bearing Felt Seals | 2 |
| 575-4 | Airlock Seals | 6 |
| 57562 | Blower Filter | 1 |
| 199 | #40 Master Link | 2 |
| 189 | #40 Half Link | 1 |
| 575MK | 575 Maintenance Kit | 1 |

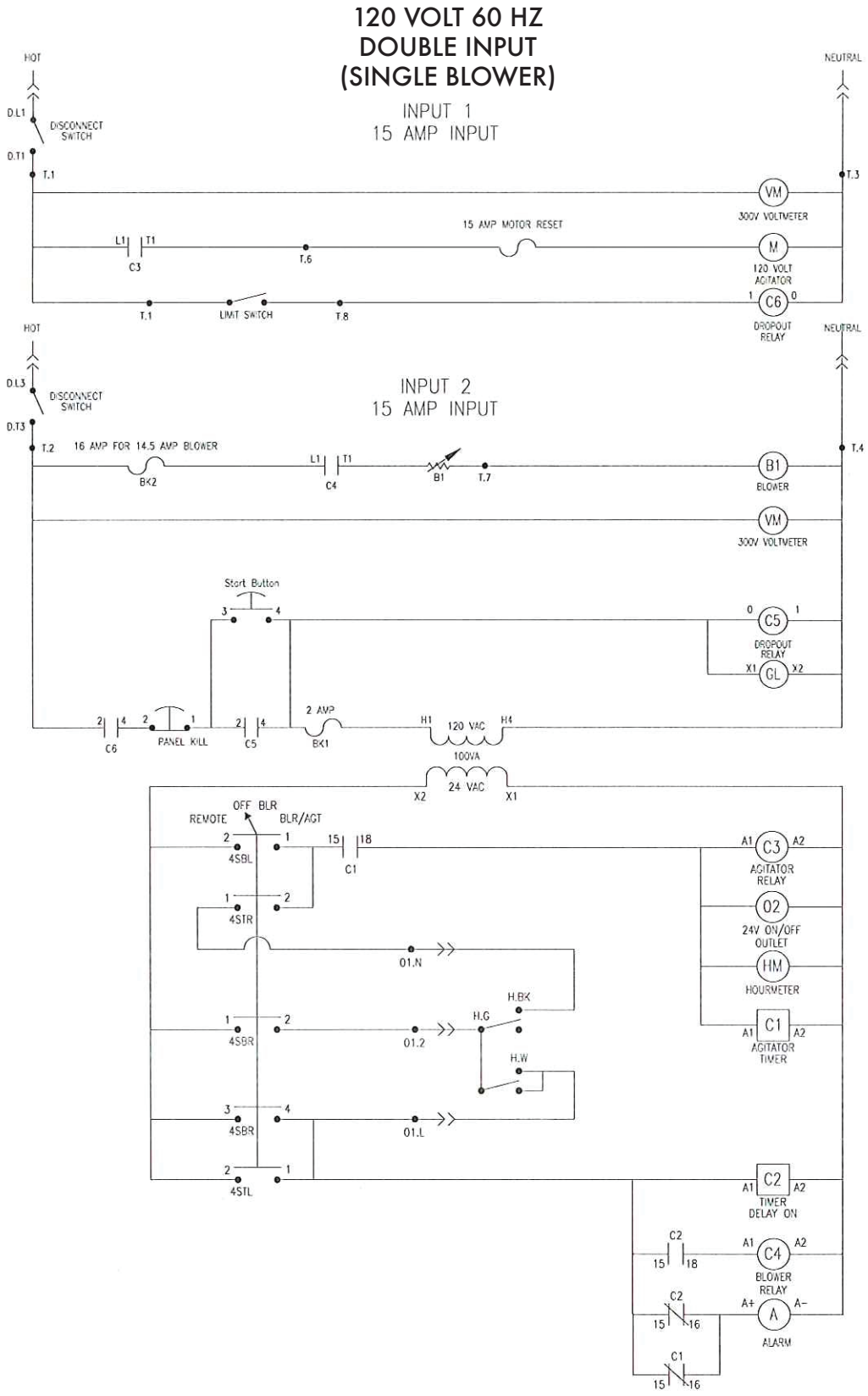
# ELECTRICAL

## ELECTRICAL DIAGRAM:

Periodically, disconnect the machine from the power source and check all electrical connections and components for broken or loose wires.

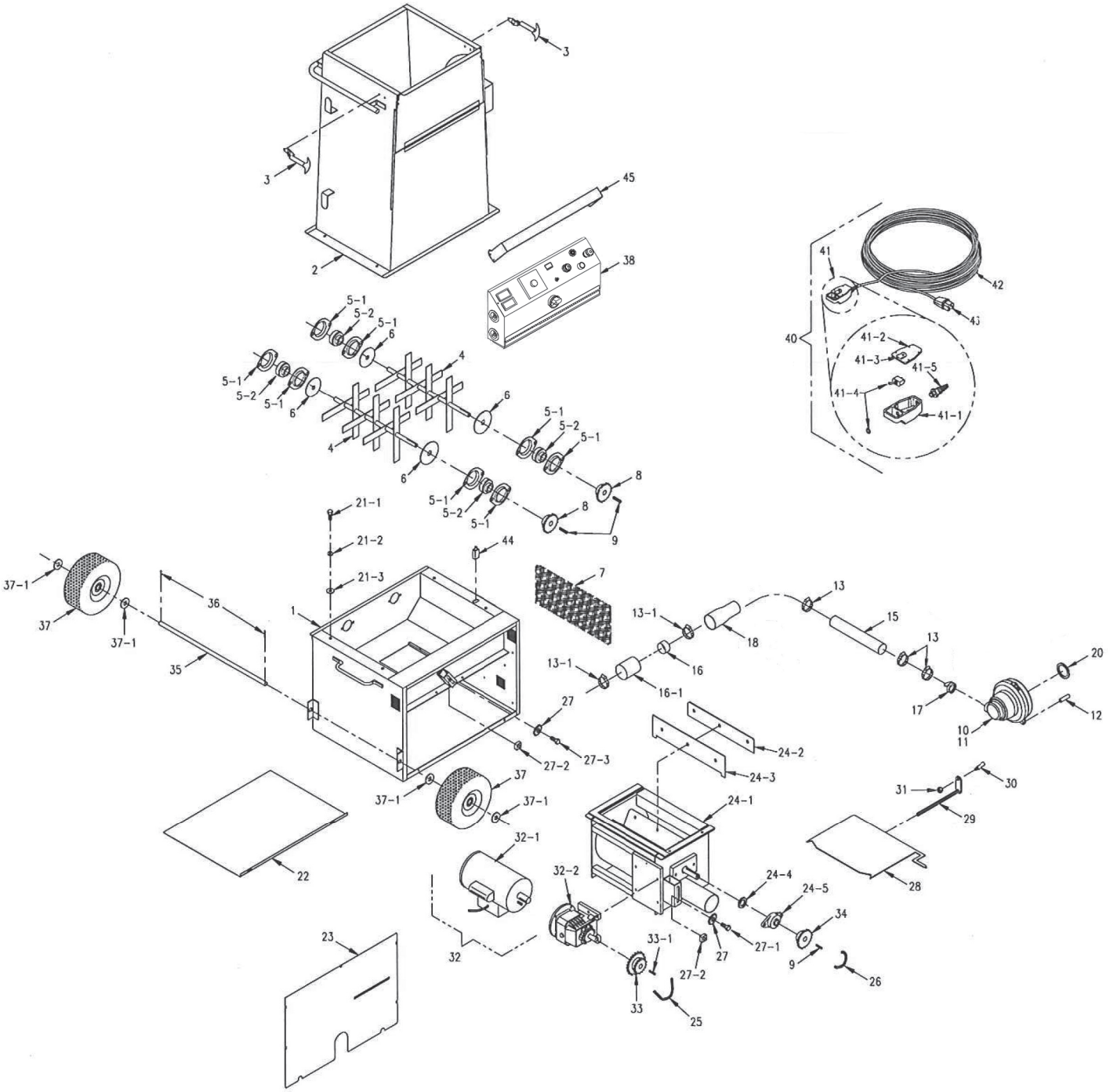


# LADDER DIAGRAM



# EXPLODED PARTS

## 575PCO Machine

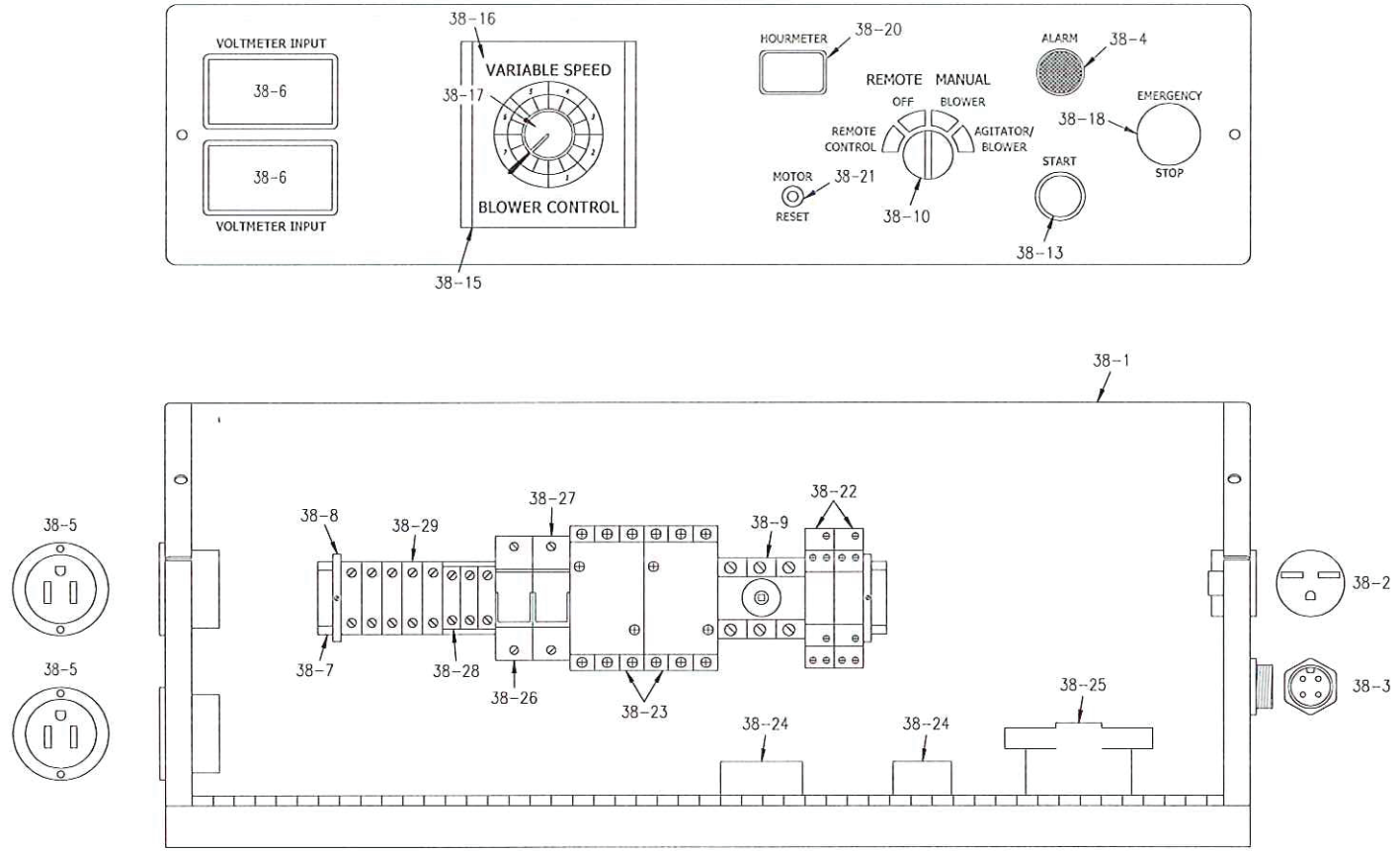


# 575PCO PARTS LIST

| Item # | Part # | Description |
|---|---|---|
| 1 | 575-5-R3 | Base |
| 2 | 575-9 | Hopper |
| 3 | 23-99 | Latch, Pull (2) |
| 4 | 575-7 | Agitator (2) |
| 5-1 | 565 | Housing, Flange, 2-Bolt 1" Stamped (8) |
| 5-2 | 563 | Bearing, 1" Bore (4) Insert Only |
| 6 | 564 | Seal, Felt, 1" (4) |
| 7 | 57562 | Filter, Blower, 16" x 7" |
| 8 | S-40B15-B | #40 Sprocket, 15T x 1" (2) (U.S.) |
| 8 | S-40Bs18T1 | #40 Sprocket, 18T x 1" (2) (Overseas) |
| 9 | 561Z | Key, 1/4" x 1/4" x 1" (3) |
| 10 | 408-G | Blower Motor, 14 Amp, 2-Stage (2) |
| 11 | 408-J | Blower Motor, 7 Amp, (2) (Overseas) |
| 12 | 409-F | Spacer, 2 3/16" Blower (6) (only 2 shown) |
| 13 | 337 | Clamp, 2" Hose (6) |
| 13-1 | 339 | Clamp, 2 1/2" Hose (2) |
| 14 | 407 | 2" Hose, 12" Long |
| 15 | 406 | 2" Hose, 20" Long |
| 16 | 42572 | 2" Hose, 1" Long |
| 16-1 | 25-16 | 2 1/2" Hose, 3" Long |
| 17 | CV101 | Check Valve (2) |
| 18 | 568 | Check Valve Y-Tube (Double Blower Option) |
| 18 | 357 | Reducer, 2 1/2" to 2" (Single Blower Option) |
| 19 | 575-20 | Support, Hose |
| 20 | 113-AC | Gasket, 2", STD 3/16" (2) |
| 21-2 | FSB037 | SB 5/16-18 x 7/8" HMS (4) |
| 21-2 | FW008 | Lock Washer, 5/16" (4) |
| 21-3 | FW007 | Flat Washer, 5/16" (4) |
| 22 | 575-10 | Guard, Bottom |
| 23 | 575-15-P | Guard, Chain |
| 24-1 | 575-1-R2 | Airlock Chamber with Rotor |
| 24-2 | 575-3 | Plate, Top Airlock (6) |
| 24-3 | 575-4 | Seal, Airlock (6) |
| 24-4 | 517-7 | Seal, Felt, 1" (2) |
| 24-5 | 8036-2 | Bearing, 2 Bolt, 1" (2) |
| 25 | 40NP-57 | Chain, #40 x 57" (U.S.) |
| 25 | 109019-14 | Chain, #40 x 58" (Overseas) |
| 26 | 42537 | Chain, #40 x27" (U.S.) |
| 26 | 40NP-28 | Chain, #40 x 28" (Overseas) |
| ---- | 199 | Master Link, #40 (2) (Not Shown) |
| ---- | 189 | Half Link, #40 (1) (Not Shown) |
| 27 | 432 | Sprocket, Idler, #40 17T x 5/8" (2) |
| 27-1 | FSB120 | SB 5/8" x 3/4" Shoulder Bolt |
| 27-2 | 40052 | Nut, 1" x 1/2" (1/2-13), Plated (2) |

| | | |
|---|---|---|
| 27-3 | FSB092 | SB 5/8" x 1" Shoulder Bolt |
| 28 | 575-6-R1 | Slidegate |
| 29 | 475-8 | Crankrod |
| 30 | 4507 | Handle f/Crankrod |
| 31 | FN015 | Lock Nut, 3/8"-16 |
| 32 | 575-21 | Motor & Cord Assy, 1HP, 120V 60Hz (U.S.) |
| 32 | 575-22 | Motor & Cord Assy, 1HP, 240V 60 Hz (U.S.) |
| 32 | 594-ASSY | Motor & Cord Assy, 1HP, 230V 50Hz (Overseas) |
| 32-1 | 547 | Motor, 1HP, 120V & 240V 60Hz |
| 32-1 | 594 | Motor, 1HP, 230V 50Hz |
| 32-2 | 575GB | Gearbox, In-Line |
| 33 | 475-20 | #40, Sprocket, 15T x 24T x 1" (U.S.) |
| 33 | 514-6 | #40, Sprocket, 18T x 28T x 1" (Overseas) |
| 33-1 | 562Z | Key, 1/4" x 1/4" x 1 1/4" |
| 34 | S-40B15-B | #40, Sprocket, 15T x 1" w/hub |
| 35 | 575-11 | Axle, Wheel |
| 36 | 57565 | Pin, Cotter, 1/8" x 1 1/2" (2) |
| 37 | W-12 | Wheel, Flat Free, 3/4" (2) |
| 37-1 | FW030 | W 3/4 Flat Washer-SAE (4) |
| 38 | ELU13-KT-0475 | Electrical Upgrade (120V, 60Hz) (Double Input, Single 14 A Blower) |
| 40 | RC395-D | RC Cord Assy, 150', ELU, Style D |
| 41 | RC395-DPDT | RC Service Kit (DPDT) |
| 41-1 | RC395-1 | Switch Housing |
| 41-2 | RC395-2 | Switch Housing Cover with Belt Clip |
| 41-3 | 1536-7 | Belt Clip |
| 41-4 | 109066-9 | Switch, Toggle, DPDT |
| 41-5 | RC395-3 | Strain Relief |
| 41-6 | RC395-4 | 8-16 Plastic Screws (4) (Not Shown) |
| 42 | 18-3 SJ | Wire, 18-3 SJ (150') |
| 43 | 543-M-8 | Plug, #509-1215 |
| 44 | LS100 | Flush Mount, Limit Switch |
| 45 | 575-40 | Electrical Guard |

# Electrical Parts List
# 120 V.A.C. 60 Hz. D.I. (Single Blower)




## Electrical Exploded Parts List

| Item# | Part# | Description | Item# | Part# | Description |
|---|---|---|---|---|---|
| 38-1 | 475-23-R1 | Box, Electrical | 38-15 | 419-A | Blower Control (120V, 60Hz) (2) |
| 38-2 | 132-B | Receptacle, NEMA#6-15R | 38-16 | 420-1 | Cover, Blower Control (2) |
| 38-3 | 491 | Connector, 4 Pin Female (remote) | 38-17 | 420-2 | Knob, Blower Control (2) |
| 38-4 | 543-M-38 | Pre-Alarm System | 38-18 | 508-2 | Switch, Kill, Red |
| 38-5 | 42528 | Plug, Recessed Input 5-15P (2) | 38-19 | 8075-1 | Contact Block (Kill Switch Not Shown) |
| 38-6 | 543-M-83 | Voltmeter, Digital 120V (2) | 38-20 | 543-M-77 | Hour Meter |
| 38-7 | ELU12-A | Din Rail, 1 3/8", 16" Long | 38-21 | 433-E | Manual Reset, 15 Amp |
| 38-8 | 151080-49 | Clamp, f/ 1 3/8" Din Rail (2) | 38-22 | RELAY-10 | Timer/Relay DPDT 12-240VAC 15A (2) |
| 38-9 | 600-R-01 | Switch, Disconnect Assy 3P | 38-23 | ELU11-5 | GE Contactor/Relay 25 Amp (2) |
| 38-10 | 543-M-22 | Switch, 4-Position Selector | 38-24 | ELU10-10 | Relay, Contactor/Relay, 120V Control (2) |
| 38-11 | 543-M-15 | Contact Block, Selector Switch (white) #KA-1 (not shown) | 38-25 | 1530-D | Transformer, 4 Amp |
| 38-12 | 543-M-16 | Contact Block, Selector Switch (red) #KA-3 (3) (not shown) | 38-26 | BRKR-16 | Breaker, 16 Amp (2) |
| 38-13 | 543-M-14 | Pushbutton On, Green | 38-27 | BRKR-2 | Breaker, 2 Amp |
| 38-14 | 8075-2 | Contact Block 22mm Green (Pushbutton not shown) | 38-28 | 151080-61 | Terminal Block, Small (3) |
| | | | 38-29 | 151080-62 | Terminal Block, Large (5) |

# INSTALLATION INSTRUCTIONS

| | |
|---|---|
| **BRIDGING** | Tendency of insulation to cling in the hopper forming and air pocket above the airlock. This hinders the normal feeding process of the machine. |
| **CFM** | (Cubic Feet Per Minute) A measurement of volume or quantity of air flowing at a certain rate, or air moving capability, of a blower. It is the volume of air moved per minute. Higher volume provides increased coverage and velocity of insulation as it leaves the hose. |
| **COVERAGE** | Refers to the amount of insulation coverage, usually measured in square feet, according to the R-value desired. This information is given on the insulation package. |
| **PSI** | (Pounds of Pressure Per Square Inch) The force exerted on a surface by air/liquid. High-pressure blowers push the insulation through the hose. Higher pressure provides less hose plugging and increased compaction in the side wall. |
| **PRODUCTION RATE** | Pounds of insulation blown per hour. |
| **RPM** | (Revolutions Per Minute) Speed at which the shaft of a rotating device (i.e. blower fan, agitator) is moving. |
| **R-VALUE** | Resistance Value. A precise measurement of the insulation's resistance to heat transfer. The higher the resistance value, the slower the heat will transfer through the insulating material. |
| **SETTLED DENSITY** | The point at which the insulation will not continue to settle further. Any insulation blown will have a certain amount of progressive settling that occurs after a period of time. Following the insulation manufacturers recommendations for bag rate coverage will provide useful information to accommodate for settling. |
| **SETTLING** | Compression or compaction of insulation fibers caused by the weight of the material, vibration of structure, temperature, and humidity cycles. |

# INSTALLATION INSTRUCTIONS

| DATE | MAINTENANCE PERFORMED | COMPONENTS REQUIRED |
|---|---|---|
| | | |

T·A·P®

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