Cat 5 Vacuum OPERATOR'S MANUAL





Concrete Polishing Solutions
A CPT Company

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GENERAL INFORMATION

Warranty

Concrete Polishing Solutions warrants to the purchaser that under normal use and service, the Cat 5 Propane Vac purchased hereunder shall be free from defects in material and workmanship for a period of 1 year or 300 hours. Expendable or consumable items or parts are not covered under this warranty. This warranty does not cover equipment or parts which have been misused, altered, neglected, handled carelessly, or used for any purposes other than those for which they have been manufactured. This warranty also does not cover loss, damages resulting from accident, or damages resulting from an unauthorized service.

Damaged Shipments

CPS carefully inspects all orders before shipment and then packs shipments as carefully as possible. We advise that you thoroughly check all cartons before you sign for the order. Any claims for merchandise damaged in transit must be filed with the delivering carrier, not CPS.

Our Return Policy

Please open and inspect your order upon receipt. If you have an issue, please contact a member of our sales and technical staff first so that we can resolve that issue in as short a time as possible.

Any returns must be made within 30 days of delivery and must be accompanied with a return authorization number and a copy of the original invoice. We will then review the complaint and inspect the merchandise before a credit can be processed. Any items that are returned because of obvious misuse will be shipped back to the sender at their expense and no credit shall be issued.

Any returned items, including items under warranty, must be sent at the customer's expense.

No authorization number is necessary if you are returning an item for repair that will be returned back to you. Before returning, please first call a member of our sales and technical staff and you will need to enclose your company name, address, telephone number, and a statement explaining the problem.

If an item was delivered to you in error, please let us know and we will pick up the item at our expense. If your order contains a shortage, report the shortage no later than 24 hours after receiving your shipment. Shortage claims will be honored only when reported promptly.

We cannot accept any products that have been either modified to a customer's specifications or is a non-stocking special order item. Any products, such as machines or other equipment, that sustain aftermarket alterations that have not been preapproved by CPS are not returnable.

GENERAL INFORMATION CON'T

Liability

Important notice:

The following is made in lieu of all warranties, expressed or implied: CPS and/or manufacturer's only obligation shall be to replace such quantity of the product proved to be defective provided that such guarantees or replacement are a stated policy of the manufacturer. CPS and/or manufacturers shall not be liable for any injury, loss of damage, direct, incidental, or consequential, arising out of the negligence or misuse of the product. Before using, user shall determine the suitability of the product for its intended use and the user assumes all risk and liability whatsoever in connection therewith. The foregoing may not be altered except by an agreement signed by at least two of the officers of Concrete Polishing Technologies, Inc. CPS will not be liable for delays in shipping due to circumstances beyond the control of CPS. Warranties will not apply if after market alterations, changes, or modifications have been made to the equipment.

Customer Service

Concrete Polishing Solutions has a well trained service department and our sales and technical staff have extensive knowledge on how to service our equipment. Being the manufacturer, we best understand our equipment and already have parts in stock. We can also send you the parts and help you to service your own equipment over the phone. In some locations, we can also provide you with information regarding an outside service person in your area that can assist you with parts and service.

If you need to contact the Service Department at Concrete Polishing Solutions, you will need to provide the product model and identification numbers.

24/7 Tech Support

We provide twenty-four hours a day, seven days per week technical service for our customers. Our trained representatives will be happy to help you with any questions you may have. Please feel free to contact us at any time, day or night by phone at 877-472-8200 or via e-mail at info@go2cps.com.

Notes:	 	
CPS		

DELIVERY & SPECIFICATIONS

Your Cat 5 Vacuum was carefully inspected and protectively packaged to prevent damage in shipment. We suggest that upon removing the unit from its carton, you carefully inspect it for any possible damage in transit. If damage is discovered, immediately notify the transportation company who delivered your machine.

The following items should be included with the delivery of your Cat 5 Vac; please contact Customer Service if anything is missing:

- a. Cat 5 Vacuum
- b. Hose
- c. Power Cord
- d.Vac Wand
- e. Longo Pack

<u>Specifications</u>

- * Weight: 495 lbs.
- * Power Required: 460V, 30 amp 3-phase
- * *Motor:* 8.5 HP

Serial Number	
Sales Person	
Cell Number	



INTRODUCTION

Introduction

The CAT 5 Vacuum has two high-efficiency primary cartridge filters that are rated 99.9% efficient for particle sizes as small as 0.5 microns. The two cartridges have nominally 40 square feet (3.8 sq. meters) of surface area to handle the most difficult powders in an industrial environment. The debris is collected in a continuous bagging system that allows the operator to control the bag size and weight and provide convenient dust-free disposal. The practical design of the CAT 5 is equipped with a unique manually operated filter cleaning system that does not require the use of compressed air. A secondary HEPA filter assembly is also a standard feature on your CAT 5 vacuum to capture 99.97% of dust down to 0.3 micron particle size.

The CAT 5 is also equipped with a unique NEMA 4 start/stop control panel and 4-conductor power cord and plug. The unique design of the CAT 5 control panel allows contractors to move from jobsite to jobsite with different wiring conventions without worrying about proper rotation of the 3-phase vacuum motor.

Start-Up

Your CAT 5 vacuum is equipped with a 3-phase 8.5 HP continuous-duty vacuum producer and motor starter.

Amperage Draws:

208V / 3ph / 60Hz	34 Amps
230V / 3ph / 60Hz	31 Amps
460V / 3ph / 60Hz	16 Amps
575V/3ph/50Hz	10 Amps
220V / 3ph / 50Hz	29 Amps
380V / 3ph / 50Hz	17 Amps

Motor Rotation

Good News! The unique design of your CAT 5 vacuum means that you don't have to worry about proper motor rotation when you move from jobsite to jobsite! After connecting to the power supply at the jobsite, press the "Start" push-button on the CAT 5 control panel. The control panel design protects the vacuum from reverse operation: blowing instead of vacuuming.

SEQUENCE OF OPERATION

Sequence of Operation

To begin cleaning with your CAT 5 vacuum, connect the appropriate vacuum hose to your CPS grinder. Make sure that the inlet blocking valve on the vacuum is in the "OPEN" position before starting. Begin cleaning by pressing the "Start" push-button. As vacuuming proceeds over a period of time, there will be a gradual decrease in vacuum performance due to filter blinding. If this occurs, actuate the manual backwash filter cleaning mechanism to dislodge material from the filters. This action will return the performance of the cleaning unit to normal condition.

When your CAT 5 vacuum is new for your operators, it will be necessary to experiment with it to determine how long it takes to fill the collection bag. The unique design of the CAT 5 vacuum allows the operator to control the weight/volume of the material in the collection bag to suit his individual or his company's needs. The CAT 5 is also a high-productivity machine because it allows the operator to discharge the vacuumed debris into the continuous bag without shutting down the vacuum and without disconnecting vacuum hose and tools. The continuous bagging system also places the operator in total control of the debris disposal. Detailed instructions for use of the CPS continuous bagging system and the manual backwash filter cleaning system are shown elsewhere in this document.

Note: Do not overfill the collection bag! Fill the bag within the limits of your company's lifting restrictions and ergonomic standards. Overfilling the bag beyond safe lifting weight can also result in injury to the operator.

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FILTER MAINTENANCE

Filter Maintenance

The CAT 5 vacuum is designed to pick up the finest concrete grinding dusts. It is expected that over some period of time, dust will accumulate on the filter from normal operations. However, if the filter is exposed to excessively dusty materials or moisture, it may be necessary to replace the primary and/or HEPA filter elements more frequently.**

- 1) Disconnect the electrical power to the vacuum and park it on a level surface.
- 2) Remove the filters by releasing the four clamps on the side of the filter cover.
- 3) Disconnect the vacuum hose at the back of the filter cover by loosening the hose clamp.
- 4) Carefully lift off the filter cover which has the two primary cartridge filters attached. Place the cover assembly on a flat work surface with the filters facing upward.
- 5) Remove the wing nut, steel washer and rubber washer from each filter mounting rod and remove the filters and dispose of them properly according to Federal, state, local or corporate regulations.
- 6) Carefully place a new filter cartridge over each mounting rod and replace the mounting hardware exactly as shown in the photo below. The rubber washer prevents dust from bypassing the filter cartridge through the mounting rod opening and entering other parts of the vacuum system.



Filter cover and cartridges pointing upward.

FILTER MAINTENANCE



Filter Mounting Hardware-

- 7) While the filter cover assembly is removed from the vacuum, inspect the edge trim on the top of the filter housing and the gasket on the underside of the filter cover. If there are any gaps or damage, replace these items before continuing vacuum operation.
- 8) Place the filter cover assembly back on the filter housing and re-install the four clamps.
- 9) Reconnect the vacuum hose to the back of the filter cover.
- 10) Reconnect power to the vacuum and resume vacuuming operation.
- **Note: If the filters have been exposed to moisture and it is expected to happen again, contact CPS Sales to request information on our heavy-duty intercept covers that are suitable for liquid handling.

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SECONDARY HEPA FILTER

Secondary HEPA Filter

Your CAT 5 vacuum is equipped with a standard secondary HEPA filter. It is necessary to inspect the HEPA filter regularly for damage or leaks. If there is dust exiting the vacuum through the vacuum producer outlet, the secondary filter has failed in some way and it is necessary to be replaced.



 $HEPA\ filter\ assembly\ with\ cover\ installed$



HEPA cover removed exposing cartridge

- 1) Remove the wing nut and steel washer that holds the HEPA filter cover in place, exposing the cartridge filter inside.
- 2) Remove the wing nut, steel washer and rubber washer that hold the HEPA cartridge filter in place.
- 3) Slide the old HEPA cartridge filter out of the housing and dispose of it properly according to Federal, state, local or corporate regulations.
- 4) Carefully place a new HEPA filter cartridge over the mounting rod and replace the mounting hardware exactly as shown in the photo above. The rubber washer prevents dust from bypassing the filter cartridge through the mounting rod opening and entering other parts of the vacuum system or exiting into the plant environment.
- 5) Reinstall the cover on the HEPA filter housing and replace the hardware.

Note: A HEPA filter cartridge is NOT washable and should not be blown with compressed air to extend its life. These actions will damage the HEPA media and void the manufacturer's certification. Replace it with genuine CPS replacement filters.

OTHER MAINTENANCE

Other Maintenance

NOTES:

The vacuum producer in your CAT 5 vacuum is a direct-driven, lubrication free device and is constructed of cast aluminum. Place the vacuum on a level surface and disconnect the electrical power. Remove the four screws that hold the back housing in place to access the vacuum producer. The only routine service point inside the back housing is the motor junction box. Follow the instructions found elsewhere in this document for vacuum producer maintenance and warranty procedures.

If your CAT 5 is used as a portable vacuum, regularly check the wire connections in the plug to make sure that they are tight. Frequent plug-ins encountered with portable equipment can result in loose wires in the plug. A loose wire can result in single-phase operation that will damage 3-phase electrical components, as well as being a potential hazard to workers.

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CONTINUOUS BAGGING SYSTEM

Continuous Bagging System

A) INSTALLING NEW BAGS

- 1) Remove the black plastic holder by pressing the three spring steel tabs on the bottom of the metal adaptor.
- **Note: When the tabs on the bottom are pressed inward, the plastic bag holder will slide downward for removal.
- 2) Place the plastic bag holder on a flat surface as shown in the photo #1. Place a new bag set in the bag holder as shown. When properly installed, the loose outer end of the continuous bag will face downward as shown. Cut the packaging strings as shown in photo #2. Do not cut the packaging string until you have properly installed the bag set in the bag holder.



Photo 1- Bag set in holder correctly.



Photo 2- Cutting Package Strings.

3) Re-install the plastic bag holder on the metal adaptor, as shown in photo #3 so that the three spring steel tags lock under the holder.



Photo 3- Install Bag Holder on Adaptor.

CONTINUOUS BAGGING SYSTEM CON'T

4) Pull the lose outer end of the continuous bag downward and bring the edges together until there is enough material to tie it off with a tie-wrap to form the bottom of the first bag as shown in photos #4 and #5. Apply one tie-wrap as shown in photo #6.



Photo 4- Pull First Bag.



Photo 5- Bring Bag Edges Together.



Photo 6- Apply first tie wrap.

5) Draw the bottom end of the first bag down to the support deck and it is now ready to collect material discharged from the vacuum.



CONTINUOUS BAGGING SYSTEM CON'T

**CAUTION: DO NOT ALLOW THE TIED-OFF BAG TO INTERFERE WITH THE DISCHARGE VALVE OPENING OR CLOSING.

B) DISCHARGING MATERIAL INTO A COLLECTION BAG

The CAT 5 vacuums is equipped with a non-powered discharge valve that opens automatically when the vacuum is shut down or a filter cleaning operation is taking place. Collected debris will discharge from the primary filter housing into the collection bag.



Photo 7-Discharge material into bag.



Photo 8-Apply second tie wrap and cut inbetween tie wraps.



Photo 9-Bag is ready for disposal.



MANUAL BACKWASH FILTER CLEANING



Manual Blocking valve on inlet to vacuum cleaner in operating position.



While vacuum is operating, close manual blocking valve on inlet to vacuum cleaner.



Vacuum gauge indicates maximum vacuum at 7"-8" Hg and the vacuum relief valve opens.



Pull handle to the "Backwash" position which also vents the vacuum producer. This can be repeated several times if necessary.



Push handle back to the operating position and immediately open the blocking valve on the vacuum inlet.













