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Crack Sealant Pump **MANUAL**

Pump for use with PP-CF-B55, PP-CF-G55, & PP-BF-55



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SAFETY PRECAUTIONS FOR ALL USERS

Important Safety Measures:

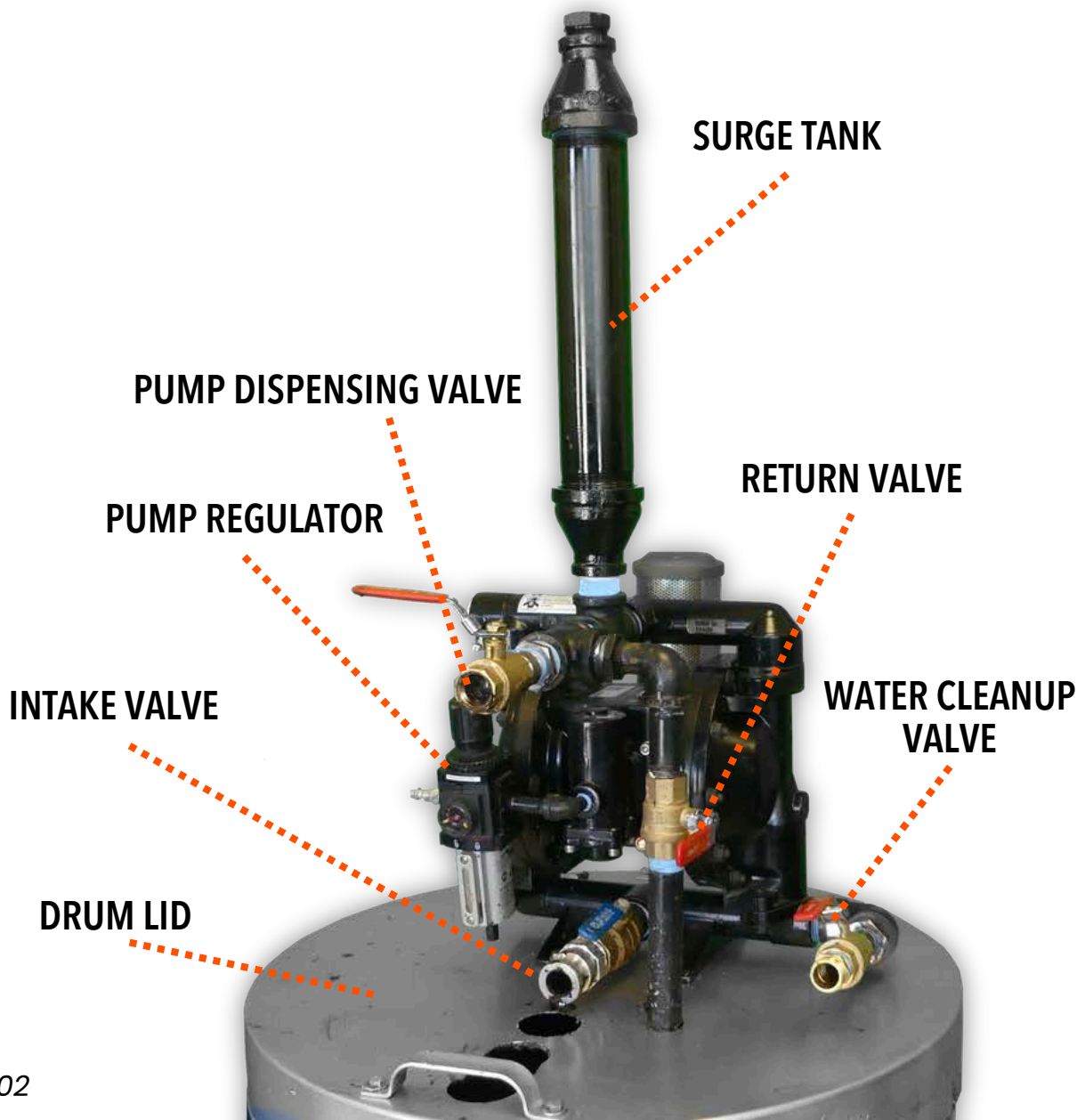
Always wear ear, eye, and hand protection. Make sure all fittings and connections are secure and free of leaks. Replace any components showing signs of wear or damage. Follow all CAUTION, WARNING, and DANGER signs on the equipment and in all accompanying manuals.



Warnings:

- Do not surpass the pump manufacturer's air pressure limit of 120 PSI to prevent injuries and equipment damage.
- Do not remove or loosen surge tank until all pressure within the system has been released.

PUMP OVERVIEW



INCLUDED



WAND & HOSE



BLACK FILL®
SPRAY NOZZLE



WATCH QUICK
START VIDEO

1) Seal and Tighten Surge Tank:

- Apply Teflon tape to seal the threads on the surge tank.
- Tighten the surge tank using 10 NM of force.



2) Remove Drum Lid:

- Remove the drum lid by loosening and removing the lid clamp.
- Use adjustable wrenches or a 5/16" long socket or equivalent tool for this step.

3) Position the Pump Lid:

- Once the drum lid is removed, immediately place the Perma-Patch Pump unit on top of the barrel.
- Ensure the pump is fully seated on the drum surface.



4) Insert and Secure Intake Plumbing:

- Insert the intake plumbing through the lid opening.
- Secure the plumbing by connecting the camlock fittings.
- Always inspect the seal on the female camlock fitting and replace if worn.

Ensure all connections are secure and inspect the assembly for any potential issues before proceeding with the operation.



OPERATIONAL GUIDELINES

For optimal performance, use a gas-powered air compressor with a minimum capacity of 20 gallons and 120 PSIG. For the best results, a 30-gallon air compressor is recommended. A single-stage, 6.5 HP Honda engine is ideal.

Start-Up and Material Circulation Instructions



1) Inspection:

- Always inspect equipment and check for any worn, cracked, or degraded components.
- Replace any components that appear worn or ready to be replaced.



2) Valve Settings:

- Before connecting any air hose, ensure the intake valve is fully open.
- Set the return valve open to % specified by product in the chart on page 9. Keep the rest of the valves fully closed. Pump regulator should be turned off ("0" PSI).
- Failure to follow these settings may result in damage to the equipment.



3) Air Compressor:

- Start the air compressor at 100 PSI.



4) Mixing Product:

- Ensure the return valve on pump is open to the % specified by product in the chart on page 9.
- Connect the compressor air hose to the pump.
- Set the pump regulator to 20-30 PSI.
- Allow the pump to circulate the product for approximately 5 minutes.

Dispensing Instructions



1) Dispensing Valve:

- Adjust the pump air regulator and return valve according to the chart on page 9.

Dispensing Instructions Continued



2) Preparing the Wand:

- Place the dispensing wand tip in a bucket, open the dispensing valve for the wand that is attached. Keep the other valve closed if only one wand is in use.



3) Starting Operations:

- Once material flows steadily, start the crack sealing operations (refer to the product sheet for more application details).



4) After Use:

- When not in use, place the end of the wand in a 5-gallon pail of water. This will keep product from drying on wand or thickening within the system. Without this step, blockages or reduced flow of product can occur on your next use.
- After use, place used squeegees in a pail of water to keep product from hardening on squeegees.

USE OF WAND TIPS

- When trying to lay down sealant that looks like caulk in a prepared joint or routed cracks, you will need to attach the proper size tip to the wand to be sure you can reach the bottom of the reservoir you're filling and fill from the bottom up. The end of the wand is threaded to allow you to utilize the proper reducers (purchased at any hardware store) to fit the desired tip attachment. Drum pump recommended regulated pressures may need to be adjusted depending upon tip and reservoir size.
- It should be noted that because of the thixotropic nature and higher viscosity of the black sealant, ultra small tips may not work as intended. When spraying Black Fill®, recommended fan spray tip size is an 80/70 (included in kit).
- Additional Recommended Tips: 3/8" NPS metal caulking gun nozzles, plastic global cartridge nozzles, and air blow gun nozzles (screw-in only and for narrow/deep reservoirs). Most of these are available via industrial supply houses, hardware stores, Amazon, and other online retailers. (Not Included) Similar to nozzles pictured below:

Standard Round Metal Nozzles with 3/8" NPS:

For best results, use nozzles with diameter beads ranging from 3/16" to 1/2".



3/16" Diameter Bead



1/4" Diameter Bead



3/8" Diameter Bead



1/2" Diameter Bead

CLEANUP OPERATIONS

Pump must be cleaned after each use and/or when switching between Perma-Patch products. It's not recommended to use the same pump to pump gray and black products, as it can affect the color of the gray products.

Two Best Methods of Cleanup:

- 1) Using a water hose
- 2) Using a drum of water

Method 1: Using a Water Hose



1) Turn Off Compressed Air:

- Unhook the compressed air from the pump. Turn the pump regulator off ("0" PSI).
- Close all valves.



2) Disconnect Intake Line:

- Unhook the camlock fitting for the intake and remove it from the lid letting the pipe drain material into the drum before fully removing.
- Clean the intake plumbing and the bottom inside of lid with the water hose.



3) Cleaning the Pump:

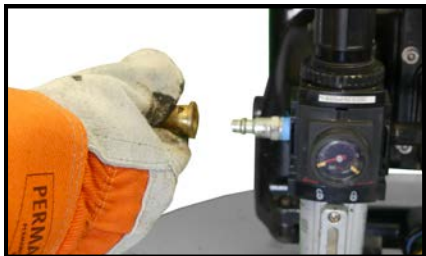
1. Place drum pump lid on an empty drum or on the ground. Connect a water hose to the water cleanup valve.
2. Turn on the water and open the water cleanup valve.
3. Open the wand valve and pump dispensing valve and flush system into product drum or empty container until you see the product begin thinning. Close wand valve.
4. Capture the rest of the refuse into a bucket by opening the wand valve and running 5 gallons into the bucket, working the wand valve open and closed until it is clear water. Dispose of properly.
5. Open the return valve 100% and close the wand and dispensing valves.
6. Let the water circulate through the system for a few minutes until it appears clean.
7. Turn off the water; disconnect the water hose.
8. Close all the valves.



4) Final Cleanup:

- Clean any remaining material on the pump or any surface components using water if still uncured or use mineral spirits if material has dried.
- Dispose of material according to local regulations and prepare for the next job.

Method 2: Using a Drum of Water



1) Turn Off Compressed Air:

- Unhook the compressed air from the pump.
- Close all valves.



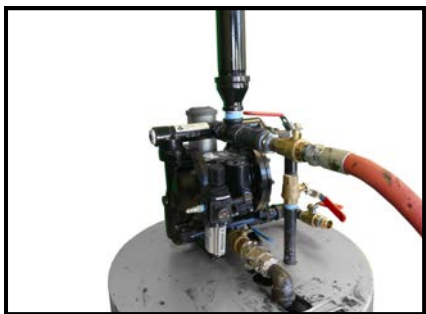
2) Disconnect Intake Line:

- Unhook the camlock fitting for the intake and remove it from the lid letting the pipe drain material into the drum before fully removing.



3) Cleaning the Pump:

1. Place the drum pump onto a drum of water and reinstall the intake line.
2. Open the intake valve on the pump and attach the air line back to the regulator on the pump. Set pump regulator to 30 PSI.
3. Open the wand valve and pump dispensing valve and flush system into product drum or empty container until see product begin to thin. Close wand valve.
4. Capture the rest of the refuse into a bucket by opening the wand valve and running 5 gallons into the bucket, working the wand valve open and closed until it is clear water. Dispose of properly.
5. Open the return valve 100% and close the wand and dispensing valves.
6. Let the water circulate through the system for 5 to 10 minutes.
7. Turn the pump regulator off ("0" PSI). Unhook the air hose.
8. Close all valves.



4) Final Cleanup:

- Clean up any remaining material on the pump or any surface components using water if still uncured or mineral spirits if dried.
- Dispose of material according to local regulations and prepare for the next job.

TROUBLESHOOTING GUIDE

- Make sure no hoses are cracked, or lines are clogged.
- Check all valves are working properly and are in the correct position open/closed.
- Ensure compressor pump is working as intended.
- Confirm all connections are secure.
- Check the pump regulator to see if it's working and set at the recommended PSI.
- Review product in drum to ensure appearance is normal.

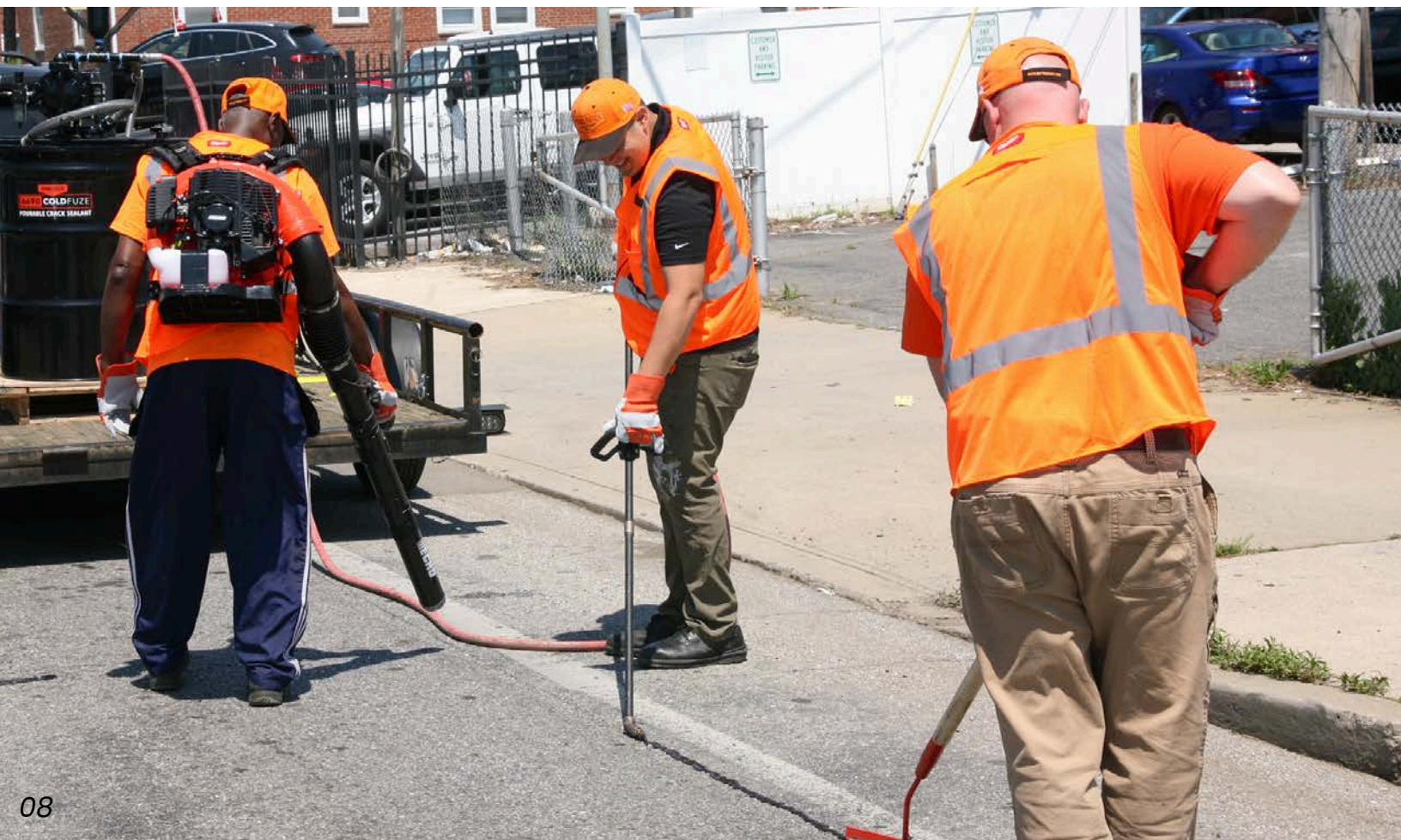
If everything appears to be in working order, it may be necessary to open and inspect the pump.

Step 1:

- Remove the 2 bolts on each corner, top and bottom of the pump. There will be 4 balls in the pump.
- Take out the balls and apply some mineral spirits to a rag and clean them off. Rinse off with water.
- Install balls back into pump and tighten bolts.

Step 2:

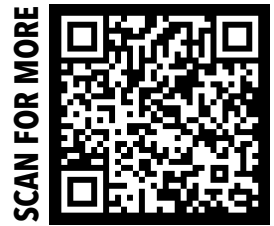
- Remove the bolts surrounding the diaphragms on each side of the pump.
- Inspect the diaphragms for any tears, holes or dried material.
- If dried material, apply some mineral spirits to a rag and gently clean them off. Rinse with water.
- If there are any tears or holes, replace the diaphragms utilizing approved rebuild kit.
- Replace the bolts and retest the pump.



CONTACT INFORMATION



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APPENDIX

OPERATIONS CHART

		6690 Black	6690 Gray	Black Fill
Circulating Product	Operating Air Pressure	30-40 PSIG 6690 Black 1 pump beat every 4 seconds	20-30 PSIG 6690 Gray 1 pump beat every 4 seconds	50-60 PSIG Black Fill 1 pump beat every 4 seconds
	Intake Line Valve	100% Open	100% Open	100% Open
	Return Line Valve	50% Open	25% Open	100% Open
	Dispensing Line Valve	Closed	Closed	Closed
	Cleaning Line Valve	Closed	Closed	Closed
Dispensing Product	Operating Air Pressure	30-40 PSI	20-30 PSI	50-60 PSI
	Intake Line Valve	100% Open	100% Open	100% Open
	Return Line Valve	50% Open	25% Open	25-50% Open
	Dispensing Line Valve	100% Open	100% Open	100% Open
	Cleaning Line Valve	Closed	Closed	Closed

CLEANING CHART

		6690 Black	6690 Gray	Black Fill
Cleaning Unit	Operating Air Pressure	30 PSI		
	Intake Line Valve	Open for Option 1, Closed for Option 2		
	Return Line Valve	Open 100%		
	Dispensing Line Valve	Closed 100%		
	Cleaning Line Valve	Open 100%		