

# AUTOMATIC DEMAND, CHEMICALLY RESISTANT



# SUPER FLOW

RECIRCULATING, TRANSFER & FLUSH PUMP

SELF PRIMING AND CHEMICALLY RESISTANT FOR USE WITH OILS, ACIDS AND MOST OTHER LIQUIDS.

- \* Rugged Aluminum Carrying Case.
- \* Can Run Dry Without Damage.
- \* Clear Bowl Strainer/Replaceable Stainless Steel Screen.
- \* Complete With Chemically Resistant Hoses.
- \* Automatic Backflow Check Valve.

*The Only Pump Recommended For Use With SUPER FLUSH*  
Contains chemically resistant seals to accommodate SUPER FLUSH and other chemicals

## IMPRESSIVE!

1. Over 3.5 gallons per minute open flow rate @ 45 psi maximum.
2. Self priming up to 12 vertical feet.
3. Automatic demand — no adjustments or calibrations, simple on/off operation.
4. Provides fast and effective flushing for any size system.

### COMPLETE & READY TO GO:

- 115 vac single phase electric operation
- Fuse protected
- 9 foot, 10 inch power cord
- One year limited warranty
- UL listed



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*Highside Chemical Products are available through local wholesalers and distributors worldwide.*

**RECOMMENDATIONS FOR USE OF**  
**SUPER FLUSH**  
**IN AIR CONDITIONING & REFRIGERATION SYSTEMS**

**\* IF COMPRESSOR BURNOUT HAS OCCURRED, THE COMPRESSOR MUST BE REPLACED ACCORDING TO INDUSTRY STANDARDS AND/OR EQUIPMENT MANUFACTURER INSTRUCTIONS. BE SURE TO REPLACE FILTERS/DRYERS AND CAPILLARY TUBES TO AVOID AND RESIDUAL CONTAMINATION.**

**DIRECTIONS: INTERNAL COIL CLEANING (Condenser & Evaporator Coils)**

1. Recover and save refrigerant according to EPA requirements.
2. Disconnect the compressor, dryer, expansion valve, accumulator, receiver, capillary tube and solenoid valves.
3. Clean the evaporator and condenser coils separately by filling coil completely with **Super Flush**. Use approximately one (1) gallon of **Super Flush** for each ton of system capacity.  
SMALL SYSTEMS: Use a container and hand operated pump to circulate **Super Flush** through the coils for a minimum of twenty (20) minutes.  
LARGE SYSTEMS: Use Highside's Super Flow pump, flexible tubing and a large container to create a closed loop system and circulate **Super Flush** through the coils for at least twenty (20) minutes.
4. Collect the used **Super Flush** and dispose of in compliance with federal, state and local regulations and guidelines.
5. Use pressurized dry nitrogen (100 psi) to blow out coils.
6. Clean and/or replace the expansion valve, capillary tube, solenoid valve, accumulator, and receiver. Additional system tubing should be cleaned separately.
7. Reassemble and reconnect the systems compressor. Replace dryer and evacuate system to at least 300 microns.
8. Recharge the system and make adjustments necessary to meet operating specifications.

**DIRECTIONS: SYSTEM FLUSH ( Cleaning Complete System )**

1. Recover all refrigerant from the system according to the EPA and/or system guidelines and drain excess oil.
2. Disconnect the compressor, dryer, accumulator, receiver, expansion valve or capillary tube from the system.
3. Connect flexible tubing to bypass the compressor, dryer, accumulator, receiver, expansion valve or capillary tube creating a closed loop.
4. Measure the correct amount of **Super Flush**, approximately one (1) gallon per ton of system capacity, and place in an open container large enough to accommodate the necessary volume of **Super Flush**. \*The amount of **Super Flush** must be recorded to insure recovery after cleaning.\*
5. Connect a section of flexible tubing from the open container to the intake side of Highside's Super Flow pump and a second section of tubing from the outlet side of the pump to the low side of the evaporator coil. Connect a third section of tubing to the high side of the condenser coil to the open container of **Super Flush**. This completes a circulation loop.
6. Activate the pump to circulate **Super Flush** through the system for twenty (20) or thirty (30) minutes.
7. Remove the tubing from Highside's Super Flow pump and use pressurized dry nitrogen (100 psi) to blow any remaining **Super Flush** into the open container.
8. Collect the **Super Flush** and measure the amount that was returned to the open container. Compare the amount to that originally placed in the system. Do not leave more than five (5) percent of **Super Flush** in the system. \*Super Flush will not harm the system. However, leaving more than five (5) percent of **Super Flush** in the system may over fill the system's capacity and risk excess pumping pressure on the system.\*
9. Test the system for any oil, acid, or contaminants. Dispose of used **Super Flush** according to federal, state and local regulations.
10. Clean out accumulator, receiver, and expansion valve separately with **Super Flush**.
11. Reassemble the system - reconnect all remaining parts and connect compressor.
12. Using a vacuum pump and micron gauge, evacuate the system to a minimum of 300 microns - recharge the system with refrigerant and oil according to equipment specifications. Start the equipment and make any necessary adjustments.  
\*Severe burnout conditions may require a longer flush time of about one hour.

**DIRECTIONS: COMPRESSOR CLEANOUT**

1. BURNOUT CONDITIONS: If compressor burnout has occurred, the compressor must be replaced.
2. RETROFITTING: (a) Using a siphon pump, remove all the oil from the compressor's crankcase. (b) Place an equivalent amount of **Super Flush** into crankcase. (c) Leave **Super Flush** in crankcase for twenty (20) minutes (agitate or stir if possible). (d) Using a siphon pump, remove the used **Super Flush** from crankcase and dispose of according to federal, state and local regulations. (e) Refill crankcase with oil according to equipment guidelines.

**DIRECTIONS: RECOVERY CYLINDER CLEANING**

1. Open the liquid side valve and with a hand pump or other oil charging pump, push 12 ounces for a 30 pound cylinder or 16 ounces for a 50 pound cylinder of **Super Flush** into the cylinder.
2. Close the liquid side valve of the cylinder. With the handle provided on the cylinder, turn the cylinder horizontally. Shake or otherwise agitate and rotate the cylinder so that the entire inside surface is coated with the **Super Flush**. Continue this procedure for at least ten minutes.
3. Set the cylinder on a firm surface, open the vapor side valve and turn the cylinder upside down. This will drain the **Super Flush** and contaminants. Open the liquid side valve and blow out the cylinder with dry nitrogen.
4. Close the liquid side valve and evacuate the system to 300 microns. The cylinder is now clean and ready for use. Be sure to test the cylinder for any oil, acid or other contaminants before use.

**SUPER FLUSH IS SAFE AND COMPATIBLE AS A FLUSH AND/OR CLEANING AGENT FOR USE IN AUTOMOTIVE AND OTHER MOBILE AIR CONDITIONING & REFRIGERATION SYSTEMS. SUPER FLUSH IS DESIGNED FOR USE WITH CLOSED LOOP FLUSHING MACHINES AND PRESSURIZED FLUSH GUNS.**