

SUBMERSIBLE PUMP MODEL 1-YS CATALOG NUMBER 501020 OR 501030

INTRODUCTION

The 1-YS pump is designed for submerged use only. Its motor is hermetically sealed in a diecast aluminum housing, which is oil-filled for heat transfer and permanent lubrication. It is intended to pump unheated metal parts-cleaning solvent that is UL classified as PJQU as described in the Gas and Oil Equipment Directory. These are refined petroleum distillates that are free from the tendency to heat spontaneously. They have a closed cup flash point not lower than 100 degrees F. These are typical fluids that are compatible with the pump materials (except the power cord.) See Installation step 1.

NOTE: This pump is intended for use only in parts cleaners listed by Underwriters Laboratories. The combination of the fluid pumped, the pump, and the design of the parts washer will determine if additional safety devices, such as a low liquid level cut off, are required. Refer to parts washer manufacturer's instructions to see if this is required.

SAFETY GUIDELINES



Before servicing the pump, see solvent and equipment manufacturer's instructions for further safety information and possible hazards.

Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

This pump must be properly grounded while in use to protect the operator from electrical shock.

Always disconnect power source before working on the pump. If the power disconnect point is out of sight, lock in the open position and tag to prevent unexpected application of power.

Do not attempt to make your own parts cleaners.

The low flash point of these combustible liquids does present a moderate fire hazard. Operating the pump fully submerged offers added protection from fire risk. For other solvent handling precautions, consult the material safety data sheet (OSHA-20 form, or equivalent) for the solvent used.

Use only UL-approved metal parts cleaning solvents. The use of fluids such as gasoline and lower flash point solvents is dangerous and may cause explosions or fire. Solvents other than UL-approved metal parts cleaning solvents will void the warranty of this product.

SPECIFICATIONS

Suction inlet	Smooth opening, approx. 1/2" I.D.
Discharge outlet	1/4" NPT (male)
Cord type	18/3 (SJTO)
Pipe connector around cord	1/2" NPT (male)
Pump housing (volute)	Nylon
Motor housing	Die-cast aluminum (unpainted)
Impeller	Nylon (with S.S. bushing)
Pump screen	Polyethylene
Pump shaft seal	Viton
Motor shaft	440 S.S.
Volute & pump screws	410 S.S. or 18-8 S.S.
Overall dimensions	4" dia. x 4-1/4" height
Maximum fluid temperature	100° F

INSTALLATION



WARNING: Do not allow the pump's power cord to come in contact with solvent. The solvent may damage the cord insulation, causing the cord to become stiff or lower its insulating properties. The pump is supplied with a three-conductor power cord. The third conductor is to ground the pump to prevent possible electrical shock hazard.

1. Seal the power cord inside of liquid-tight, 1/2" NPT steel intermediate metal conduit. Use caution to ensure that cord will not be nicked or cut.
2. Consult pump nameplate data for proper voltage and frequency. Please note, the black (or brown) and white (or blue) wires are live and the green (or green/yellow) wire is ground.
3. Be sure that the pump is fully submerged in the cleaning solvent.
4. The pump power supply cord must be connected to a properly grounded, grounding-type receptacle.

PERFORMANCE

(115V 60HZ)

MODEL	GALLONS PER HOUR				SHUT-OFF PSI
	1'	3'	5'	7.5'	
1-YS	180	144	102	0	3.2

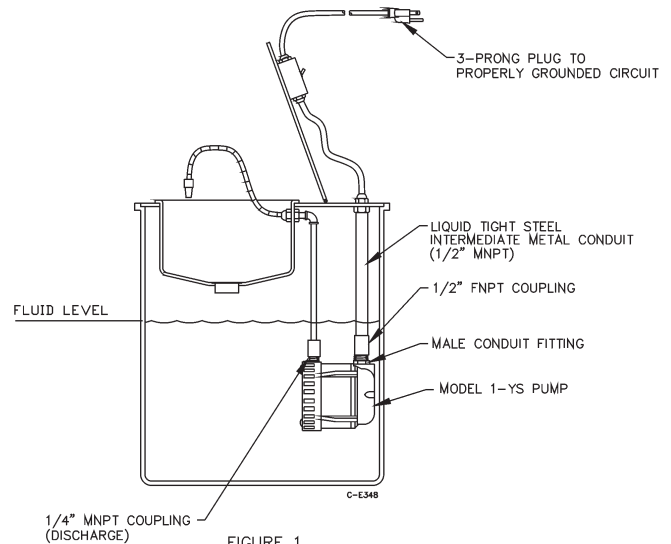


FIGURE 1

Figure 1

MAINTENANCE



WARNING: UNPLUG THE UNIT BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!

CAUTION: This unit is permanently lubricated. Oiling is not required. Do not open the sealed portion of the unit or remove housing screws.

Periodic cleaning of the pump parts will prolong the life and efficiency of the pump. Refer to Fig. 2 for the assembly and disassembly of the pumping head.

1. Lightly clean any corrosion or debris that may clog the impeller. Use a brush and penetrating oil and lightly scrape. **NOTE:** Do not allow sediment from parts being washed to build up and restrict the flow of fluid into the pump.

2. Turn the impeller by hand to make sure it is free. If it does not turn or if pump is tripping circuit breaker, or not operating properly after cleaning, return to Little Giant or its authorized service center. Do not attempt repairs yourself. If it does turn, replace volute and re-install into parts washer.
3. Be certain power cord is protected from solvent and has no nicks or cuts.

Do not remove housing screws. Will void warranty.

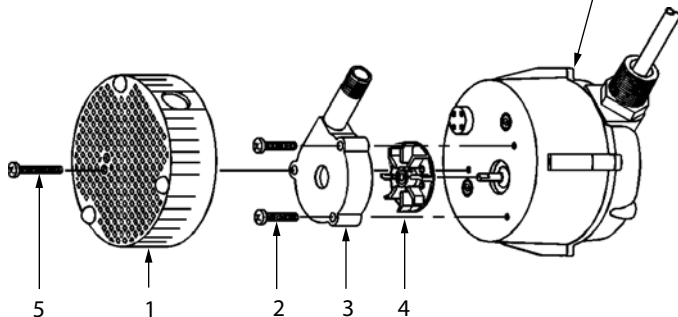


Figure 2

TROUBLESHOOTING



CAUTION: Do not open the sealed portion of the unit or remove the housing screws.

1. Should the unit fail to operate, check the following:
 - a. Power supply and connections

- b. Is the pump below liquid level?
 - c. Is air trapped in the pump head?
 - d. Is there sediment build-up over pump inlet?
2. An air lock or bubble will prevent the unit from pumping. Trapped air can usually be removed by turning the pump off and restarting. Ensure that the discharge line is sloping upward to prevent formation of air pockets.
3. If these operations do not restore the unit to full service, call your dealer or service technician.

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION	QTY.
1	101903	Screen	1
2	902411	Screw, 8-18 X 1"	2
3	101351	Volute	1
4	101433	Impeller assembly	1
5	902408	Screw, #8 self-tapping	1

LITTLE GIANT WARRANTY STATEMENT

Your Little Giant product is guaranteed to be in perfect condition when it leaves our Factory. It is warranted against defective materials and workmanship for a period of 12 months from date of purchase by the user. Any product that should fail for either of the above two reasons and is still within the warranty period, will be repaired or replaced if returned prepaid to our Factory. All defective products returned under warranty will be fully inspected to determine "CAUSE OF FAILURE" before any warranty is approved. Little Giant will honor the warranty within the warranty time period specified on satisfactory written proof of purchase.

DISCLAIMER: Any oral statements about the product made by the seller, the manufacturer, the representatives or any other parties, do not constitute warranties, shall not be relied upon by the user, and are not part of the contract for sale. Seller's and manufacturer's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the manufacturer of the product as described above. Neither seller nor the manufacturer shall be liable for any injury, loss or damage, direct, incidental or consequential (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss), arising out of the use or the inability to use the product, and the user agrees that no other remedy shall be available to it. Before using, the user shall determine the suitability of the product for his intended use, and user assumes all risk of liability whatsoever in connection therewith. The warranty and remedy described

in this limited warranty is an EXCLUSIVE warranty and remedy and is IN LIEU OF any other warranty or remedy, expressed or implied, which other warranties and remedies are hereby expressly EXCLUDED, including but not limited to any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow the exclusive or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty will be VOID if any of the following conditions are found:

1. Sealed motor housing opened.
2. Product connected to voltage other than indicated on name plate.
3. Cord cut off to a length less than three feet.
4. Pump allowed to operate dry (fluid supply cut off).
5. Product abused by customer.
6. Pump used to circulate anything other than room temperature PJQU, UL Classified Metal Parts Cleaning Solvents with a minimum flash point of 100 deg. F. Highly flammable fluids such as gasoline, some chlorinated solvents, alcohols, acetone, or toluol should not be used. These fluids are dangerous and may cause explosions or fire.

For parts or repair, please contact 1.888.572.9933
 For technical assistance, please contact 1.888.956.0000

www.LittleGiantPump.com
 CustomerService-WTS@fele.com