# Little GIANT.

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# 35-OM HIGH PRESSURE PUMP

# **®** INTRODUCTION

This instruction sheet provides you with the information required to safely own and operate your Little Giant pump. Retain these instructions for future reference.

The Little Giant pump you have purchased is of the highest quality workmanship and material, and has been engineered to give you long and reliable service. Little Giant pumps are carefully tested, inspected, and packaged to ensure safe delivery and operation. Please examine your pump carefully to ensure that no damage occurred during shipment. If damage has occurred, please contact the place of purchase. They will assist you in replacement or repair, if required.

READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE, OR SERVICE YOUR LITTLE GIANT PUMP. KNOW THE PUMP'S APPLICATION, LIMITATIONS, AND POTENTIAL HAZARDS. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH THESE INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!

#### **DESCRIPTION**

The 35-OM is a non-submersible, high-pressure pump capable of pumping mild detergents. It is designed for use in carpet cleaners, pressure washers, dispenser displays, etc. It uses a glass-filled, nylon pumping head and glass-filled PPS impeller. It has a 3/8" O.D. barbed intake and discharge, 1/8" barbed bypass port, a carbon/ceramic mechanical face seal for long seal life, Nitrile O-ring, and a double insulated, universal-type, series wound motor.



- 1. CAUTION: To reduce the risk of electrical shock, disconnect pump from power source before servicing.
- Read all instructions and safety guidelines thoroughly. Failure to follow the guidelines and instructions could result in serious bodily injury and/or property damage.
- 3. Do not pump flammable liquids such as gasoline or fuel oil.
- 4. During operation, the area surrounding the pump may be covered with water. Take care when handling the pump. Do not disconnect the plumbing connections when pump is in operation.
- 5. Do not stand in water when changing fuses.

# **INSTALLATION**

Your pump is delivered completely pre-assembled and pretested from the factory. It is ready for immediate use. The pump may be installed in any position. It may be mounted vertically with the pump head down. Proper plumbing connections should be made, see specifications.

Motor nameplate lists all electrical data. Make sure the pump is connected to proper voltage before operating.

Do not allow pump to run dry. These pumps are not submersible, operate the pumps only in the in-line mode. Do not put the units in liquid. Pump should be installed in a dry area and protected from splash. These pumps are not self priming models; they must be installed so that the pump head (volute) is flooded at the time the pump is to be started. That is, the inlet of the pump must be below the level of the surface of the liquid being pumped (Figure 1).

Do not restrict the intake side of the pump. Connections on the intake side should not be of smaller inside diameter hose than the intake

Figure 1

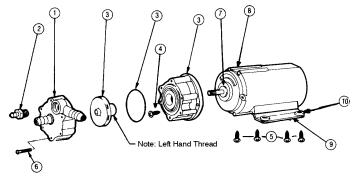
inside diameter. If reduced flow is required, restrict the discharge side. Installing a valve or other type of restriction device on the discharge side is the proper method for reducing flow from the pump. When using a valve, the pump can be throttled to provide various flow rates and pressures without harming the motor or the pump parts.

Use the bypass port for applications that have priming problems, closed discharge or dead head. Under dead head conditions, without bypass, the high RPM of the impeller (approximately 9000 RPM) will cause liquid to heat and vaporize. This results in the pump running dry and seal failure.

#### **SPECIFICATIONS**

of Zon Torrions			
Volts	115	220/240	
Horsepower	1/11	1/12	
RPM	9000	8000	
Amps	1.25	.6	
Intake Size	3/8" O.D., barbed		
Discharge Size	3/8" O.D., barbed		
Pump Dimensions	Width: 4" Length: 6.9" Height: 2.93"		
Pump Weight	2.5 lbs. (net) 2.7 lbs. (gross)		
Motor Life	Brush life - 500 hou	rs	
Motor Type	Open air series Wound-brush type,	double insulated	

Figure 2



Item Part No.	Description	Otv	Catalog No.		
ILEIII	rail ivo.	Describitori	Qty.	532002	532012
1	132101	Volute	1	Х	Х
2	941034	Bypass adaptor	1	Х	Х
3	599106	Seal kit	1	Х	Х
4	902326	Screw	2	Х	Х
5	902325	Screw	4	Х	Х
6	902318	Screw	6	Х	Х
7	921040	Slinger	1	Х	Х
8	979506	Motor, 115V	1	Х	
8	979606	Motor, 230V	1		Х
9	132005	Base	1	Х	Х
10	925008	Grommet	4	Х	Х

	532002 35-OM		115V			
GALLONS PER HOUR			Shut	PSI		
10'	20'	30'	50'	70'	Off	P3
170	155	140	110	60	87	37.7
with bypass:						
165	150	135	100	50	81	35.0

532	532012 35-OM		220/240V			
GALLONS PER HOUR			Shut	PSI		
10'	20'	30'	50'	70'	Off	191
160	150	130	95	40	80	34.7
with bypass:						
155	145	125	85	30	74	32.0

PUMP – TROUBLESHOOTING INFORMATION			
PROBLEM	CHECK		
	1. No fluid in supply tank.		
	Air trapped in volute – turn pump off and bleed air through discharge hose by opening valve and slightly tilting unit to allow air to escape through discharge or by-pass (air will go up), if open passage is provided and pump is off.		
1. No fluid being pumped.	3. Clogged intake of discharge tubing.		
	4. Is motor operating; if not, go to section on motor trouble shooting.		
	5. Check impeller and pump volute for clogging; clean if necessary.		
Seal Leaking     1.1 Seal, carbon face     2.2 Seal, ceramic face     2.3 No spring tension in carbon seat assembly	If leak appears to be around shaft, disconnect power and remove impeller.		
	Examine carbon face for breaks in the surface or foreign particles present to cause leaks. If carbon has chips or cracks, seal housing assembly must be replaced. If foreign particles are present, use lens tissue to clean surface. Surface must be clean, free of particles, fingerprints and chips, or it must be replaced.		
	A continuous carbon track must be present (black ring). If trash causes a break in the tracking, then clean ceramic with water; lens tissue should be used to avoid scratching. Surface must be clean and free of all debris, fingerprints, scratches and cracks.		
	Loss of spring tension generally is a result of the rubber diaphragm inside the seal becoming hard and not allowing spring to function. Seal/housing assembly must be replaced.		
3. Leakage of 0-ring seal	If O-ring becomes twisted in assembly it will leak; or if debris is in the gland, the O-ring will not seal properly. Apply vaseline to O-ring. This method will aid in proper installation of O-ring.		
4. Cracked ceramic or carbon face bonded to ceramic.	Pump was allowed to run dry and then water was added, resulting in thermal shock to ceramic causing it to crack. Replace both carbon and ceramic seal (housing and impeller).		
5. Melted impeller hub	Pump allowed to operate dry or pump head not properly aligned, allowing impeller to rub on brass/carbon portion of seal in the housing. Replace both impeller/ceramic assembly and housing/carbon assembly. Check for proper alignment.		
MOTOR – TROUBLESHOOTING INFORMATION			
1. Motor problem – does not run	Check wiring of motor and switches; replace motor.		
2. Excessive arcing	Brushes on new motor have not seated. Let motor operate for 3 minutes. Do not run pump dry (without fluid). Run motor again. If arcing continues, replace motor.		

#### LITTLE GIANT WARRANTY STATEMENT

THIS WARRANTY SETS FORTH THE COMPANY'S SOLE OBLIGATION AND PURCHASER'S EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCT.

Franklin Electric Company, Inc. and its subsidiaries (hereafter "the Company") warrants that the products accompanied by this warranty are free from defects in materials or workmanship of the Company that exist at the time of sale by the Company and which occur or exist within the applicable warranty period. Any distributor, sub-distributor, recipient, enduser and/or consumer agrees that by accepting the receipt of the products, the distributor, sub-distributor, recipient, end user and/or consumer expressly agrees to be bound by the terms of the warranty set forth herein.

## I. Applicable Warranty Period

The products accompanied by this warranty shall be covered by this Limited Warranty for a period of 12 months from the date of original purchase by the consumer. In the absence of suitable proof of purchase date, the warranty period of this product will begin to run on the product's date of manufacture.

## II. Instructions Applicable to this Limited Warranty

- Consumers wishing to submit a warranty claim must return the products accompanied by this warranty to the
  point of purchase for warranty consideration.
- Upon discovery of a defect, any personal injury, property damage or any other type of resulting damage, if applicable, shall be reasonably mitigated to the extent possible.
- At its discretion, the Company may inspect products either at its facilities, or in the field, and after determination of a warranty claim, will, at its option, repair or replace defective parts. Repaired or replaced parts will be returned freight prepaid by the Company.
- 4. This warranty policy does not cover any labor or shipping charges. The Company shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or for any tools, supplies, or equipment needed to install, repair, or remove any product.

# III. Limitations Applicable to this Limited Warranty

#### THIS WARRANTY DOES NOT APPLY TO ANY OF THE FOLLOWING:

- 1. Brushes, impeller or cam on models with brush-type motors and/or flex-vane impellers.
- Any product that is not installed, applied, maintained and used in accordance with the Company's published instructions, applicable codes, applicable ordinances and/or with generally accepted industry standards.
- Any product that has been subject to misuse, misapplication, neglect, alteration, accident, abuse, tampering, acts of God
  (including lightning), acts of terrorism, acts of war, fire, improper storage or installation, improper use, improper maintenance
  or repair, damage or casualty, or to an excess of the recommended maximums as set forth in the product instructions.
- Any product that is operated with any accessory, equipment, component, or part not specifically approved by the Company.
- Use of replacement parts not sold by the Company, the unauthorized addition of non-Company products to other Company products, and the unauthorized alteration of Company products.
- Products damaged by normal wear and tear, normal maintenance services and the parts used in connection with such service, or any other conditions beyond the control of the Company.
- 7. Any product that has been used for purposes other than those for which it was designed and manufactured.

- 8. Any use of the product where installation instructions and/or instructions for use were not followed.
- Products connected to voltage other than indicated on nameplate.
- Products where the pump was exposed to any of the following: sand, gravel, cement, grease, plaster, mud, tar, hydrocarbons, hydrocarbon derivatives (oil, oasoline, solvents, etc.) or other abrasive or corrosive substances.
- 11. Products in which the pump has been used to pump or circulate anything other than fresh water at room temperature.
- 12. Products in which the pump was allowed to operate dry (fluid supply cut off).
- 13. Products in which the sealed motor housing has been opened or the product has been otherwise dismantled by customer.
- 14. Products in which the cord has been cut to a length of less than three feet.

The Company reserves the right at any time, and from time to time, to make changes in the design and/or improvements upon its product without thereby imposing any obligation upon itself to make corresponding changes or improvements in or upon its products already manufactured and/or previously sold. The Company further reserves the right to substitute parts or components of substantially equal quality in any warranty service required by operation of this Limited Warranty.

This written Limited Warranty is the entire warranty authorized and offered by the Company. There are no warranties or representations beyond those expressed in this document.

THIS WARRANTY AND REMEDY IS IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY SPECIFICALLY DISCLAMED AND EXPRESSLY EXCLUDED. CORRECTION OF NON-CONFORMITIES, IN THE MANNER AND FOR THE PERIOD OF TIME AS SET FORTH ABOVE, SHALL CONSTITUTE FULFILLMENT OF ALL LIABILITY OF THE COMPANY TO THE PURCHASER WHETHER BASED ON CONTRACT, NEGLIGENCE, OR OTHERWISE.

THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES SUCH AS, BUT NOT LIMITED TO:

DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF USE OF EQUIPMENT, FACILITIES OR SERVICE, LOSS OF PROFIT OR SALES, COST OF PURCHASES OR REPLACEMENT GOODS, CLAIMS OF CUSTOMERS OF THE PURCHASER, FAILURE TO WARN AND/OR INSTRUCT, LOSS OF OTHER PRODUCTS, OR COSTS OF ENVIRONMENTAL REMEDIATION, OR DIMINUTION IN PROPERTY VALUE. THE REMEDIES OF THE PURCHASER SET FORTH HEREIN ARE EXCLUSIVE, AND THE LIABILITY OF THE COMPANY SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE PRODUCTS UPON WHICH SUCH LIABILITY IS BASED. DAMAGES AS SET FORTH IN THIS PARAGRAPH SHALL BE REASONABLY MITIGATED TO THE EXTENT POSSIBLE. THIS PARAGRAPH SHALL ALD, EXCEPT AS PROTOTYPES OR REPLACEMENT PART PROTOTYPES THAT HAVE NOT BEEN PUT INTO PRODUCTION, CIRCULATED AND SOLD BY THE COMPANY, AND/OR (2) DEFECTS THAT WERE NOT FOUND AT THE TIME OF SALE DUE TO SCIENTIFIC AND TECHNOLOGICAL REASONS.

This Limited Warranty gives you specific legal rights. You may have other rights, which vary according to the applicable laws and regulations. Where any term of this warranty is prohibited by such laws, it shall be null and void, but the remainder of this warranty shall remain in full force and effect.

DISCLAIMER: Any oral statements about the product made by the seller, the Company, 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 the Company's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the Company of the product as described above. Before using, the user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith.