

Franklin Electric Co., Inc.
 P. O. Box 12010
 Oklahoma City, OK 73157-2010
 405.947.2511 • Fax: 405.947.8720
 www.LittleGiantPump.com
 CustomerService-WTS@fele.com

LG-100 SERIES LG-300 SERIES

PUMP CONSTRUCTION

Little Giant tube pumps consist of a cylindrical aluminum housing that accepts a flexible tube radially against the inside and an impeller assembly consisting of ball bearings rotates in the cylinder. As the impeller rotates, it squeezes tubing which will create a suction on the intake side and draw fluid through the tubing, creating a pumping action. Fluid being pumped never touches any pump parts except for the tubing.

TUBING

Selection of proper tubing or each application is extremely important. Tubing selected must be chemically inert to the materials being pumped. Three types of tubing are most commonly used. They are: rubber, Tygon R3602 and neoprene. All three types are sufficiently flexible and can be squeezed shut and then rapidly regain their shape after the rollers pass over them. Tubing with the hardness of 60 durometer gives good performance. The wall thickness for any tubing used should be 1/8". The LG-100 series accepts 3/16" x 7/16" to 1/4" x 1/2" tubing. The LG-300 series accepts 3/8" x 5/8" to 1/2" x 3/4" tubing. Do not use tubing with wall thickness over 1/8".

PUMP DRIVE

Little Giant tube pumps work well at any speed up to 800 RPMs. The pump is supplied with a 6" pulley. When combined with a 2-1/2" motor pulley and a 1,725 RPM motor, pump speed will be approximately 700 RPMs.

NOTE: Motor, motor pulley and V-belt are not included with the LG-100 series and LG-300 series Tube Pumps.

Recommended motor for either pump series is a 1/3 HP, 60 hertz, 1,725 RPM NEMA 48 frame motor with rigid cradle base, sleeve bearings, thermal protection, 40°C rise, 1.35 service factor, and insulation class A. Suggested motors are Dayton 6K490,

General Electric 5XBH024, or Marathon Q48S17D596. The motor pulley should be 2-1/2" OD for type A (or 4L) V-belt for 1/2" shaft (Grainger 3X900 or equivalent). The belt should be a 4L width. Belt length using Little Giant base should be 30" (Grainger 4L-300 or equivalent).

TUBING INSTALLATION

Remove the pump housing cover by removing the three cover thumb screws. Position the impeller parallel to the pump's base. Place the tubing in one of the grooves in the pump housing and rotate the impeller while placing the tubing in the position behind the turning impeller. Seat the tubing fully up against the back of the housing. Be sure the impeller bearings press the tubing evenly against the housing and does not overhang the bearings as they turn. Improper positioning of the tubing will cause wear and tubing will be cut by the impeller bearings. Silicon lubricant on the tubing where the impeller bearings rub will increase the tubing life. When replacing the cover, adjust the tubing clamps until they hold the tubing tight enough so that it cannot be pulled through the pump when the cover is installed. For 3/4" O.D. tubing, use the #10-24 x 1/2" screws installed at the factory. For 5/8" O.D. tubing, remove the clamp screws (2) and install the #10-24 x 5/8" screws which are supplied with the pump in a separate plastic bag. If the clamps are too tight, the flow will be restricted.

OPERATION AND SERVICE

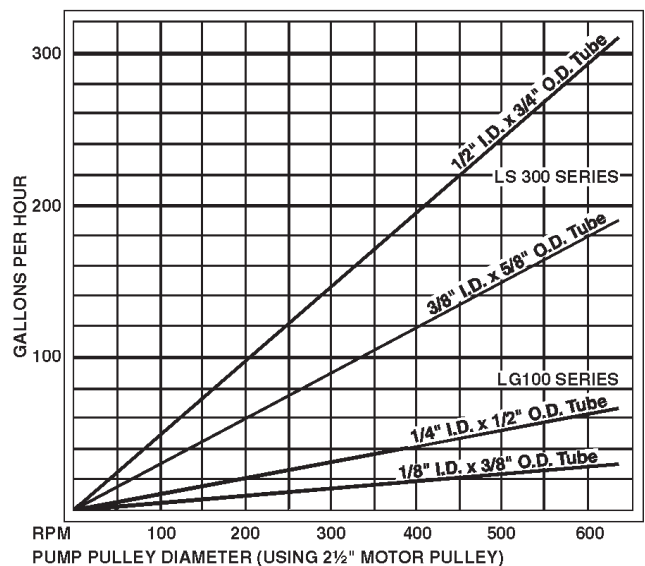
Do not restrict the pump's output any more than necessary. The pump can build up high pressures that could exceed the tubing's strength.

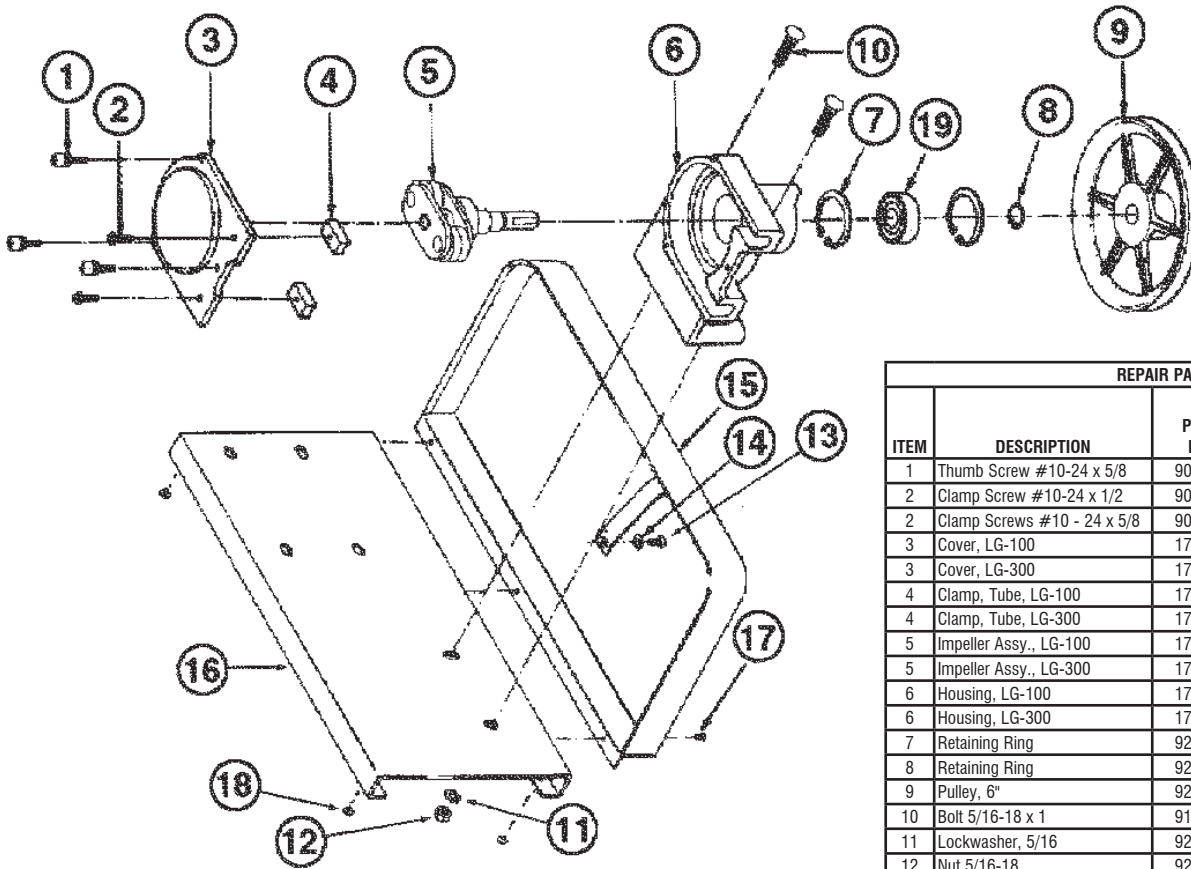
Some pulsating in the discharge is unavoidable because of the peristaltic action and can be reduced by putting an expansion tank in the discharge line. Using 1/8" wall thickness tubing, the pump is self-priming.

Maintenance must be performed regularly. The roller's constant squeezing and releasing the tubing wears the tubing out. Silicon lubricant on the tubing lengthens tubing life. If possible, install tubing longer than is required and periodically loosen the cover plate and slide the tubing through the pump approximately 1' to allow the roller to wear on new sections of the tubing. Tubing must be periodically replaced. All pump bearings are sealed and require no maintenance.

MODEL	LENGTH	HEIGHT	WIDTH	GALLONS PER MINUTE @ TUBING SIZE				R.P.M.	WEIGHT
				3/16 x 7/16	1/4 x 1/2	3/8 x 5/8	1/2 x 3/4		
LG-10 0	6"	6 1/2"	4 7/8"	.6	1	—	—	575	4.6
LG-101	15"	9 3/8"	9 5/8"	.6	1	—	—	575	25.2
LG-300	6 1/8"	6 1/2"	5 1/2"	—	—	2.8	4.8	575	6.6
LG-301	15"	9 3/8"	9 5/8"	—	—	2.8	4.8	575	26.12

The above G.P.M. remains almost constant at any pressure from 1-20 P.S.I.





REPAIR PARTS LIST						
ITEM	DESCRIPTION	PART NO.	QTY.	LG-100 575100	LG-102 575192	LG-300 575300
1	Thumb Screw #10-24 x 5/8	909001	3	•	•	•
2	Clamp Screw #10-24 x 1/2	909009	2	•	•	•
2	Clamp Screws #10 - 24 x 5/8	901521	2			•
3	Cover, LG-100	175202	1	•	•	
3	Cover, LG-300	175252	1			•
4	Clamp, Tube, LG-100	175209	2	•	•	
4	Clamp, Tube, LG-300	175258	2			•
5	Impeller Assy., LG-100	175006	1	•	•	
5	Impeller Assy., LG-300	175007	1			•
6	Housing, LG-100	175201	1	•	•	
6	Housing, LG-300	175251	1			•
7	Retaining Ring	923002	2	•	•	•
8	Retaining Ring	923003	1	•	•	•
9	Pulley, 6"	929201	1	•	•	•
10	Bolt 5/16-18 x 1	915503	2		•	•
11	Lockwasher, 5/16	921032	2		•	•
12	Nut 5/16-18	920018	2		•	•
13	Screw, 1/4-20 x 3/8	901702	1		•	•
14	Lockwasher, 1/4	921024	1		•	•
15	Belt Guard	175105	1		•	•
16	Base	175104	1		•	•
17	Screw, #8-18 x 3/8	902404	3		•	•
18	Feet	929102	4		•	•
19	Bearing, Ball	948015	1	•	•	•

ONE YEAR LIMITED WARRANTY

For one year from date of purchase, Little Giant will repair this pump if defective in material or workmanship. Warranty service is available by returning the pump prepaid to the factory. For further details, please consult the warranty statement. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Little Giant, Service Department.

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

Pour des parties ou la réparation,
 entrez s'il vous plaît en contact 1.888.572.9933
 Pour l'aide technique, entrez s'il vous plaît en contact 1.888.956.0000

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