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## STANDARD SINGLE PERISTALTIC PUMP (Please Read Instructions on Back Page Before Operating Pump)

### DESCRIPTION

The peristaltic pump is a positive displacement pump. The pump has only one moving part in the assembly. GRI peristaltic pumps are standard with Norprene® tubing. (Other materials available upon request - contact factory.)

### PRIMING

The pump is self-priming under most conditions, however, the priming ability lessens with viscosity of the fluid. The priming ability is approximately 20'.

### FLOW

Flow of pump varies depending on R.P.M. of gearmotor and discharge pressure.

### VISCOSITY

The pump has been designed to handle a wide range of liquid viscosities. It may be good practice when pumping the heavier liquids to keep the liquid velocity (pump speed) as low as possible. When pumping liquids which may tend to settle out, extremely corrosive solutions or any liquid which could become viscous with time, flush pump after use to increase pump life.

### R.P.M.

Maximum recommended speed for pump is 120 R.P.M. (Note slower R.P.M. will give longer life to pump.)

### PRESSURE

The pump has the ability to discharge into a pressurized system. However, if system or discharge pressure exceeds the recommended maximum of the tubing, tubing life will be shortened.

### NOTE:

Pumps are designed for use with liquid up to 170°F (76°C) at catalog rated pressure.

### CHEMICAL SERVICE

The peristaltic pump will handle many different kinds of liquids. For specific chemical service, refer to our Standard Pump Catalog, Form No. 86230.

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## TROUBLESHOOTING GUIDE

The troubleshooting guide is a suggestion or aid in helping solve problems that might arise.

Before working on the pump, read the fluid manufacturer's instructions and the recommended handling and safety procedures. If any doubt exists concerning the safe exposure to the liquid, or if no information concerning the nature of the fluid is available, protective clothing, hand and face protection should be worn.

Exercise care when placing hands on or near the motor of the pump or its fan. Electric shock may be experienced when touching a defective electric device. Also, the fan may injure the fingers or hand if the motor unexpectedly starts.

### MOTOR PROBLEMS

Check for fuse, wire, connection, or power problems. Inspect the motor field for signs of overheating or damage.

If the motor does not start or does not show signs of attempting to start, the problem may be electrical.

With the motor disconnected from its electric power supply, attempt to rotate the fan shaft. If the fan shaft and motor rotor do not rotate freely, the gearbox may be locked or some similar situation is restraining the rotor. In any case, the pump will require replacement.

### PUMP PROBLEMS

Remove the four screws that attach the pump body to the gearmotor. Pull the pump off of the gearmotor shaft. Rotate the fan shaft to see if the gearmotor is locked or not. Connect the gearmotor to power and see if it runs. Make certain the output shaft of the gearbox is rotating and generating torque sufficient to drive the pump.

Check the condition of the rotor halves, rollers and the pump body halves. Some wear may be observed and judgement must be made if it is excessive.

### TUBE PROBLEMS

The pump will not be most effective if there is a shortage of grease on the tube.

Inspect the tube for wear spots or splitting and replace if necessary.

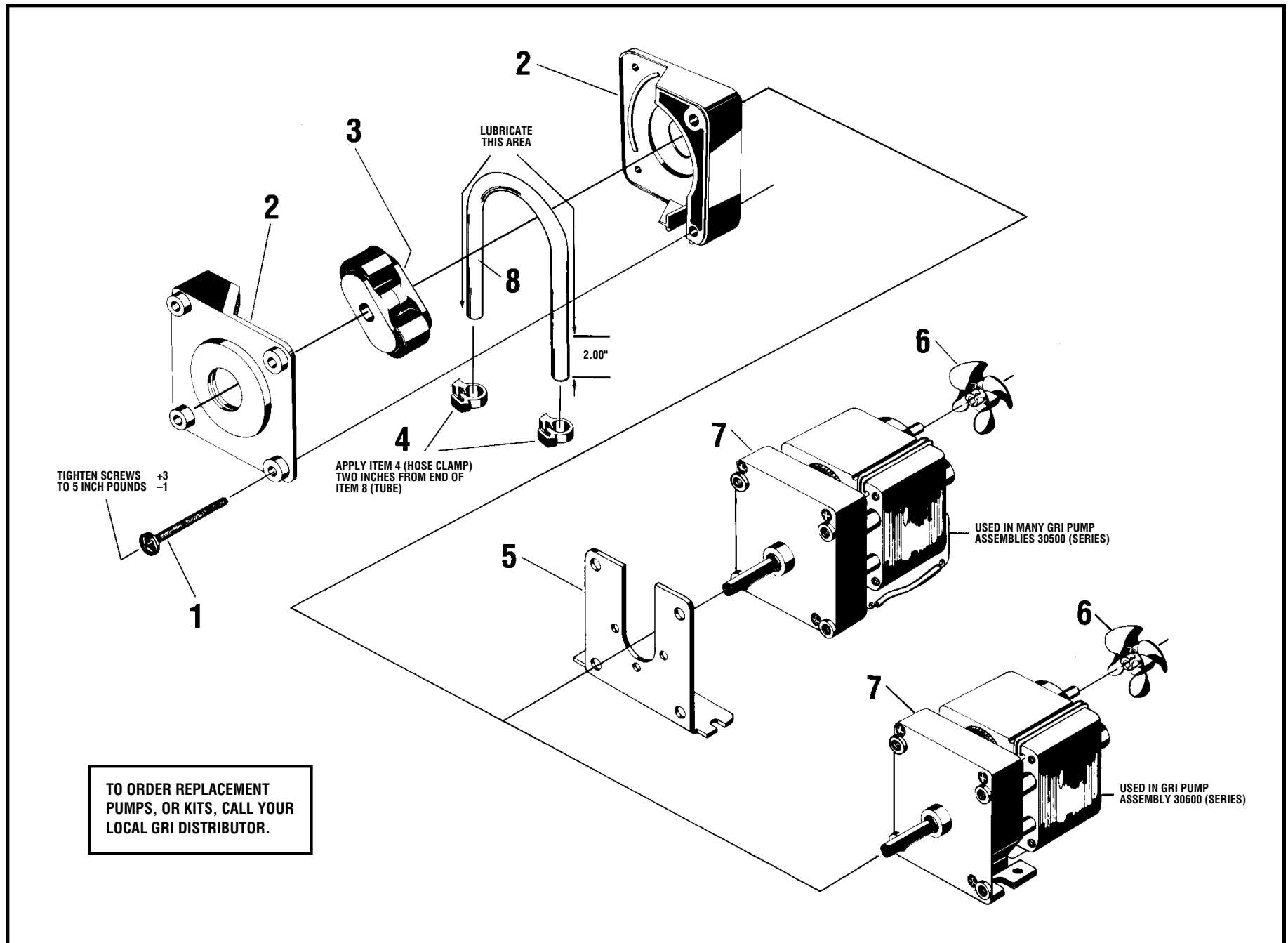
### GENERAL

The output of the pump is influenced by the presence of grease on the tube. The tube should have an ample quantity of grease on its outer surface at all times.

Excess back pressure (discharge pressure) reduces the pump's output flow. Operate the pump at as low a discharge pressure as possible.

Pump tubes experience long life when exposed to low speeds, low pressures and plenty of lubrication. Most problems can be minimized by reducing speeds and pressures.

# EXPLODED VIEW OF PERISTALTIC PUMP



### PARTS LIST FOR PERISTALTIC PUMP

ITEM	REQ.	DESCRIPTION	ORDERING INFORMATION
1†	4	10-32 Screw	Included in Body Replacement Kit
2	2	Pump Body	Included in Body Replacement Kit
3	1	Rotor & Roller Assembly	Included in Rotor Replacement Kit
4	2	Hose Clamp	Included in Tubing Replacement Kit
5	1	Mounting Bracket	See note below
6	1	Fan	See note below
7	1	Gearmotor	See note below
8	1	Tube	Included in Tubing Replacement Kit

\*NOTE: Parts not available unless stocked by GRI Distributor.

†See torque specs on screws.

BODY REPLACEMENT KIT	
PART NO.	02501-067

Kit includes 10-32 screws and body halves.

ROTOR REPLACEMENT KIT	
PART NO.	02501-068

Kit includes rotor and roller assembly.

TUBING REPLACEMENT KIT			
Norprene®	1/4" I.D.	20 psi	02500-882

Kit includes 9" piece of tubing & hose clamps.

Contact factory for other tubing materials.

#### WARRANTY

Gorman-Rupp Industries warrants to Buyer that products sold by it will upon shipment conform to the description on the face hereof and any written specifications expressly approved by Seller and be free from defects in title, material and workmanship. NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL EXIST IN CONNECTION WITH ANY PRODUCTS SOLD BY SELLER, AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY EXCLUDED.

#### WARNING

##### **DANGER:**

Improper application, installation, adjusting, or servicing can result in serious injury or death. Always disconnect power source before working on these products.

##### **Caution:**

Products with electric motors must be properly grounded and may start automatically at any time. For product information, consult Gorman-Rupp Industries, Bellville, Ohio 44813, Phone (419) 886-3001.

#### Registered Trademark Names

NORPRENE® ..... Norton Industrial Plastics

# INSTRUCTIONS

1. Inspect the pump for shipping damage. The package should contain a completely assembled pump ready for use.
2. Tube Removal:
  - A. Observe all safety precautions. If the fluid in the tube is of a hazardous nature, wear a face shield and suitable protective gloves. Read the literature supplied by the fluid manufacturer and distributor. If literature is not available, there is no label or it is illegible, additional protective clothing should be worn.
  - B. Disconnect the tube from the fluid supply.
  - C. Prevent backflow out of the system by means of a clamp device if a check valve is not in the line. Run pump until tube is free of fluid.
  - D. Start the pump and pull on the outlet end of the tube until the tube is free of the pump.
3. Tube Insertion:
  - A. Select a tube appropriate for fluid to be pumped.
  - B. Attach the hose clamp firmly to the tube 2" from the inlet end. (See exploded view of pump.)
  - C. Smear lubricant on the tube's outer surface except for the inlet end. (See exploded view of pump.)
  - D. Start the pump.
  - E. Push the lubricated tube outlet end into the inlet opening of the pump body. Twist the tube as you push to distribute the lubricant and help the tube pass through the pump body.
  - F. When the tube reaches the outlet opening of the pump body, it may need to be guided through the opening with a screwdriver tip.
  - G. Stop the pump when the hose clamp reaches the inlet opening of the pump body.
  - H. Attach hose clamp to outlet end of tube then attach tube to fluid system.
4. Operation and Maintenance:
  - A. The tube should be lubricated occasionally.
  - B. To check for need of lubrication, with the pump **stopped**, remove hose clamp from outlet end of tube and pull on the inlet end of the tube and withdraw about 3" of the tube from the inlet opening of the pump. If the tube surface is dull in appearance and does not have a greasy appearance, apply a liberal coat of lubricant to this surface.
  - C. The motor and gearbox cannot be lubricated.
  - D. The pump assembly should be placed where air may circulate around it.

## General Information

5. Tubing Life:

The length of time that a tube will operate properly depends on:

  - A. Material from which the tube is made.
  - B. How high the discharge pressure is.
  - C. How fast the pump runs and how often it runs each day.
  - D. Sufficient tube lubrication.
6. Pump Life:

The length of time that the pump operates properly depends on:

  - A. The hardness of the tube material.
  - B. How high the discharge pressure is.
  - C. The exposure of the assembly to heat, corrosive chemicals and dirt.
  - D. How fast the pump runs.

