

# ROTARY DRUM PUMP

MODEL RP90PT (#10255)

## PRODUCT INFORMATION

NOTE: Please read carefully and save these instructions. Observe all safety information to avoid personal injury or property damage. This manual cannot cover all possible conditions and situations that may occur. The operator must exercise common sense and caution.

### A. SAFETY INFORMATION

#### !! WARNING

User is responsible for operating pump in conformance with OSHA rules for dispensing liquids. When pumping flammable liquids, containers should be grounded to avoid static electricity. All applicable sections of the National Electrical Code (NEC) and National Fire Protection Association (NFPA) codes should be consulted prior to pumping flammable, combustible, or hazardous fluids.

#### !! WARNING

Always wear protective clothing and use appropriate personal safety equipment when operating this pump. Always wear safety glasses and/or face shield.

#### Other safety precautions:

1. Do not alter pump, use substitute components, or use for other than its intended purpose.
2. Pump only liquids compatible with POLYPROPYLENE, Hastelloy, and Teflon. Consult chemical compatibility chart or contact your dealer or manufacturer of liquid being pumped.
3. Generally, it is not advisable to use the pump for more than one type of chemical.
4. Do not operate pump while under the influence of alcohol or drugs.
5. Inspect pump for proper operation before each use. Replace or repair any parts that are not functioning correctly.
6. Maintain a clean, well-lighted work area.
7. Avoid working alone. but keep observers at a safe distance. Never allow children in the work area.

### B. GENERAL DESCRIPTION

The RP90PT is a versatile rotary drum pump utilizing high-grade plastics and is suitable for a wide variety of chemicals, compatible with its component materials (see #2 above)

### C. SPECIFICATIONS

Flow rate.....Approximately 8 G.P.M.  
Bung Adapter.....2" I.P.S. , POLYPROPYLENE  
Basic Construction..... POLYPROPYLENE  
Flange Seals..... PE  
Shaft Seal.....Teflon  
Vaness.....Teflon  
Spring.....Hastelloy  
Bolts, Nuts, etc.....Plated Steel

### D. UNPACKING

Check for missing or damaged parts before assembly. Make damage claims to the shipping company. Contact dealer for parts.

### E. ASSEMBLY NOTES

(Read Notes, then refer to instructions in Section J)

1. All connections must be airtight for the pump to create suction and operate correctly. Use Teflon tape (provided) on ALL threads.
2. Do Not Over-tighten set screws on Bung Adapter or Crank Handle.
3. When inserting pump into barrel, be sure to keep drawhead above any sludge or residue that may be on the bottom of the barrel.

### F. OPERATION

1. Position receiving container under spout.
2. Turn crank handle several turns until pump primes and begins pumping.  
If pump won't prime:
  - A. Try turning handle more quickly to induce priming and/or
  - B. Remove spout and manually prime pump with a few ounces of the liquid by pouring into pump outlet. Replace spout and try cranking again.
3. DO NOT force crank handle if it ever becomes difficult to move. see Maintenance and Troubleshooting Sections.

## G. MAINTENANCE

Flushing the pump after use (with a suitable solvent for the chemical being pumped) may be necessary. Any liquids that may evaporate to a residue, dry, thicken, or harden may interfere with internal components and prevent proper operation. If necessary, consult chemical manufacturer for this information.

## H. TROUBLESHOOTING

\*Pump will not prime –

1. Perform procedure in Section F2 above.
2. Ensure threaded connections are airtight.
3. Ensure suction tube is below liquid level.
4. Ensure liquid in barrel is not too viscous.
5. Check for clogged inlet strainer.
6. Check for damaged/worn parts and seals.  
Consider rebuild kit. (See Section I)

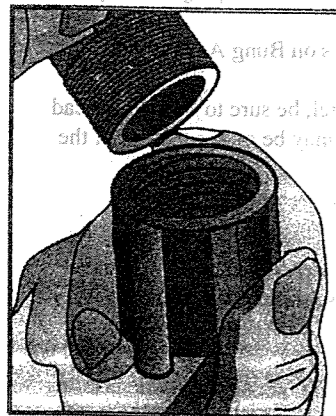
\*Handle does not turn easily –

1. Check for hardened or gummy residue inside by removing flange cover on the same side of the pump as the shaft and crank arm. Clean if necessary.
2. Check for worn or damaged internal parts.  
Consider rebuild kit (See Section I).
3. Check for swelling of vanes or rotor due to chemical permeation. Replace parts. Consider flushing after each use in the future if using the same liquid.

## I. SPARE PARTS

Spare parts are available as well as a standard rebuild kit which includes 2 flange seals, shaft seal, spring, spring shaft, 2 vanes and complete set of nuts/bolts/washers. Contact your dealer.

## J. ASSEMBLY DIAGRAMS

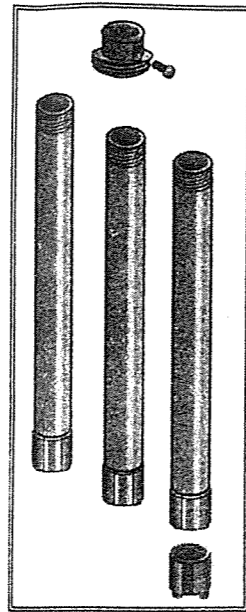


### 1. Suction Tube and Strainer Assembly

Thread Strainer (Part 19) to one piece of 3-part suction tube

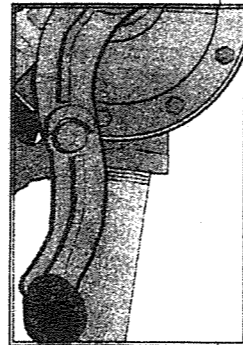


Use teflon tape (provided) on joint threads



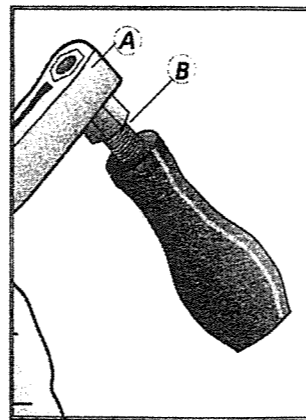
### 2. Suction Tube Sections

Join the three sections of the suction tube (part no.18). Slide the bung adapter (part no.16) over the top section of the suction tube, threads down. Screw the suction tube assembly into the bottom of the housing (part no.7). Be sure to use Teflon tape.



Note: All connections must be air tight for proper operation

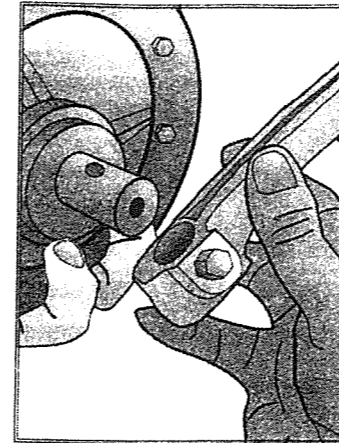
NOTE: Plastic handle should spin freely on threaded metal shaft when properly assembled



### 3. Crank Arm and Handle Assembly

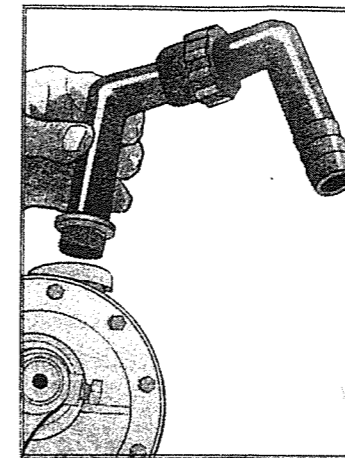
Assemble the handle (part no. 11) as follows:

- a. Remove one metal nut (A) from the threaded shaft of the handle.
- b. Finger-tighten the remaining nut (B) against the plastic handle.
- c. Insert the nut that was removed in step "a" into the crank arm.
- d. thread the metal shaft of the pump handle into the crank arm until the shaft is flush with the back side of nut (A) in the crank arm.
- e. Loosen nut (B) from plastic handle and tighten against the crank arm.



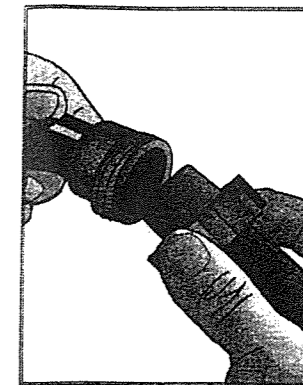
### 4. Pump Handle Assembly

Attach the pump handle to the rotor shaft. Align the set screw with the indentation on rotor shaft and tighten. Make sure that the set screw seats properly in the indentation.



### 6. Spout Attachment

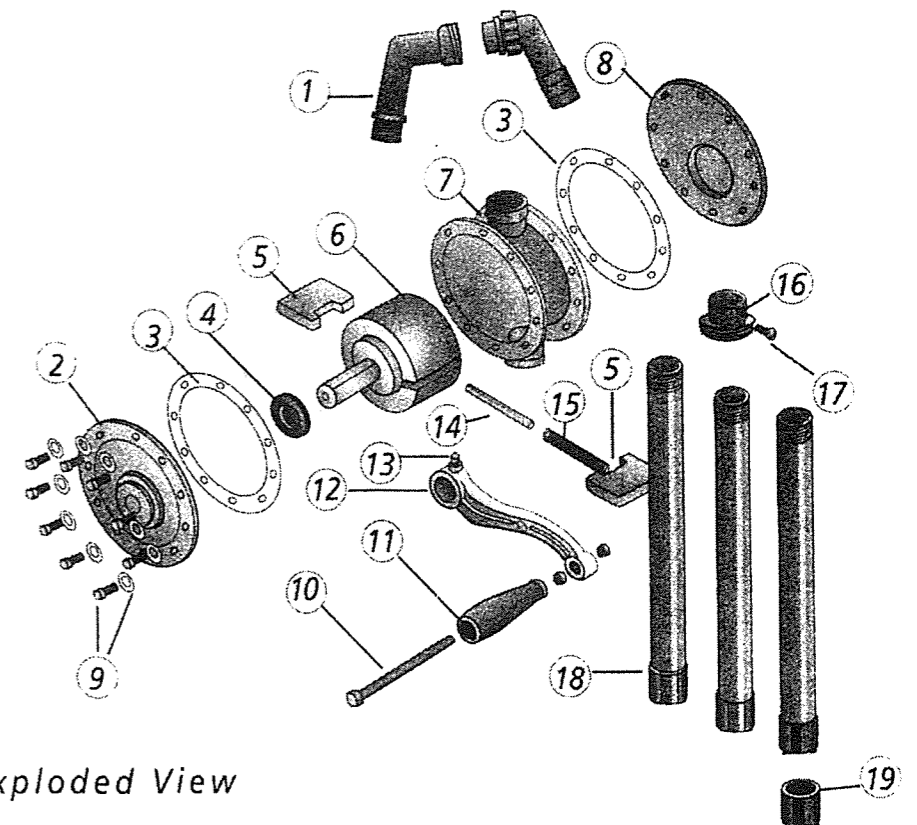
Apply teflon tape to 3/4" male threads on the discharge spout. Screw the discharge spout into pump 3/4" female opening on the pump body. Hand tighten until flange is flush with the pump body.



### 5. Spout Union Assembly

Insert the male end (with union) of discharge spout into threaded female end and tighten union. The spout can be rotated 360 degrees, depending on dispensing need.

1. Discharge Spout (PP)
2. Front Flange (PP)
3. Gasket (2) (PE)
4. Shaft Seal (Teflon)
5. Vane (2) (Teflon)
6. Rotor (PP)
7. Housing (PP)
8. Rear Flange (PP)
9. Nuts, Bolts, Washers (Plated Steel)
10. Handle Shaft (Plated Steel)
11. Handle (PP)
12. Crank Arm (PP)
13. Set Screw (Plated Steel)
14. Spring Shaft (PP)
15. Spring (Hastelloy)
16. Bung Adapter (Polypropylene)
17. Thumbscrew (Plated Steel)
18. Suction Tube (3 pcs.) (PP)
19. Strainer (PP)



Exploded View