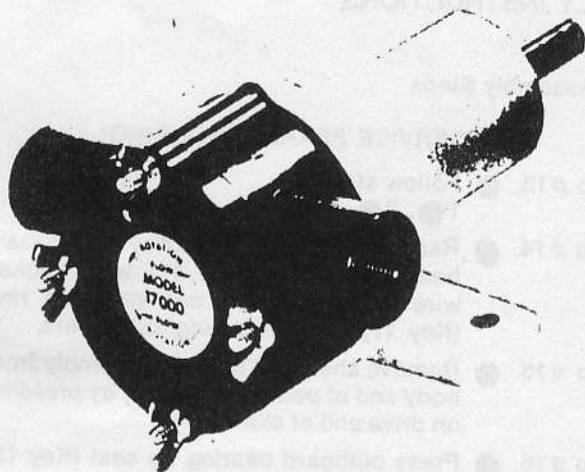


# JABSCO® PUMPS

Self-Priming Pumps

# MODELS: 17000-0001 & 17020-0001

Product Data



MODEL 17000-0001

## DESIGN FEATURES

- Pump Series No. **17000-0001 Pedestal Mounted**  
**17020-0001 Motor Pump Unit**
- Body: **Epoxy Plastic**
- Impeller: **Neoprene, Nitrile or Viton**
- Shaft Seal: **Mechanical**
- Ports: **3/8" Pipe Thread Internal**
- Shaft: **Corrosion Resistant Steel with Epoxy Drive Sleeve where in Contact with Fluid**
- Motor: **115 volt AC, 1/4 H.P., 1725 RPM, 60 cycle, overload protected, capacitor start, totally enclosed. Three-prong grounded plug.**
- 17000-0001 Shipping Weight 3 1/2 lbs.  
17020-0001 Shipping Weight 21 lbs.

MODELS: 17000-0001  
17020-0001

## VARIATIONS AVAILABLE

| Model                    | Variation                         |
|--------------------------|-----------------------------------|
| 17000-0003<br>17020-0003 | With Nitrile Impeller             |
| 17000-0004<br>17020-0004 | Viton Impeller, Seal and "O" Ring |

## APPLICATION & OPERATING INSTRUCTIONS

Designed for: "transfers," "circulation," "spill returns," "filtration" and "filling line" use. Easily handles pure solutions, foaming liquids, emulsions, suspended solids, gels and ferments. Because the plastic pump is resistant to corrosion and metallic contamination it is widely used for pumping photo chemicals, plating compounds, lab solutions, pharmaceuticals, cosmetics, weak acids, alkalies, liquid fertilizers, insecticides, dyes, detergents, waxes and many more. **THERE IS NO PUMP METAL PART IN CONTACT WITH THE FLUID.** See the JABSCO Pump "Chemical Resistance Table" which has been prepared to help you select the most suitable impeller and pump material.

1. **INSTALLATION**—Pump may be mounted in any position. The rotation of the pump shaft determines the location of the pump's intake and discharge ports. Refer to dimensional drawing. Before starting, turn the pump shaft in the direction of the operating rotation.\*
2. **DRIVE**—Belt or direct with flexible coupling for foot mounted unit. Clearance should be left between drive

shaft and pump shaft when installing coupling. Always mount pump and align drive shaft before tightening the coupling set screw. Close coupled for motor pump unit.

3. **SPEEDS**—100 RPM to the maximum shown in the performance table. For longer pump life, operate at lowest possible speeds.\*
4. **SELF-PRIMING**—Primes at low or high speeds. For vertical dry suction lift of 15 feet, a minimum of 1200 RPM is required.\*\* Pump will produce suction lifts up to 22 feet when wetted. **BE SURE SUCTION LINES ARE AIR TIGHT OR PUMP WILL NOT SELF-PRIME.** Suction line should be as short as possible.
5. **RUNNING DRY**—Unit depends on liquid pumped for lubrication. **DO NOT RUN DRY FOR MORE THAN 30 SECONDS.** Lack of liquid will burn the impeller and damage the plastic components.
6. **DISCHARGE LINE** — When transferring liquids further than 25 feet, discharge line size should be increased to 1/2".

(Cont.)

\*Pedestal Mount Pump

\*\*Model 17000-001, 10 feet — Model 17000-0003, 5 feet — Model 17000-0004

# JABSCO PRODUCTS

## OPERATING INSTRUCTIONS (Cont.)

7. **CAUTION** — If corrosive fluids are handled, pump life will be prolonged, if flushed with water after each use or after each work day. Consult JABSCO Chemical Resistance Table. For further information contact factory.

8. **PRESSURES** — For continuous operation, pressure should not exceed 21 psi. ‡

‡Pressure limit for viton impeller — 18 psi.

9. **TEMPERATURES** — Neoprene impellers are suitable for service at 45°-180° F, Nitrile 50°-180° F. Viton® 60°-180° F.

10. **SPARE PARTS** — A spare impeller, "O" ring and seal should be kept on hand to eliminate extensive downtime.

## DISASSEMBLY AND ASSEMBLY INSTRUCTIONS

● Disassembly Steps    □ Assembly Steps

### TO REPLACE IMPELLER:

- Step #1. ● Remove end cover wing nuts, end cover and "O" ring.
- Step #2. ● Remove pump head from bearing housing (Key 15 for 17000 Series) or adaptor (Key 20 for 17020 Series).
- Step #3. ● Grasp the hub of impeller with water pump type pliers with a rotary twist motion, withdraw the impeller from body bore.
- Step #4. □ Install new impeller in lubricated body bore (Key 6) by grasping the hub and with a rotary motion push it into the body bore.
- Step #5. □ Install pump head on the bearing housing (Key 15) or adaptor (Key 20) — locating drive flats in the impeller insert drive.
- Step #6. □ Intall "O" ring in end cover and secure to pump head with bolts, washers and wing nuts.

### TO REPLACE SEAL ASSEMBLY:

- Step #7. ● Follow step 1 ●, 2 ●, and 3 ●.
- Step #8. ● Remove seal seat and grommet from body seal bore (Key 6). Lubricate with water to facilitate seal removal. Insert screwdriver beneath seal seat and pry out of body seal bore.
- Step #9. ● Remove drive sleeve (Key 7) from shaft. Remove seal face and seal spring from drive sleeve.
- Step #10. □ Install seal spring on drive sleeve (Key 7). Lubricate carbon face seal with water and slide on drive sleeve with carbon facing away from spring.
- Step #11. □ Install ceramic seal seat in grommet with grooved face towards grommet. Lubricate outer surface of seal seat assembly with water and push assembly into body seal bore with ceramic seat facing out of bore.
- Step #12. □ Assemble impeller body and end cover as in steps 4 □, 5 □ and 6 □.

### TO SERVICE BEARING HOUSING:

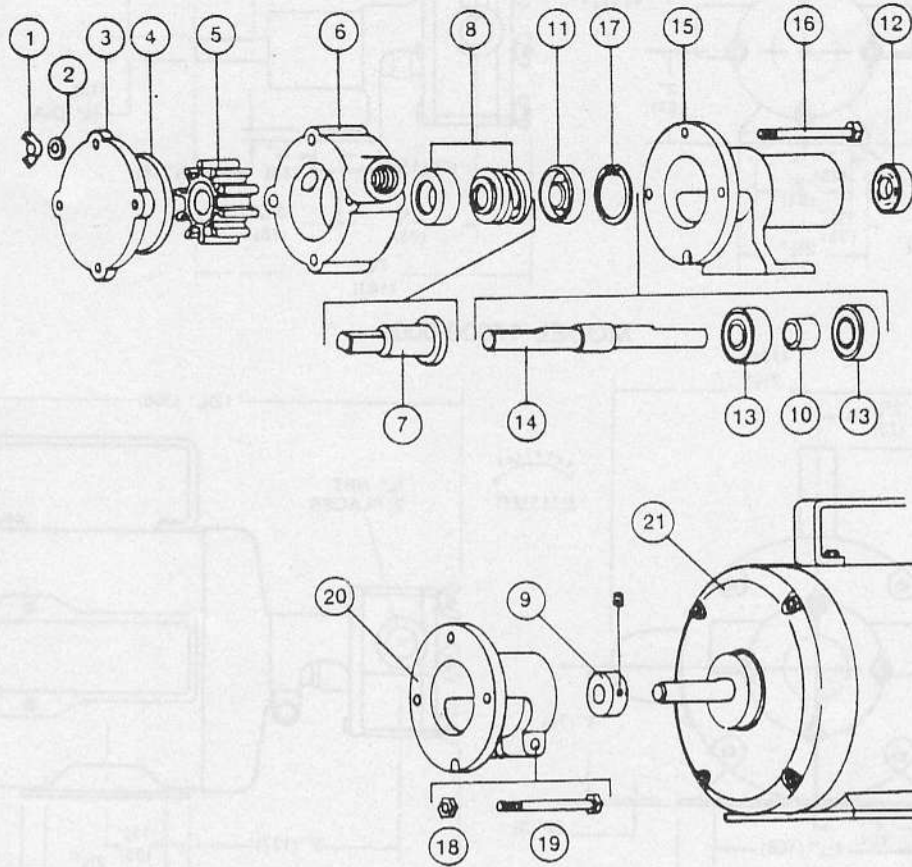
- Step #13. ● Follow steps 1 ●, 2 ●, 3 ●, 8 ● and 9 ●.
- Step #14. ● Remove from pedestal (Key 15) inboard bearing lip seal (Key 11) with hooked wire or screwdriver, and retaining ring (Key 17) using retaining ring pliers.
- Step #15. ● Remove shaft and bearing assembly from body end of pedestal (Key 15) by pressing on drive end of shaft.
- Step #16. ● Press outboard bearing lip seal (Key 12) out of pedestal (Key 15).
- Step #17. ● Remove bearing (Key 13) and spacer (Key 10) from shaft by supporting inboard bearing and pressing shaft thru bearings. Press on driver end of shaft.
- Step #18. □ To install inboard bearing support inner race of bearing and press shaft driver end first into bearing until it bottoms firmly against shaft shoulder. Slide bearing spacer (Key 10) over shaft against inboard bearing.
- Step #19. □ To install outboard bearing support inner race of bearing and press shaft driver end first into bearing until it bottoms against bearing spacer (Key 10).
- Step #20. □ Push shaft and bearing assembly, driver end first into bearing housing (Key 15) from body end side and secure with retaining ring (Key 17) in housing.
- Step #21. □ Install inboard bearing seal (Key 11) in bearing housing (Key 15) with lip facing impeller bore.
- Step #22. □ Install outboard bearing seal (Key 12) in bearing housing (Key 15) with lip facing driver end of shaft.
- Step #23. □ Follow steps 10 □, 11 □ and 12 □.

### NOTE:

When servicing series 17020, seal collar (Key 9) installed on motor shaft, is to be secured on assembly, with set screw (length from face of register shoulder to nearest face of collar to be 15/32").



EXPLODED VIEW



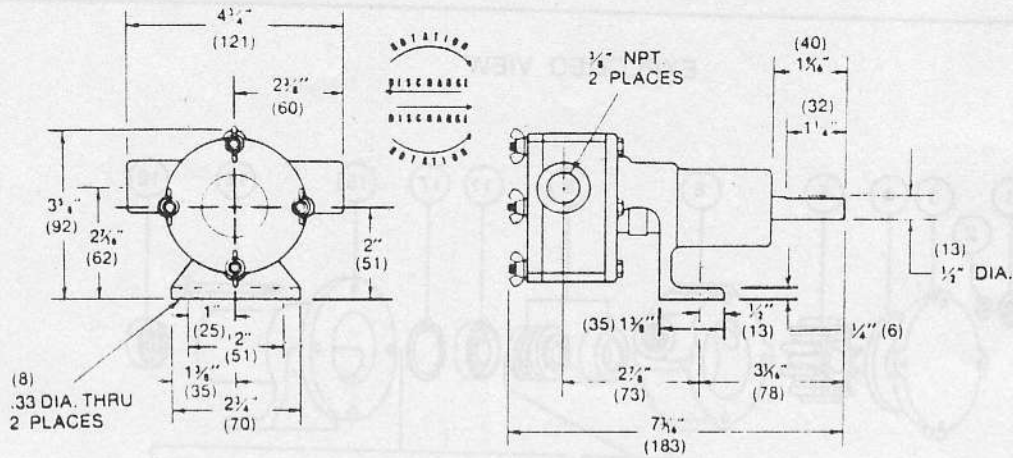
PARTS LIST

| Key | Description  | Qty. Req. | Model 17000-0001 Part Number | Model 17020-0001 Part Number |
|-----|--|-----------|------------------------------|------------------------------|
| 1   | Wing Nut   | 4         | 91107-0010                   | 91107-0010                   |
| 2   | Washer   | 4         | 91602-0120                   | 91602-0120                   |
| 3   | End Cover  | 1         | 17005-0000                   | 17005-0000                   |
| 4   | "O" Ring Neoprene                                      | 1         | 92000-0410                   | 92000-0410                   |
|     | Viton  |           | 92000-0770                   | 92000-0770                   |
| 5   | Impeller Neoprene                                      | 1         | 14874-0001                   | 14874-0001                   |
|     | Nitrile  |           | 14874-0003                   | 14874-0003                   |
|     | Viton  |           | 14874-0004                   | 14874-0004                   |
| 6   | Body   | 1         | 17004-0000                   | 17004-0000                   |
| 7   | Drive Sleeve   | 1         | 17006-0000                   | 17006-0000                   |
| 8*  | Seal Assy. - Buna Grommet, Ceramic Seat & Carbon Face  | 1         | 96080-0280                   | 96080-0280                   |
|     | Seal Assy. - Viton Grommet, Ceramic Seat & Carbon Face |           | 96080-0290                   | 96080-0290                   |
| 9   | Collar   | 1         | —                            | 98022-0700                   |
| 10  | Spacer   | 1         | 14326-0000                   | —                            |
| 11  | Seal, Lip  | 1         | 92700-0980                   | —                            |

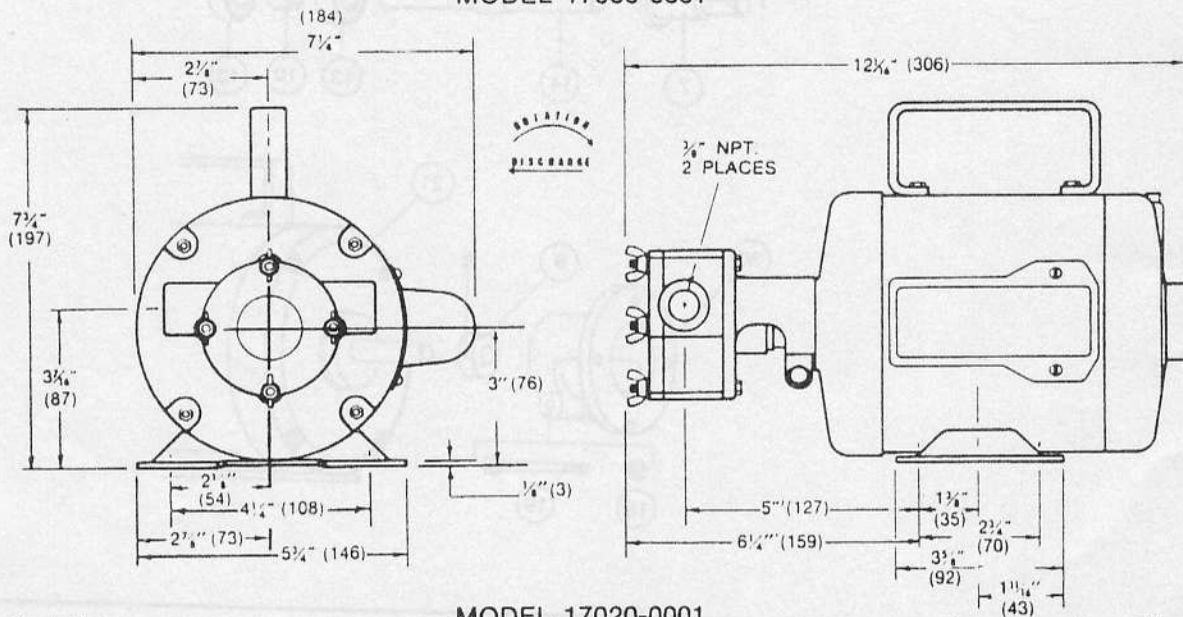
| Key | Description      | Qty. Req. | Model 17000-0001 Part Number | Model 17020-0001 Part Number |
|-----|------------------|-----------|------------------------------|------------------------------|
| 12  | Seal, Lip        | 1         | 92700-0970                   | —                            |
| 13  | Ball Bearing     | 2         | 92600-0470                   | —                            |
| 14  | Shaft            | 1         | 12583-0000                   | —                            |
| 15  | Bearing Housing  | 1         | 17003-0000                   | —                            |
| 16  | Bolt             | 4         | 91094-0210                   | 91094-0210                   |
| 17  | Retaining Ring   | 1         | 91701-1370                   | —                            |
| 18  | Hex Nut          | 1         | —                            | 91085-0050                   |
| 19  | Bolt             | 1         | —                            | 91094-0040                   |
| 20  | Adaptor          | 1         | —                            | 17024-0000                   |
| 21  | Motor            | 1         | —                            | 93004-0480                   |
|     | Pump Head Only   |           |                              | 17028-0001                   |
|     | Model 17020-0001 |           |                              |                              |

\*SEAL ASSEMBLIES AVAILABLE AS OPTIONAL PARTS  
 17221-0040 Seal Assy. - Viton Grommet, Carpenter 20 Seat, and Carbon Face  
 17221-0050 Seal Assy. - Buna Grommet, Carpenter 20 Seat, and Carbon Face  
 17241-0000 Seal Seat - Carpenter 20 Stainless Steel

## DIMENSIONAL DRAWINGS



MODEL 17000-0001



MODEL 17020-0001

(Millimeter Equivalents)

Overall Dimensions of Motor may vary.

## HEAD CAPACITY TABLE

| TOTAL HEAD |                     |      |        | SPEED 500 RPM |                   |     | 1160 RPM |                   |     | 1750 RPM |                   |     |
|------------|---------------------|------|--------|---------------|-------------------|-----|----------|-------------------|-----|----------|-------------------|-----|
| PSI        | Kgs/Cm <sup>2</sup> | Feet | Meters | GPM           | Liters per Minute | H/P | GPM      | Liters per Minute | H/P | GPM      | Liters per Minute | H/P |
| 4.3        | .3                  | 10   | 3      | 1.4           | 5.3               | 1/6 | 3.6      | 13.6              | 1/6 | 5.5      | 20.8              | 1/4 |
| 8.7        | .6                  | 20   | 6.1    | 1.2           | 4.5               | 1/6 | 3.4      | 12.9              | 1/6 | 5.3      | 20.1              | 1/4 |
| 13.0       | .9                  | 30   | 9.1    | 1.0           | 3.8               | 1/6 | 3.2      | 12.1              | 1/6 | 5.0      | 18.9              | 1/4 |
| 17.3       | 1.2                 | 40   | 12.1   | .7            | 2.6               | 1/6 | 2.9      | 11.0              | 1/6 | 4.7      | 17.8              | 1/4 |
| 21.6       | 1.5                 | 50   | 15.2   |               |                   |     | 2.4      | 9.1               | 1/4 | 4.2      | 15.9              | 1/4 |

NOTE: Table shows approximate head flow for new pumps in U. S. Gallons per minute, and liters per minute, with Neoprene impeller. Flow will be reduced approximately 10% with use of nitrile or viton impellers.

# JABSCO PRODUCTS

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