



## SELF-PRIMING PUMPS

### FEATURES

|                    |  |
|--------------------|--|
| <b>Pump Type:</b>  | Pedestal Pump  |
| <b>Body:</b>       | 316 Stainless Steel.   |
| <b>Impeller:</b>   | Neoprene, Nitrile or Viton*.   |
| <b>Shaft Seal:</b> | Mechanical, Carbon-on-Ceramic, Nitrile; or<br>Mechanical, Tungsten Carbide, Viton. |
| <b>Ports:</b>      | 1 1/2" NPT Internal  |
| <b>Shaft:</b>      | 316 Stainless Steel.   |
| <b>Weight:</b>     | 21.0 lb (9,5kg) Approx.  |

Models 30530-0XXX

### APPLICATIONS

**INDUSTRIAL:** Circulating and transferring, velocity-mixing, pumping machine tool coolants, return spill, sump drainage, chemicals, pharmaceuticals, soap, liquors, ink, dyes, alcohol, dilute acids, tanning liquors, glycerine, brine, etc.

**PHARMACEUTICAL:** Processing medicines, lotions and preparations. Filtering pharmaceutical solutions.

**PAPER PROCESSING:** Transferring and applying starches, sizes, etc. Circulating and processing wood pulp slurries.

**FOOD, BEVERAGE & DAIRY:** Transfer brines, vinegar, syrups during processing, liquids containing solids in suspension such as chopped tomatoes, nuts, etc. Removal of distillery wort and brewery slop. Processing viscous materials such as peanut butter, mayonnaise, ketchup, honey, etc. (low speed). Pumping whiskey, wine and rums.

**AGRICULTURAL:** Transferring liquid fertilizers and components.

**WARNING:** Do not pump solvents, thinners, or gasoline as explosion may result causing property damage, severe personal injury or death.

### VARIATIONS AVAILABLE

| MODEL      | DESCRIPTION   |
|------------|---|
| 30530-0001 | Standard Pressure, Neoprene Impeller, Carbon Seal           |
| 30530-0011 | High Pressure, Neoprene Impeller, Carbon Seal               |
| 30530-0101 | Standard Pressure, Neoprene Impeller, Tungsten Carbide Seal |
| 30530-0111 | High Pressure, Neoprene Impeller, Tungsten Carbide Seal     |

### OPERATING INSTRUCTIONS

- 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.) Pump is normally assembled at factory for clockwise rotation (looking at end cover). If counter clockwise rotation is desired, follow steps 1 and 2 of disassembly and step 9 of assembly instructions to change direction of impeller blade deflection under cam.
- 2. DRIVE** – Belt or direct with flexible coupling.  
Belt Drive: Overtight belt load will reduce pump bearing life.  
Direct Drive: Clearance should be left between drive shaft and pump shaft when installing coupling set screw.  
If pulley or coupling must be pressed on shaft, remove end cover and impeller to support shaft from impeller end during press operation. Do not hammer pulley or coupling on shaft; this may damage bearing or seal.

**WARNING:** Exposed pulley and belts can cause injury, install shield around pulleys and belts.

3. SPEEDS - 100 RPM to the maximum shown in the performance table. Consult the factory for operation at speeds above those shown. For longer pump life, operate at lowest possible speeds. Lower speeds are required for viscous liquids, consult the factory for proper speeds and H.P. requirements.

4. SELF-PRIMING - Primes at low or high speeds. For vertical dry suction lift of 10 feet, a minimum of 800 RPM is required. Pump will produce suction lift up to 22 feet when wetted. BE SURE SUCTION LINES ARE AIRTIGHT OR PUMP WILL NOT SELF-PRIME.

5. RUNNING DRY - Unit depends on liquid pumped for lubrication. DO NOT RUN DRY for more than 30 seconds. Lack of liquid will damage the impeller.

6. DISCHARGE LINE - When transferring liquids further than 25 feet, use one size larger discharge line than discharge port size.

7. NOTICE - Do not pump light fraction petroleum derivatives, solvents, thinners, highly concentrated or organic acids.

Damage to pump may result. Consult the Chemical Resistance Guide in the JABSCO Industrial Pump Catalog (available upon request from Jabco) or factory for proper body materials and impeller compounds. If corrosive fluids are handled, pump life will be prolonged if pump is flushed with a neutralizing solution after each use or after each work day. A Tungsten Carbide Seal variation is available for pumping liquids that contain abrasives or are highly corrosive.

8. PRESSURES - Consult Performance Curves for maximum recommended pressures for pumps in continuous operation. If pressures exceed those shown, consult the factory.

9. TEMPERATURES - The operating temperature limits of the pump depends on the impeller compound. The following ranges apply: Neoprene - 45° to 180°F (7° to 82°C), Nitrile - 50° to 180°F (10° to 82°C), Viton - 60° to 180°F (15° to 82°C).

10. SPARE PARTS - To avoid costly shut downs, keep a spare impeller, seal and O-ring set on hand.

## SERVICE INSTRUCTIONS

### DISASSEMBLY

1. Remove the four end cover screws. Remove end cover and O-ring.
2. Remove the four screws holding the body to bearing housing flange. Slide body, complete with impeller and wearplate, from pedestal and shaft assembly.
3. Remove mechanical seal by inserting two screwdrivers behind seal collar, and gently lever collar and seal assembly forward on shaft. Use extreme care not to mar shaft surface. Remove seal seat and rubber cup from recess in wearplate.
4. From the drive end of the bearing housing, pry out bearing seal by inserting a screwdriver blade between OD of the seal and housing. Remove retaining ring. Very carefully withdraw shaft and bearing assembly.
5. Remove inner bearing seal and retaining ring.
6. To remove bearings from shaft an arbor press is required. If an arbor press is not available then a bearing extractor may be used. Supporting inner race of bearing, apply a steady pressure on shaft until bearing slide free. Repeat this procedure to remove second bearing.

### ASSEMBLY

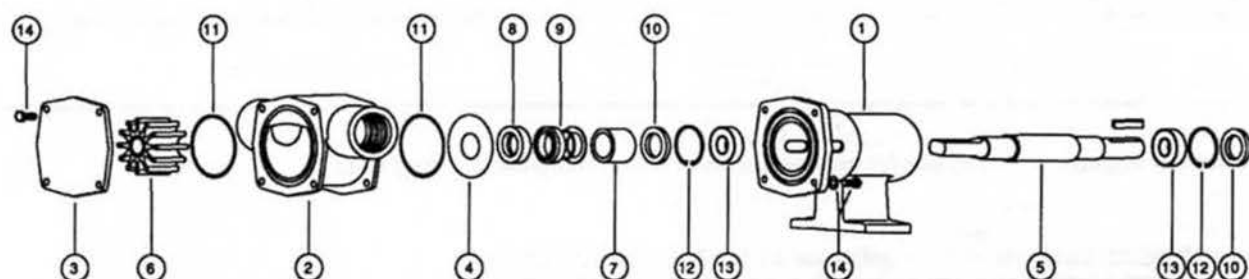
1. To replace bearing on shaft. Support ball bearing on its inner race and locate shaft onto bearing. Apply a steady pressure to shaft until bearing locates against shoulder on shaft. Repeat for second bearing.
2. Fit retaining ring and bearing seal into impeller end of bearing housing. Spring on bearing seal to face outwards.
3. Apply bearing grease around and between bearings, filling cavity between bearings two thirds full. Smear grease on shaft where bearing seal locates. Push shaft and bearing assembly into bearing housing.
4. Replace retaining ring and outer bearing seal with spring facing outwards.
5. Replace mechanical seal by sliding spacer onto shaft up to locating shoulder, then smear shaft with light lubricating oil. Push on seal gently until it engages with spacer. Fit rubber cup and seal seat into wearplate.
6. Insert impeller in pump body, fit O-ring in each end of the pump body. Fit wearplate to body.
7. Slide wearplate and body assembly over shaft, position wearplate in housing. Fit body to pedestal screws.
8. Fit end cover and end cover screws.
9. Changing Pump Rotation:  
Clockwise Rotation: Insert impeller into pump body with blades bending counterclockwise.  
Counterclockwise Rotation: Insert impeller into pump body with blades bending clockwise.

Note: A gap should be maintained between bearing housing and body.  
DO NOT overtighten screws (see parts list).

# PARTS LIST

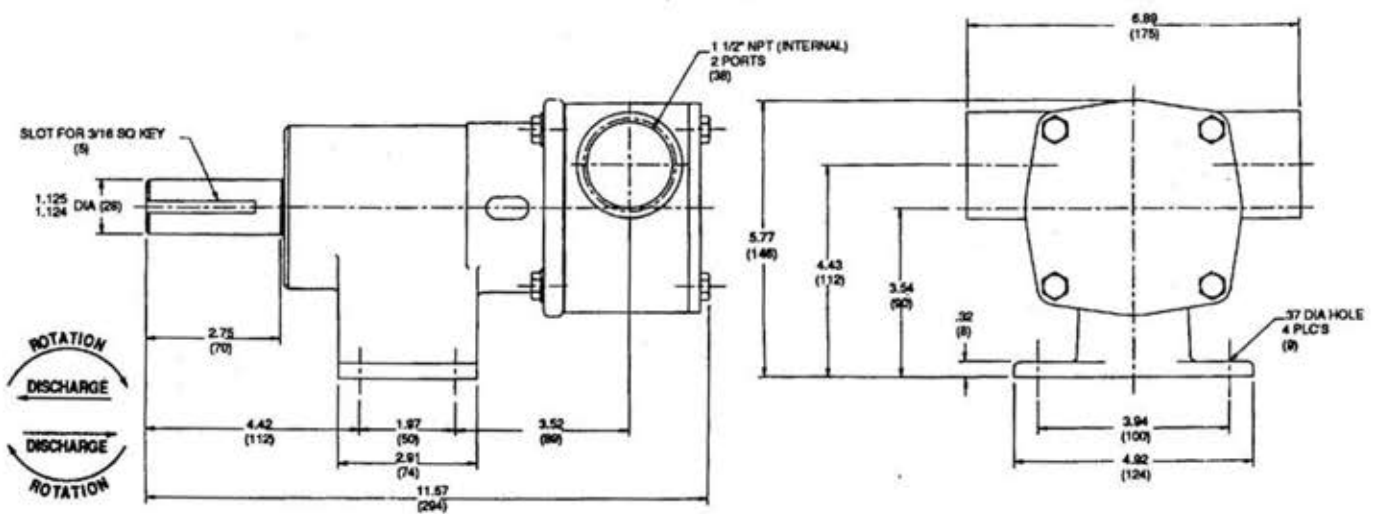
| KEY | DESCRIPTION   | QTY. REQ. | MODEL PART NO.                                       |
|-----|---|-----------|--|
| 1   | Bearing Housing   | 1         | 18753-0185   |
| 2   | Body  | 1         | 18753-0191   |
| 3   | End Cover   | 1         | 18753-0197   |
| 4   | Wearplate   | 1         | 18753-0201   |
| 5   | Shaft   | 1         | 18753-0207   |
| 6   | Impeller:<br>Standard Pressure – Neoprene<br>High Pressure – Neoprene   | 1         | 14346-0005<br>8983-0005                              |
| 7   | Spacer: Carbon<br>Tungsten Carbide  | 1         | 18753-0228<br>18753-0229                             |
| 8   | Seal Seat: Carbon – Nitrile<br>Carbon – Viton<br>Tungsten Carbide – Nitrile<br>Tungsten Carbide – Vton          | 1         | 18753-0237<br>18753-0238<br>18753-0239<br>18753-0240 |
| 9   | Seal Mech.: Carbon – Nitrile<br>Carbon – Viton<br>Tungsten Carbide – Nitrile<br>Tungsten Carbide – Vton         | 1         | 18753-0249<br>18753-0250<br>18753-0251<br>18753-0252 |
| 10  | Bearing Seal  | 2         | 18753-0259   |
| 11  | O-Ring: Nitrile<br>Viton  | 2         | 18753-0265<br>18753-0266                             |
| 12  | Retaining Ring  | 2         | 18753-0271   |
| 13  | Bearing   | 2         | 18753-0275   |
| 14  | Screw Kit: (consists of)<br>Screw, Hex Hd. M8 x 20mm (4)<br>Screw, Hex Hd. M8 x 14mm (4)<br>Washer, Flat M8 (4) | 1         | 18753-0285   |

## EXPLODED VIEW

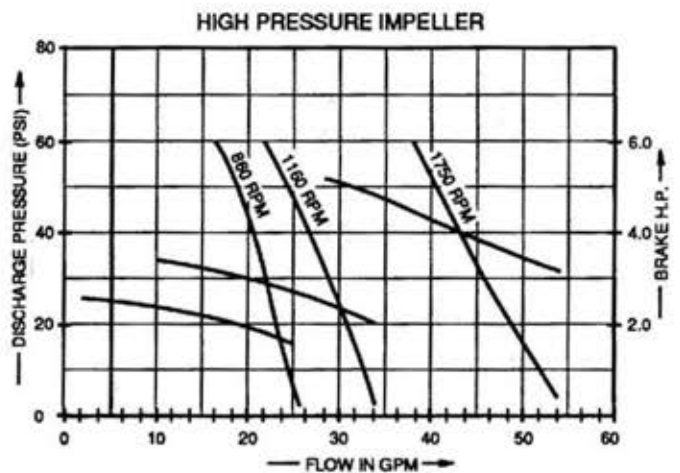
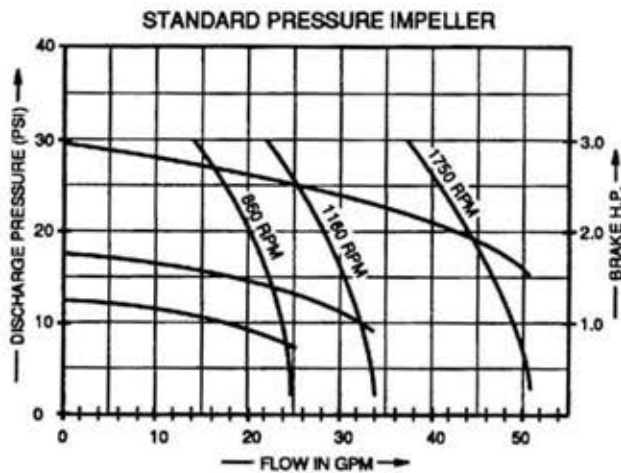


# **DIMENSIONAL DRAWINGS**

INCHES (Millimetres)



## **PERFORMANCE CURVES**



NOTE: Curves show approximate head flow for new pumps with neoprene impeller pumping water.

THE PRODUCTS DESCRIBED HEREIN ARE SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.