


## DESCRIPTION

The Jabsco bronze centrifugal pumps are designed for continuous duty service. The close coupled, compact motor pump units are equipped with ball bearing motors and stainless steel shafts and have service factors of 1.5 or greater.

The pedestal mounted pumps are equipped with two single row ball bearings lubricated for long heavy duty service.

Mechanical rotary seals have carbon/ceramic seal faces with the choice of Buna N or Viton seal parts for application versatility. Unlike the usual Jabsco pump, the Jabsco centrifugal pumps are not self priming. Normal installation is flooded suction, that is, with the pump below the source liquid level so that liquid flows by gravity to the pump. The pump may be located above the liquid source, if a check valve or foot valve is installed at the beginning of the suction line; and, the pump and entire suction line is filled with liquid; and, all air is bled from the suction system. The pump will lift water approximately 15 feet on the suction side when primed and will maintain its prime, as long as the foot or check valve functions as it should, without leaking. If the check valve leaks, the pump will not reprime, and must be manually primed in order to resume operation.

## BRONZE CENTRIFUGAL

## FEATURES

Volute Body:

## Ports:

Impeller:
Pedestal:
Shaft:

Seal:

Motor:

Weight:
18520 -Series $-6-1 / 4 \mathrm{lb}(2,8 \mathrm{~kg})$ $18550-$ Series $-20-5 / 8 \mathrm{lb}(9,4 \mathrm{~kg})$

VARIATIONS AVAILABLE<br>MODEL DESCRIPTION<br>18520-0000 Pedestal Mount<br>with Buna-N Seal<br>18550-0000 Motor Pump Unit with Buna-N Seal

Published performance curves are based on pumping water, at $68^{\circ} \mathrm{F}$. Referring to the performance curves for the pedestal mount pump, the maximum horsepower at a given speed is required at open discharge. As the head (pressure) against which the pump operates increases, the horsepower decreases.
Liquids of higher specific gravity (weight) than water require more power to generate the same performance available with water. The horsepower requirement increases directly as the increase in specific gravity. Thus, for a pedestal mount pump we would multiply the horsepower shown for water by the specific gravity of the liquid to be pumped, to determine the horsepower required to do the job.
It is not possible to increase the horsepower of a close coupled motor pump unit, therefore, to pump a liquid of higher specific gravity with the centrifugal motor pumps, the capacity must be limited by restricting the discharge to stay within the horsepower available. In other words, the discharge must be throttled to the extent that the motor full load amperage rating, found on the motor label, is not exceeded.
In all installations, make sure the suction is not restricted. Do not use an elbow fitting in the pump intake port. Starved suction can result in cavitation which will damage the pump and cause performance deterioration.
Viscous or thick liquids are difficult to pump with a small centrifugal pump. Do not attempt to pump liquids with a viscosity exceeding 1500 SSU (SAE 30 WT OIL at $75^{\circ} \mathrm{F}$ ) with a cengrifugal pump. Consider, instead, the Jabsco flexible impeller pump or gear pump.

EXPLODED VIEW


| PARTS LIST |  |  |  |
| :---: | :--- | :---: | :---: |
|  | KEY | DESCRIPTION | PART NUMBER |
| 1 | Screw | COMMON PARTS | QTY. |
| 2 | Plug | $91094-0251$ |  |
| 3 | Volute Body | $92650-0040$ | 6 |
| 4 | Impeller | $18554-0000$ | 1 |
| 5 | Seal Assembly - BUNA | $18556-0000$ | 1 |
|  |  | $96080-0375$ | 1 |
| 6 | Slinger | $96080-0378$ | 1 |
| 7 | Gasket | $3286-0000$ | 1 |
|  |  | $18557-0000$ | 1 |
| 8 | Bolt | $91094-0070$ | 4 |
| 9 | Seal Housing | $18555-0000$ | 1 |
| 10 | Shim | $18578-0000$ | 1 |
| 11 | Motor 1/3 HP 115/1/60 | $93004-2608$ | 1 |
|  |  | MOTOR PUMP UNIT |  |
| 12 | Pedestal | $18525-0000$ | 1 |
| 13 | Bearing | $92600-0460$ | $1859-0000$ |
| 14 | Shaft | $18719-0000$ | 1 |
| 15 | Retaining Ring |  | 1 |

*Viton is a trademark of E. I. Du Pont de Nemours and Company.


## ASSEMBLY INSTRUCTIONS

Ped
MPU 5. Install ceramic seat into seat cup with polished surface outwards. Lubricate seat cup with water and press into impeller bore with polished ceramic surface facing out. Do not scratch or mar seat surface.
MPU

MPU
Ped threaded end of shaft/bearing assembly into pedestal. Seat inner bearing firmly against inner bearing shoulder. Install retaining ring into groove in pedestal against outer bearing.
Ped
3. Install slinger on shaft within $1 / 4$ inch of bearing or motor.
Ped
MPU
4. Apply light coat of Permatex* or equivalent sealant on O D of seal. With large flange face of pedestal and multi-hole flange of seal housing up, install seal, carbon face outwards, using 1-5/8 inch OD $\times 1-3 / 8$ inch I $D$ tubing 1 inch long to press against flange of seal. Seat firmly into seal bore.

Ped
MPU

Ped
MPU
Ped
MPU
6. Attach seal housing to motor with 4 bolts and washers.
7. Apply Loctite* to shaft threads and install impeller into shaft until it bottoms firmly against shaft shoulder. Motor pump unit normally requires one shim between impeller and shaft shoulder. with light film of oil, press drive end of shaft thru bearing firmly against shoulder. (Care should be taken not to damage threads on shaft when pressing on threaded end.)
Support inner race of second ball bearing and press threaded end of shaft thru bearing firmly against shoulder.
Ped
2. Support flange side of bearing pedestal, insert
8. Install gasket against mounting flange and secure volute body to flange face with 6 screws.
9. Make sure priming plug is secure and sealed in volute body.
0. Rotate shaft to make sure there is no metal contact between body and impeller.

## DISASSEMBLY

## MPU

Ped

1. Remove 8 body screws and body.

MPU
Ped
2. Remove body gasket.

MPU
3. Prevent shaft from turning. Pedestal Pump - Grasp shaft with vice grip pliers. MPU - Insert screwdriver in slot in end of motor shaft after removing end cap. Grasp nose of impeller with vice-grip pliers and rotate impeller counterclockwise to unthread from shaft.
4. Use a pointed tool to remove seal seat from rear of impeller.

Ped
Ped
5. Remove retaining ring from bearing housing.
6. Place block of wood on shaft threaded end to protect threads, support pedestal and press shaft and bearing assembly out of pedestal.
Ped
7. Support flange face of pedestal and using a $1-3 / 8$ inch dia. dowel or plastic pipe, press seal from pedestal.
Ped 8. Place two metal bars between bearings to support bearing while pressing shaft out of bearing. Use a wooden block to protect threads when removing shaft from inner bearing.
MPU 9. Remove seal housing from motor. Use a $1-3 / 8$ inch dia. dowel or plastic pipe to press seal from pedestal.
*Locktite PST is a trademark of Locktite Corporation.
*Permatex is a trademark of Permatex Company.



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

