



**Inlet 3/8" NPT,  
Outlet 3/8" NPT**



**Model 50P-35**

### FEATURES:

- All Bronze Construction
- Heavy Duty Ball Bearings
- Designed for Pulley Drive
- Mechanical Seal
- Quiet Operation
- Handles Contaminated Liquids
- No Lubrication Required

### LIQUIDS AND TEMPERATURES:

Bronze pumps are suitable for most common liquids in the PH-range from 4 to 11.

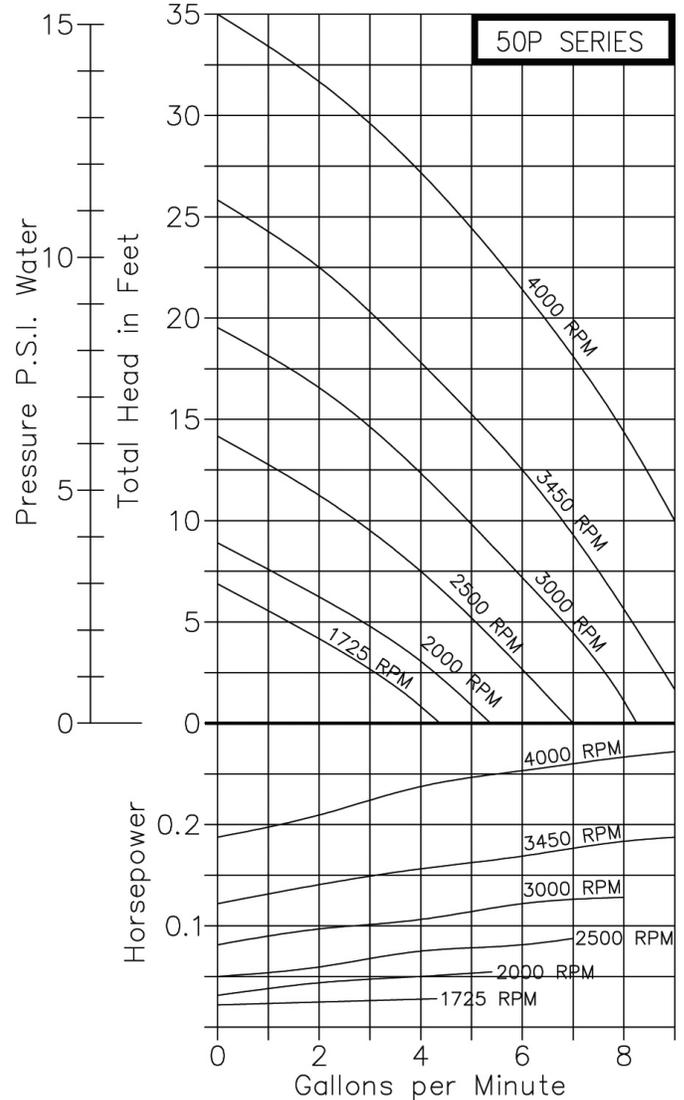
The temperature limit for bronze pumps is 212° F, higher temperatures are possible with FKM seals.

### CHARACTERISTICS:

Oberdorfer centrifugal pumps have a single rotating metal impeller. Liquid enters at the center and is thrown outward radially by centrifugal force. The impeller is not in contact with other pump parts resulting in quiet, efficient, pumping action. The flow produced is not positive which permits the discharge line to be shut off completely without danger of overloading motors or bursting lines. Consequently a relief valve is not required.

### PERFORMANCE:

Capacity - Water 70° F



The liquid flow is proportional to the pump speed--the higher the speed the greater the flow. Horsepower required varies directly as flow and pressure. Maximum horsepower is required with a wide open discharge line. This is the point of maximum flow. With a throttled discharge, the flow decreases at a greater rate than the pressure increases thereby requiring less horsepower at the higher pressures. This is known as an "unloading" feature of the pump.

This centrifugal pump is not self priming. Normally these pumps must be installed below the

# Bronze Centrifugal Pump

## 50P Series

liquid level so that the liquid flows to the pump by gravity. However, if a foot valve is used at the beginning of the suction line and all air is bled from the suction line and pump by careful manual priming, these pumps will lift liquid on the suction side up to 15 ft. Such a system is only as positive as the ability of the foot valve to seal and keep the suction line and pump full of liquid. If the foot valve should leak, the pump will not prime.

The pedestal centrifugal pumps can be direct driven by electric motors at either 3450 RPM or 1725 RPM. Performance for both speeds are shown in the curves above. The 50P pedestal centrifugal pumps can be pulley driven at any desired intermediate speed.

Because centrifugal pumps are more efficient at higher shaft speeds, pumping of viscous or thick liquids is difficult. It is possible to lose as much as 40% pump performance when attempting to

pump liquids of viscosity equal to S.A.E. 30 oil at room temperature. S.A.E. 30 oil at room temperature has a viscosity of 2000 Saybolt Seconds Universal. More viscous liquids are not recommended for centrifugal pumps.

Heavy liquids can be pumped; however, they demand more horsepower in direct ratio to the weight of water. For example, carbon tetrachloride has a specific gravity of 1.6 which means it is 1.6 times heavier than water and the horsepower required is 1.6 times water horsepower.

### SHAFT SEAL OPTIONS:

Mechanical Shaft Seals have NBR rubber components (212° F max) as standard. For temperatures up to 400° F a FKM seal must be selected by adding code S10 to the pump number.

In most instances, FKM seals are not field interchangeable with the standard NBR seals. Call factory for details.

## Parts List

	1	2	3*	4*	5*	6	7	8
	Screw	Cover	Gasket	Impeller	Seal Assy	Plug	Body	Slinger
Model	Qty. 6	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1
50P-15	5385	6483	6502	6476	32154	6052	6475	N/A
50P-35	5385	6483	6502	6476	32154	6052	6475	7447
50PS-10	5385	6483	6502	6589	32210	5395	6475	N/A

	9	10	11*	12	13	14*	Repair Kit
	Screw	Ret. Ring	Shaft & Bearing	Pedestal	Tag	Shim	
Model	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	
50P-15	5595	5741	5348	6484	7736	602502	10690
50P-35	5595	5741	8114	6484	7736	602502	11369
50PS-10	5595	5741	5348	6484	7736	602502	11587

\* Repair kit contains items 3, 4, 5 11 & 14

Differences between the 50P-15 and 50P-35; slinger between seal and bearing, keyed shaft at drive end, and top horizontal outlet position.

## Exploded View

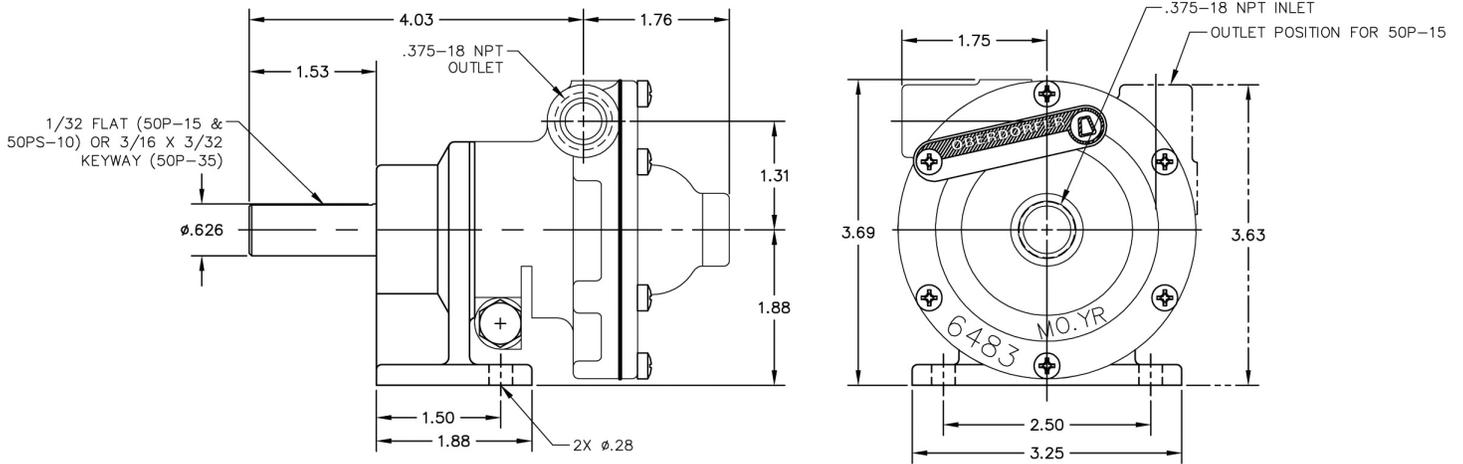


**\*Item 8 is used in 50P-35 pumps only.**

# Bronze Centrifugal Pump

## 50P Series

### Dimensions



NBR = Acrylonitrile-Butadiene PTFE = Polytetrafluorethylene FKM = Fluoroelastomer



**OBARDORFER PUMPS**  
by Gardner Denver

5900 Firestone Drive, Syracuse, NY 13206  
Phone: (800) 448-1668; (315) 437-0361 • Fax: (315) 463-9561

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Due to ongoing product improvements, data shown here is subject to change without notice. Contact Oberdorfer Pumps for latest specifications.