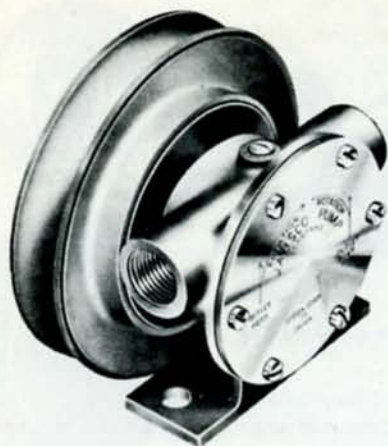


Model 6490 Series

DESIGN FEATURES

Body	Bronze construction
Impeller	Jabsco neoprene compound
Shaft	Stainless steel type EN58J
Bearings	Sealed ball bearing
Shaft Seal	Lip type
Ports	½" BSP Internal
Weight	Approximately 4½lb (2kg)



Variations incorporated from unit described above

Model	
6490-252	Fitted full cam and pulley 10758
6490-253	Fitted full cam and pulley 9487-04
6490-254	Fitted ½ cam for reduced flow and pulley 10758
6490-255	Fitted ½ cam for reduced flow and pulley 9487-04
6490-200	Fitted full cam—for direct drive only

Note: Models are available with Nitrile impellers for a wide range of oils—soluble, lubricating, and machine cutting. Not recommended for Toluene, Petrol, Benzene or other high fraction petroleum products. NB Standard Model 6490-200 is not supplied with pulley.

Typical Applications

Marine

engine cooling, washing down decks and docks

Industrial

circulating and transferring liquids
velocity-mixing
transferring soap, liquors, pastes, glues, glycerine, lotions and brine

Farm

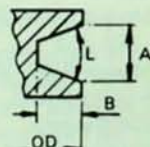
pumping water for stock and poultry houses and booster pumping

Plumbing and home

pumping out flooded basements, cesspools, sumps and many other uses

STANDARD PULLEY GROOVE IS SUITABLE FOR 'A' OR 'B' SECTION PULLEY BELT

NUMBER	ANGLE	A	B	OD	PCD	
10758	38°	0.656"	0.73"	5"	4 ¼" A belt	4 ½" B belt
9487-04	38°	0.656"	0.73"	6.25"	5 ¼" A belt	5 ½" B belt

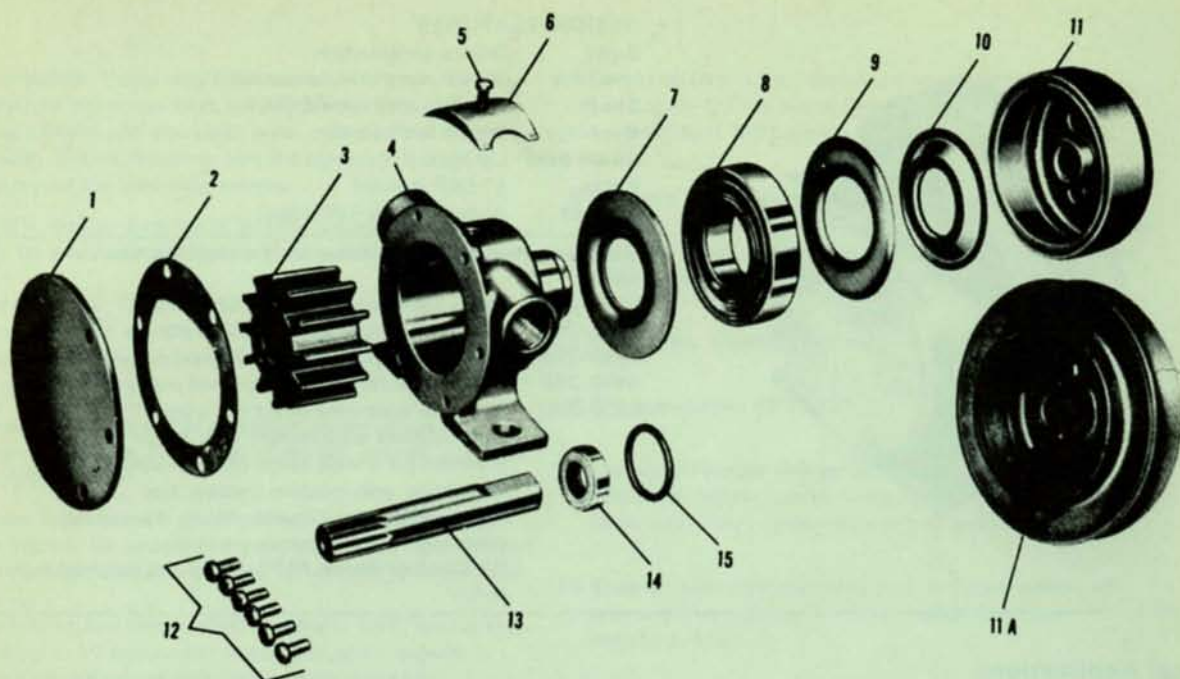


PERFORMANCE CHART

	TOTAL HEAD WATER					500 RPM		750 RPM		1,000 RPM		1,500 RPM				
	Feet of Water	Metres of Water	lb per sq in	kg per cm ²	HP	Imperial Gallons per min	Litres per min	HP	Imperial Gallons per min	Litres per min	HP	Imperial Gallons per min	Litres per min			
Model 6490-200 Standard Full Cam	10	3.05	4.3	0.3	1/6	3.0	13	1/6	4.4	20	1/4	5.7	26	1/3	8.4	38
	20	6.10	8.7	0.6	1/6	2.5	11	1/6	3.8	17	1/4	5.1	23	1/3	7.7	35
	30	9.15	13.0	0.9	1/6	2.0	9	1/6	3.3	15	1/3	4.6	21	1/2	7.1	32
	50	15.25	21.5	1.5							1/3	3.3	15	1/2	5.6	25
Model 6490-205 Half Thickness Cam	10	3.05	4.3	0.3	1/8	1.8	8	1/8	2.6	12	1/4	3.5	16	1/3	5.4	24
	20	6.10	8.7	0.6	1/8	1.2	5	1/8	2.2	10	1/4	3.1	14	1/3	5.0	23
	30	9.15	13.0	0.9							1/4	2.5	11	1/3	4.2	19
	50	15.25	21.5	1.5										1/3	3.5	16

Performance stated is typical for new pump with Standard Impeller pumping water at ambient temperature. Alternative impeller materials can affect performance. Consult factory or distributor for advice.

EXPLODED VIEW



Insist on genuine Jabsco parts, made only by the original and world's leading manufacturer of self-priming flexible neoprene impeller pumps.

PARTS LIST

Key	Description	Qty	Part No.
1	End Cover	1	6495-200, -252, etc.
2	End Cover Gasket Models 6490-200, -252-253 Models 6490-254, 255	1	6496
3	Impeller	1	6496-01
4	Body	1	1210
5	Cam Screw Models 6490-200, -252-253 Models 6490-254, -255	1	6494-200
6	Cam Models 6490-200, -252-253 Models 6490-254, -255	1	SP1003-01
		1	SP1003-09
7	Bearing Shield	1	490
8	Ball Bearing	1	10336
9	Rotating Shield	1	3078
10	Stationary Slinger	1	SP2600-09
11	Bearing Housing Model 6490-200 only	1	1161
11A	Pulley Models 6490-252, -254 Models 6490-253, -255	1	1554
		1	1740
		1	1740
12	End Cover Screws	6	10758
13	Shaft Model 6490-200 Models 6490-252, -253, -254, -255	1	9487-04
		1	1737-24-01
		1	1737-224
14	Shaft Seal	1	SP2700-06
15	O' Ring Seal Spacer (not shown)	1	SP2000-21
		1	3166

SERVICE KIT

Pump model number	Service kit number
6490-200	SK225-01
6490-252	SK225-01
6490-253	SK225-01
6490-254	SK225-21
6490-255	SK225-21

Service kit includes:
 Impeller
 Gasket
 O' Ring
 End Cover Screws

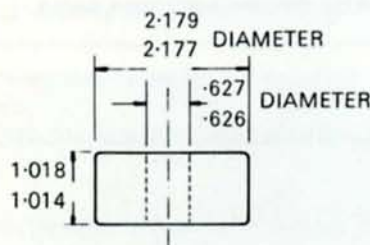
DISASSEMBLY

- 1 Remove end cover, screws, end cover and gasket.
- 2 Remove impeller using water pump pliers
- 3 Remove seal, seal spacer and 'O' ring using two pieces of hooked wire.
- 4 Loosen cam screw about 2 turns and break joint between cam and body by lightly tapping on the cam screwhead.
- 5 To remove bearing and shaft from bearing housing heat OD of bearing housing/pulley uniformly with gas flame.
- 6 Remove stationary slinger and rotating shield.

- 7 Remove bearing. See Figure 3 below. With shaft and bearing housing removed according to service instructions, insert plug as shown. Attach two forks on bearing 180° apart. Tighten extractor screw against plug, extracting bearing. Plug should be solid steel $\frac{3}{8}$ " OD x $\frac{1}{2}$ " long with one end slightly countersunk to match extractor screw.
- 8 Remove bearing shield. Press shaft through and out of bearing housing

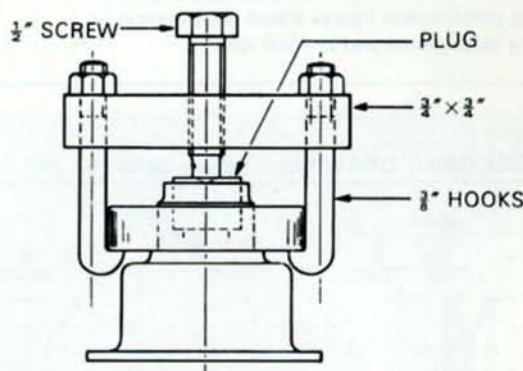
Note: Do not press splined end of shaft through housing. Inspect all parts for wear or damage. Replace as necessary.

Figure 2



Note: For replacement of shaft and bearing it is recommended that the pump is returned to your distributor for servicing.

Figure 3



ASSEMBLY

- 1 Install bearing shield over bearing shoulder with flange facing away from impeller.
- 2 Press bearing on to body until it bottoms.
Note: Press on the inner race of the bearing whilst supporting the pump at the impeller end.
- 3 Install rotating shield with dimple facing away from bearing. Install stationary slinger.
- 4 Press drive end of shaft through bearing housing using tool (see Figure 2 above) fitted into impeller bore to ensure correct alignment and positioning.
Note: For direct drive models, the shaft protrudes $1\frac{1}{8}$ " from end of the housing.
- 5 Heat bearing housing to approximately 275°F in oven and drop over bearing. Housing will immediately shrink upon contact with bearing, therefore, it must be positioned quickly. Take care not to 'cock' the housing. Apply slight pressure to the housing whilst cooling.

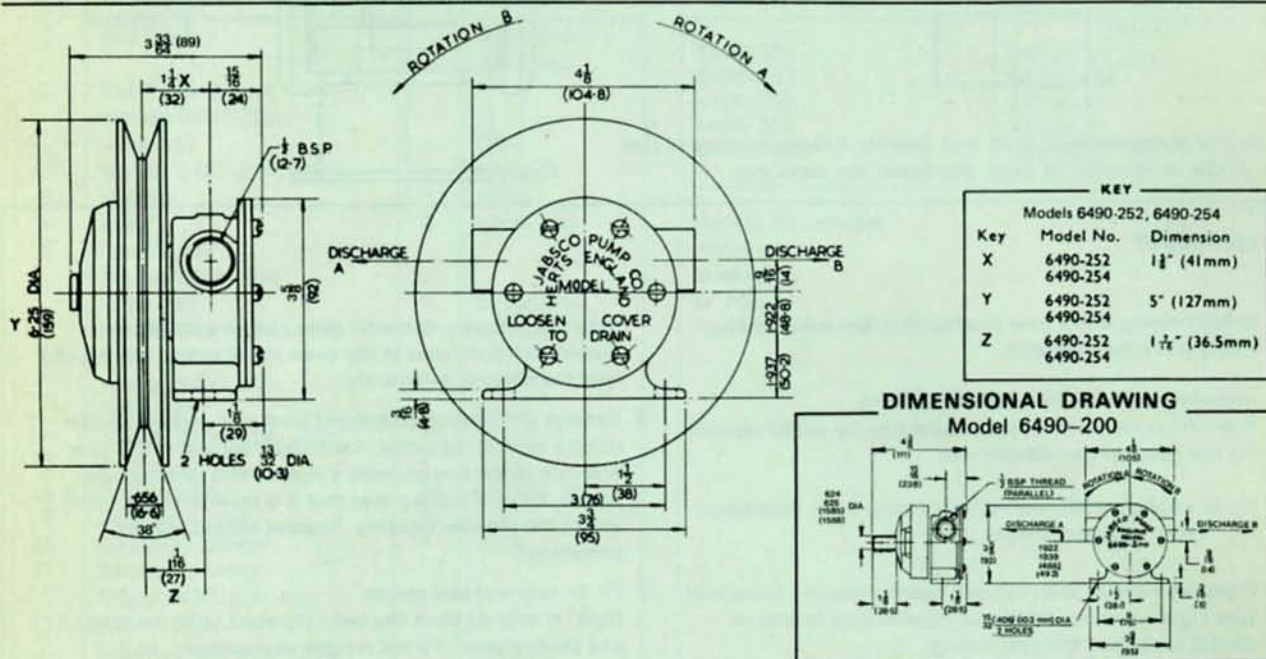
Note: An ordinary domestic oven can be used. Approximately 10–15 minutes in the oven at full power will usually heat the housing sufficiently.

- 6 Remove old jointing compound from cam screw and cam using a solvent, eg petrol. Coat upper surface of the cam and cam screw threads with a non-setting jointing compound. Fit cam making sure that it is level with the front end of the impeller housing. Remove excess jointing compound.
- 7 Fit 'O' ring and seal spacer.
Note: If original shaft has been replaced (after knurling) and shaft is worn, do not replace seal spacer.
- 8 Lightly grease shaft splines, place seal over shaft with spring facing towards impeller. Make sure that the seal is pushed right home.
- 9 Install impeller assembly on shaft with a rotary motion until splines engage then push into bore
- 10 Install gasket, end cover, and secure with end cover screws.

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. Before installing, turn the pump shaft in the direction of the operating rotation.
- 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. Always mount and align pump and drive shaft before tightening the coupling set screw.
- 3 Speeds:** 100 rpm to the maximum shown in the performance table. For longer pump life, operate at lowest possible speeds.
- 4 Model 6490** is a self priming over a wide speed range with suction lift up to 10 feet and suction lift up to 22 feet when primed. Intake lines must be air-tight to ensure self priming.
 - Note:** Pump will prime when impeller is DRY, but suction lift of up to 10 feet is only obtainable when impeller is *greased or lubricated* with liquid being pumped. Priming performance figures stated are for water at ambient temperature and at 1500 rpm.
- 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.
- 6 Caution:** Do not pump petroleum derivatives, solvents, thinners, highly concentrated or organic acids. If corrosive fluids are handled pump life will be prolonged, if flushed with water after each use or after each work day.
- 7 Pressures:** Consult head capacity tables.
- 8 Temperatures:** 45°-180°F.
- 9 Freezing Temperatures:** Most methyl alcohol (methanol) based anti-freezes can be used. *Do not use petroleum based anti-freeze compounds or rust inhibitors.*
- 10 Gasket:** Use standard pump part. A thicker gasket will reduce priming ability. A thinner gasket will cause impeller to bind.
- 11 Spare Parts:** A Jabsco Service Kit should be kept on hand to rebuild all but the most badly worn pumps.

DIMENSIONAL DRAWING - Models 6490-252, 254



Dimensions in inches and millimetres

ITT FLUID HANDLING LIMITED

BELCON INDUSTRIAL ESTATE, BINGLEY ROAD, HODDESDON, HERTS., EN11 0BU

TELEPHONE: HODDESDON 67191 TELEGRAMS: JABSCO, HODDESDON TELEX: 263251

Manufacturers of Jabsco Pumps : Bell & Gossett Compressors and Vacuum Pumps

