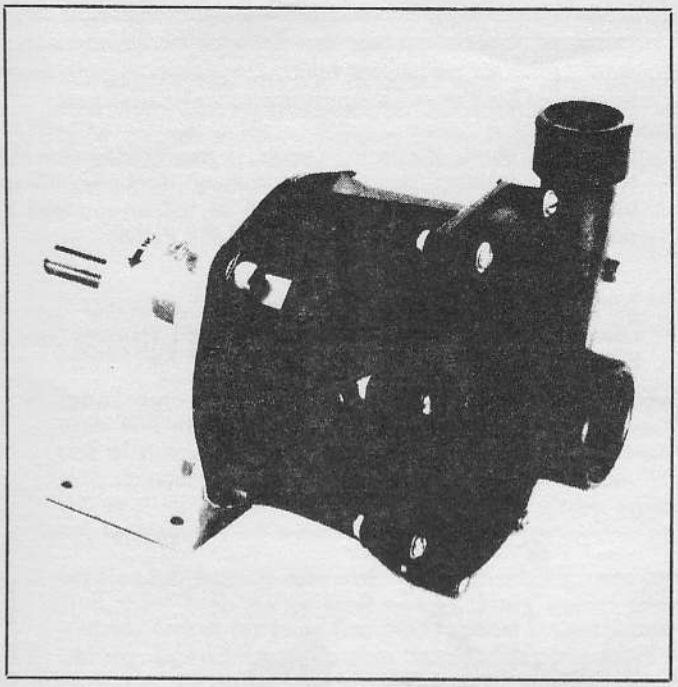
JABSCO®

Model 18640-SERIES



SEAL-LESS MAGNETIC DRIVE CENTRIFUGAL PUMPS

FEATURES

Pump Material:	Glass-filled epoxy plastic suitable for temperatures to 200° F (93°C)
Impeller Design:	Enclosed 4.50" Dia. 4.35" Dia. 4.00" Dia. 3.50" Dia.
Magnetic Drive:	Impeller magnets enclosed in a molded epoxy cup. Minimum decoupling torque is 40 in. - lbs.
Ports:	Suction 1-1/2" NPT Internal Discharge 1" NPT Internal
Bearing Housing:	Cast iron, protective enamel painted
Shaft:	Carbon steel
Bearings:	Ball bearings
Weight:	14-1/2 lbs (6,6 kgs)

STANDARD MODELS

IMPELLER SIZE	MODEL NUMBER
4.50" Dia.	18640-0003
4.35" Dia.	18640-0000
4.00" Dia.	18640-0001
3.50" Dia.	18640-0002

APPLICATIONS

The seal-less magnetic drive pedestal mounted centrifugal pump may be belt driven or direct coupled to an electric motor, air motor, hydraulic or variable speed drives provided by the customer. Thus, a substantial variety of driver characteristics are available to accommodate a wide range of liquids whose specific gravity and viscosity differ from water.

The seal-less magnetic drive centrifugal pumps are designed to handle corrosive liquids without concern for selection of exotic mechanical shaft seal materials or leakage of expensive or dangerous fluids between shaft and housing.

Highly corrosive chemicals or caustic solutions compatible with glass-filled epoxy plastic may be transferred or circulated. All parts in contact with fluid are glass-filled epoxy plastic, Ryton*, ceramic, or graphite filled Teflon*. A Viton* O-ring gasket is also used.

For a comprehensive list of chemicals and their compatibility with epoxy plastic, consult the Jabsco Chemical Resistance Table (which is available upon request from ITT Jabsco) or contact the factory.

Typical applications include transfer, circulation or filtration of photo chemicals, etching solutions, plating baths, laboratory systems, processing transfer and application of agricultural chemicals (not wettable powder solutions), fume scrubbing, circulation and precious metal recovery processes.

INSTALLATION

LOCATION – Pump should be mounted with shaft horizontal. Volute may be removed and rotated to any of eight different port positions to simplify piping. It is prudent, however, to install body and piping to eliminate possibility of air pockets in either the suction or discharge passages.

If the pump is to be mounted above the liquid level, provision must be made to assure that the suction line and pump cavity are flooded before starting the pump. THIS PUMP WILL NOT SELF PRIME!

To prevent cavitation and obtain maximum service life, it is important that suction line is free of restrictions and sharp bends. Factory application engineering assistance is available.

PLUMBING – All piping to the pump must be supported independent of the pump. Keep suction and discharge lines as free of elbows and bends as possible. To assure optimum performance, line to suction port should be the same size as suction port and be straight for a minimum length of 12" without elbows or reducers.

NOTICE: To prevent cracking port, extreme care must be exercised when metal port fittings are used. Plastic port fittings are recommended. Use Teflon tape or Locktite* PST pipe sealant to seal threads. Do not overtighten. Damage to pump may result.

Suction line must be airtight to maintain prime. A flap type foot valve at the suction intake or a check valve in the discharge line may be installed to retain liquid in a system during shutdown. Auxiliary priming and drain lines may be installed by drilling and tapping the surfaces provided on the volute face (see dimensional drawing).

WARNING: EXCESSIVE PRESSURE MAY CAUSE PUMP HOUSING FAILURE. SEVERE PERSONAL INJURY OR DEATH MAY OCCUR. DO NOT ALLOW OUTLET PRESSURES TO EXCEED 40 psi (2,8 kg/cm^2).

MOTOR SELECTION – Refer to performance curves and notes on specific gravity or viscosity to calculate proper horsepower requirement for drive motor. The ball bearing equipped, pedestal mounted magnetic drive centrifugal pump permits direct coupling or belt drive to a motor of your choice, which may be obtained from local source, and mounted on a simple channel base to drive the pump in a manner most suited for your requirements.

INSTALLATION (cont'd)

BELT DRIVE – Proper belt tension will insure optimum pump performance, belt and bearing life. Consult belt manufacturer for proper tensioning and alignment of belts.

DIRECT DRIVE– A flexible coupling is recommended. Be sure there is clearance between the motor shaft and pump shaft when installing coupling. Mount and align pump and motor shaft before tightening coupling set screws.

MAXIMUM OPERATING SPEEDS – Do not operate at speeds above 3800 RPM without consulting factory. Ball bearing life will be reduced if operated at higher speeds. DO NOT OVER PRESSURE PUMP.

HORSEPOWER REQUIRED – Depends on pump speed and specific gravity of fluid. Refer to performance curves and notes on specific gravity and viscosity to calculate proper horsepower requirement for application. Factory application engineering assistance is available.

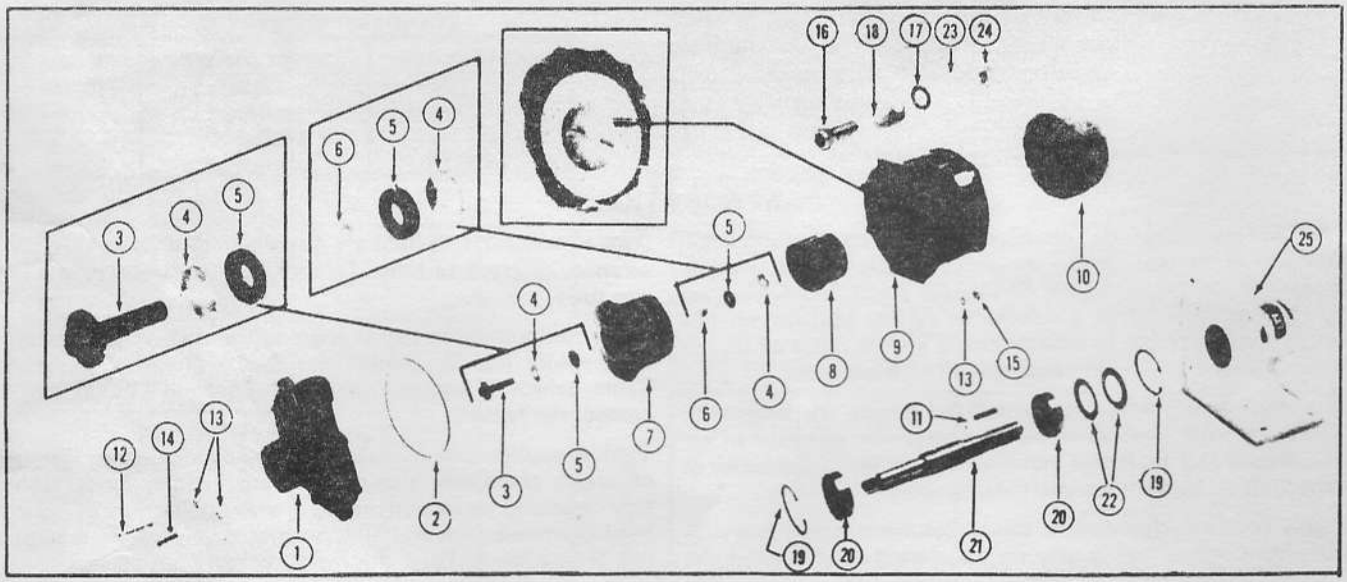
OPERATION – Pump must be primed to begin pumping operation. Do not operate pump dry. Dry running or starved suction will reduce the service life of the pump.

If pumping action ceases during normal operation and the motor continues to run, magnetic drive may have uncoupled. Disconnect power to the motor, let pump motor come to a complete stop, then resume operation. This allows the magnetic drive to recouple.

Recurring uncoupling indicates excessive horsepower requirements or friction contact between internal components. Inspect pump for particulate build up between impeller/magnet assembly I.D., Teflon bearing and magnet housing boss.

Change in liquid viscosity or specific gravity may also affect power requirement. Restrict flow through discharge line until pump operates without uncoupling or motor overload kick out occuring. DO NOT OVER PRESSURE PUMP.

In applications where Ryton is not compatable with the chemicals being pumped, a kit containing a stainless steel cap bolt and two carbon bushings is offered.



PARTS LIST

KEY	PART NO.	DESCRIPTION	QTY.	KEY	PART NO.	DESCRIPTION	QTY.
1	17826-0000	Volute Body	1	14		**Screw (#10-32 x 1-1/4")	7
2		*O-Ring (Viton)	1	15		** Hex Nut (#10-32)	8
3		*Cap Bolt (Ryton)	1	16		**Socket Head Bolt (3/8-16 x 1")	4
4		*Seat (Ceramic)	2	17		** Flat Washer (3/8)	4
5		*Bushing (Ryton)	2	18		** Guard	4
6		*Sleeve (Ceramic)	1	19	18729-0000	Retaining Ring	2
7	18243-0000	Impeller/Magnet Ass'y 4.35" Dia.	1	20	92600-0500	Ball Bearing	2
	18243-0001	Impeller/Magnet Ass'y 4.00" Dia.		21	17666-0002	Shaft	1
	18243-0002	Impeller/Magnet Ass'y 3.50" Dia.		22	98036-0290	Spring Washer Set	1
	18243-0003	Impeller/Magnet Ass'y 4.50" Dia.		23		**Lock Washer	4
8		*Bearing (Teflon)	1	24		** Nut (3/8-16)	4
9	18634-0000	Housing	1	25	17649-0001	Pedestal	1
10	18246-0000	Drive Magnet Cup	1		18753-0030	Service Kit	
11	9215-0000	Key	1		18753-0033	Hardware Kit	
12		**Screw (#10-32 x 2")	1		18753-0058	Stainless Steel and Carbon Kit	
13		** Flat Washer (#10)	16				

*Parts included in Service Kit **Parts included in Hardware Kit

For technical advice or service please take your pump into your local pump service center.
To order pump or parts or for pricing please go to the following links :

Jabsco Pumps Home >>

Jabsco Pumps stock list >>