



Models: 17000-SERIES 17020-SERIES

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17000-Series

17020-Series



SELF-PRIMING PUMPS

FEATURES

Pump Series No.:	17000-Series Pedestal Mounted 17020-Series Motor Pump Unit
Body:	Glass-filled Epoxy
Impeller:	Neoprene, Nitrile or Viton*
Shaft Seal:	Mechanical, Carbon-on-Ceramic, Nitrile
Ports:	3/8" NPT Internal
Shaft:	Corrosion Resistant Steel with Epoxy Drive Sleeve
Motor:	115 Vac, Single Phase, 60Hz, 1/4 HP, 1725 RPM, TEFC, overload protected, capacitor start. Three-pronged grounded plug.
Weight:	17000-Series 3-1/2 lb (1,6 kg) 17020-Series 21 lb (9,5 kg)

VARIATIONS AVAILABLE

Model	Description
17000-0001 17020-0001	With Neoprene Impeller
17000-0003 17020-0003	With Nitrile Impeller
17000-0004 17020-0004	Viton Impeller, Seal and O-Ring

APPLICATIONS

Designed for "transfers," "circulation," "spill returns," "filtration," and "filling line" use. Easily handles pure solutions, foaming liquids, emulsions, suspended solids, gels and ferments. Because the plastic pump is resistant to corrosion and metallic contamination, it is widely used for pumping photo chemicals, plating compounds, lab solutions, pharmaceuticals, cosmetics, weak acids, alkalies, liquid fertilizers,

insecticides, dyes, detergents, waxes and many more. THERE IS NO METAL PUMP PART IN CONTACT WITH THE FLUID. Refer to Chemical Resistance Table in the Jabsco Industrial Catalog for assistance in selecting the most suitable impeller and pump material. The catalog is available upon request from the ITT Jabsco factory.

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 counterclockwise rotation is desired, follow steps 1 to 6 of disassembly and assembly instructions to change direction of impeller blade deflection under cam. This applies to pedestal pump only.
2. **DRIVE** — Belt or direct with flexible coupling for foot mounted unit. Clearance should be left between drive shaft and pump shaft when installing coupling. Always mount pump and align drive shaft before tightening the coupling set screw. Close coupled for motor pump unit.
3. **SPEEDS** — 100 RPM to the maximum shown in the performance table. For longer pump life, operate at lowest possible speeds.

4. **SELF-PRIMING** — Primes at high or low speeds. A minimum of 1200 RPM is required for vertical dry suction lift of 15 feet with 17000-0001, 10 feet with 17000-0003, and 5 feet with 17000-0004. Pump will produce suction lifts up to 22 feet when wetted. BE SURE SUCTION LINES ARE AIRTIGHT OR PUMP WILL NOT SELF-PRIME. Suction line should be as short as possible.
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 and other pump parts.
6. **DISCHARGE LINE** — When transferring liquids further than 25 feet, discharge line size should be increased to 1/2" nominal pipe diameter.

(Cont.)

OPERATING INSTRUCTIONS (Cont.)

7. **NOTICE** — When corrosive fluids are handled, pump life will be prolonged if pump is flushed with water after each use or after each work day. For further information, consult Jabsco Chemical Resistance Table (available upon request from ITT Jabsco) or factory.

8. **PRESSURES** — For continuous operation, pressure should not exceed 21 psi (1,5 kg/cm²) for Neoprene and Nitrile impellers and 18 psi (1,3 kg/cm²) for Viton Impellers.

9. **TEMPERATURES** — Neoprene impellers are suitable for service at 45° - 180° F (8° - 82° C), Nitrile 50° - 180° F (10° - 82° C), Viton 60° - 180° F (15° - 82° C).

10. **SPARE PARTS** — A Jabsco service kit should be kept on hand to eliminate extensive downtime.

DISASSEMBLY AND ASSEMBLY INSTRUCTIONS

● Disassembly Steps □ Assembly Steps

CAUTION: PUMPS WHICH HAVE HANDLED CORROSIVE, CAUSTIC OR TOXIC FLUIDS SHOULD BE DRAINED AND COMPLETELY FLUSHED PRIOR TO SERVICING. FAILURE TO DO SO MAY CAUSE INJURY.

TO REPLACE IMPELLER:

- Step #1. ● Remove end cover wing nuts, end cover and O-ring.
- Step #2. ● Remove pump head from bearing housing (Key 15 for 17000 Series) or adaptor (Key 20 for 17020 Series).
- Step #3. ● Grasp the hub of impeller with water pump type pliers and, with a rotary twist motion, withdraw the impeller from body bore.
- Step #4. □ Install new impeller in lubricated body bore (Key 6) by grasping the hub of impeller and with a rotary motion push it into the body bore.
- Step #5. □ Install pump head on the bearing housing (Key 15) or adaptor (Key 20) — locating drive flats in the impeller insert drive.
- Step #6. □ Install O-ring in end cover and secure to pump head with bolts, washers and wing nuts.

TO REPLACE SEAL ASSEMBLY:

- Step #7. ● Follow step 1●, 2●, and 3●.
- Step #8. ● Remove seal seat and grommet from body seal bore (Key 6). Lubricate with water to facilitate seal removal. Insert screwdriver beneath seal seat and pry out of body seal bore.
- Step #9. ● Remove drive sleeve (Key 7) from shaft. Remove seal face and seal spring from drive sleeve.
- Step #10. □ Install seal spring on drive sleeve (Key 7). Lubricate carbon face seal with water and slide on drive sleeve with carbon facing away from spring.
- Step #11. □ Install ceramic seal seat in grommet with grooved face towards grommet. Lubricate outer surface of seal seat assembly with water and push assembly into body seal bore with ceramic seat facing out of bore.
- Step #12. □ Assemble impeller body and end cover as in steps 4□, 5□ and 6□.

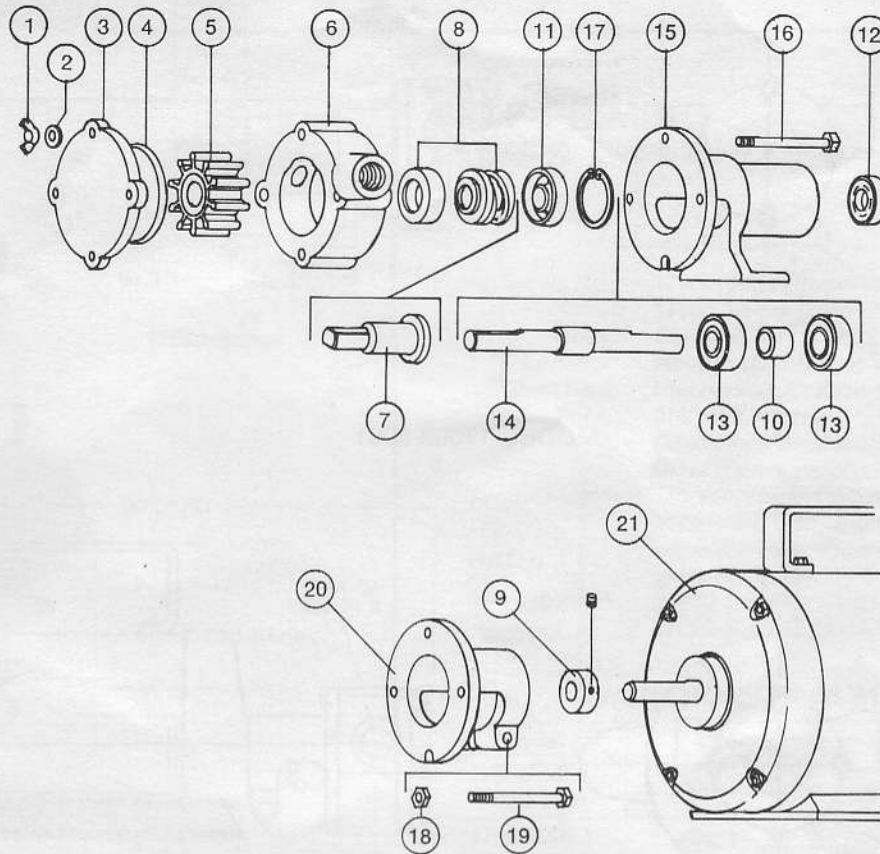
TO SERVICE BEARING HOUSING:

- Step #13. ● Follow steps 1●, 2●, 3●, 8● and 9●.
- Step #14. ● Remove from pedestal (Key 15) inboard bearing lip seal (Key 11) with hooked wire or screwdriver, and retaining ring (Key 17) using retaining ring pliers.
- Step #15. ● Remove shaft and bearing assembly from body end of pedestal (Key 15) by pressing on drive end of shaft.
- Step #16. ● Press outboard bearing lip seal (Key 12) out of pedestal (Key 15).
- Step #17. ● Remove bearing (Key 13) and spacer (Key 10) from shaft by supporting inboard bearing and pressing shaft thru bearings. Press on driver end of shaft.
- Step #18. □ To install inboard bearing, support inner race of bearing and press shaft driver end first into bearing until it bottoms firmly against shaft shoulder. Slide bearing spacer (Key 10) over shaft against inboard bearing.
- Step #19. □ To install outboard bearing, support inner race of bearing and press shaft driver end first into bearing until it bottoms against bearing spacer (Key 10).
- Step #20. □ Push shaft and bearing assembly, driver end first, into bearing housing (Key 15) from body end side and secure with retaining ring (Key 17) in housing.
- Step #21. □ Install inboard bearing seal (Key 11) in bearing housing (Key 15) with lip facing impeller bore.
- Step #22. □ Install outboard bearing seal (Key 12) in bearing housing (Key 15) with lip facing driver end of shaft.
- Step #23. □ Follow steps 10□, 11□ and 12□.

NOTE:

When servicing series 17020, seal collar (Key 9) installed on motor shaft is to be secured on assembly with set screw length from face of register shoulder to nearest face of collar to be 15/32".

EXPLODED VIEW



PARTS LIST

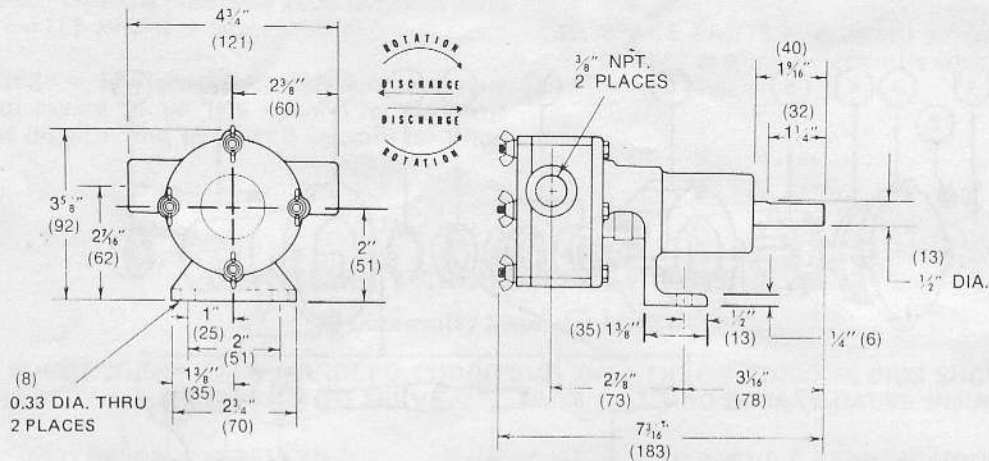
Key	Description	Qty. Req.	Model 17000-Series Part Number	Model 17020-Series Part Number
1	Wing Nut	4	91107-0010	91107-0010
2	Washer	4	91602-0120	91602-0120
3	End Cover	1	17005-0000	17005-0000
4	O-Ring Neoprene	1	92000-0410	92000-0410
	Viton		92000-0770	92000-0770
5	Impeller Neoprene	1	14874-0001	14874-0001
	Nitrile		14874-0003	14874-0003
	Viton		14874-0004	14874-0004
6	Body	1	17004-0000	17004-0000
7	Drive Sleeve	1	17006-0000	17006-0000
8*	Seal Assy. - Buna Grommet, Ceramic Seal & Carbon Face	1	96080-0280	96080-0280
	Seal Assy. -- Viton Grommet, Ceramic Seal & Carbon Face		96080-0290	96080-0290
9	Collar	1	—	98022-0700
10	Spacer	1	14326-0000	—
11	Bearing Seal	1	92700-0980	—

Key	Description	Qty. Req.	Model 17000-Series Part Number	Model 17020-Series Part Number
12	Bearing Seal	1	92700-0970	—
13	Ball Bearing	2	92600-0470	—
14	Shaft	1	12583-0000	—
15	Bearing Housing	1	17003-0000	—
16	Bolt	4	91094-0210	91094-0210
17	Retaining Ring	1	18723-0000	—
18	Hex Nut	1	—	91085-0050
19	Bolt	1	—	91094-0040
20	Adaptor	1	—	17024-0000
21	Motor	1	—	18737-0000
	Pump Head Only		—	17028-0001

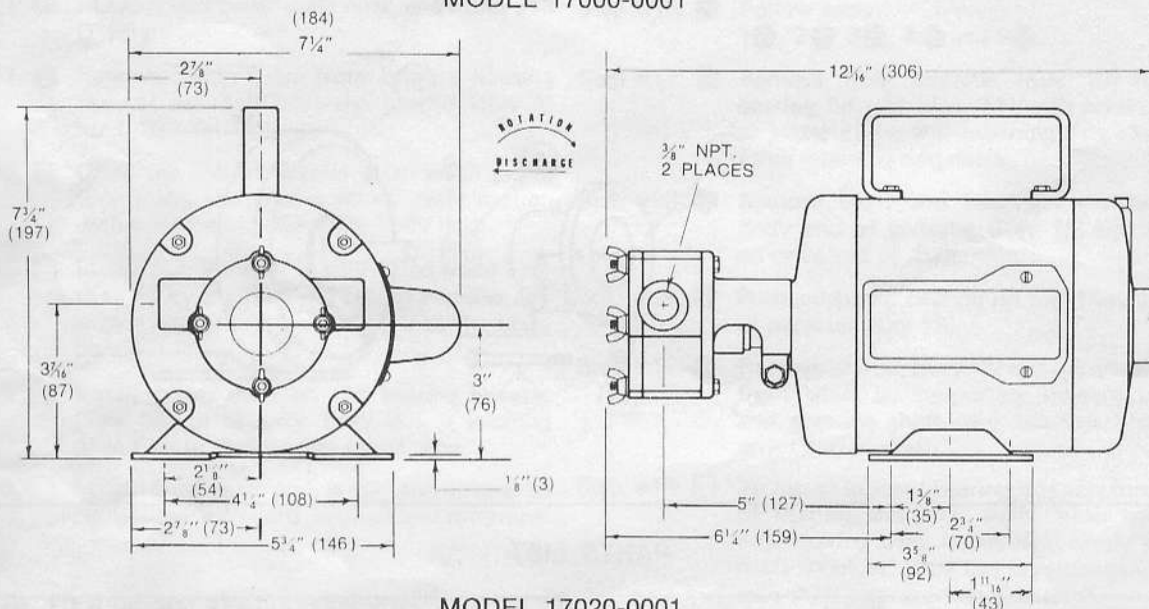
SERVICE KIT: Neoprene 90176-0001
Nitrile 90176-0003
Viton 90176-0004

*SEAL ASSEMBLIES AVAILABLE AS OPTIONAL PARTS
17221-0040 Seal Assy. - Viton Grommet, Carpenter 20 Seat, and Carbon Face
17221-0050 Seal Assy. - Buna Grommet, Carpenter 20 Seat, and Carbon Face
17241-0000 Seal Seat - Carpenter 20 Stainless Steel

DIMENSIONAL DRAWINGS INCHES (millimetres)



MODEL 17000-0001



MODEL 17020-0001

Overall Dimensions of Motor may vary.

HEAD CAPACITY TABLE

TOTAL HEAD				500 RPM			1160 RPM			1750 RPM		
PSI	kgs/cm ²	feet of water	metres	GPM	litres per minute	HP	GPM	litres per minute	HP	GPM	litres per minute	HP
4.3	0,3	10	3,0	1.4	5,3	1/6	3.6	13,6	1/6	5.5	20,8	1/4
8.7	0,6	20	6,1	1.2	4,5	1/6	3.4	12,9	1/6	5.3	20,1	1/4
13.0	0,9	30	9,1	1.0	3,8	1/6	3.2	12,1	1/6	5.0	18,9	1/4
17.3	1,2	40	12,1	0.7	2,6	1/6	2.9	11,0	1/6	4.7	17,8	1/4
21.6	1,5	50	15,2				2.4	9,1	1/4	4.2	15,9	1/4

NOTE: Table shows approximate head-flow relationship for new pumps in U.S. gallons per minute and litres per minute of water at 68° F with Neoprene impeller. Flow will be reduced approximately 10% with use of Nitrile or Viton impellers. High starting torque motors are required. Pump starting torque in dry condition (no fluid in pump body) is 18.7 inch-pounds and in wet condition is 18.5 inch-pounds.

ITT JABSCO

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