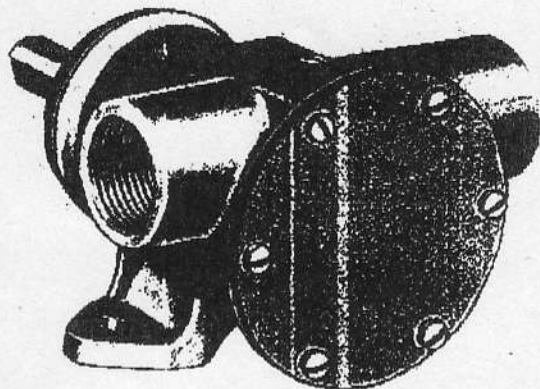


JABSCO

Model 21820-200

DESIGN FEATURES

Body	Seawater resistant bronze
Impeller	Jabco neoprene compound
Wearplate	Replaceable
Shaft Seal	Lip seal
Bearing	Ball bearing
Shaft	Stainless Steel 316 S16 to BS970
Ports	1/4" BSP (BS21 & DIN 2999)
Weight	Approximately 1.5kg



Variations (Available as optional extra)

Model	
21820-205	1/2 thickness cam 10336 for reduced flow Short cam screw SP1003-09 required
21820-237	Oil resistant impeller Part No. 1210-0003 For use with a wide range of soluble, lubricating and machine cutting oils. DO NOT USE for Toluene, Petrol, Benzene or other light fraction petroleum products.
21820-212	High pressure impeller Part No. 3085-0001 up to 2.5 bar (35psi), intermittent duty only. Also available: 3085-0003 oil resistant impeller 3085-0004 Viton impeller

Typical Applications

Industrial

circulating and transferring liquids
velocity-mixing
transferring soap, liquors, pastes, glues, glycerine, lotions brine
injection (high pressure impeller)

Marine

engine cooling
deck, anchor wash
dock side utility pump

Farm

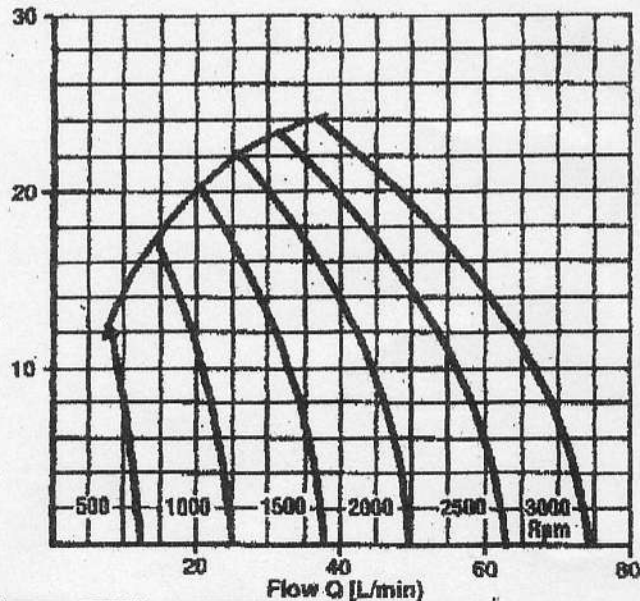
water supply for stock, poultry

Plumbing and Domestic use

pumping out flooded basements, sumps, cesspools, fish ponds,
garden pools.

Pump selection table and graph show approximate performance for new pump with neoprene impeller pumping water (specific gravity 1.00 at 20°C) but note that performance can be affected if water temperature and suction head are higher than shown in the table below. If in doubt consult your local Jabco distributor or factory for application assistance. *Minimum nominal recommended bore

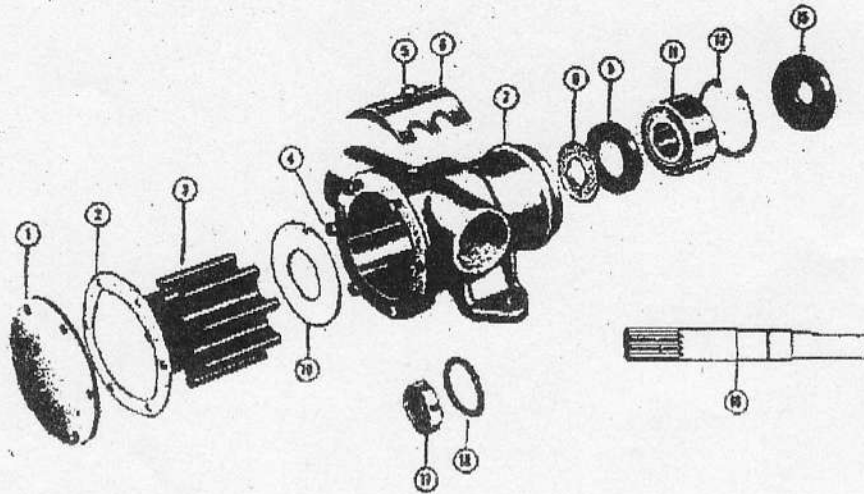
Hmt
[mH₂O]



Total Manometric Head mH ₂ O	500 RPM 120 Watt	750 RPM 120 Watt	1000 RPM 250 Watt	1500 RPM 370 Watt	2000 RPM 550 Watt	2500 RPM 550 Watt	3000 RPM 750 Watt
mH ₂ O	L/min	L/min	L/min	L/min	L/min	L/min	L/min
3	12	18	24.5	36.5	49	61.5	73.5
6	11.5	17.5	23.5	35.5	47.5	60.5	72
9	10	16	22	33.5	45.5	57	69
12	8.5	14	19.5	31	42.5	53.5	64.5
15	-	11.5	16	27.5	38	48	59.5
18	-	-	13.5	23	33.3	43	53
21	-	-	-	27	36.5	45.5	55.5
24	-	-	-	-	-	36.5	45.5
*Suction pipe	ø 20mm	ø 20mm	ø 20mm	ø 20mm	ø 20mm	ø 25mm	ø 25mm
Temp °C	Metres	Metres	Metres	Metres	Metres	Metres	Metres
Maximum recommended Suction Head in mH ₂ O	20	7.6	7.3	7	5.6	3.6	2.3
	30	7.4	7.1	6.8	5.4	3.4	2.1

Exploded View and Parts List

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 - Model 21820-200

Key	Description	Qty	Part No.
1	End Cover	1	3092
2	Gasket	1	3298
3	Impeller	1	1210-0001
4	End Cover Screws	6	SP1002-02
5	Cam Screw	1	SP1009-01
6	Cam (Full Cam)	1	490
7	Body	1	21824-200
8	Slinger	1	3286
9	Inner Bearing Seal	1	SP2701-21
11	Ball Bearing	1	SP2600-07
12	Retaining Ring	1	SP1700-248
15	Outer Bearing Seal	1	SP2701-15
16	Shaft	1	21826
17	Seal	1	SP2701-21
18	'O' Ring	1	SP2000-21
18	Wear Plate	1	8996

SERVICE KITS

Pump model	Service
21820-200	SK33

Service Kit includes:
Impeller
Seal
End Cover Screws
Gasket
'O' Ring

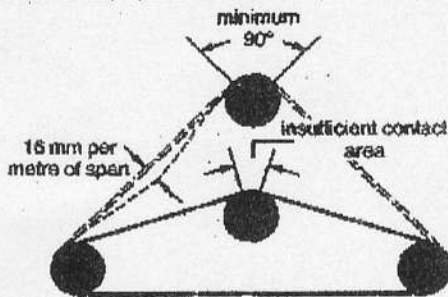
Model 21820-200

OPERATING INSTRUCTIONS

- 1 Installation:** Pump may be mounted in any position. The rotation of the pump shaft determines the location of pump inlet and outlet ports: refer to dimensional drawing. Before installing, turn the pump shaft in the direction of the operating rotation.
- 2 Drive:** Flexible coupling recommended. Clearance should be left between drive shaft and pump shaft when installing coupling. Mount and align pump and drive shaft before tightening set screws.

Excessive drive belt tension

This will cause rapid belt wear and may result in premature bearing failure. It should be possible to deflect a correctly tensioned belt between pulleys about 16 mm per metre of span by applying finger pressure. Ideally, the contact area should be about 120°C but not less than 90°C.



IMPORTANT SAFETY PRECAUTIONS

- 1. Mechanical:** all moving parts are adequately guarded to prevent accidental contact.
- 2. Electrical:** (a) all wiring must be carried out by a qualified electrician (b) when capacitors are employed in motor circuits, they retain a charge after the supply has been isolated. This must be discharged before touching motor terminals to avoid the risk of an electrical shock.
- 3. Operational:** before switching on, a check must be carried out to ensure that the installation conforms to local and national regulations, including mechanical and electrical requirements, by a qualified person.
- 4. General:** when pumping hazardous chemicals it is essential that a suitable drip-tray and splashguard are provided.

3 Pumps are dry self-priming, ie do not require to be filled with liquid to start up. If impeller is greased with petroleum jelly or wetted with residual water the pump will prime with a vertical suction lift up to 3 m (10ft) but then must operate at minimum speed of 760-800RPM.

4 Running Dry: Unit depends on liquid pumped for lubrication. A dry running period of up to 30 seconds is generally a safe length of time. If pump has not been primed after 30 seconds, stop engine and check for air leaks in pipe work, and impeller, seal or gasket damage.

5 Temperatures: Jabsco neoprene compound impellers are suitable for temperatures of 4-80°C. Performance can be affected if liquids to be pumped are 'hot' (over 40°C-50°C), under vacuum or with a manometric suction head in excess of 23 cm Hg (3mH₂O).

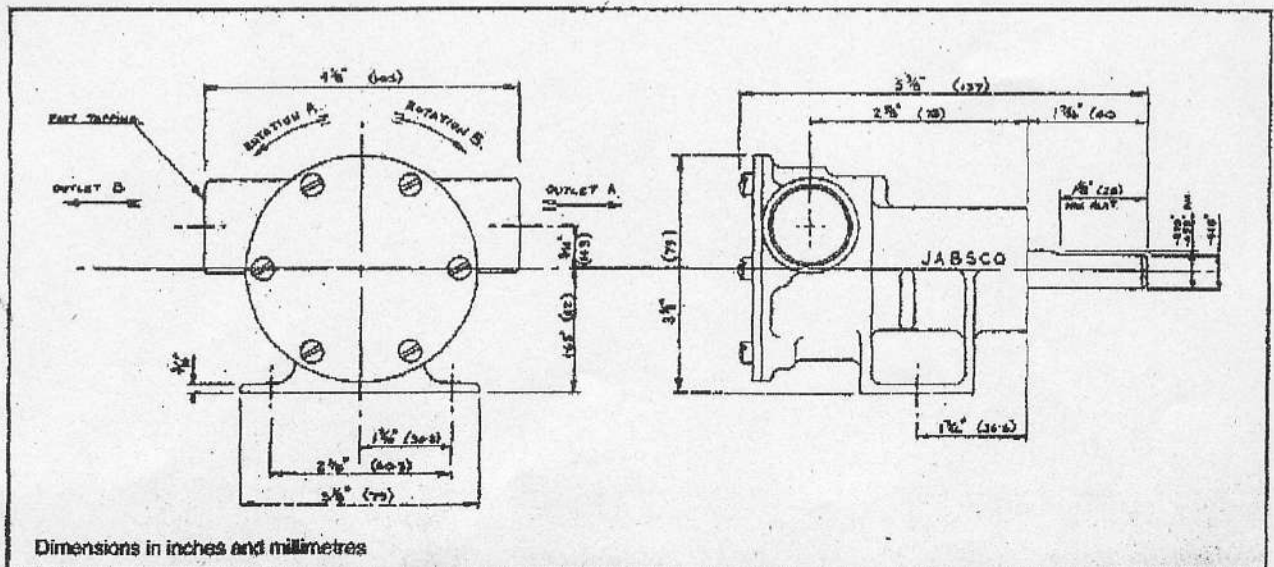
6 Freezing Temperatures: Drain unit by loosening end cover. Most methyl alcohol (methanol) based anti-freezes can be used. Do not use petroleum based anti-freeze compounds or rust inhibitors.

7 Pressures: For continuous operation, pressure should not exceed 1.8 bar (25psi): refer to graph and table.

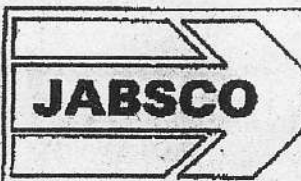
8 Gasket: Use standard pump part. A thicker gasket will reduce priming ability. A thinner gasket will cause impeller to bind.

9 Spare Parts: A Jabsco Service Kit should be kept on hand to rebuild all but the most badly worn pumps.

DIMENSIONAL DRAWING



Dimensions in inches and millimetres



ITT JABSCO

A Division of ITT Industries Ltd
 BINGLEY ROAD, HODDESDON
 HERTFORDSHIRE, EN11 0BU, ENGLAND
 TEL: HODDESDON (0992) 467191 INT. TEL: +44-992-467191
 TELEX: 283251 FACSIMILE: 0992 467132

Designers, Manufacturers and Suppliers of JABSCO: PUMPS: P.A.R.: RAYLINE

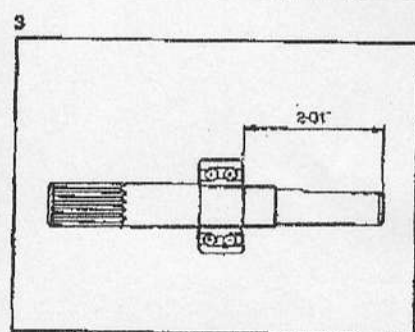
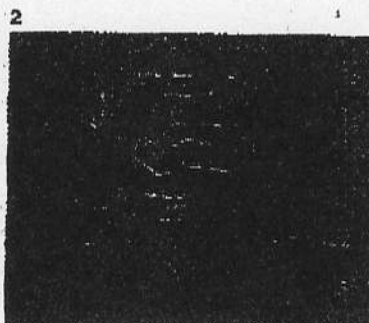
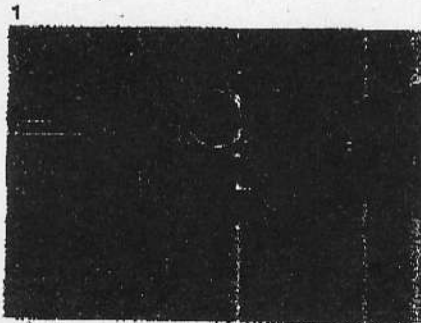


Service Instructions

DISASSEMBLY

- 1 Remove end cover screws, end cover and gasket.
- 2 Remove impeller (figure 1).
- 3 Loosen cam screw and remove cam. (Clean off jointing compound using a solvent, e.g. petrol).
- 4 Remove wearplate.
- 5 Remove seal, and 'O' ring (prize out).
- 6 Insert screwdriver between OD of outer bearing seal and pump bore and pry out seal.
- 7 Remove bearing to body retaining ring.
- 8 Press on impeller drive end of shaft to remove shaft and bearing assembly. Warming outside of body at bearing will ease disassembly (figure 2).
- 9 Remove bearing to shaft retaining ring.
- 10 Supporting bearing inner race, press shaft through bearing.
- 11 Using extreme care not to mar body bore, insert screwdriver between OD of inner bearing seal and pump bore and pry out the seal.

Note:
Inspect all parts for wear or damage and replace if necessary.



ASSEMBLY

- 1 Lubricate inner bearing seal with grease and press into body bearing seal bore with lip facing away from bearing bore.
- 2 Support shaft and press bearing onto shaft to dimension shown in figure 3.
- 3 Install bearing to shaft retaining ring with flat side toward bearing.
- 4 Position slinger in body drain area. Insert splined end of shaft through bearing bore and guide slinger over shaft until bearing contacts body.
- 5 Pressing on bearing outer race, install bearing into bore. Warming outside of body at bearing area will ease assembly.
- 6 Install bearing to body retaining ring in body groove with flat side toward bearing.
- 7 Lubricate outer bearing seal with grease and press into bearing bore until it is flush with the body (spring facing outwards).
- 8 Install 'O' ring in groove in seal bore.
- 9 Lubricate OD and lip of seal, then push into place, using care not to damage or cut seal lip. (Lip faces impeller bore).
- 10 Install wearplate in body bore, aligning slot in wearplate with dowel pin in body.
- 11 Coat screw threads, top side and back end of cam with non-setting jointing compound and install in body with cam screw.
- 12 Lubricate impeller bore with a light coat of pump grease and start impeller into bore with a rotary motion until splines engage, then push into bore.
- 13 Install gasket and end cover and secure with end cover screws.