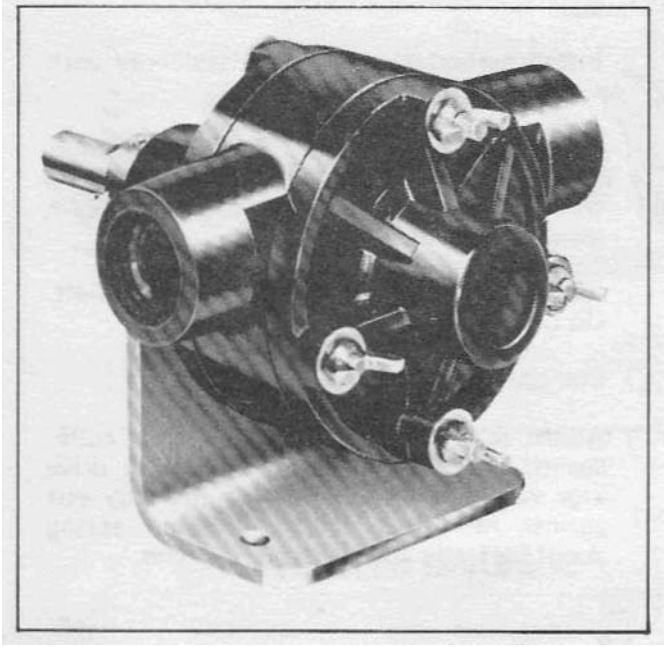
JABSCO®

Models 12850·SERIES 12860·SERIES



SELF·PRIMING PUMPS

DESIGN FEATURES

Body:	Phenolic Plastic
Impeller:	Neoprene or Nitrile
Shaft:	316 Stainless Steel
Shaft Seal:	Carbon-Ceramic Face Type, Nitrile
Bearmgs:	Carbon
Ports:	Model 12850-Series- ½" NPT Model 12860-Series – 1" NPT
Welght:	Model 128S0-Series- 3¾ lbs (1,7 kg) Model 12860-Series- 5½ lbs (2,5 kg)

Model	Description
12850-0001	Neoprene Impeller
12850-0003	Nitrile Impeller
12860-0001	NeopreneImpeller
12860-0003	Nitrile Impeller

NOTE: Carbon/Carpenter 20 seal available as a spare parl.

Models 12850-Series, 12860-Series

APPLICATIONS

Designed asa low cost pump 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.

See the Jabsco Chemical Resistance Table (available upon request from In Jabsco). It has been prepared to help you selecl the most suitable impeller and pump material.

OPERATING INSTRUCTIONS

1. INSTALLATION - Pump may be mounted in any position. The rotation of the pump shaft determines the location of lhe pump's intake and discharge ports. Refer 10 dimen·sional drawing. Before starting, turn the pump shaft in the direction of the operating rotation.

2. DRIVE - Belt or Direct With flexible coupling.

   NOTICE Do not press a pulley or couplmg on the shaft WIthout supponmgthe shaft 10 prevent its movement into the impeller bore.

   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 pump and align drive shaft before tightening the coupling set screw.

3. SPEeDS - 100 RPM to the maximum shown in the performance lable. For longer pump life, operate at lowest possible speeds.

4. SELF-PRIMI NG - Primes at low orhigh speeds. Forvertical dry suction lift of 10 feet, a mmimum of 800 RPM is required. Pump will produce suction lifts up to 22 feet when welted. BE SURE SUCTION LINES ARE AIRT!GHT OR PUMP WILL NOT SELF-PRIME.

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 components.

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. Consult Jabsco Chemical Resistance Table in Industrial Catalog. For further information contact factory.

7. PRESSURES - Forcontinuousoperation, pressure should nOl exceed 20 PSI for 12850-Series and 30 PSI for 12860-Series.

8. TEMPERATURES - Recommended temperature range with neoprene impeller 45° to 180' F (Tt082 Cj, and with nitrile impeller 50° to 180°F (10° to 82°C).

9. SPARE PARTS - A Jabsco Service Kit should be kept on hand to maintain all but the most badly worn pumps.

SERVICE INSTRUCTIONS

• Disassembly Steps 0 Assembly Steps

To Replace Impeller:

1 • Remove wing nuts, washers, and end cover.

2 • Remove pump head from seal housing. Remove O_rings from body grooves.

3 • Push impeller from body bore.

4 0 Grasp hub of impeller and with a rotary motion push it into the lubricated body bore. Replace O-rings in body grooves. (Before putting body-impeller assembly on shaft, push impeller up so blades bend under cam located in top of body.)

5 0 Install body-impeller assembly on shah, lining up double·flat drives of impeller. Install top thru-boh and washer.

6 0 Install bottom three bolts through mounting bracket and body; install end cover, securing with washers and wing nuts.

To Replace Seal Assembly: 1, 2, 3

7 • Follow steps 1, 2, and 3 •

8 • Loosen set screws and remove seal collar assembly.

9 • Pull shaft from impeller end of bearing housing, which will remove seal gasket and seal seat from shaft.

10 • Remove seal face piece, O-ring and seal spring from rear of bearing housing.

11 0 Lubricate seal spring with silicone grease and install spring and O-ring onto carbon face seal.

12 0 Install carbon face seal into seal bore with seal face outwards.

13 0 Install shaft sub-assembly into bearing housing, push ceramic seal seat down onto shaft until it rides on carbon face, and seal seat gasket faces out.

14 0 Install collar with two set screws onto shaft. Do not tighten.

15 0 Complete steps 4,5, and 6 0 .

16 0 Adjust seal force by sliding set screw collar against seal and lining up slots with drive lugs while shaft is pulled all the way out against its thrust collar. Compress spring about half way and tighten set screws.

To Replace Bearings:

17 ● Follow steps 7 • ,8 . and 9 • .

18 ● Remove bearing sleeve from bearing housing.

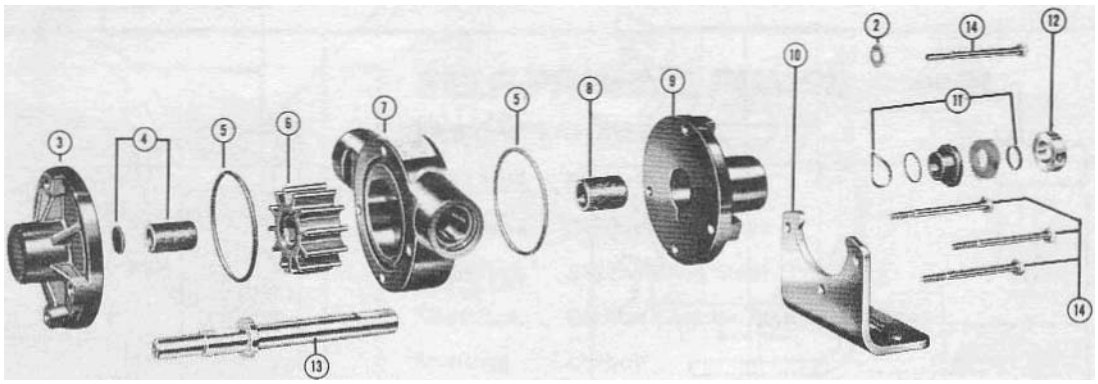
19 ● Remove bearing sleeve and thrust plate from end cover piece.

20 0 Install thrust plate and bearing sleeve in end cover.

21 0 Install bearing sleeve into bearing housing.

22 0 Follow assembly steps 11 O. 12 O. 13 O. 14 0 . 15 0 .and16 0 .

EXPLODED VIEW



PARTS LIST

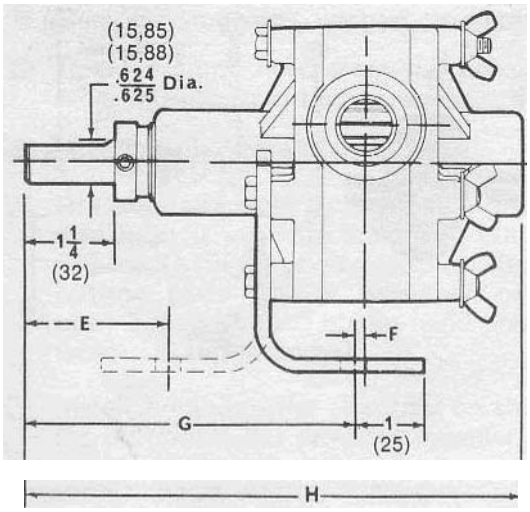
MODEL 12850-0001 AND VARIATIONS

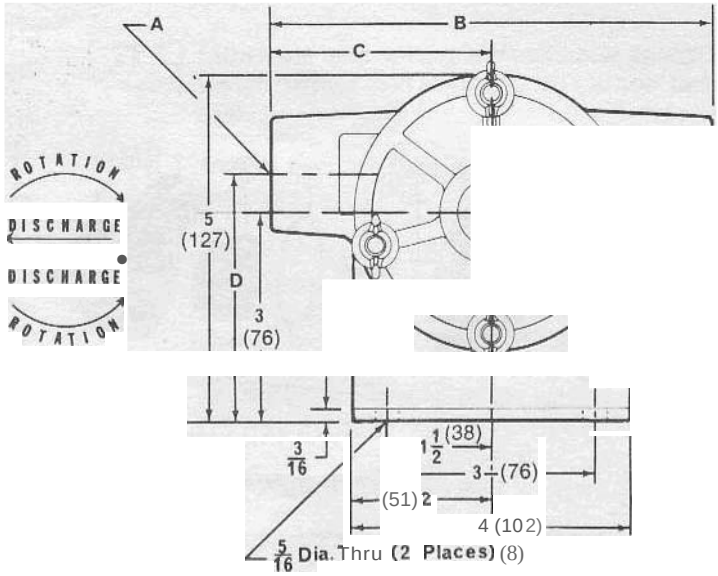
Key	Description	Part Number	Diy-Req.
1	Wing Nut 1/4·20	91107-0030	4
2	Flat Washer	91601-0040	5
3	End Cover	12854-0000	1
4	Thrust Plate and Bearing	12875-0000	1
5	'O-Ring (Body)	92000-0310	2
6	*Impeller (Neoprene)	14281-0001	1
	(Nitrile)	14281-0003	
7	Body	4974-0010	1
8	Carbon Bearing (Housing)	12R63-0000	1
9	Bearing Housing	12853-0000	1
10	Bracket (Mounting)	12855-0000	1
11	·Seal Assembly		
	Carbon/Ceramic	12865-0000	1
	Carbon/Carpenter	12865-0600	Available as Optional Part
12	Seal Collar	12938-0000	1
13	Shaft Assembly		
	Stainless Steel	12857-0010	1
14	Bolt 1/4-20x3-1/4	91094-0170	4
	Service Kit		
	With Neoprene Impeller	90130-0001	
	With Nitrile Impeller	90130-0003	

MODEL 12860-0001 AND VARIATIONS

Key	Description	Part Number	Diy-Req.
1	Wing Nut 1/4-20	91107-0030	4
2	Flat Washer	91601-0040	5
3	End Cover	128540000	1
4	Thrust Plate and Bearing	12875-0000	1
5	*O-Ring (End Cover)	92000-0310	2
6	*Impeller (Neoprene)	14282-0001	1
	(Nitrile)	14282-0003	
7	Body	5170-0010	1
8	Carbon Bearing (Housing)	12863-0000	1
9	Bearing Housing	12853-0000	1
10	Bracket (Mounting)	12855-0000	1
11	*Seal Assembly		
	Carbon/Ceramic	12865-0000	1
	Carbon/Carpenter	12865-0600	Available as Optional Part
12	Seal Collar	12938-0000	1
13	Shaft Assembly		
	Stainless Steel	12867-0010	1
14	Bolt 1/4-20x4	91094-0050	4
	Service Kit		
	With Neoprene Impeller	90132-0001	
	With Nitrile Impeller	90132-0003	

·PARTS CONTAINED IN SERVICE KIT.





	A	B	C	0	E	F	G	H
12850-0001	1/2" NPTlnt. (2 Places)	6-3/8 (162)	3-3/16 (81)	3-9/16" (90)	2-5/32" (55)	1/8 (3)	4-27/32" (123)	7-7/32" (183)
12860-0001	1" NPT Int. (2 Places)	6' (152)	3' (76)	3-5/8" (92)	2-3/16" (56)	1/2" (13)	4-7/8 (124)	7-31132 (202)

CAPACITY CHART

MODEL 12850-0001

TOTAL HEAD				500 RPM			1160 RPM			1750 RPM		
PSI	kg/cm2	ft. of water	meters of water	GPM	l /min	hp	GPM	l /min	hp	GPM	l /min	hp
4,3	0,3	10	3,0	3,0	11,4	1/6	7,6	28,8	1/4	11.0	41,6	1/2
8,7	0,6	20	6,,	1.8	6,8	1/6	6.4	24,2	1/4	10.0	37,9	1/2
13.0	0,9	30	9,1	-	-	-	4,8	18,2	1/3	8,5	32,2	1/2
21.6	,,5	50	15,2	-	-	-	-	-	-	5,0	18,9	1/2

MODEL 12860-0001

TOTAL HEAD				500 RPM			1160 RPM			1750 RPM		
PSI	kg/cm2	ft. of water	meters of water	GPM	l /min	hp	GPM	l /min	hp	GPM	l /min	hp
4,3	0,3	10	3,0	6,8	25,7	1/6	16.5	62,5	1/3	26.0	98,4	3/4
8,7	0,6	20	6,,	6,3	23,8	1/4	15.9	60,2	1/3	24.5	92,7	3/4
17.3	,,2	40	12,2	4,7	17,8	1/4	13.5	51,1	1/3	21.0	79,5	3/4
26.0	1,8	60	1a,3	-	-	-	9,5	36,0	1/2	16.5	62,5	1

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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 :

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