EKLNC22A

APPLICATIONS

EKLNC Series pumps are designed to pump water and aggressive liquids in a wide variety of industrial applications which include portable and stationary high pressure cleaning systems, reverse osmosis, water reclamation systems, and misting systems.

FEATURES

Heavy cast iron crankcase
Stainless steel NPT manifold
Shaft bearings with forged roller rims
Double projection, gas-nitride, hardened steel crankshaft
Forged steel connecting rods with anti-friction bearings
Stainless steel valves
Solid ceramic plungers

PERFORMANCE DATA

HORSEPOWER FORMULA		RPM FORMULA	
$\frac{\text{GPM X PSI}}{1460}$	= REQUIRED BRAKE H.P.	$\frac{\text{RATED RPM X DESIRED GPM}}{\text{RATED GPM}}$	= PUMP RPM

**See pump selection – continuous duty*

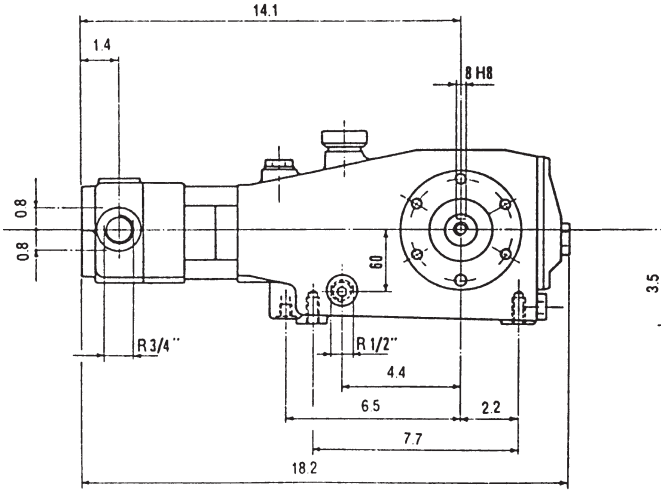
Performance data stated at 100% volumetric efficiency. Based on inlet water conditions, pump volumetric efficiency is 95% orgreater.

SPECIFICATIONS

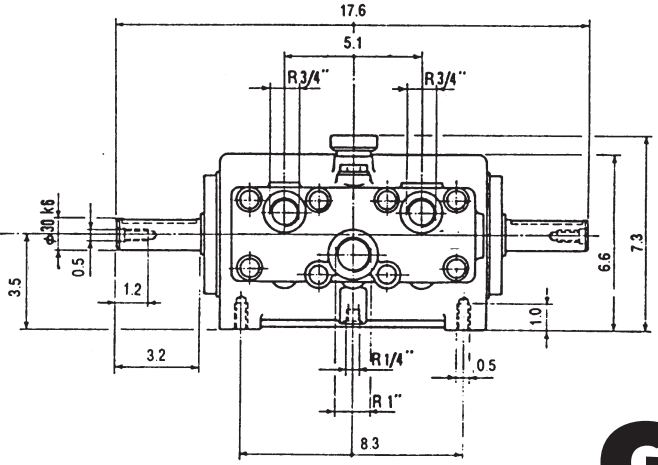
Volume	11.9 GPM
Discharge Pressure	3050 PSI Max.
Max. Inlet Pressure	Flooded to 45 PSI Max.
Fluid Temperature	150°F Max.*
Crankcase Capacity	64 oz.
Inlet Fitting	1 in. NPT F
DischargePort	3/4 in. BSPP
Discharge Fitting	3/4 in. NPT F
Shaft Diameter	35 mm
Weight	120 lbs.
Dimensions	18.1 in. L x 17.5 in. W x 7.2 in. H

**See Fluid Temperature Section*

SIDE VIEW



END VIEW



GENERAL PUMP

DESIGN CRITERIA

General Industrial EKLNC Series Triplex Plunger Pumps are designed and manufactured to pump water and other liquids of similar viscosity compatible with the construction materials used in the pump.

Durable by design, EKLNC Series Pumps are ideal for a wide variety of high-pressure applications including intermittent or continuous duty high-pressure misting and cleaning.

Optimum pump performance can only be achieved if the entire fluid system is designed and built using properly sized plumbing and accessories. General EKLNC Industrial Pumps are positive displacement pumps and require the use of a properly designed pressure relief mechanism in the discharge plumbing of any system using these pumps. **Failure to install a relief mechanism could result in personal injury or damage to the system.**

General Pump, Inc. does not assume any liability or responsibility for the design and operation of a customer's high-pressure system.

PUMP SELECTION - NORMAL DUTY

The General Industrial EKLNC Series offers a wide range of flow, pressure and drive options. Pump performances indicated for the EKLNC Series (RPM, GPM, PSI, fluid temperature) are the designed maximum for pumps operated on a **normal intermittent duty cycle.**

PUMP SELECTION - CONTINUOUS DUTY

EKLNC Pumps can be re-rated for continuous duty by reducing the pump RPM by 25% minimum and by installing a feed pump capable of delivering two times the operating flow rate at 45 PSI maximum. In selecting a pump for continuous duty, optimal performance is accomplished by using the largest plunger diameter practical and reducing the RPM to deliver the desired flow. **Do not exceed the maximum rated discharge pressure of this pump**.

Proper splash lubrication requires a 500 RPM minimum internal crankshaft speed.

PUMP INSTALLATION

When designing a system, **keep the inlet plumbing as simple as possible using a minimum amount of fittings or elbows with no elbows within 12" of pump inlet.**

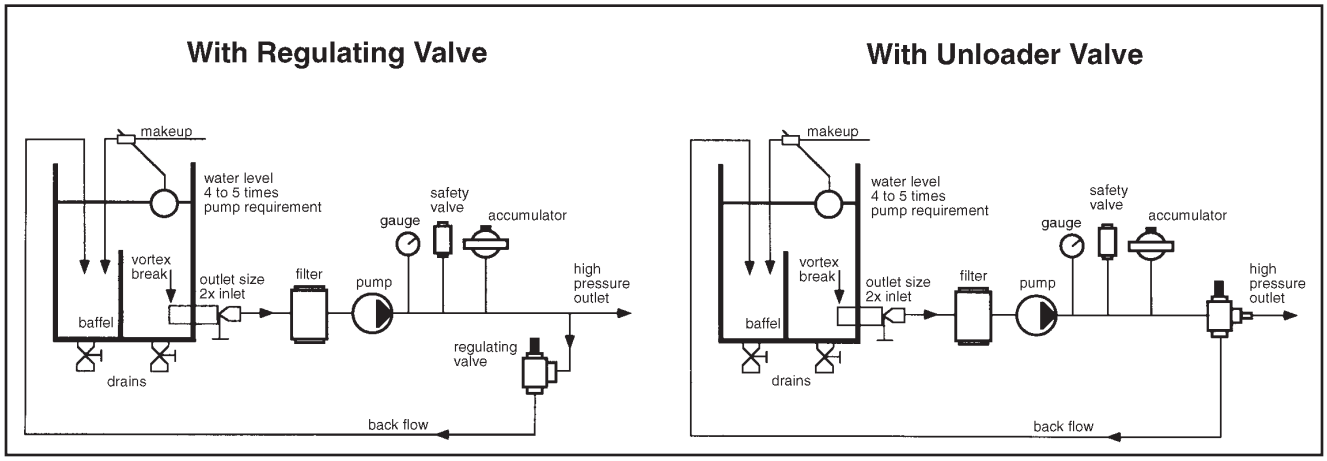
Pump life is considerably influenced by the condition of the fluid supplied to the inlet of the pump. **Inlet plumbing should be flexible reinforced hose, 1.5 to 2 times larger than the specified inlet port size.**

It is critical to provide airtight inlet plumbing sized to deliver an adequate volume of settled fluid to the pump **(minimum 2 times the operating flow rate).** This is best accomplished with a pressurized feed at 30-45 PSI or a flooded inlet.

Do not let pump self prime.

When using an inlet holding tank (float tank), size it according to the maximum rated output of the pump. Provide a **minimum of 5 times the operating flow rate (a 10 GPM pump requires a 50 gallon tank).** The feed tank should contain sufficient baffling to eliminate air bubbles and turbulence. Feed tanks should be mounted so the water level in the tank is always higher than the feed lines and the inlet port of the pump (flooded inlet). Diffusers should be installed on all return lines to the tank.

Typical Installation diagram:



FLUID TEMPERATURE

EKLNC Series Pumps are rated for 150°F maximum fluid temperature. However, **when operating with fluid temperatures exceeding 110°F, a pressurized inlet is required.** Install a feed pump capable of delivering two times the operating flow rate at 45 PSI maximum, and follow continuous duty parameters.

FILTERS

Install an inlet filter on all systems. The filter should be positioned as close as possible to the inlet of the pump. **The inlet filter capacity must be a minimum of three times the rated output of the pump.** Filter media of 50 to 80 microns is recommended for most systems.

PUMP MOUNTING

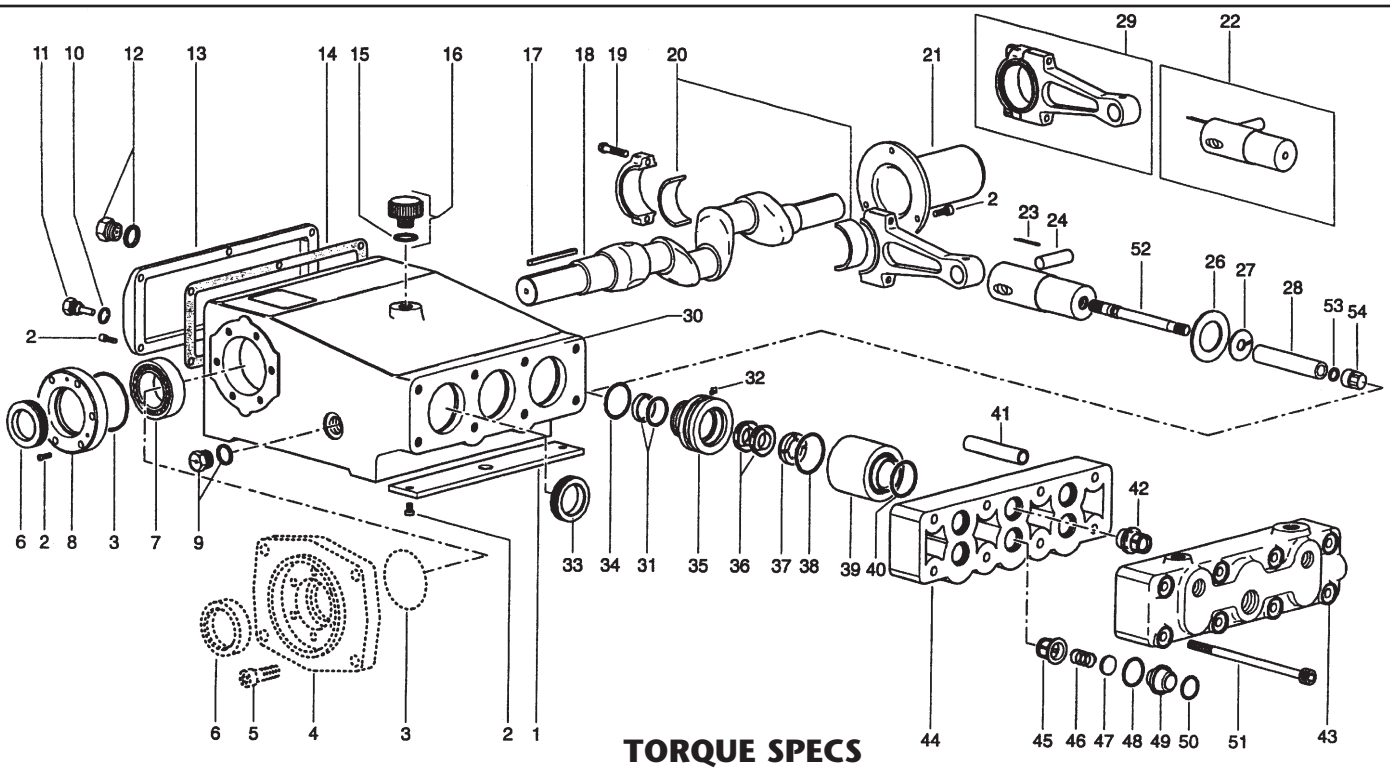
The pump must be mounted in a horizontal position on a rigid base in a manner to permit drainage of crankcase oil. The pump should be flat with no more than a 5 degree incline. Pumps can be operated using pulley or direct drive. **Observe the specified pump rotation indicated by the arrows on the crankcase.** General Industrial Pumps are splash lubricated. By observing the proper rotation and crankshaft speed (500 RPM minimum), the crank mechanism puts oil in circulation through internal crankcase grooves so the connecting rods, bearings, piston guides and other surfaces requiring lubrication receive proper coverage.

Crankcase oil (Pennzoil RO 220 or equivalent) should be checked frequently and changed as follows: Initial oil change between the first 50 and 100 hours of operation; then after each successive 500 hours of operation.

EKLNC Series Pumps are equipped with grease fittings (Position 29). Greasing should be done prior to initial start-up and after every 100 hours of operation. Using a hand grease gun, apply a high grade silicon grease with a penetration coefficient of 290. **Caution — Do Not Overlubricate — Stop At The First Sign Of Back Pressure To Avoid Damage To Packings.**

START-UP

Check oil prior to start-up, and open all inlet and discharge valves. **Always start the pump in a zero pressure condition. Never let pump run dry.**



TORQUE SPECS

Position	Ft./lbs.
19	18
51	144
52	36

EKLNC PARTS

Item	Part Number	Description	Qty
1.	F040001300	LOWER COVER	1
2.	F871115600	SCREW M6 x 16 SS	17-23
3.	F881013100	O-RING Ø 80 x 2.5	2
4.	F010100010	HYD. MOTOR FLANGE “A”	1
	F010100030	HYD. MOTOR FLANGE “B”	1
5.	F871125600	SCREW M10 x 30 SS	6
6.	F881080014	OIL SEAL Ø 40 x 60 x 10	2
7.	F811101006	BEARING	2
8.	F063400780	BEARING COVER	1-2
9.	F801053002	OIL LEVEL INDIC. G1/2"	1
10.	F030300000	WASHER Ø 3/8" NK	1
11.	F801057011	MAGNETIC PLUG G 3/8"	1
12.	F801053003	OIL LEVEL INDIC. G3/4"	1
13.	F063400770	BACK COVER	1
14.	F080600000	BACK COVER GASKET	1
15.	F881011173	O-RING Ø 18 x 3	1
16.	F801054002	FILL PLUG G 1/2"	1
17.	F071000010	CRANKSHAFT KEY	1
18.	F050000010	CRANKSHAFT	1
19.	F871350002	CON ROD SCREW	6
20.	F023300040	BEARING BRASS	3
21.	F040400010	CRANKSHAFT END CAP	1
22.	F250001000	PISTON GUIDE ASSEMBLY	3
23.	F872138010	RETAINER PIN Ø 2.5 x 22	3
24.	F071000000	WRIST PIN Ø 18	3
26.	F041200000	WIPER	3
27.	F010200120	PLUNGER SPACER	3
28.	F024200950	PLUNGER	3

Item	Part Number	Description	Qty
29.	F250000060	CON ROD ASSEMBLY	3
30.	F060100030	PUMP BODY	1
	F060100040	PUMP BODY (HYDR. DRIVE)	1
31.	F881061008	SCRAPER	3
32.	F801077503	GREASER M10 x 1 SS	3
33.	F881081002	SEAL Ø 38 x 52 x 7	3
34.	F881010012	O-RING Ø 50.52 x 1.78	3
35.	F022200190	PACKING SUPPORT	3
36.	F881020003	PRESSURE PACKING	6
37.	F031200400	PACKING RING	3
38.	F881010121	O-RING Ø 44.12 x 2.62	3
39.	F062200550	CYLINDER	3
40.	F881010211	O-RING Ø 37.69 x 3.53	3
41.	F043500040	RUBBER PROTECTOR	8
42.	F208004240	VALVE ASSEMBLY	6
43.	F0642000350	MANIFOLD NPT	1
44.	F064200010	COLLECTOR	1
45.	F021200010	VALVE CAGE	6
46.	F090200000	VALVE SPRING	6
47.	F082200000	VALVE DISK	6
48.	F881011900	O-RING Ø 27.50 x 2.4	6
49.	F081200000	VALVE SEAT	6
50.	F881010113	O-RING Ø 22.22 x 2.62	6
51.	F035000160	SCREW M12 x 180	8
52.	F072200040	PLUNGER STUD BOLT	3
53.	F881011061	O-RING Ø 13 x 2	3
54.	F033200150	PLUNGER NUT	3

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