

OP - 3040

Oil Pump



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Analytical Technologies Limited

An ISO 9001 Certified Company

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►► PRODUCT INTRODUCTION

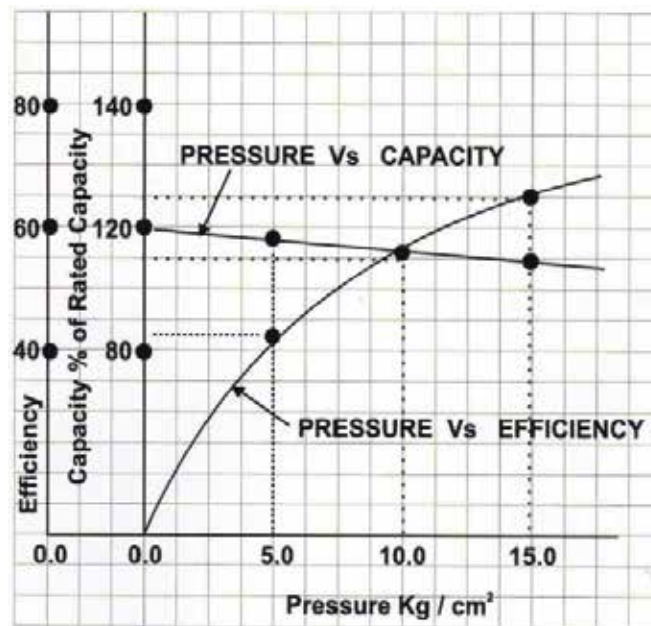
OP 3040 are available in various sizes and versions to suit every possible viscous fluid pumping applications.

OP 3040 are designed for low to high viscosity range, free from abrasive particles and corrosive substance. OP 3040 designed for low to medium pressure ranges.

OP 3040 consist of profile ground gears, closely fitted in a housing. Liquid is carried the periphery of revolving gears from the suction to the discharge Side. The teeth are meshing between the gears thus preventing return Of liquid from discharge from suction side. All components are precision machined and close tolerance is maintained between running parts and stationery parts to ensure high volumetric efficiency.

►► PERFORMANCE CURVES

1. Pressure, Capacity & Efficiency Curves.



2. Input B.H.P to pump, can be calculated by following fomula

$$\text{Input BHP} = \frac{\text{Out Put BHP of Pump}}{\text{Efficiency}}$$

Where,

Output

BHP of Pump

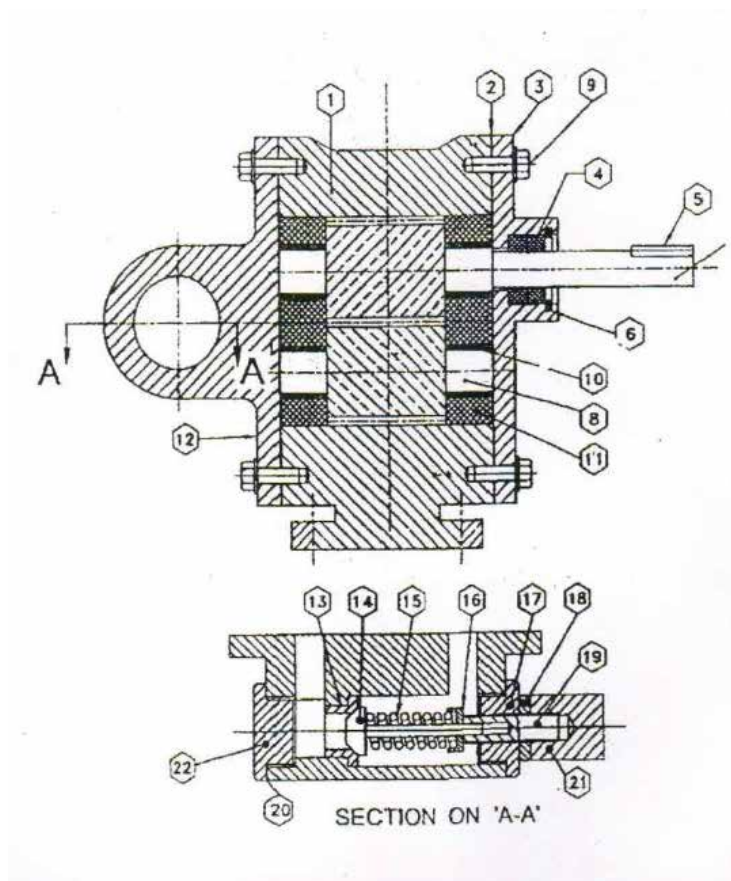
$$= \frac{\text{Capacity in M}^3 / \text{Hr} \times \text{Pressure in kg/}}{27 \text{ (Hydraulic Constant)}}$$

3. Relief Valve Operation

Built in pressure relief valve is provided in pump operate at higher than rated pressure i.e. it st operating at on kg / cm² higher than rated press and fully opens at 3 to 5 kg l cm² higher than rate pressure, taking maxmumi 30% higher power rated pressure

►► CROSS SECTION OF STANDARD GEAR PUMP

22	Plug at Delivery Side	1
21	Cap Nut	1
20	Packing	2
19	Relif Valve Adjusting Stud	1
18	Lock Nut	1
17	Plug at Suction Side	1
16	Spring Cover	1
15	Spring	1
14	Valve	1
13	Valve Seat	1
12	Back Cover	1
11	Wear Plate	4
10	Sleeve Bush / Bearing	4
9	Bolt With Spring Washer	8
8	Driven Shaft with Gear	1
7	Driving Shaft With Gear	1
6	Circlip	1
5	Key	1
4	Oil Seal	2
3	Front Cover	1
2	Packing	-
1	Main Body	1
Part No.	Description	Qty.



►► STANDARD SPECIFICATION OF GEAR PUMP

No	Pump Model	Maximum Capacity In LMP AT 0 PSI	Nozel size		RMP	Pressure Vs. H.P Table (Pressure in PSI)			
			Suction	Delivery		50	100	250	500
1	OP 3005	5	1/8"	1/8"	1440	0.33	0.5	0.5	0.75
2	OP 3010	10	3/8"	3/8"	1440	0.33	0.75	0.75	1.5
3	OP 3015	3020	1/2"	1/2"	1440	0.5	1.0	2.0	3.0
4	OP 3020	25	3/4"	3/4"	1440	1	1.5	2.0	3.0
5	OP 3030	35	1"	1"	1440	1.5	2.0	3.0	5.0
6	OP 3040	45	1"	1"	1440	1.5	2.0	3.0	5.0
7	OP 3050	60	1"	1"	1440	1.5	2.0	3.0	5.0
8	OP 3100	120	1 1/2"	1 1/2"	1440	2.0	3.0	5.0	10.0
9	OP 3200	235	2	2	1440	3.0	5.0	12.5	25.0
10	OP 3350	375	2 1/2"	2 1/2"	1440	5.0	10.0	25.0	-
11	OP 3500	550	3"	3"	1440	7.5	15.0	30.0	-
12	OP 3700	750	3"	3"	1440	12.5	20.0	50.0	-
13	OP 3001	1100	4"	4"	960	15.5	30.0	-	-
14	OP 3150	1600	4"	4"	960	25.3	60.0	-	-
15	OP 3002	2100	6"	6"	960	30.5	75.0	-	-
16	OP 3000	3200	8"	8"	750	50.0	100.	-	-

►► SELCTION CHART

No	Pump Model	Nozel Size		Capacity in LMP at Pressure (PSI)				RPM
		Suction	Delivery	0	100	250	500	
1	OP 3005	1/8"	1/8"	5	3	1	-	1440
2	OP 3010	3/8"	3/8"	12	11	2	7	1440
3	OP 3015	1/2"	1/2"	20	15	10	7.5	1440
4	OP 3020	3/4"	3/4"	25	22	15	15	1440
5	OP 3030	1"	1"	35	30	22	25	1440
6	OP 3040	1"	1"	45	40	35	30	1440
7	OP 3050	1"	1"	60	50	45	40	1440
8	OP 3100	1 1/2"	1 1/2"	120	110	110	110	1440
9	OP 3200	2	2	235	210	185	185	1440
10	OP 3350	2 1/2"	2 1/2"	3785	320	250	-	1440
11	OP 3500	3"	3"	550	455	410	-	1440
12	OP 3700	3"	3"	750	700	620	-	1440
13	OP 3001	4"	4"	1100	1000	-	-	960
14	OP 3150	4"	4"	1600	1500	-	-	960
15	OP 3002	6"	6"	2100	1950	-	-	960
16	OP 3000	8"	8"	3200	3000	-	-	750

►► SLECTION OF MOC

BODY & ENCOVERS	PRESSURE SINTHERED	HIGH PRESSURE	LUBRICANT CI-ss	LUBRICANT EN-9 HARDENED	CORROSIVE SS-GM BRONZE
ROTARY & SHAFT	BRONZE ALLOY STEEL	CI-MS EN.9 OR EN.24	ENA OR EN-24 CI.TEFLON	CI-TEFLON ALLOY STEEL	SS-TEFLON ALLOY STEEL
BEARINGS	NEOPRENE OIL SEAL		ALLOY STEEL	GLAND PACKING	GLAND PACKING
RELIEF	PRESSURE	BRONZE STEEL	GLAND PACKING	MECH SEAL	MECH SEAL

►► OTHER MODIFICATION



External bearing type gear pump with jacket



Monoblock gear pump



Flange mounted gear pump



Gear pump with external bearing



Gear pump fitted with mechanical seal



Cast steel construction gear pump



Fabricated SS pump



SS Gear Pump

►► SPECIFICATIONS

Size	Capacity	Discharge pressre	M.O.C	Temperature	Viscosity
1/8" to 8"	5 Imp to 3000 Imp	Upto 12kg. / cm ²	Cast Iron, Cast steel Gun Metal with S.S Gears and Shaft S.S 304, S.S. 316, Monel etc	Upto 250°C	50 cst to 75000 cst

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