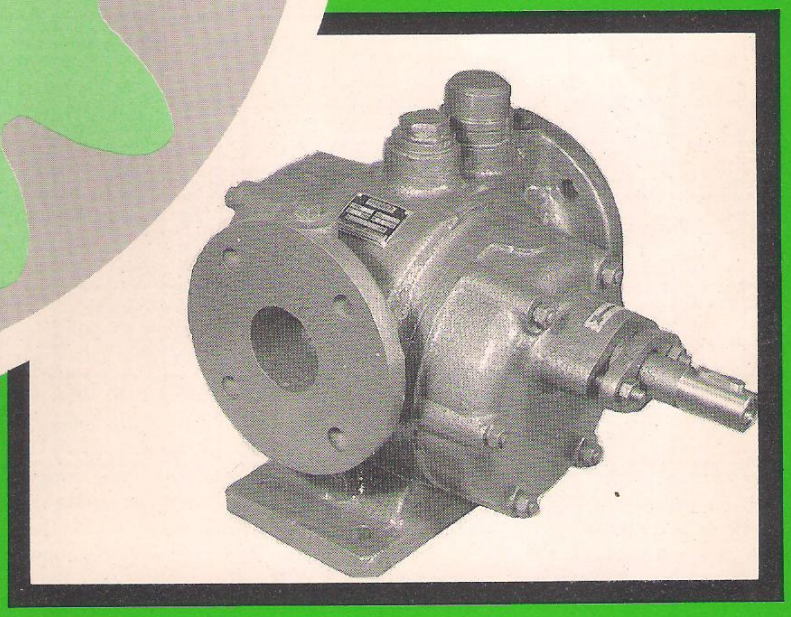
PREMIER
Rotary Gear Pump



PREMIER ROTARY GEAR PUMPS are multipurpose and Sturdy by construction.They can efficiently handle oils and viscos liquids. These pumps are available in various constructions to suit various applications. They can be directly coupled to motor, or belt driven to attain rated speed.

FEATURES :

CAPACITY	10 LPM to 600 LPM
PRESSURE	UP to 6 Kg/Cm^2
VISCOSITY	401 to 10,000 SSU

APPLICATIONS : FOR EFFICIENT PUMPING OF
***ALL KINDS OF OILS *SOAP STOCK *MOLASSES *PAINTS *DYES *TAR *SYRUPS *PETROLEUM PRODUCTS *VARNISHES**
Also many other Industrial Liquids.

OPERATION

Premier Gear Pump consists of two gears fitted with shafts supported by bush bearings or ball bearings. These gears are closely located in a body, when the drive shaft is rotated the gears meshing each other rotate in opposite direction.

Caveties are formed between meshing teeth continuously causing vacuum and the liquid flows into the cavity. As the gears rotate the liquid is trapped between the body and the gear teeth and is carried towards discharge passage. As the process continues it causes rise in pressure and the liquid flows with pressure into the discharge passage.

CONSTRUCTION

Normally the pump body and covers are made of graded C.I. Shaft and gears are EN-8, Bushes are G.M. or P.B. Pumps can be supplied with total or partial constructions of P.B, S.S, Alloy-20, Hastalloy, B/C Pumps can be supplied with ball bearings. Internally or externally mounted. Jacketing can be provided for cooling or heating

NOTE : *Refer Data sheet for selection of suitable pump size.*

PREMIER

TECHINICAL DATA

CONVERSION
1 Imperial Gallon = 4.5 litres
1 kG CM² = 14.2P.S.I.

1 U.S. Gallon = 3.78 litres
1 METRE = 3.28 FEET
1 P.S.I. = 2.31 FEET

* Tapped suction and delivery
* Speed at **960 RPM**
Speed at **1440 rpm**

TYPE - A

TYPE	SUCTION mm	DIS CHARGE mm	MAXIMUM DISCHARGE PRESSURE Kg/Cm²	MAXIMUM SPEED R.P.M.	Descharge, input power at various speeds & discharge pressure											
					n	300		500		735		960		1450	
					P	Q	P	Q	P	Q	P	Q	P	Q	P
PGP 40	40	40	6	1500	2 4 6			74 72 67	1.1 1.7 2.7	110 108 102	1.7 2.5 3.7	144 142 135	2.2 3.1 4.4	223 218 210	3.4 4.5 6.4
PGP 50	50	50	6	1000	2 4 6	58 56 51	0.8 1.3 1.9	100 97 91	1.5 2.0 3.1	149 146 139	2.1 3.0 4.3	199 195 189	2.8 3.9 5.4		
PGP 65	65	65	6	1000	2 4 6	74 73 69	1.5 2.0 3.0	129 126 120	2.2 3.2 4.9	191 188 180	3.2 4.6 6.7	225 252 243	4.3 5.8 8.2		
PGP 80	80	80	6	750	2 4 6	185 180 170	2.5 3.5 5.5	316.2 309 294	3.9 5.8 8.4	468 459 450	6 8.2 11.3				
PGP 100	100	100	6	750	2 4 6	235 230 215	3.0 4.35 6.5	395 390 375	4.7 7.0 10.2	550 545 530	7.5 10.0 14.0				

n - Speed of Pump in R.P.M.
P - Discharge pressure in Kg/Cm²
Q - Discharge in Litres/Min
P - Power in put to pump in H.P.

Q Changes approximately in direct proportion to n
Tabulated values of P are for pumping Mineral oil of viscosity 8 -10° Engler or 60-70 Centistokes.
Pumps can handle liquids with viscosities upto 10,000 centistockes

TYPE - B

Pump Number	Size suction & dicharge mm	Capacity litres per min	Pressure in Kg/Cm²
1	* 12.5	15	2 5 8
2	* 20	22	2 5 8
3	25	45	2 5 8
4	30	112	2 4
5	40	180	2 4 6
6	50	225	2 4 6
7	65	337	2 4 6
8	100	675	2 4
Motor Required :		H.P.	1/4 1/2 3/4 1 1.5 2 3 5 7.5 10 15
		KW.	0.37 0.55 0.75 1.1 1.5 2.2 3.7 5.5 7.5 11

RECOMMENDED : Pump Speed and Power requirements when pumping liquids 401 to 10.000 S.S.U.

Liquid Viscosity S.S.U.	401 to 1000	1001 to 2000	2001 to 5000	5001to10,000
Permissible Pump Speed with Reference to Max.				
Rated Speed from Table	100%	100%	75%	50%
Additional Power Required				
10 lbs Pressure	75%	100%	100%	100%
20 lbs Pressure	50%	75%	75%	100%
50 lbs Pressure	25%	50%	50%	60%
75 lbs Pressure	20%	35%	35%	50%