

ORBIT PUMPS & SYSTEMS PVT. LTD.

ROTARY GEAR PUMPS

- Hardened Gears for Heavy Duty
- Easy Maintenance
- Leakless / Leakproof Design

- High Flow at moderate Pressure
- Reliable, Efficient & Durable
- Low operating & maintenance cost



Vertical Flange Mounted Pump



Horizontal Flange Mounted Pump



Roto Piston Pump



Foot Mounted Pump



Flange Connections

- Adhesive
- Chocolate
- Dowtherm
- Edible Oil
- Emulsion
- Enamel

- F. O.
- Formaldehyde
- Fats
- Fatty Acid
- Glycol
- Hydraulic Oil

- H. F. O.
- Honey
- Insecticides
- Lacquer
- L.D.O.
- Lube Oil

- LSHS
- LYE
- LATEX
- Mineral Oils
- Mayonnaise
- Maize

- Paraffin
- Printing Ink
- P. U. Foam
- Plasticizers
- Peanut Butter
- Resins

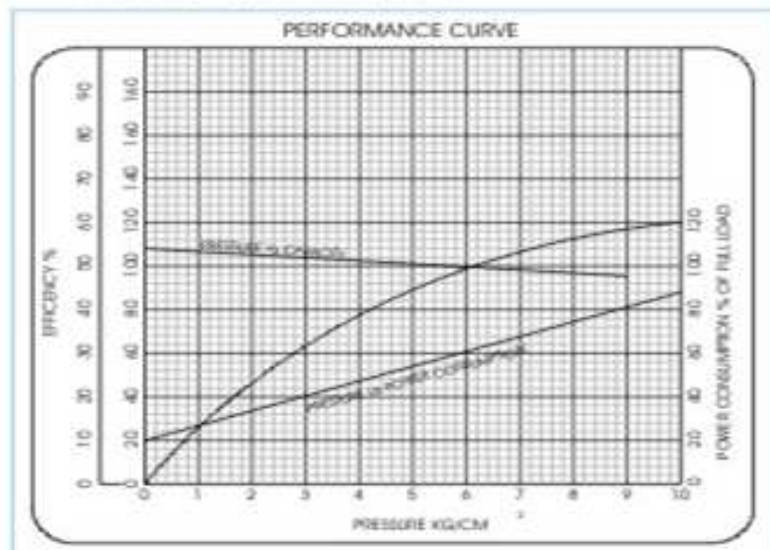
- Starch & Syrup
- Sodium Silicate
- Soap
- TAR
- Varnish
- Viscose

SUCCESS THROUGH CUSTOMER SATISFACTION

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PERFORMANCE CURVES OF ROTARY GEAR PUMP :

1. Pressure, Capacity & Efficiency Curves.



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

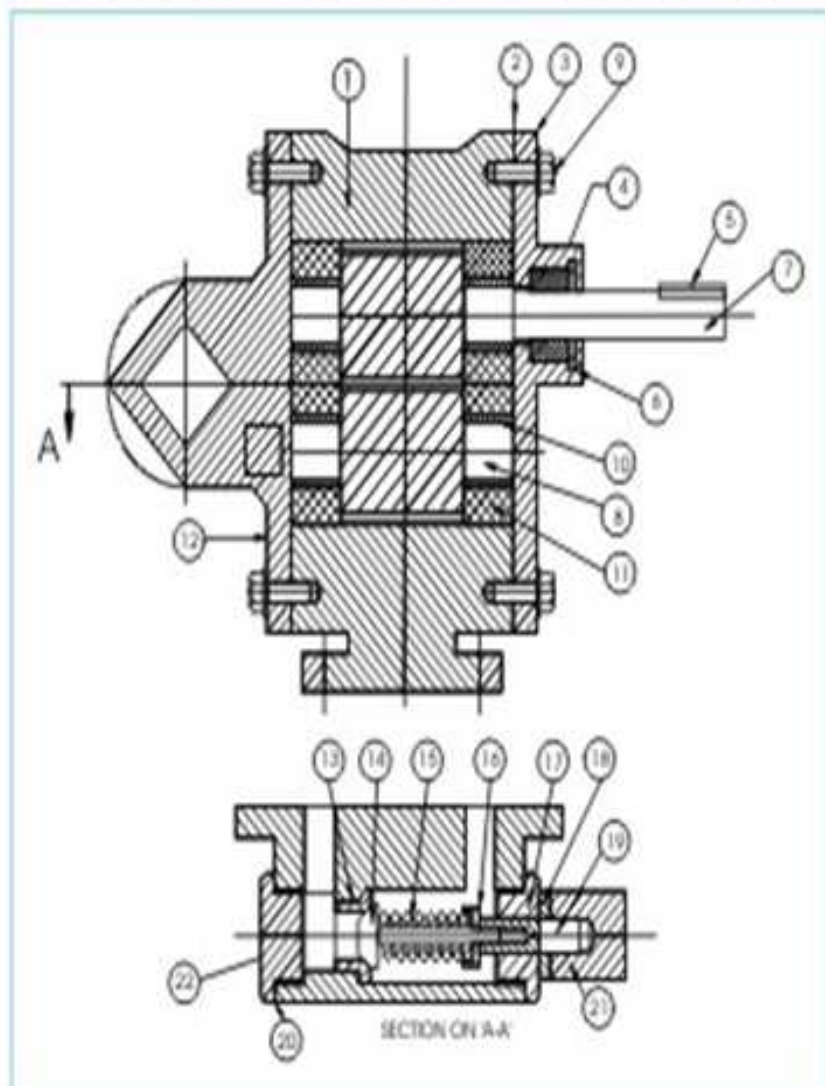
$$\text{BHP (Rated)} = \frac{\text{Work Done}}{\text{Constant} \times \text{Efficiency}}$$

$$Q = \frac{\text{Capacity in m}^3 / \text{hr} \times \text{Pressure in kg/cm}^2}{27 \text{ (Hydraulic Constant)} \times \text{Efficiency}}$$

3. Relief Valve Operation

Built in pressure relief valve is provided in pumps to operate at higher than rated pressure i.e. it starts operating at 1 kg/cm higher than rated pressure and fully opens 20% higher than rated pressure, taking maximum 30% higher power than rated power.

CROSS SECTION OF STANDARD ROTARY GEAR PUMP :



22	Plug at Delivery Side	1
21	Cap Nut	1
20	Packing	2
19	Relief 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.