

IC Internal Gear Pump with Crescent







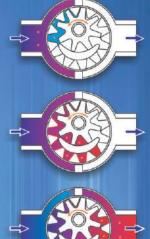
Max Pressure: 10 BAR

Temperature Range : -85° to +250°C

Viscosity : 1,00,000 cSt /









PUMPSQUARE SYSTEMS LLP

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Pumping Principle

Proven Principle of Internal Gear is used in pumping. Rotor (Outer Gear) is keyed to drive shaft whereas idler (Inner Gear) is located eccentrically on a pin on the front cover. Both the gears are in mesh and the ports are sealed by a crescent located on the front cover. As the rotor and idler gear unmesh, an under pressure is created and the liquid enters the new created cavities. Liquid is transported in sealed pockets to the discharge side. The walls of the pump casing and the crescent are creating a seal and separate suction from discharge side. The rotor and idler gear mesh pushing the liquid into the discharge line. Reversing the shaft rotation will reverse the flow through the pump as well.

Technical Data

Port Size : 1" to 8"

Capacities : up to 4000 LPM
Pressure : up to 10 kg/cm²
Speed : 100—1440 rpm
Operating Temperature : up to 300 °C
Viscosity : up to 100,000 cSt
Relief Valve : Integral / Optional

Jacketing : Optional—Cooling / Heating

Shaft Sealing : Gland Packing / Single or Double Mechanical Seal /

Lip Seal / Magnetical Sealed-Sealless/Grafoil Rings

Mounting : Bracket / Gear Box (Block Pump) / Foot Mounted

Drive : V-Belt Drive / Gear Box / Geared Motor / Direct Drive/

Mechanical Variator / with Built in Speed Reducer

Design Features

- · Overhung Design of Shaft
- · Low NPSH Required
- Pump & Rotor Clearnces
 Optimized for Maximum Efficiency
- Self-Priming
- Back Pull Design
- · Bi Directional (in most cases)
- · Insensitive to Viscosity
- · Low Pulsating Discharge
- · Excellent for High Viscous Application ·
- Single Adjustable End Clearance
- · Easy to Maintain

- Flexible Design Application Customized
 All Metal Construction No Contamination
- Liquid with poor lubricating properties can be pumped easily
- External Bearing enabling ease of access to pump
- · Can run dry for reasonable amount of time
- Slow Speed offers better pumping and longer life
- Improved Rotor Profiles for smooth Meshing minimizing Internal losses and Excellent Suction Capabilities

Applications

- · Chemical and Pharmaceutical Industry
- Food Industry
- · Chemical Processing Plants
- Iron & Steel Industry
- Textile, Leather and Paper Industry
- · Rubber and Plastics Industry
- · Paint & Ink Industry
- · Tar and Bitumen Processing Industry
- . Wood Processing and Furniture Industry
- · Oil Refining and Many More...

Material Of Construction

Casing : Cast Iron, Ductile Iron, Fabricated Steel,

Stainlees Steel

Rotors : Cast Iron & Steel, Stainlees Steel

Shaft : Steel, Stainlees Steel

Idler Pin : Steel, Hardened Steel, Coated, Stainlees Steel

R.V. Parts: Cast Iron, Steel, Stainlees Steel

Bush: Bronze, Gun Metal, Sintered Iron,
Sintered Bronze, Carbon Graphite

Bracket : Cast Iron, Steel, Fabricated Steel

*Optional MOC Includes Metal like Hast Alloy, Gun Metal & others can be accomodated on request.

Standard Ratios Availble for Pump with Built - In Speed Reducer are 1:1.5, 1:2, 1:2.5, 1:3, 1:4, 1:5, 1:6

Performance Specification

Pump Model	Standard Port Size in inches	Maximum Flow Rate	Maximum Pump Speed	Maximum Pressure
	Inlet x Outlet	M³/Hr.	R.P.M.	Kg/cm ²
IC - 20	1.5" x 1.5"	5.5	1800	10
IC - 21	1.5" x 1.5"	9	1800	10
IC - 22	2" x 2"	15	780	10
IC - 23	2.5" x 2.5"	20	640	10
IC - 24	3" x 3"	30	520	10
IC - 25	3" x 3"	45	420	8
IC - 26	4" x 4"	110	350	8
IC - 27	6" x 6"	135	280	8
IC - 28	8' x 8"	250	280	6

We also Manufacture :

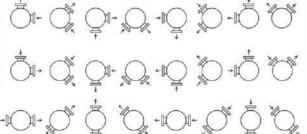
Internal Lobe Pumps External Gear Pumps External Lobe Pumps Shuttle Block Pumps

Progressive Cavity Pumps Twin Screw Pumps Triple Screw Pumps Flexible Impeller Pumps

| Piston Pumps | Peristaltic Pumps | Simplex / Duplex Filters | Thermic Fluid Pumps

Port - Ing Options

- · Opposite (180°) (Rotatable Casing)
- Right Angle (90°)(Rotatable Casing)
- NPT / BSP / SAE
- · Flange (ANSI or DIN Compatible)



Authorised Dealer

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