

How To Select The Correct Pump For Your Application

1. Determine the conditions under which the pump will be operating. These conditions include type of fluid pumped, its viscosity and specific gravity, the temperature, the desired flow rate, and pressure or suction at the inlet of the pump, the pressure required at the outlet of the pump, and the duty cycle to which the pump will be subjected. With this information known, select the best pump type for your application.

2. Refer to the Liquid Compatibility Guide in the Engineering Data Section for guidance in the selection of the best pump body, shaft, impeller, seal materials etc. for the application.

3. Turn to the applicable catalog section (Flexible Impeller Pumps, Diaphragm Pumps . . .), then to the subsection (Bronze Pedestal Pumps, Plastic Motor Driven Pumps . . .) and select a pump based on the individual pump's operating capabilities. Note the pump variations available and any special components (impellers, seals, motors . . .).

4. ITT Jabsco produces Technical Data Sheets for most of the products it manufactures. These sheets contain product data, application data, installation data, assembly and disassembly instructions, complete parts pictorial breakdown and listing, and precise

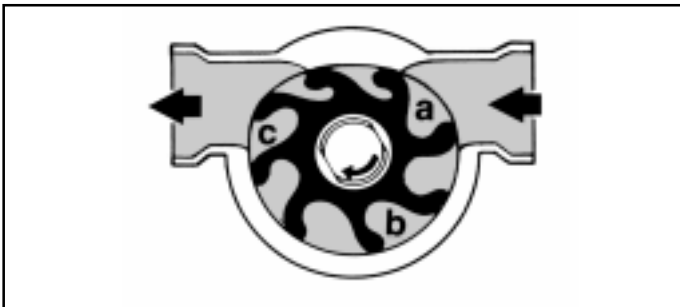
performance tables. If information of this type is required, request from the factory or through our Docufax System the particular data sheet associated with the product part number.

5. In an effort to assure that ITT Jabsco's products are used in applications for which they were designed, cautionary notices and warnings are attached to the products and appear in the text of this catalog and the Technical Data Sheets. Please carefully read and abide by these warnings. Your life may depend on it.

Flexible Impeller Pump

HOW IT WORKS:

- Flexible impeller blades, upon leaving offset cam, create a nearly perfect vacuum for instant self-priming.
- As impeller rotates, each successive blade draws in liquid and carries from intake to outlet port.
- As flexible impeller blades contact the offset cam they bend with a squeezing action that provides continuous, uniform flow.



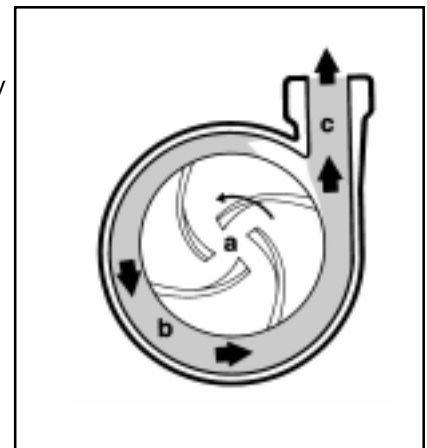
FEATURES

- **Versatile.** The flexible impeller pump combines the priming feature of positive displacement type pumps with the general transfer ability of centrifugals. It will pump either thin or viscous liquids – can handle more solids in suspension than other types of rotary pumps. It operates at low or high speeds – can be mounted at any angle and pumps in either direction with equal efficiency.
- **Self-Priming.** Pumps instantly with dry suction lifts up to 10 feet; up to 25 feet when wetted. Permits cleaner, safer installations. No foot valve required.
- **Simplicity.** One moving part – a tough, long-lived, wear-resistant flexible impeller lubricated by the liquid being pumped. No metal-to-metal pumping action – no gears to jam, clog or become noisy.
- **More Capacity.** Flexible impeller pumps, in general, require less space because they deliver greater flow for weight, size and price than other types of pumps.

Centrifugal Pump

HOW IT WORKS:

- Liquid enters inlet port of pump. Level of liquid must be high enough above pump for gravity to push it into pump or pump must be initially primed.
- Rotating impeller gives velocity energy to the liquid moving it to the periphery of the volute casing and towards the discharge port.
- Volute casing discharge arrangement converts velocity energy into static pressure or available pump head. Flow rate is dependent upon restrictions in the inlet and outlet piping and the height change that the liquid needs to be moved.



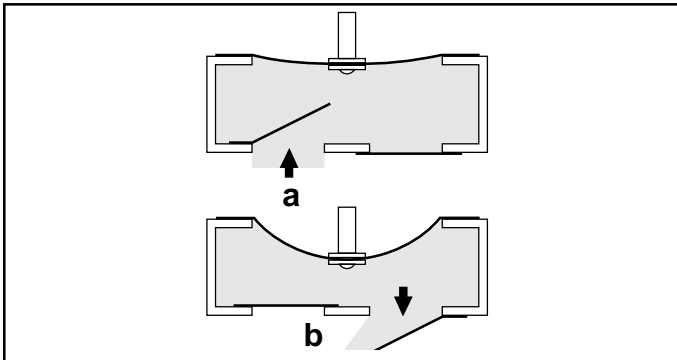
FEATURES

- **High Volume Flow.** Centrifugal pumps handle high volumes with a smooth, non-pulsating flow. The flow rate can be regulated from maximum output to no flow with no damage to the pump. An excellent pump for general transfer applications.
- **Low Maintenance.** Wear due to operation is minimal. Easily disassembled for quick service. Few moving parts.
- **Easy Installation.** Compact size. Discharge port can be rotated to various positions for ease of piping.

Diaphragm Pump

HOW IT WORKS:

- As diaphragm rises, liquid is pulled into pump chamber, while outlet valve is pulled closed.
- When diaphragm comes down, the liquid is forced through the outlet valve, while the intake valve is pressed shut.
- Diaphragm pumps can have single or multiple chambers, with smoother flow the result of more chambers.



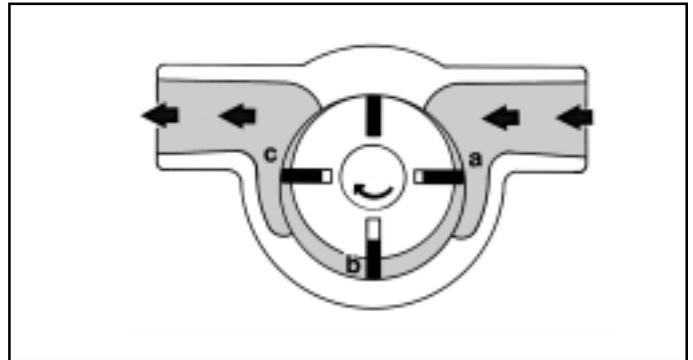
FEATURES

- **Run dry ability.** Diaphragm pumps do not depend on pumped liquid for lubrication, thus can be run dry without damage.
- **Self-Priming.** Liquid can be lifted up to six feet, with no need for external check valves.
- **Versatile.** The compact size, low power requirement and quiet operation make it the ideal pump for many marine applications.

Vane Pump

HOW IT WORKS:

- Vanes, upon leaving eccentric portion of liner create a partial vacuum for priming.
- As rotor rotates, each successive vane draws and carries liquid from intake to discharge port.
- When the vanes again contact the eccentric portion of the liner, they force liquid out the discharge port.



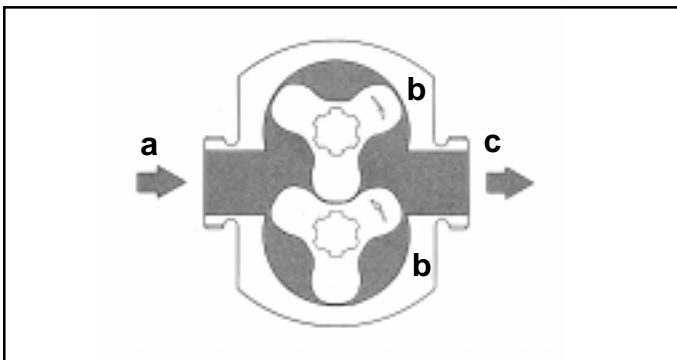
FEATURES

- **Durable.** Heavy duty construction in quality materials gives long life. Body is designed to resist environmental damage.
- **Self-Priming.** Lifts liquids up to 3 feet for self-priming. Permits less complicated and more economical installations.
- **Simplicity.** Few moving parts to replace. Maintenance is as simple as loosening three screws.
- **Versatile.** Excellent compact unit for transfer applications. Will pump thin or somewhat viscous products. Can be mounted at any angle and run in either direction.

Lobe Pump

HOW IT WORKS:

- Fluid is smoothly drawn into the inlet port of the pump by the counter-rotating rotors.
- As the rotors turn, each successive lobe draws fluid into the pump and carries it around the periphery of the pump case.
- As the rotors mesh at the discharge port, the fluid is positively discharged out of the pump at a steady rate.



FEATURES

- **Positive Displacement Action.** Lobe pumps use precision machined non-contacting rotors to deliver gentle positive displacement pumping action combining smooth, gentle movement of fluid, with the ability to generate high pressures and high flow rates. Pump can handle thin or viscous fluids as well as pastes, slurries and solids in suspension.
- **Hygienic Design.** Using hygienic finished 316 stainless steel, the lobe pumps provide superior hygienic design allowing approval by the U.S. 3A council and the U.S. Department of Agriculture for use in contact with human consumables.
- **Modular Design.** A multitude of options can be easily fitted to the basic pump to precisely fit the application. Fully interchangeable components and modular design make maintenance easier and reduces down time.