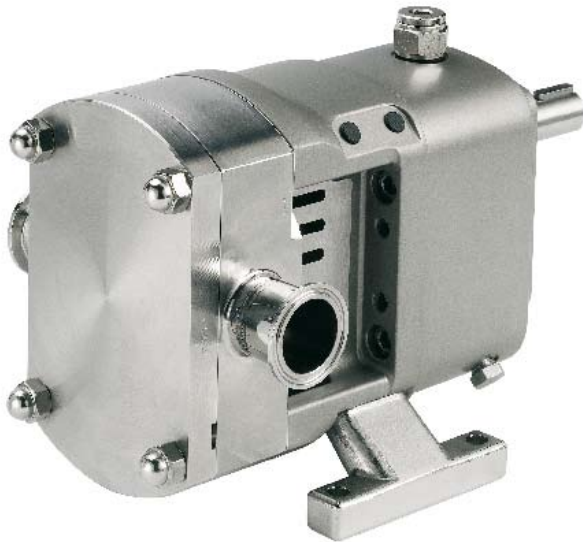


Johnson Pump rotary lobe pumps, model Classic+

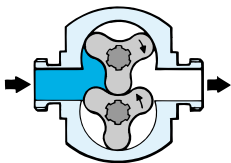


Rotary lobe pumps are used in a variety of industries including pulp and paper, chemical, food, beverage, pharmaceutical, and biotechnology. They are popular in these diverse industries because they offer superb sanitary qualities, high efficiency, reliability, corrosion resistance and good clean-in-place and service-in-place (CIP/SIP) characteristics.

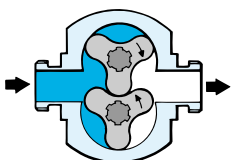
Rotary pumps can handle solids (e.g., cherries and olives), slurries, pastes, and a variety of liquids. If wetted, they offer self-priming performance. A gentle pumping action minimizes product degradation. They also offer continuous and intermittent reversible flows and can operate dry for brief periods of time. Flow is relatively independent of changes in process pressure, too, so output is constant and continuous.

Working principle

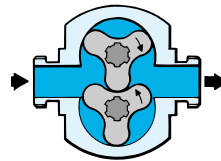
Each rotor consists of 2 or more lobes. One of these rotors is directly driven, while the other rotates with it.



The bottom lobe has begun sucking the liquid into the empty space. The upper lobe has the liquid in its empty space stuck between the casing and the lobe. So it can be transported to the outlet side.



The bottom lobe is ready to suck the liquid in its empty space. The upper lobe is on the point of pushing the liquid into the outlet.



The bottom lobe has liquid inside its empty space and is transporting it to the outlet side. The upper lobe is pushing the liquid into the outlet side while liquid is being sucked at the inlet side because of the empty space that is being created.

Advantages

- ATEX compliant
- Tri-lobe or multi-lobe rotor forms
- Flush rotor retention
- Hygienic flush front cover design
- Universal mounting with bolt on feet
- Easy to change shaft and port orientation
- Self draining when ports vertical
- Low shear
- Externally mounted shaft seals
- Operates in either direction
- Protected front oil seals, prevents ingress of water from pressure washers
- Simple to maintain

Characteristics

- Classic rotary lobe pump design
- Mechanical seals or simple 'O' ring seal
- Standard 0.8µm Ra machine finish
- Enhanced surface finishes available
- Scratch resistant powder coated finish on CP10 - CP30
- Two pack epoxy finish on CP40 & CP50
- FDA 3-A approval
- Most pumps are EHEDG certified

Material selection

Standard materials wetted parts	SS 316L
Standard housing materials	SS 316L

Optional

- Wetted parts in Hastelloy C22 and other materials
- Seals with Perfluorolastomer elastomers
- ATEX compliant pumps
- Special drive sets for stringent and hazardous applications

Key features of the Classic+ Series

■ Versatility and safety

For maximum flexibility, the feet of the pump may be removed and re-set to change the drive and port orientation to operate with the ports in a horizontal or a vertical position or to accommodate a top or bottom shaft drive. For heat sensitive applications, jackets may be fitted to the rotorcase and/or front cover to either heat or cool the pump head. To protect the pump, a spring or air loaded relief valve may be fitted to the front cover. This can be set on site to protect the pump from over pressurisation and is available with air operation for automated CIP processes.

■ Stays cleaner

Hygienically designed, it produces a gentle pumping action for delicate liquids with soft solids as found in the food industry. The robust, stainless steel construction is suited to the aggressive slurries and pastes of the chemical industry. For hygiene and corrosion resistance all product-wetted parts are manufactured from AISI 316L (DIN1.4404) stainless steel.

■ Easier maintenance

The mechanical seals are of cartridge design with the rotary seal retention isolated from the pumped medium giving improved operation and easier assembly, setting and maintenance. Available in single, flushed or double seal configurations, all seal combinations use the same component wearing parts.

■ Flow ranges

Model	Litres	Pressure	Port Ø	Max Speed
Classic	/rev.	Bar	mm	rpm
CP10/0005/12	0.046	12	25	1400
CP10/0008/08	0.083	8	40	1400
CP10/0011/05	0.111	5	40	1400
CP20/0020/12	0.202	12	40	1000
CP20/0031/07	0.313	7	50	1000
CP30/0069/12	0.694	12	50	750
CP30/0113/07	1.125	7	80	750
CP40/0180/12	1.800	12	80	700
CP40/0250/07	2.500	7	100	700
CP50/0351/12	3.514	12	100	650
CP50/0525/08	5.250	8	150	650

Application areas

■ Fresh Organic Soups

For the smooth handling of florets of cauliflower and broccoli, whole beans and pulses, tomatoes and tofu to make the finest fresh soups.

■ Personal Care Products

Many personal care products are very sensitive, some, like toothpastes are abrasive, others, like mascara are very, very thick and sticky.

■ Chocolate

Handled badly, the texture and taste of chocolate can easily change; chocolate needs low shear and a constant temperature. This requires a certain 'know-how'. A Johnson Pump offers both.

■ Dairy Cream

Hygiene is one of the most important factors in the dairy industry, so is the knowledge of product handling. Dairy creams require different handling solutions according to the fat content and pumping temperature.

■ Pet Foods

We can offer pumps with special hardened internals to handle everything from the raw ingredients such as chicken viscera and fats, to the finished gravies and sauces.

■ Culinary Sauces

Almost all culinary sauces such as finished cook-in sauces, condiment sauces such as mustard, horseradish and mint, through to apple and cranberry sauces. Shear sensitive pumping is an absolute requirement for the products.

■ Pharmacy

For pumping inhalants to cough syrups, injectables to creams

■ Chemical industry

Almost all chemicals can be pumped without problems