

Johnson Pump rotary lobe pumps, model Concept SQ Ideal for hygiene-critical applications



Today's hygiene-critical technologies are far more exacting; the need to quantify and control micro-organism growth accurately and efficiently is of paramount importance.

The consequences of contamination are far too serious to risk. As well as wasting valuable resources, spoilt product is expensive to dispose of and, as recent cases have shown, the repercussions of contamination reaching the consumer can be catastrophic.

The only way to satisfy all today's requirements is a pump which has been designed to minimise cross-contamination and resulting microbial growth - effectively, economically and with the utmost reliability.

Advantages

- Eliminates potential product-retaining areas
- Permanent sterile barriers at all product/atmosphere interfaces.
- Front-loading single or double mechanical seals
- External rotor fixing
- Superb self-draining characteristics

Characteristics

- CCFRA certified EHEDG
- Benchmark CIP and SIP performance
- Simple maintenance with minimum downtime.

Choice of Seals

All seals are placed directly behind the rotor maximising drainage from and cleaning of the seal area. There is the choice of:

- Front loading single mechanical seal
- Single flanged mechanical seals
- Double flanged mechanical seals

Steam or sterile fluid barrier seals available for front cover and inlet/outlet ports.

Inlet and outlet ports can be finished to a variety of clamp, thread or flange standards, with aseptic fittings available where barrier circulation is required to ensure that the process environment is reliably maintained.

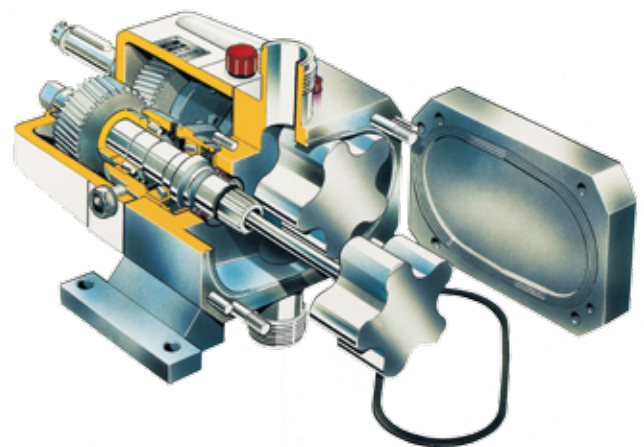
Material selection

Wetted parts 316L low carbon stainless steel, food polished

Standard machined internal surface finish to 0.8 µRa or better. Improved finishes and electro-polishing available.

Safety first

The front cover fitted with a controlled compression joint, allowing barrier circulation where required, whilst eliminating all the inaccessible product-retaining crevices associated with static 'O'-ring joints.



New multi-lobe rotors with internal location and drive are retained from outside the pumping chamber to eliminate the crevices associated with conventional fixing methods for optimum cleanability. All potential entry and exit points at the product/atmosphere interfaces can be serviced with a steam or fluid barrier to ensure that product integrity and required containment are continuously maintained for maximum process control and assured operator/ environmental safety.

■ Flow ranges

| Model | Litres | Port Ø | Bar | Max Speed |
|--------------|--------|--------|-----|-----------|
| ConceptSQ | /rev. | mm | max | rpm |
| SSQ1/0004/12 | 0.04 | 25 | 12 | 1000 |
| SQ1/0007/06 | 0.07 | 40 | 15 | 850 |
| SQ2/0017/15 | 0.17 | 40 | 15 | 850 |
| SQ2/0030/07 | 0.30 | 50 | 7 | 850 |
| SQ3/0054/15 | 0.54 | 50 | 15 | 700 |
| SQ3/0103/07 | 1.03 | 80 | 7 | 700 |
| SQ4/0160/15 | 1.60 | 80 | 15 | 600 |
| SQ4/0303/07 | 3.03 | 100 | 7 | 600 |

■ Technical information

Models : 4 Frame sizes - 8 displacements
 Max Flow: 109 m³h
 Max Pressure: 15 bar
 Max Viscosity: 500,000 cP
 Port Sizes: 25 - 100 mm (1.0" - 4.0")

Application areas

- Food
Baby foods, dairy products, fruit juices, low-fat spreads, yoghurts and ice creams.
- Personal hygienic products
Lotions, moisturisers, cosmetics, aqueous emulsions, actives and hair care products.
- Bio-technology
Fermentation cell broths, pyrogen-free liquids, intermediates, antibodies and micro-organisms for containment.
- Pharmaceutical
Sterile injectables, aqueous creams, ointments, vaccines, blood products and sterile sugars.
- Chemical
Flavourings, fragrances, colourings, inks, detergents and organic compounds.
- Electronic and photographic
Etching agents, cleaning fluids, developers and emulsions.

