SPXFLOW

TopWing

ULTRA-HYGIENIC ROTARY LOBE PUMPS



CERTIFIED HYGIENIC EQUIPMENT DESIGN EUROPEAN GROUP EHEDG
TYPE EL
SEPTEMBER 2001

3A®
02 - 10

Johnson Pump®

The TopWing pump is designed for ultra-hygienic applications and is very easy to clean both by CIP and by SIP. The pump is extremely rigid built for long durable operation and easy maintenance.

The complete pump is made of stainless steel with smooth surface on all product-contact parts.

The pump range is approved for EHEDG, 3-A and a variety of other certificates or validation documents are available for the most demanding needs.

With less agitation and shear TopWing can handle delicate liquids containing both soft and hard particles without product degradation.

TopWing is the most modern and strongest rotary lobe pump in the market today without compromising hygiene.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world.

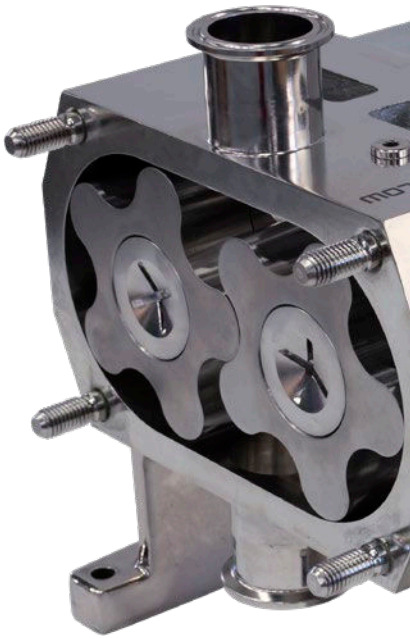
Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands. Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

For more information, please visit www.spxflow.com

TopWing
Ultra-Hygienic Rotary Lobe Pumps

ULTRA-HYGIENIC DESIGN

- Self-draining rotor case in vertical position
- Self-draining mechanical seals inside the rotor case
- Clean O-ring position
- 316 L stainless steel body and cover
- Smooth standard surface. Electro-polished finish as option
- Easy to clean – CIP, SIP or manually
- Withstands rapid temperature changes and accommodates harsh CIP/SIP-cycles.
- EHEDG and 3-A options



VALIDATED AND CERTIFIED

- Easy to validate for Ultra-hygienic applications
- Package of certificates available as option, as example:
  - Flow and pressure tests
  - Cleanability certificates as EHEDG and 3-A
  - Material certificates as 3.1, FDA, USP Class VI and AFO
  - Certificates of surface roughness, welding, electro- polishing
  - ATEX certificates (hazardous zone)
  - Quality (ISO 9001) and environmental (ISO 14001) certificates

TROUBLE-FREE OPERATION

- Duplex stainless steel in rotors, shafts and retainers
  - Strong assembly
  - Low thermal expansion
  - High corrosion resistance
  - Harder material
- Complete pump in stainless steel
  - Designed for difficult external environments
  - Easy to clean externally without risk for corrosion
- Heavy-duty construction
  - Maximized duplex shaft and bearing diameter/tight bearing position
  - Increased lifetime on bearings and seals

EASY MAINTENANCE

- Change of shaft seal without disassembling the rotorcase
- Heavy duty bearing design – pre-loaded taper roller bearings without shimming



SPECIAL APPLICATION OPTIONS

- Rectangular inlet for high viscosity products and considerably improved inlet conditions
- Thermal jacket to provide a constant temperature level within the pump
- Relief valve to secure against too high pressures. Options for automated CIP cycles are available

DESIGNED FOR DIFFICULT EXTERNAL ENVIRONMENTS

- Water resistant gear case with special seals to minimize water intrusion
- Air breather of stainless steel with back valve and labyrinth
- Complete pump manufactured in stainless steel – no corrosion, no painting



ROTOR OPTIONS

- Bi-wing rotors
  - Smooth performance with minimal damage of pumped media having soft particles such as fruits
  - Low or no pulsation when pumping viscous liquids
- Multi-lobe rotors
  - Low noise level at higher speeds
  - Low pulsation when pumping low viscous liquids
  - Low NPSHr
  - Reduced friction and power losses





TECHNICAL DATA - STANDARD CLEARANCE CLASS

PUMP TYPE	DISPLACEMENT (DM^3/REV)	MAX CAPACITY (M^3/H)	NOM INTERNAL DIA OF CONNECTION (MM)	MAX WORKING PRESSURE (BAR)	MAX SPEED (RPM)
TW1/0041	0.041	3.4	25	15	1400
TW1/0082	0.082	6.9	25	7	1400
TW2/0171	0.171	12.3	40	15	1200
TW2/0343	0.343	24.7	50	7	1200
TW3/0537	0.537	32.2	50	15	1000
TW3/1100	1.100	66.0	80	7	1000
TW4/1629	1.629	78.2	80	15	800
TW4/3257	3.257	156.3	100	7	800

Typical product applications

Dairy

Milk, Yogurt, Cream, Curds and whey, Skimmed milk, Butter, Cottage cheese, Melted cheese



Drinks & Beverage

Fruit juice, Yeast, Cider and wine, Liquid sugar, Glucose, Spirits, Extracts, Beer



Food & Confectionery

Fruit preserves, Baby food, Soups and sauces, Chocolate, Sausage meat, Vegetable oils, Batter, Dough, Jam, Egg products, Prepared food, Soups, Syrup, Liquid sugar, Fondant, Ketchup, Mustard, Candy paste



Pharmaceutical, Medicine and Bioprocessing

Ultra filtration, Blood, Plasma, Enzymes, Buffers, Coating solutions, Fermentation circulation, Alcohol, Sugar solutions,Pill paste, Dragee solutions, Nutrients



Cosmetics & Personal care

Toothpaste, Shampoos, Gels, Creams, Soap, Lotions, Cosmetics, Hair conditioners, Extracts



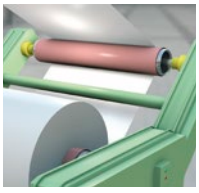
Chemical

Paint, Resins, Oil additives, Polymer, Glue, Ink, Gelatine



Pulp & Paper

Pine oil, Soap, Starch, Lignin, Coating, Slurry, Clay, Green liquor mud, Sludge



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FOR YOUR LOCAL REPRESENTATIVE:

http://www.spxflow.com/en/johnson-pump/where-to-buy/

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