



**JOHNSON PUMP GROUP**  
AN SPX BRAND

# TopWing Ultra-Hygienic Rotary Lobe Pumps



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**SPX**<sup>®</sup>

# TopWing – Ultra-Hygienic Rotary Lobe 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.

## 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



## 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



### 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

### 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



### Easy maintenance

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

# Industries and 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



## Technical data - Standard clearance class

Pump type	Displacement (dm <sup>3</sup> /rev)	Max capacity (m <sup>3</sup> /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



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