Proven Performance and Reliability

SCPP 1 Circumferential Piston Pump

Application
The SCPP range of positive displacement pumps have been designed for use on a wide range of applications within Dairy, Food, Beverage, Pharma and Personal Care markets. The highly efficient design is particularly suited to applications that are low in viscosity with medium to high discharge pressures.

Standard Design
Pump Gearbox The SCPP pump with its circumferential piston pump design concept has a cast iron gearbox which provides maximum shaft rigidity. Gear box is powder-coated. Stainless steel gear box is optional on models 006, 015, 018, 030, 045, 060 & 130. One-piece 316L stainless steel shafts are standard on models 006, 015 & 018. High-strength 17-4 PH one-piece shafts are standard on models 030, 045, 060, 130, 220 & 320. Four-way mounting allows horizontal or vertical porting and provides mounting flexibility.

Pumphead Construction The SCPP in standard specification has pump casing in AISI 316 stainless steel with an internal surface finish of Ra 32/Ra 0.8 complying to 3A standards. Rotors are made of special non-galling alloy and are available as standard with twin-wing form or optionally with single wing for handling large solids. Seal options include single O-ring seal, single mechanical seal, double O-ring seal with flush, or double mechanical seal with flush.

Pump Performance

<table>
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<tr>
<th>SCPP 1 Model</th>
<th>Nominal Capacity</th>
<th>Displacement per Revolution</th>
<th>Maximum Pressure</th>
<th>Temperature Range</th>
<th>Standard Ports</th>
<th>Optional Ports</th>
<th>Maximum Speed</th>
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<td></td>
<td>M³/hr US GPM Litre US Gal. Bar PSI Deg. C Deg. F</td>
<td>mm mm in. in. (RPM)</td>
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Hot clearances required for high temperature operation.
Materials of Construction

Shaft Sealing Options
...for different liquids and conditions of service

| Single O-Ring Seals | Standard O-rings and Cover Seals: | Buna |
| - Optional O-rings and Cover Seals: | FPM, EPDM, Silicone |

| Double O-Ring Seals with Flush | Standard O-rings and Cover Seals: | Buna |
| - Optional O-rings and Cover Seals: | FPM, EPDM, Silicone |

| Single Mechanical Seals | Standard Seal Faces: | SiC/SiC |
| - Standard O-rings and Cover Seals: | Buna |
| - Optional Faces: | Carbon, Ceramic |
| - Optional O-rings and Cover Seals: | FPM, EPDM, Silicone |

| Double Mechanical Seals with Flush | Standard Seal Faces: | SiC/SiC |
| - Standard O-rings and Cover Seals: | Buna |
| - Optional Faces: | Carbon, Ceramic |
| - Optional O-rings and Cover Seals: | FPM, EPDM, Silicone |

Remanufacturing Value
We offer unrivaled value by remanufacturing worn Alfa Laval or competitor circumferential piston pumps to like-new condition, providing you with increased efficiency and reduced slip for enhanced productivity. Alfa Laval will replace all parts except the cover, pump case, gear case in their remanufacturing process, and provide you a one-year warranty on the work. Machined in increments as required by wear, the pump case and cover are outfitted with corresponding oversized rotors. The SCPP 1 can be remanufactured up to 4 times, and the SCPP 2 up to three times for unmatched savings. Alfa Laval remanufacture and complete factory tests to ensure your pumps perform from day one and beyond. Best of all, having your pumps remanufactured by Alfa Laval gets you all of our improved features such as:
- One-piece shafts
- Helical timing gears for higher load carrying and quieter operation
- Stainless steel bearing retainers for increased corrosion resistance
Alfa Laval Positive Displacement Circumferential Piston Pumping Principle

Alfa Laval rotor wings (pistons) rotate around the circumference of the channel in the pump casing. This continuously generates a partial vacuum at the suction port as the rotors unmesh, causing fluid to enter the pump. The fluid is transported around the channel by the rotor wings, and is displaced as the rotor wings re-mesh, generating pressure at the discharge port. Direction of flow is reversible.

The deep channels in which the rotors travel provide large voids to minimize shear and bruising of solids.

The rotors are made of non-galling alloy, allowing extremely tight clearances between rotating and stationary surfaces, which ensures high efficiency and metering accuracy, even on thin liquids.

The hub of each non-galling rotor rotates in a recess in the pump head to minimize deflection even at high discharge pressures.

Unique Cleaning and Maintenance Features
- Designed for easy strip cleaning, the pump casing is independently fastened to the gearbox to prevent damage to the seals when the cover is removed, and to allow the rotors to be turned while spraying down the fluid chamber.
- Bearing retainers are stainless steel, not carbon steel, ensuring longer life under harsh cleaning conditions.
- Grease fittings are threaded, not pressed in, to prevent accidental removal during greasing.
### Dimensions

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<th>Model</th>
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**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.

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The information contained herein is correct at the time of issue, but may be subject to change without prior notice.