# SCN PUMPS Application areas



#### Food Processing

soups, sauces, ready meals, condiments and sausage meat. Filling moved without damage to delicate cells and particles. machine feed is a particular speciality for SCN pumps.



#### Beverage and Brewery

SCN pumps are well-established for the transfer of products Superb suction performance and gentle operation are significant throughout the food industry – from homogeneous media, to benefits of SCN pumps. Thick concentrates at sub-zero temperalarge solids and lumps in suspension. Typical applications include tures can be transferred with ease. Highly sensitive fresh juices are



#### Milk Products

SCN pumps are perfect for the pumping and safe movement of The cosmetics industry chooses SCN pumps for a wide range of and fats at various temperatures can be pumped with ease. gentle handling makes an SCN ideal for many duties.



#### Cosmetics & Pharmaceuticals

delicate cream, yogurt, cheese curds, ricotta and cream cheeses. fluids from shampoo and conditioners, to pastes, lotions, crèmes They are equally good for the addition of fruit purees. Butter and aqueous emulsions. The excellent suction charteristics and



#### Confectionary & Bakery Industry

Highly shear sensitive cleaning solutions, detergent concentra- The confectionary industry employs SCN pumps for chocolate tes, performance enhancers, washing-up liquids and suspensions toppings, sugar solutions, syrups, caramel, praline fillings, fats and are the perfect match for SCN pumps, as are highly viscous and many similar products. Heated pump housings are available for temperature critical media.





CSF Inox S.p.A. Strada per Bibbiano, 7 - 42027 Montecchio E. (RE) - ITALY EU CSF INOX S.p.A. Strada per bibbland, / - 1202/ Fronteccino E. (RE) Fine E Composition of the second second

#### Fine Chemicals

challenging ingredients like silicones.





cod. DCATLSCNGB ed. 09/08

## SCN pumps A Gentle Revelation

Engineers and processing experts have described the SCN pump as a 'revelation in pump design'. This revolutionary positive displacement pumping principle creates a powerful and extremely capable range of pumps, able to deliver up to 90,000 litres per hour across a wide arrange of viscosities and applications.



### Sinusoidal Simplicity:

The simplicity of a stainless steel sinusoidal wave-form rotor coupled with a 'slidevalve' and two 'stators', produces a highly effective pump with very gentle fluid handling and low-pulsation.

The SCN pump is a technological (r)evolution which practically reinvented the displacement pump!

## Operating principle

Sinusoidal rotors have four rotating 'chambers' in which the fluid is moved and then displaced.

The 'slide-valve' separates the low-pressure inlet from the high-pressure outlet, thus creating the conditions necessary for a superb pump.

### Continuous SCN performance:

SCN pumps are design for continuous and reliable operation within an efficient modern clean processing environment.



Stators are available in various materials and designs to suit application needs.

-Pump housing in AISI 316L (1.4404.).

— Sinusoidal Rotor in AISI 316L (1.4404).

-Slide-valve in different plastics according to the fluid and application.

## Advantages SCN pumps

#### High output capacity

Flow rates from a few litres up to 90 m3/h are achievable even with viscous fluids.

#### Enormous flexibility

The modular design of SCN pumps allows exact matching of the pump specification to the product and the process requirements, for optimised life and performance. Materials are selected according to pumped products and temperatures. Numerous drives and base plate options are available, together with different pump casings and ports. Custom built solutions are considered on request.

#### Gentle Principle

Processed products are handled with sensitivity to ensure that their valuable structure and characteristics are protected from damage while being pumped.

#### Superb Suction Performance

The low-pulse principle and open-port design combine to give extremely effective suction performance; especially good for low NPSH duties and viscous products.

#### Low Pulse, Low Vibration

The low pulsation design of SCN pumps minimises vibrations in the pipework, ensuring less wear, consistent rapid flow and a quieter process environment.

#### Compact Design

SCN pumps are small in size, while providing high performance.

#### No Aeration or Foaming

The gentle action avoids foaming and aeration, for better product life and improved level control.

#### Multi-product Capability

SCN pumps are ideal for multi-product duties. A wide range of high to low viscosity fluids with varying rheologies can be handled with the same pump.

#### Low downtime

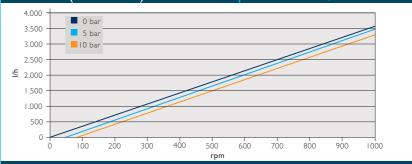
Easy in-line maintenance reduces downtime and enhances safety. Effective in-place CIP or simple manual cleaning can be carried out quickly.

#### Easy Quick Maintenance

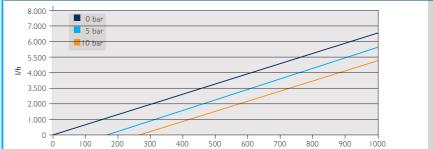
Planned inspection and maintenance can be very rapid. Typically only 10 minutes is required to easily check or replace the wearing parts. Special skills are not required. Only a brief training is needed to carryout all common tasks.

## SCN pumps Performance tables

#### SCN 10 (1" - DN25) Output curve at 1,000 cP



## SCN 20 (2" - DN50) Output curve at 1,000 cl



Output curve at 1 000 cl

400

500

itput curve at 1 000

#### Technical data:

Dimensions W x H x D: approx. 290 x 175 x 180 mm Delivery volume: 0.06 litres per revolution 3,600 litres per hour max. Delivery pressure: up to 10.0 bar Temperature range: up to +130 °C

#### Technical data:

Dimensions W x H x D: approx. 350 x 190 x 230 mm Delivery volume: 0,11 litres per revolution 6.600 litres per hour max. Delivery pressure: up to 10,0 bar Temperature range: up to +130 °C

#### Technical data:

Dimensions W x H x D: approx. 500 x 270 x 320 mm Delivery volume: 0,45 litres per revolution 16.200 litres per hour max. Delivery pressure: up to 15,0 bar Temperature range: up to +130 °C

#### Technical data:

Dimensions W x H x D: approx. 620 x 370 x 380 mm Delivery volume: 1,05 litres per revolution 37.800 litres per hour max. Delivery pressure: up to 15,0 bar Temperature range: up to +130 °C

### SCN 60 (6" - DN150)

SCN 25 (2 1/2" - DN65)

0 bar

📕 4 bar

8 bar

I5 bar

SCN 40 (4" - DN100)

0 bar

📕 4 bar

8 bar

25.000 📃 🛛 15 bar

l2 bar

12 bar

18.000

16.000

14 000

12.000 -

8.000 -

6.000

4.000

2.00

40.000

35.000 -

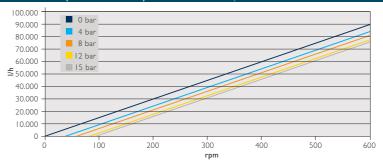
30.000 -

- 20.00

15.00

10.00

≝ 10.000 ·



200

#### Technical data:

Dimensions W x H x D: approx. 770 x 530 x 590 mm Delivery volume: 2,50 litres per revolution 90.000 litres per hour max. Delivery pressure: up to 15,0 bar Temperature range: up to +130 °C