

**The inventors of the Sinusoidal Pump**

**Company confidential**



*Where we come from*

- **Manfred Sommer started MASO in 1961**
- **Invented the Sinusoidal PUMP in 1983**
- **MASO sold in 1998 to Sundyne part of Hamilton Sundstrand**
- **Sales grew to 12 Mio € just with one pump system for niche applications**
- **Martin Sommer left MASO in 2008**
- **MASO sold to Watson Marlow in 2009**
- **SOMA Flow started in 2010**
- **SOMA Pumps started in 2015**



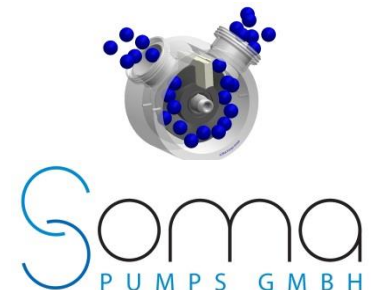
**Manfred Sommer**



## *Where we are coming from:*

- **SOMA Flow started in 2010**
- **First products – standard Sinusoidal PUMP parts based on our 30 year experience**
- **Quickly we recognized that we had to add parts for all sizes of pumps**
- **Additionally we added all special parts such as oversized liners etc**
- **All pumps are manufactured in Germany**
- **Technology leadership for all sizes of Sinusoidal pumps**
- **Office with 300 sqm space**
- **SOMA Pumps is a logistic company – no own manufacturing – huge application knowledge**
- **SOMA Pumps covers now whole Europe with channel partners**
- **SOMA Pumps started in 2015 – taking over the business of SOMA Flow**

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*Our office – 300 sqm space*



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# Main markets and applications

**Cosmetic**



**Fine  
chemicals**



**Dairy**



**Food**



**Beverage industry**

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**Soma**  
PUMPS GMBH



## References Cosmetic Industry

**L'ORÉAL**  
WORLD LEADER IN BEAUTY PRODUCTS



mibelle  
Mibelle AG Cosmetics

Bayer HealthCare  
**Florena**



ADA COSMETIC

**LOGOCOS**  
NATURKOSMETIK AG  
The Natural Care Company



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## References Food Industry



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## SINE – Pump overview

Modell	Max. particle size	Max. pressure	Speed	Max. flow (l/h)	Volume per revolution	Max.temperature (°C )
SCN 10	10 mm	10 bar	1.000 rpm	3.180 l/h	0,053 l	125 °C
SCN 20	18 mm	10 bar	1.000 rpm	4.000 l/h	0,11 l	125 °C
SCN 20D	18 mm	6 bar	1.000 rpm	4.000 l/h	0,11 l	125 °C
SCN 25	25 mm	15 bar	600 rpm	17.000 l/h	0,45 l	125 °C
SCN 25D	25 mm	6 bar	600 rpm	17.000 l/h	0,45 l	125 °C
SCN 40	35 mm	15 bar	600 rpm	38.000 l/h	1,05 l	125 °C
SCN 40D	35 mm	6 bar	600 rpm	38.000 l/h	1,05 l	125 °C
SCN 60	60 mm	15 bar	600 rpm	90.000 l/h	2,50 l	125 °C

Available connections : Tri – Clamp, German Milk Fitting, SMS, RJT, flange connection, or on request



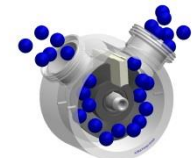
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# Tech sheet

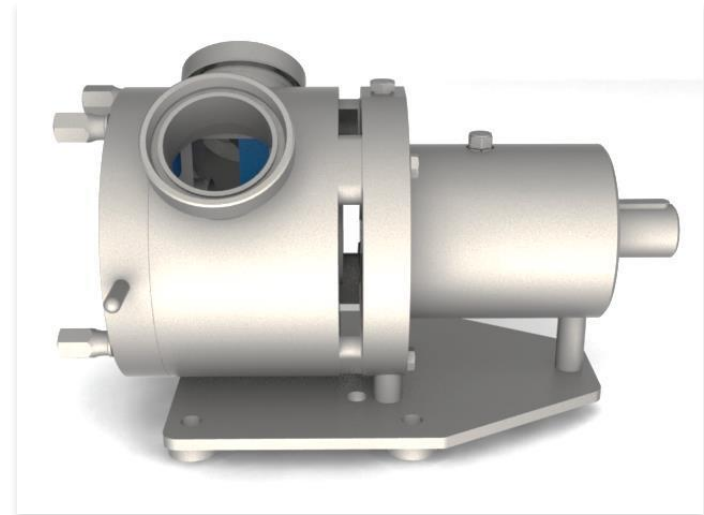
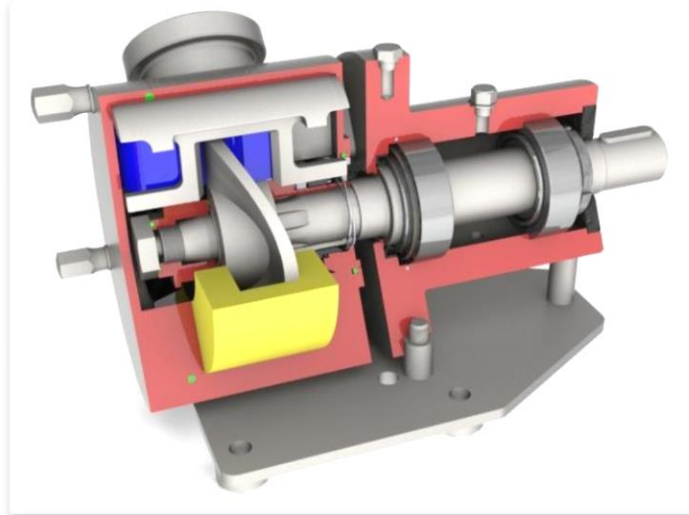
	<u>SOMA – Sinusoidal – Pumps - SCN product range</u>
Flows to	91m <sup>3</sup> /hr
Heads To	153m
Max Power	37kw
Max Working Pressure	15kg/cm <sup>2</sup>
Temp Range	-40-100°C
Standard Delivery	2 to 4 weeks / or after negotiation
Speed Range (rpm)	600 max
Materials of Construction	316 Stainless Steel, Polyamide
Max Viscosity	2,000,000 centipoise
Typical Applications	Cheese, curd, deli sadals, soup, chicken breasts, ground beef, juice concentrates, chocolate, dough, lotions, shampoos, lipstick, polymers, paints
Industries	Dairy, Prepared Foods, Meat and Poultry, Beverage, Confection, Bakery, Seafood, Pharma-ceutical, Cosmetic, Industrial
Solids Range	Up to 63mm diameter
Sizes Available	4
Seal Configurations Available Company confidential	Lip Seal, Single Mechanical
Available Flanges	Tri-Clamp, Bevel Seat, DIN, SMS, ANSI 150# RF
Suction and Discharge Size (in)	1x1, 2x2, 3x3, 4x4, 6x6
Displacement per Revolution	0.015 - 0.67 GAL / (0.06 - 2.50 Liters)



## *Positive displacement pump according to the Sinusoidal -Principle*

***From the inventor of the Sinusoidal Pump  
available in sizes SCN20/25/40 and 60***

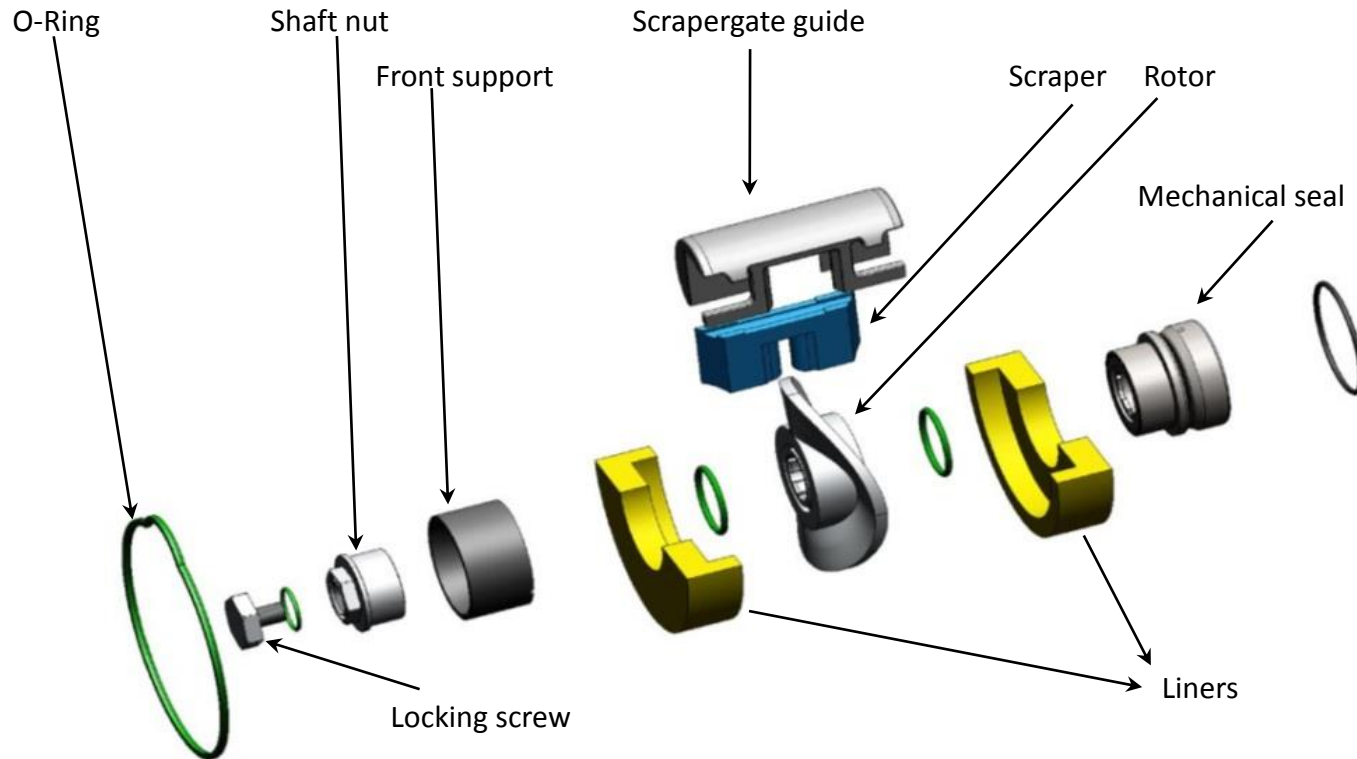
*Complete SCN25 stainless steel-pump with hygienic clear gap between pump body and bearing plus adapter-plate.*



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## Spare parts for SPS-SCN Sinusoidal Pumps for all sizes



***All materials are according to the common norms and requirements and they are available in different variations.***

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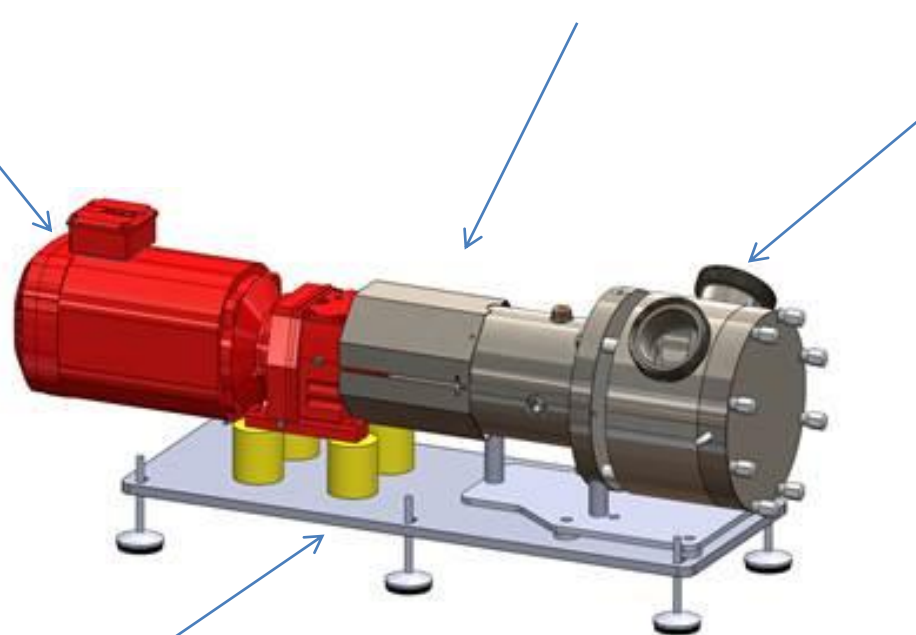


## Advantages in various industries

Gearbox for Frequency Converter

Coupling Guard

Full Stainless Steel Pump head !



Base Plate in  
Stainless Steel

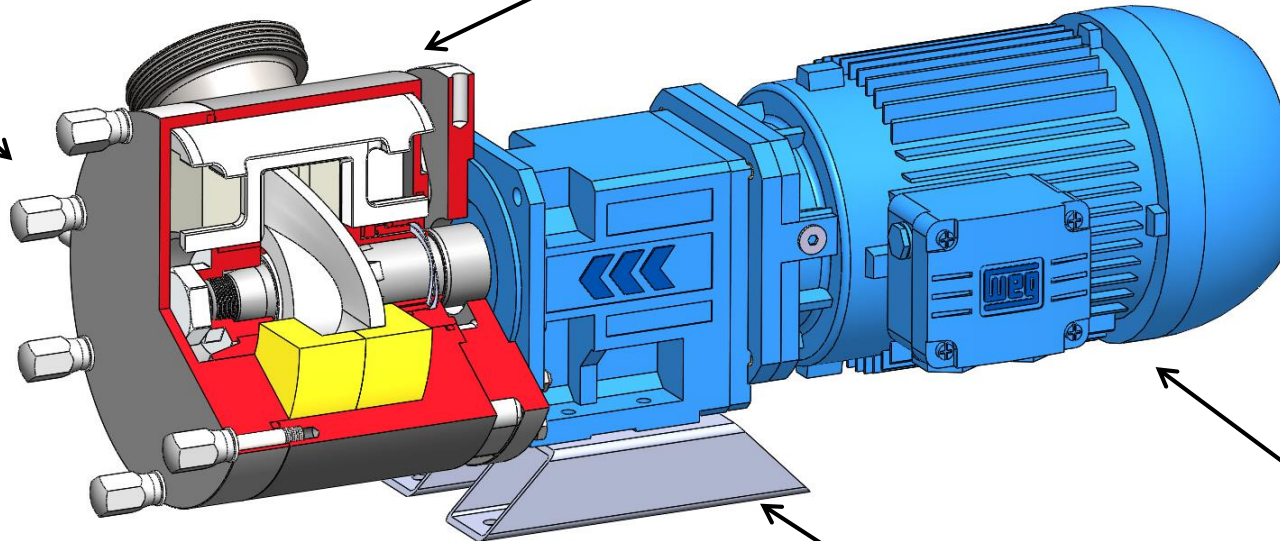
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## The new Monobloc Sinusoidal – Pump

Pump head in full stainless steel

Clear gap



Gear Box

Simple base plate

- Available in the sizes SCN 20D, SCN 25D, SCN 40D
- Direct close coupled SINUSOIDAL – Pump ( Monobloc Version )
- Max. 6 Bar
- Pump head is identical with 15 bar version
- All spare parts are 100 % interchangeable with the standard version
- 30 % price advantage against standard pump

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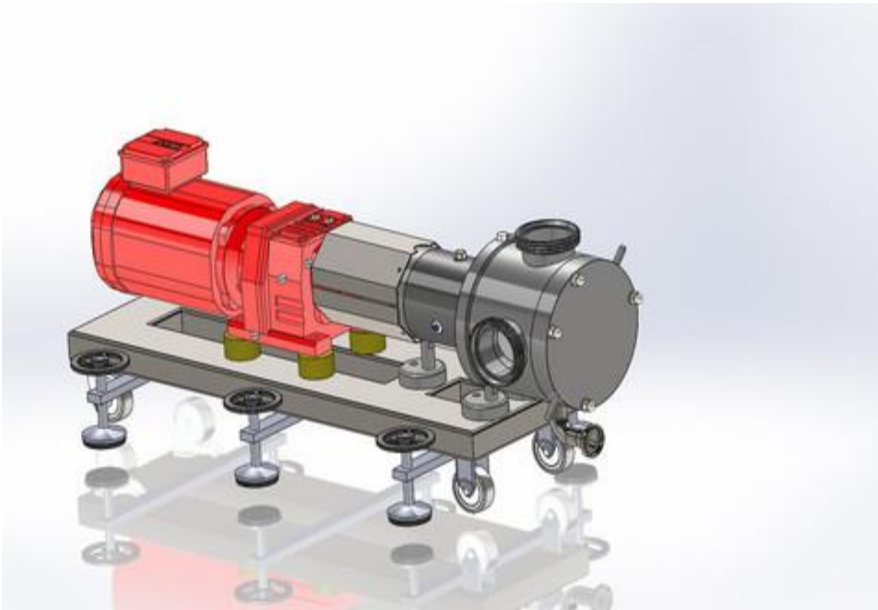


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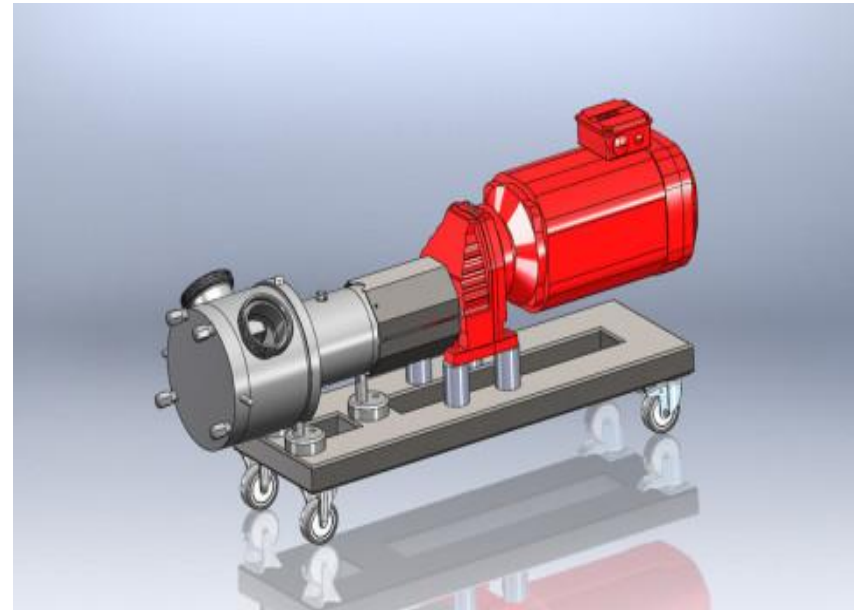


## *Sinusoidal – Pump Options*

**Sinusoidal – Pump unit with adjustable feet**



**Sinusoidal – Pump unit with portable baseplate**



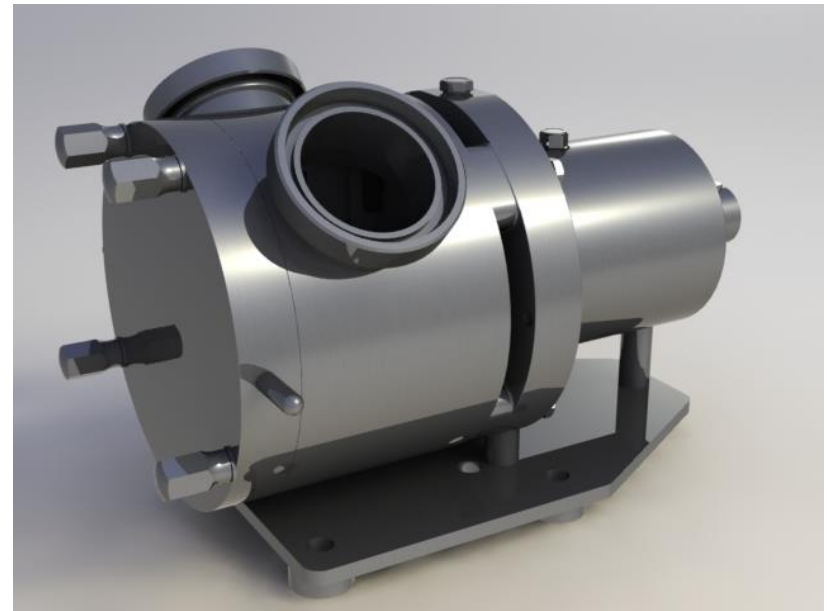
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## *Sinusoidal – Pump Options*

Sinusoidal – Pump with static flush system

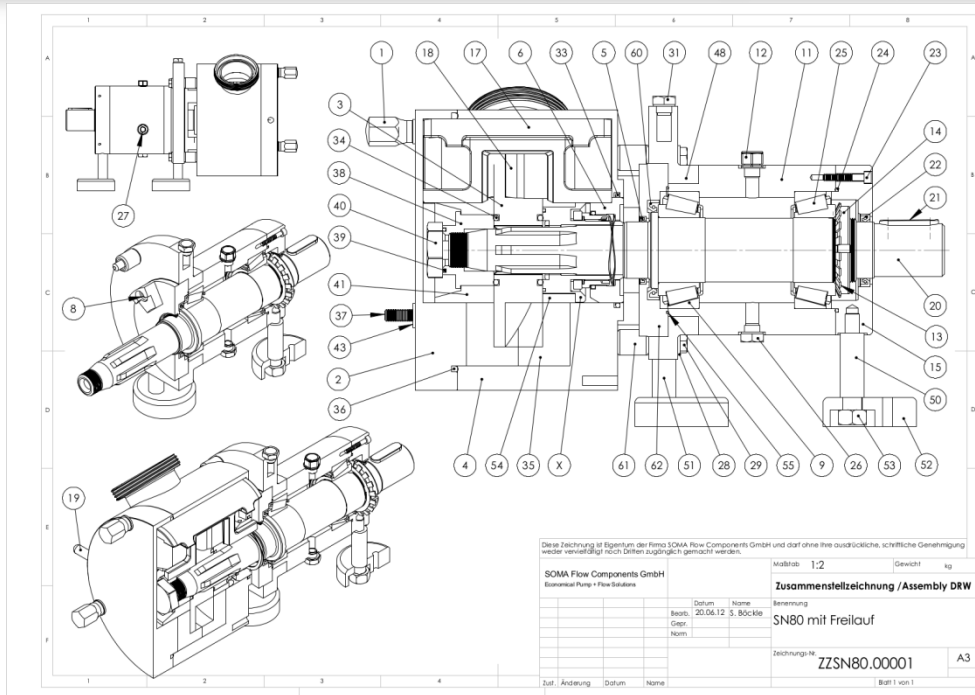


Sinusoidal – Pump with clear gap



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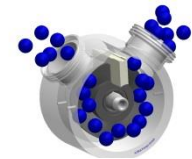
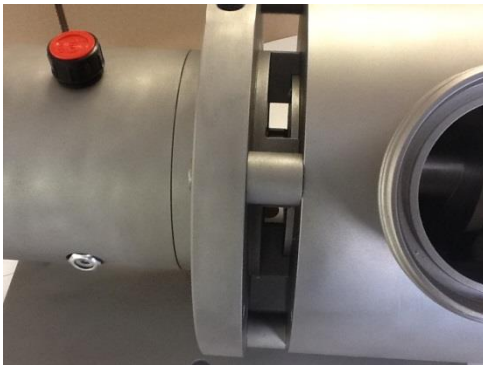
# Improvements



Full stainless steel pump head with clear separation between pump head and powerframe

SOMA pump head can be exchanged easily with a MASO or Watson Marlow pump head

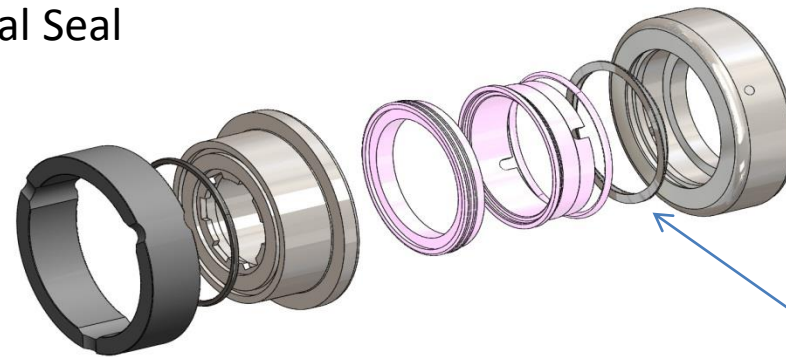
Dimensions are 100 % identical



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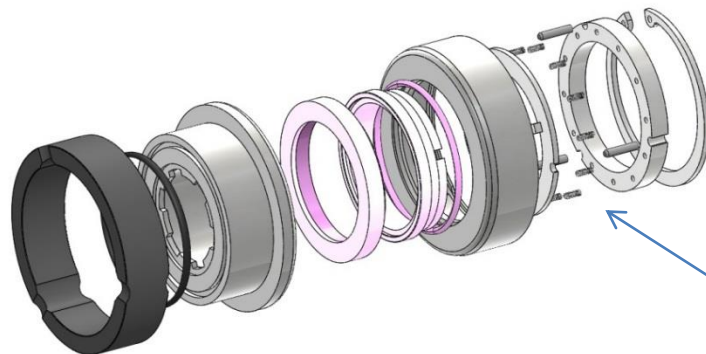
# Seal Systems

SOMA Mechanical Seal



Only One wave spring

WM Mechanical Seal

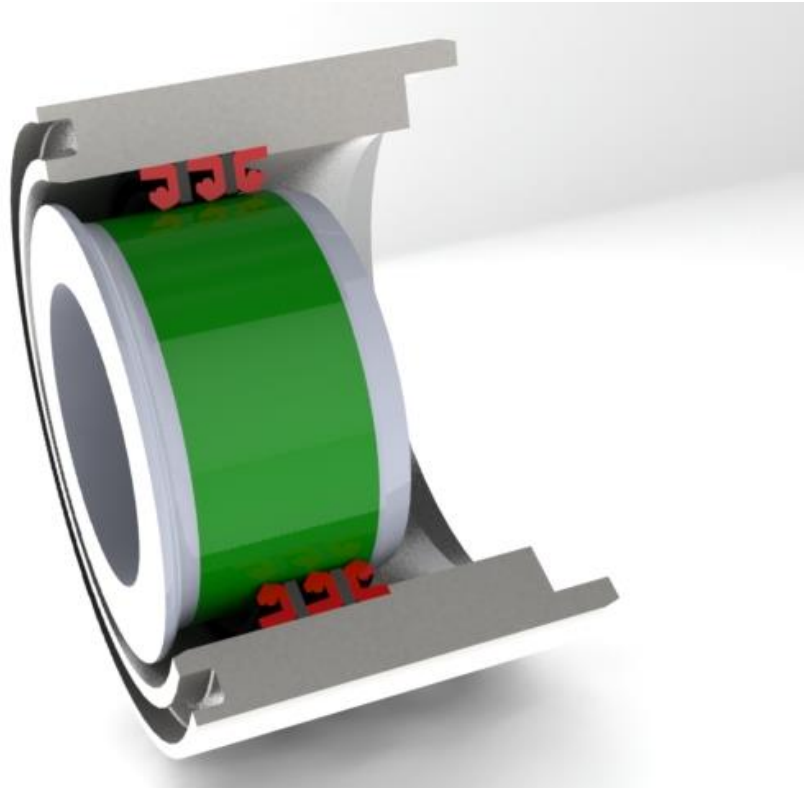


Up to 12 small springs

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## Triple Lip Seal System



3 lip seals for simple low pressure applications

Excellent for manual cleaning such as in the bakery industrie for the transfer of pie fillings

Shaft sleeve for the protection of the shaft

FDA approved materials

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## *Advantages compared to Rotary Lobe Pumps*

1: The pump body of a Rotary Lobe Pump has a limited life time – the cover and the pump body wear out. With a SOMA Sinusoidal Pump this is not the case. You simply change the main wearing parts – in line, without taking the pump out of the system. Main wearing parts are – set of liners and the scraper.

2: The Rotary Lobe Pump has 2 shafts – 2 shaft seals. The Sinusoidal Pump has just one shaft – one shaft seal.

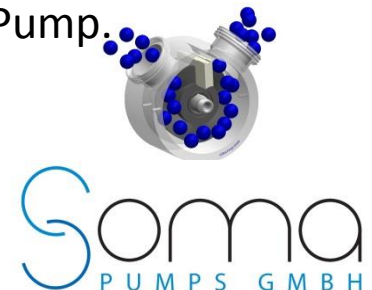
3: The Sinusoidal Pump has a constant open inlet. High viscous products can easily enter the pump without closing the inlet for a short period of time.

4: Sinusoidal PUMP has an excellent self suction capability. A Rotary Lobe pump allways has to be flooded.

5: The Sinusoidal PUMP has less pulsation compared to a Rotary Lobe Pump.



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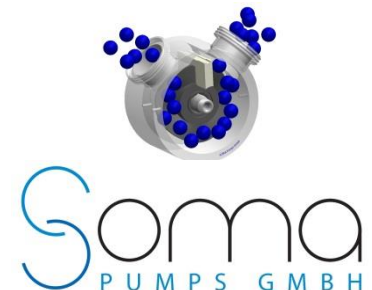


## *Advantages compared to Progressing Cavity Pumps*

- 1: Sinusoidal PUMPS can run dry – Progressing Cavity Pump not
- 2: Sinusoidal PUMPS are a 3rd of the size of a PC Pump
- 3: Sinusoidal PUMPS are suitable for „inline maintenance“ – meaning – all main wearing parts can be exchanged inline – without taking the pump out of the system.
- 4: Sinusoidal PUMPS have a very gentle pumping action – even fragile parts can be transferred without destroying the particle.
- 5: Housing and cover have a 25 years guarantee
- 6: Nearly pulsation free operation



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## *Advantages in various industries*

### **Dairy products:**

For pumping shear sensitive cheese curd and whey requires a PD Pump with a gentle pumping action to generate higher results by lowering the free fat content in whey. The SOMA Pump is ideal for the transfer of sensitive dairy products. The gentle transfer of the product from inlet to discharge reduces fines created, resulting in higher curd output.

### **Confectionary:**

Chocolate, caramel, syrups, liquid sugar are most common products in the confectionary industry. The SOMA pump has the ability to pump high viscous and low viscous products without any damage or change in structure. Nearly pulsation free pumping action for a smooth flow -Low shear and high suction capability for gentle handling of viscous products – Manual or CIP cleaning is an easy thing to do which can be performed fast.

Heating or Cooling jacket is available !

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## *Advantages in various industries*

### Food products:

Constant laminar flow of fragile food products – such as cooked vegetables or fruits to processing lines, the SOMA Sinusoidal PUMP will do an excellent job due to its 4 large chambers in which shear sensitive products will be transferred. In the Bakery industry the Sinusoidal PUMP of SOMA can pump fruit or meat pie fillings without destroying the product

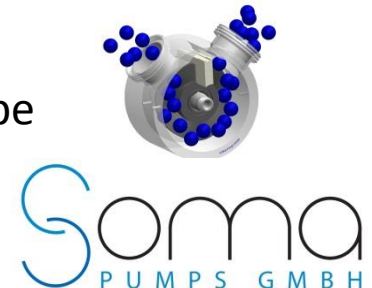
SOMA pumps handle products containing fragile solids from meat and poultry to delicatessen salads and vegetables.

Low shear, gentle pumping action avoids product damage and giving a high quality to the end product.

Best suction with little shear, nearly no pulsation and gentle handling

CIP and SIP cleaning is possible – our cleaning recommendation has to be studied

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## *Advantages in various industries*

### **Beverages:**

Due to the constant open inlet the SOMA Sinusoidal pump can suck even very high viscous product such as Frozen Orange Juice Concentrate.

The product can enter the pump chamber without an interruption. The SOMA pump will transfer the concentrate without any shear to the product. The flow is constant and nearly without any pulsation.

Pressures up to 15 bars will be generated. Since 1992 Sinusoidal pumps are in use for concentrates. Also the SOMA Sinusoidal Pump can transfer low viscous products such as brewery yeast or thin apple juice concentrates.

All main wearing parts can be exchanged in line – without taking the pump out of the system.

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## The **112**-Safety for your spare parts

within **1** Day **1** Day **2** Days  
Quotation Order confirmation Delivery\*

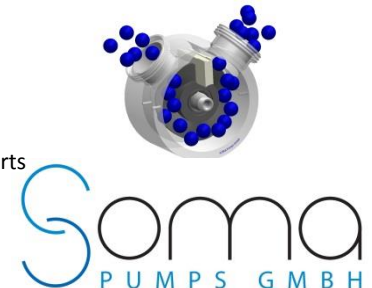
With over 100 years experience in the pumping industry and with the inventor of the sine pump in our TEAM we provide you with all services you need!

### SOMA supplies:

- ✓ Permanently low prices
- ✓ Flexibility
- ✓ Fast reactions and delivery times with our 112-Safety
- ✓ Innovations on the Sine-Pump (mechanical seal, clear gap, complete stainless steel pump, etc.)
- ✓ Consulting and sale of pumps for almost every applications
- ✓ Repair of your pumps – no matter what brand!

\*only for standard parts

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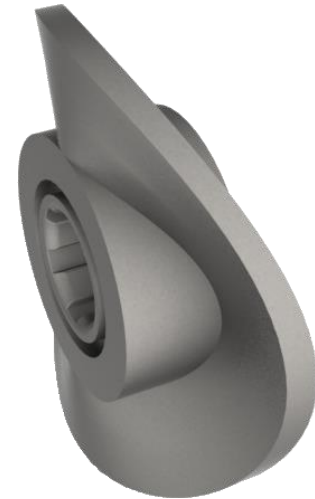


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