



MASO  
EcoSine  
Pumps

# MASO EcoSine

Classically simple – simply classic!

MASO have designed the EcoSine pump to satisfy high processing standards whilst also operating on a cost-effective basis. Based on the tried and tested SINE pump principle, a pump was created to fully satisfy these pre-requisites for the lower duty and lower price market segment.

## The principle of Operation

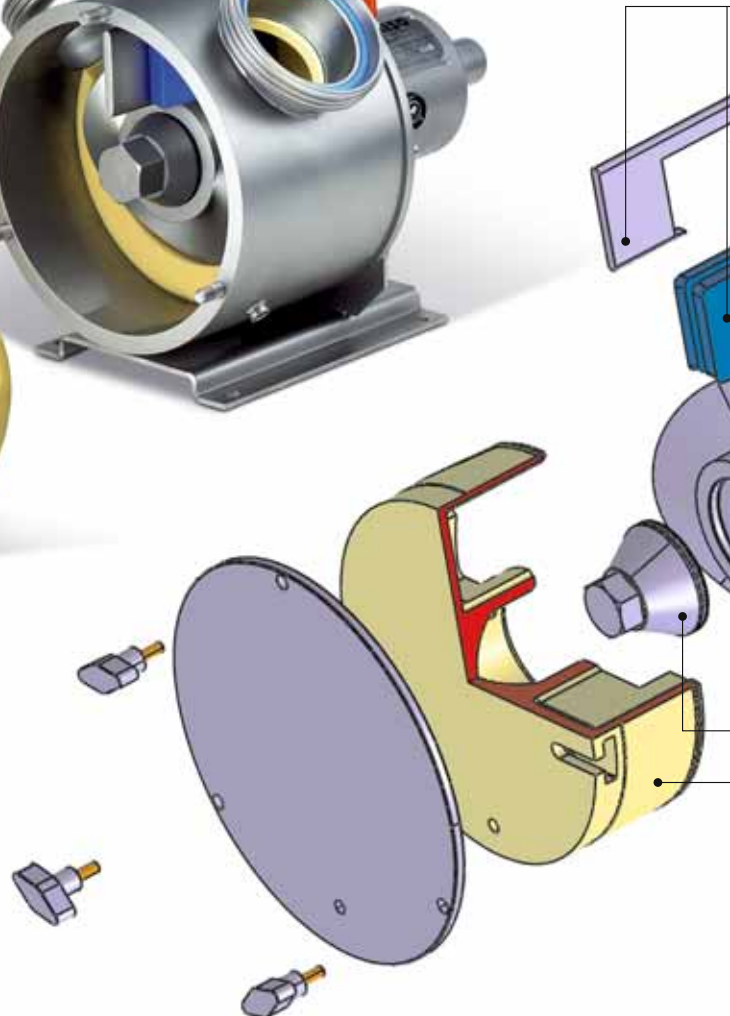
Thanks to the sinewave-shaped design of the rotor, four 'chambers' are created through which the medium is 'pushed' or 'gently - massaged'.

The scrapergate prevents any medium passing back from the discharge side to the lower pressure suction side of the pump.



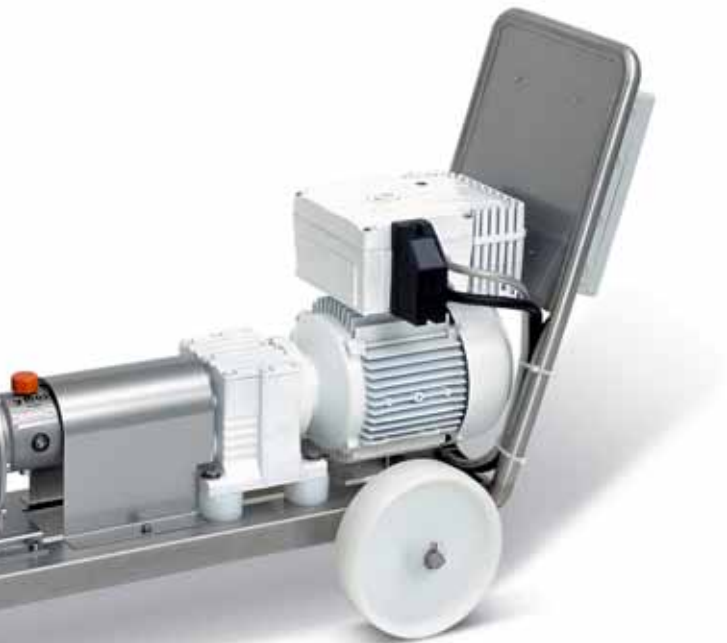
### The EcoSine working principle

Thanks to the interaction of the sliding scrapergate and the static stators, the medium is transported in a gentle, low-pulsation manner through the MASO exclusively designed sinusoidal rotor.



Anything that is really good and functional, usually only comprises a few parts

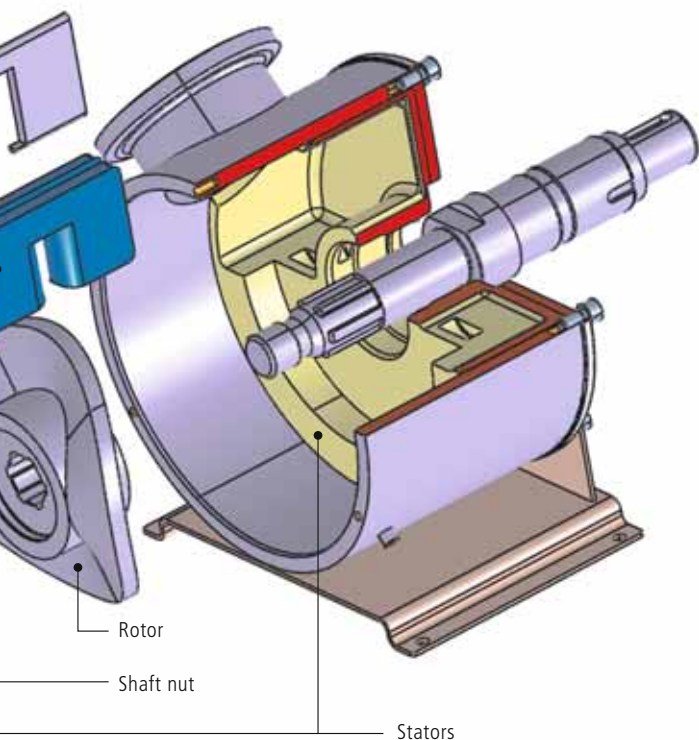
– as in the case of the MASO EcoSine pump –



### MASO EcoSine mobile unit

The MASO EcoSine Pump is available on a static stainless steel base with adjustable feet and can be supplied with the drive unit either in line or offset as dictated by the application. Mobile units are also available making the unit a highly flexible piece of process equipment which could be used on a variety of different applications. A minimal number of contact internal components make up the unique Ecosine Pump, namely,

Scrapergate and guide set



Rotor

Shaft nut

Stators

## Major features and benefits of the Maso EcoSine Pump

### Hygienic construction

The Ecosine, apart from the software components is constructed entirely from stainless steel, including the power frame...NO PAINTED SURFACES!!!

### Gentle product handling

The gentle pumping action means no damage to shear sensitive products during the pumping part of the process.

### High Suction

The EcoSine is capable of creating 0.85 bar suction pressure thanks to its continuously open suction cavity.

### Low-pulsation product flow

The low-pulsation product flow prevents vibration in pipelines and ensures a rock-steady discharge flow which in turn means quicker emptying and/or filling, more accurate readings from flow meters and more efficient heat transfer from heat exchanger units.

### Space-saving

The EcoSine is a compact, space saving design. It is ideal for space critical installations.

### Energy Saving

The Ecosine requires a minimum amount of torque, far more ECO-nomical to run than any air operated diaphragm pump, with smaller power requirements than any rotary lobe type pump.

### Bi – Directional

The EcoSine is bi-rotational, so can be operated in either the clockwise or counter-clockwise direction without modifying any of the pump internal components.

### No aeration or creation of foam

Thanks to the low shear gentle pumping action, no aeration is created during product transfer.

### Quick and easy Maintenance

A maximum of 10 minutes is required to strip the pump and inspect or change the wear parts. No special technical skills are required to open and repair the pump. After a brief training session even the production operators, will be able to perform all necessary repairs or inspections on the pump.

### High Viscosity

As with the higher duty Sine pump the EcoSine is also able to transport a wide range of viscosities up to 1.000.000 CPS.

### 24-hour service and back up

Most important spare parts can be shipped on the same day. Even standard pumps can be shipped within 24 hours if required. With the simple design very little difficulties will be experienced in working with the pump, if needed Maso assistance is readily available.

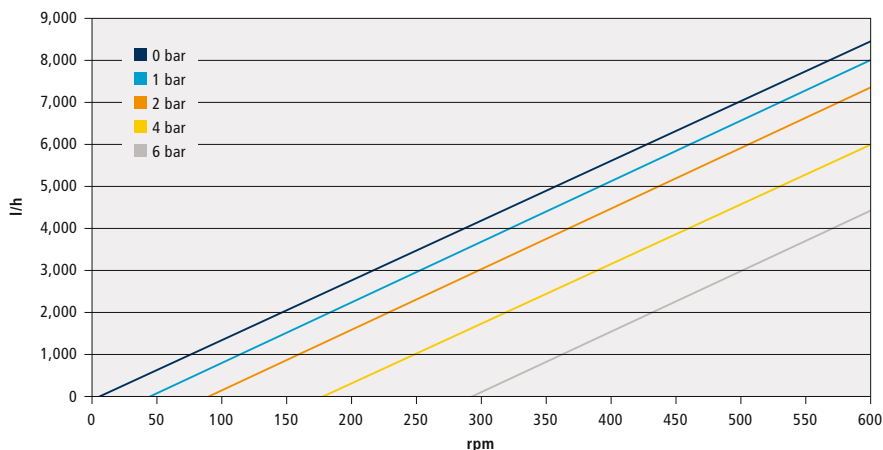
### Minimal downtime

Thanks to its inline maintenance system, downtimes are kept to an absolute minimum. Simple maintenance and manual cleaning can be completed in just a few minutes.

# MASO EcoSine Output tables

## MASO EcoSine 25

Performance Chart at 1,000 m Pas



**Technical data:**

**Dimensions W x H x D:**  
approx. 340 x 180 x 250 mm.

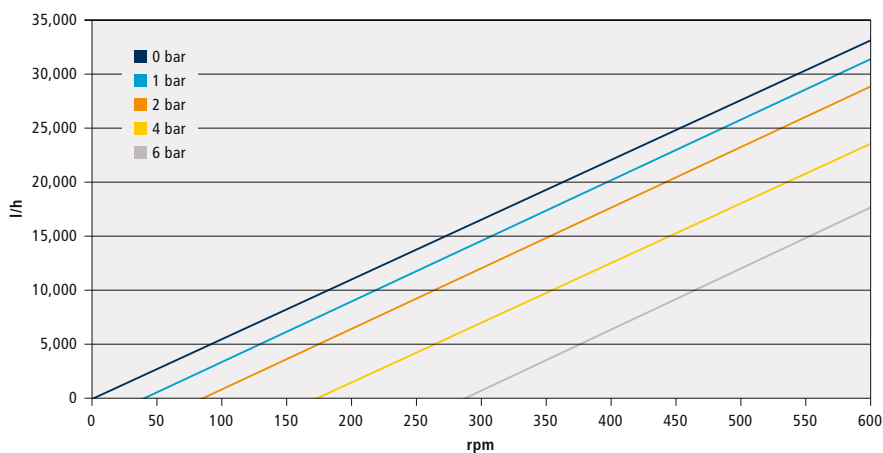
**Transport volume:**  
0.224 litre per revolution  
10,750 litre per hour

**Transport pressure:**  
up to 6.0 bar

**Temperature range:**  
up to +100 °C

## MASO EcoSine 40

Performance Chart at 1,000 m Pas



**Technical data:**

**Dimensions W x H x D:**  
approx. 430 x 360 x 320 mm

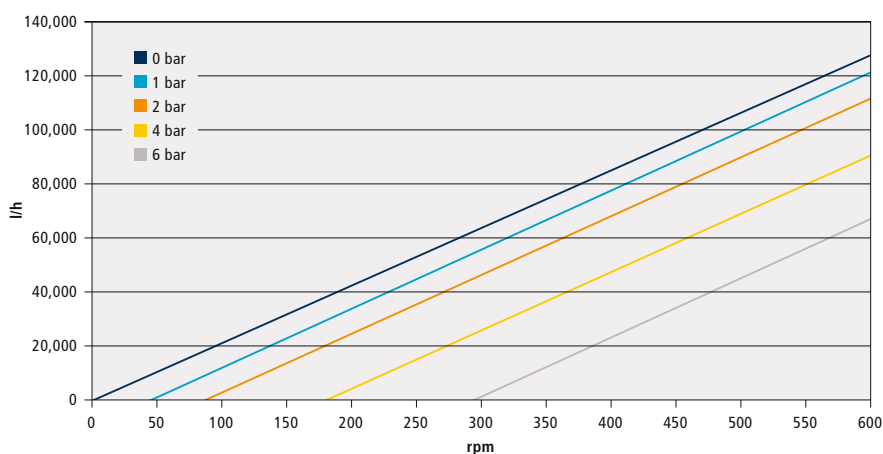
**Transport volume:**  
0.875 litre per revolution  
31,500 litre per hour

**Transport pressure:**  
up to 6.0 bar

**Temperature range:**  
up to +100 °C

## MASO EcoSine 60

Performance Chart at 1,000 m Pas



**Technical data:**

**Dimensions W x H x D:**  
approx. 650 x 550 x 450 mm

**Transport volume:**  
3.4 litre per revolution  
122,400 litre per hour

**Transport pressure:**  
up to 6.0 bar

**Temperature range:**  
up to +100 °C

# MASO EcoSine Typical Applications



## Food

EcoSine has proved its worth in the food industry for transporting media containing large particles and/or chunks. Typical examples here include ready meals, soups, sauces, frozen foods, mayonnaise, cheese curd, deli salads and sausage fillings. Supplying filling machine hoppers with a variety of products is one of MASO's specialities.



## Beverage industry

The highly efficient suction capability of the MASO EcoSine is certainly a huge advantage in the beverage industry. Concentrated orange juice at temperatures of down to -10°C or even very fluid juices are transported rapidly and gently at capacities greater than that of rotary lobe pumps.



## Dairies

EcoSine's ability to gently transport highly sensitive cheese, yogurts, quark and creams makes it the ideal choice for the dairy industry. The EcoSine is also highly suited for fruit laden products as well as butter related products.



## Cosmetics & pharmaceuticals

MASO pumps have been used successfully in the chemical and pharmaceutical industries because of its gentle transportation, low cost of ownership and low foaming of shampoos, creams, pastes and lotions etc.



## Fine chemicals

EcoSine is in a different league to the competition with regard to shear-sensitive suspensions, solutions, rinsing and cleaning agents or highly-viscous media such as silicone.



Recommended to you by:

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