Alfa Laval W-SIL strainer module

Self cleaning strainer module

Introduction

The W-SIL strainer is specially designed for the continuous removal of coarse particles from process liquids, in order to protect downstream equipment such as centrifuges, heat exchangers, pumps, etc.

Applications

- Beverage production waste water treatment
- Coffee and tea production
- Fat and oil processing
- Fruit and vegetable processing
- Industrial food refrigeration
- Soft drink production
- Wine and distilled alcoholic beverages production

Benefits

- Self cleaning, solids are continuously brushed off from the filter surface
- A variety of perforated and slotted filter baskets available
- All parts in contact with the product are made of stainless steel
- Compact design
- Plug & play unit

Design

The W-SIL strainer module is delivered as a complete framemounted unit ready to be mounted directly on the floor. The module includes the electrical cabinet for motor control and solids discharge valve.

The strainer casing and all product-wetted parts are made of stainless steel in a grade equivalent to AISI 316L (SIS 2343).

The standard model is equipped with a gear motor, a central shaft with inclined stainless steel brushes, a perforated filter basket, a set of tools and standard spare parts.

Options

- Filter baskets – perforated: 0.6 mm (0.023 inch), 0.8 mm (0.031 inch), 1.0 mm (0.040 inch), 1.5 mm (0.060 inch), 2.0 mm (0.078 inch), 3.0 mm (0.118 inch)
- Filter baskets – slotted: 50, 100, 150, 200, 300, 400 microns
- Special motor voltages
- Teflon scrapers instead of stainless steel brushes (special driveshaft required)

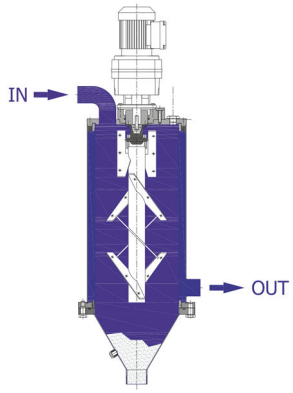
Working principle

The strainer has a stainless steel casing surrounding a filter basket through which the liquid passes. Any coarse particles suspended in the liquid are held back in the filter basket, and then forced downwards by rotating brushes mounted on a central shaft. This shaft is driven by an electrical gear motor mounted on top of the unit.

The collected particles are removed from the cone at the lower end via the sludge valve, which is controlled via a timer

in the electrical cabinet. This cone is easy to open for inspection and access to the shaft and brushes.

Pipe connections for flushing the strainer are available on the bottom cone. Connections for instrumentation are located on the top of the unit. For high viscosity products or for improved CIP ability, the strainer can be equipped with teflon scrapers.



Technical data

Total volume	70 l
Cone volume	8.5 l
Straining surface	0.55 m2 (5.9 sq foot)
Throughput	up to 60 000 l/h (265 gpm)
Working pressure	up to 600 kPa / 6 bar (87 PSI)
Working temperature	up to 100ºC (212ºF)[1]
Test pressure	900 kPa / 9 bar (130 PSI)
Standard motor	0.37 kW 3 ph, 50/60 Hz
Shaft speed	8.3 rpm
Weight	170kg (374lbs) approximately

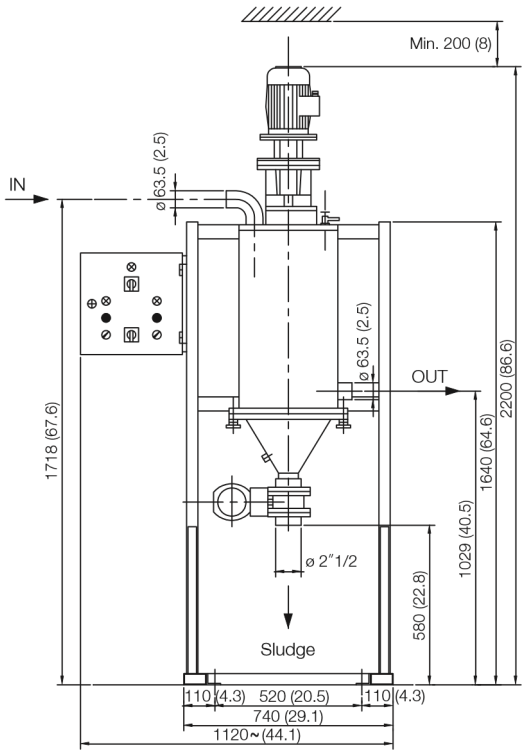
[1] Giving max 0.5 bar (7.2PSI) vapour pressure

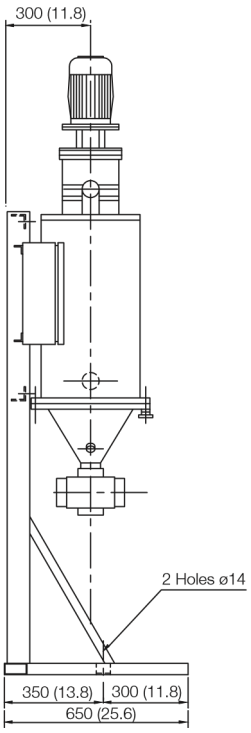
Filter baskets mm (inch)	
Perforated standard	0.6 (0.023), 0.8 (0.031), 1.0 (0.040)
Perforated on request	1.5 (0.060), 2.0 (0.078), 3.0 (0.118)
Slotted on request	50, 100, 150, 200, 300 and 400 microns

Connections	
Product inlet/outlet mm	Pipe 63.5 x 1.5, weld end
Product inlet/outlet (inch)	Pipe 2.5 x 0.06, weld end
Sludge outlet	Threaded pipe 2 1/2-inch SWG
Instrument	3/4-inch SWG on liquid inlet and top
Flushing	3/8-inch SWG on bottom cone

Shipping data	
Gross weight	190kg (418lbs) approximately
Volume	1.6 m3 (57 cubic foot) approximately

Dimensional drawing





How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com