Wärtsilä Serck Como Single-Stage Desalination (SSD) Fresh Water Generator

The Wärtsilä Serck Como Single-Stage Desalination unit generates high quality fresh water in an energy efficient and cost-effective way. With a capacity from 8 to 35 t/day, it is ideal for converting seawater for use as drinking or technical water onboard ships or offshore installations.

The Wärtsilä Serck Como SSD is a state-of-the-art desalination unit that meets the need of long-voyage seagoing vessels where fresh water cannot be bunkered. It is also applicable in situations where clean water is required for processes.

The system uses vacuum distillation to remove salt and other impurities from the seawater and convert it into high quality fresh water (<2 ppm). The modular design features simple technology with automated operation for continuous and user-friendly operation. Waste heat from the diesel engine or other heat sources is used to evaporate the seawater and the system's total electricity consumption is low.

SIMPLY BETTER

The Wärtsilä Serck Como SSD produces fresh water of the highest quality; simply, inexpensively and reliably. It is easy to operate, requires minimal maintenance, and no additional installations for pre-treatment are needed. Spare parts are easily accessible, no additional cooler is needed, and no special consumables are required. Operating costs are low, and the use of time-consuming manpower is extremely limited.

Like all Wärtsilä installations, the Serck Como SSD is supported by the marine industry's most extensive global service network.

SYSTEM BENEFITS

- Efficient waste heat utilisation
- Low electricity consumption and economical operating costs
- Cost effective thanks to limited need for consumables, special tools and spare parts
- Ease of operation promotes greater safety
- Maintenance friendly
- Excellent reliability
- Control panel included on skid

DIMENSIONS & TECHNICAL DATA

Model	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
Size 1	970	960	1680	580 - 620
Size 2	1260	960	1680	610 - 660

The weights given for the fresh water generators are in an empty condition. An additional 10% should be assumed for their operational weight. The weight and dimensions include the control panel.

WORKING PRINCIPLE

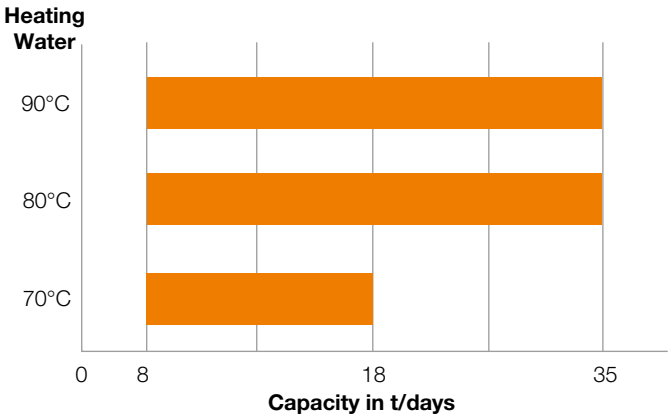
- Seawater is fed into the system, passing through the condenser and air-brine ejector
- A small part of the seawater is used as feed water for the evaporator
- The air-brine ejector driven by the seawater evacuates both the excessive feed water and the chamber
- A heating medium is fed into the evaporator
- After approximately 5 minutes a vacuum of 90% is reached and evaporation of the feed water commences
- The vapour flows through a demister and is condensed in the condenser section
- The distillate is pumped out of the unit

SCOPE OF SUPPLY

- Condenser and evaporator plates made from corrosion resistant titanium
- Distillate pump
- Combined air and brine ejector
- Chemical dosing tank including dosing instruments
- Solenoid valve for dumping bad distillate
- Control panel, including distillate motor starter, seawater pump motor starter, built-in salinometer, and alarm system
- Complete documentation and drawings

OPTIONAL EQUIPMENT

- Seawater pump including electric motor
- Mineralization filter for adjusting the pH-value of the distillate
- UV sterilizer for disinfection of the distillate
- Silver-ion sterilizer for disinfection of the distillate
- Counter flanges
- Steam injector
- Booster heater



Capacity based on 32° C seawater

04.2018 / Bock's Office

wartsila.com

wsc.sales@wartsila.com

WÄRTSILÄ