SRO-COM

Compact Seawater Reverse Osmosis Desalination

Benefits

- **Simple technology and modular design**
- **Automated operation and low maintenance requirements**
- **Designed for start-and-forget operation in periodically unmanned engine rooms and other automated operations**
- **Continuous operation: no downtime**
- **Simple, compact installation**
- **Proven technology – thoroughly tested in full scale**
- **High water recovery rates**
- **High-quality fresh water with a maximum salinity of 500 ppm**
- **No chemicals needed**

Available options

- **Media Filter as pre-filtration**
- **RO-Cleaning Station (CIP)**
- **Buffering tank**
- **Antiscalant Dosing**
- **Post Treatment (Mineralisation, Chlorination, UV-steriliser)**

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The SRO-COM is a new standard type seawater desalination plant for service on-board ships. Seawater reverse osmosis plants are an advantageous solution whenever desalinated water for drinking, utility and process applications is needed on board. The technology is simple, the operation easy and only limited maintenance is required.

SRO-COM 10

RWO has now completed the re-design of smaller systems, and offers this standardized “off-the-shelf” unit for capacities up to 60 m³/day.

This desalination plant has a stable permeate flow over the complete temperature range from 1°C to 35°C. As RWO’s objective is to provide reliable and long-lasting equipment, the SRO units come with a built-in concentrate displacement device that will extend the membrane operation cycle.

Advanced membrane technology

The newly developed SRO-COM seawater reverse osmosis plants from RWO offers state-of-the art technology by using low energy membranes. Compared to conventional systems, they produce the same permeate rate at a considerably lower operating pressure, resulting in lower investment and lower energy costs.

SRO Fresh Water Maker

High reliability plant control

The heart of the plant is the integrated electronic control device, with a user friendly digital display. The graphic on the display shows the temperature, conductivity, operating pressure and operating hours. All failure recordings including the alarm and warnings can be checked through the menu feature.

Technical Data

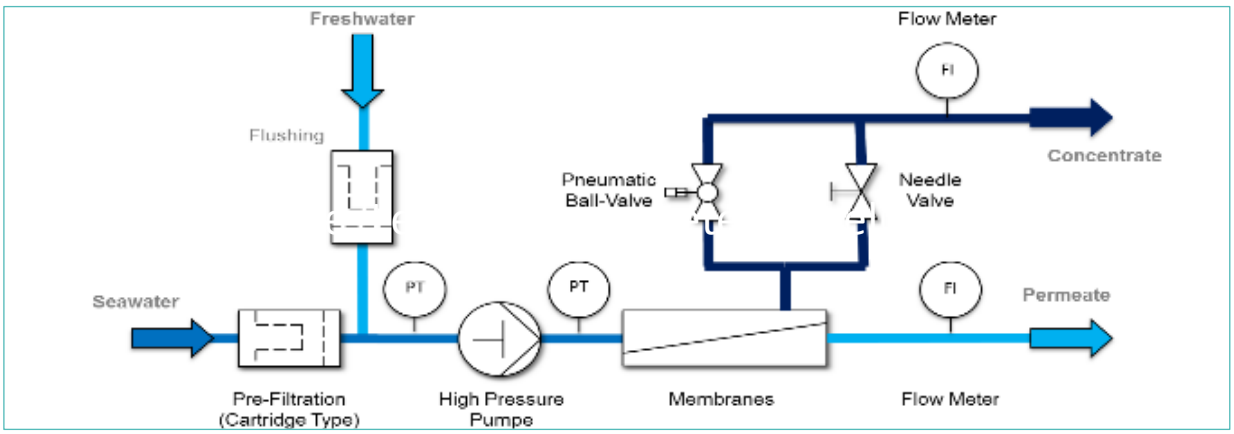
Typ	Permeat*	Recovery	Desalination Rate*	Motor-capacity	Overall width	Overall height	Overall depth
	M³/day	%	%	kW	mm	mm	mm
SRO-COM 10	10,0	21,0	Ca. 96 – 99%	5,5	1654	1080	940
SRO-COM 25	25,0	35,0	Ca. 96 – 99%	10	2667	1088	940

Process Steps

The process diagram shows the general configuration of a SRO-COM plant. The two-stage filter system protects the membranes from suspended particles in the feed water. If the seawater has a high content of impurities, it is preferable to install an additional filter (such as sand filter). Generally a high pressure pump is used to provide working pressure up to a maximum of 68 bar. Permeate, i.e. desalinated water, passes the membranes, while the remaining seawater takes up the rejected salts and leaves the modules as concentrate back to the sea.

SRO-COM 25

The reverse osmosis membranes remove salts and minerals. The post-treatment, which is available as an option, also removes all kind of impurities hazardous to human health, such as viruses, bacteria, legionella. It is a safe method to produce perfect fresh water. The quality of the water is in accordance with European, international WHO and US Health Standards.



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