

iDES (INTEGRATED SEAWATER DESALINATOR) SYSTEM

TriTech

Seawater desalination is a process used to recover potable or industrial water from seawater. Desalination techniques such as Multi-Stage Flash (MSF), Multi-Effect Distillation (MED) and Reverse Osmosis (RO) are the most commonly used technologies in today's industrial applications. RO technology has rapidly become the most widely used seawater desalination technology due to its equipment simplicity, maintenance ease and equipment modularization.

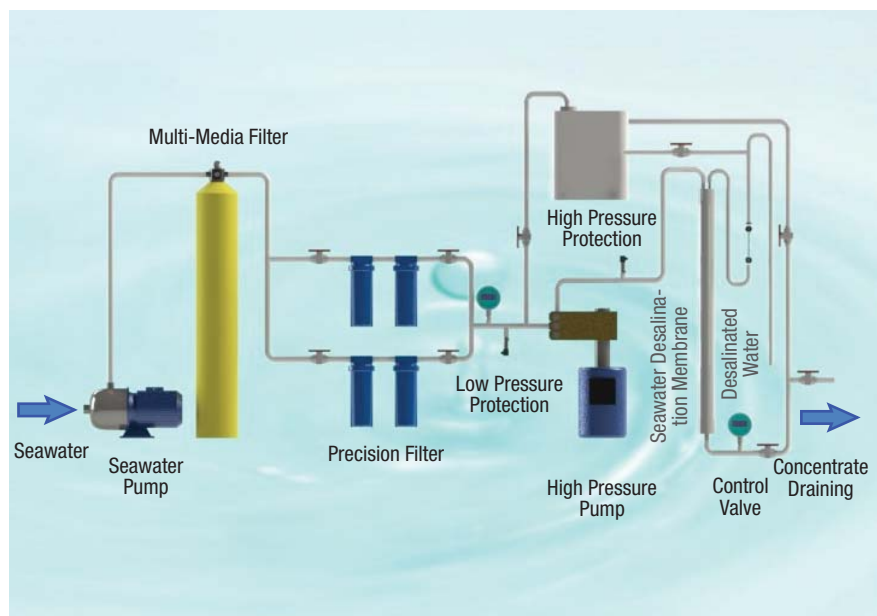
Previously, ocean fishing vessels, cruise ships and other large ships and jigs need to carry sufficient amount of drinking water to ensure the personnel water supply during sailing, which greatly occupied spaces and load capacities of the ships. By adopting RO technique, Trittech designed a marine and offshore seawater desalination equipment. Owing to its simple structure, convenient operation and other advantages, the equipment was gradually accepted by many oceangoing ships.



Integrated Seawater Desalinator

TRITECH MARINE AND OFFSHORE SEAWATER DESALINATOR FEATURES

- Advanced technology, superior performance, core instruments and parts (seawater desalination membrane, high pressure pumps etc.) utilizes high quality and advanced products, quality and performance are assured.
- Applied high performance seawater desalination membrane, stable output, solute (salt) rejection above 99%, capable of removing organic salts, heavy metals, bacteria, viruses and other harmful components in seawater effectively. Product water is in full compliance with international drinking water standards
- Able to add shore and shallower depth working modules according to customer needs, Trittech integrated seawater desalinator is capable of handling different quality seawater to produce product water for all customers' needs.
- RO technology does not require heating of seawater to boiling point, therefore lower power consumption, production cost would be greatly reduced.
- High and low pressure protection, flow and pressure monitoring and safety features, to ensure safe and stable operation of the equipment.
- Small volume, small footprint, light weight, able to be installed and used in tight space onboard. Equipment is made of stainless steel and corrosion resistant materials, suitable for marine and offshore environment.
- Easy operation, convenient maintenance, highly automated system. Able to produce desalinated water in a short time after power on.



The equipment mainly consists of seawater pump, pre-treatment filter, cartridge filter, high pressure pump, RO membrane and cleaning system (flushing and chemical cleaning).

TRITECH INTEGRATED SEAWATER DESALINATOR SYSTEM APPLICATIONS

Series Name	iDES
Application Range	Seawater and brackish water desalination
Raw Water Salinity	≤38000mg/L
Input Water Temperature	4 – 45°C
Solute Rejection	≥99%
Manufacturing Standards	strictly in accordance with CBT3751-1995 marine industry standard.
Output Water Quality	“PRC drinking water hygiene standard” GB5749-2006
Output Water Salinity	≤600mg/L
Power Option	220-380-440V / 50-60HZ / three phase

SYSTEM MAIN SPECIFICATIONS

Model	Output Volume (m ³ /d)	Operation Pressure (MPa)		Power Supply		Outline Dimension (mm) LxWxH	Suitable Range (Person)
		Pre-Treatment	Membrane Treatment	Voltage (V)	Power (KW)		
iDES-0.5	0.5	0.1-0.3	4-6.5	220-380	1.5	1600x400x600	5
iDES-10	1	0.1-0.3	4-6.5	220-380	1.5	1600x450x600	10
iDES-20	2	0.1-0.3	4-6.5	220-380	1.5	1600x450x600	20
iDES-50	5	0.1-0.3	4-6.5	220-380	2.2	1650x450x650	50
iDES-100	10	0.1-0.3	4-6.5	220-380	4.5	1900x600x950	100
iDES-200	20	0.1-0.3	4-6.5	220-380	7.5	1950x600x950	200
iDES-500	50	0.1-0.3	4-6.5	220-380	15.5	2500x800x1200	500
iDES-750	75	0.1-0.3	4-6.5	220-380	22	2500x800x1200	750