marine auxiliary equipment

integrated fluid processing & utility management

modular marine equipment

freshwater vacuum distiller

engineered for versatility;
built for longevity

VOYAGÆR
auxiliary
equipment

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digital contact card

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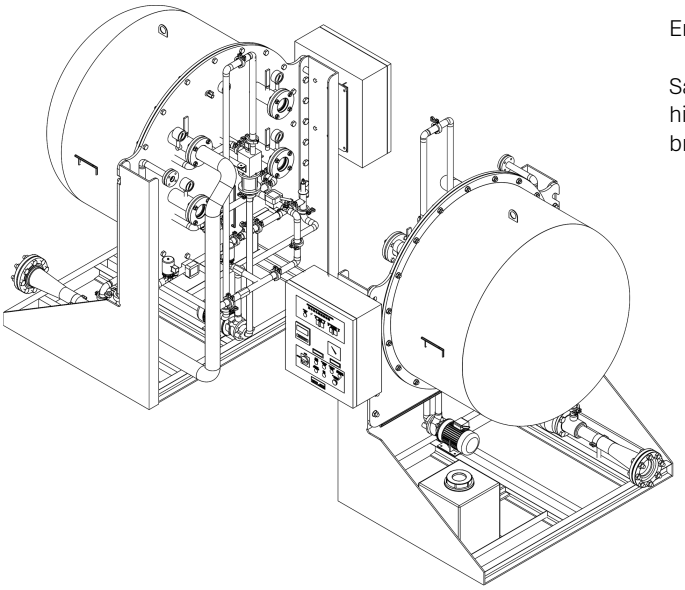
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fresh water
vacuum distiller

VVD series

introduction



technical water from waste heat
seawater desalination via vacuum

Ensure water production is a strength in your vessel's operational profile.

Safeguard your vessel's water security with our vacuum distillers. Produce high quality technical grade freshwater from the harshest seawater or high silt brackish waters ; all the while using the energy your ship is already producing.

a superior solution
technical advantage

Our vacuum distillers are source-water agnostic, maintaining peak operational efficiency regardless of temperature swings, high turbidity, or varying salinity levels.

The fundamental advantage of this technology is its reliance on thermal phase change instead of microscopic physical filtration. By elevating the feed water to its vapor phase, the system inherently bypasses the limitations of fragile membranes, cleanly separating pure distillate while isolating all dissolved and suspended solids — including silt, sand, and salts — within the boiling chamber.



key technical specifications

Built to endure the realities of the engine room, our distillers showcase heavy-duty metal fabrication and intelligent design:

Corrosion resistant fabrication
The boiling chamber, heat exchangers, and associated piping are fabricated from premium Titanium or Cupro-Nickel alloys, specifically chosen to resist the aggressive corrosion of hot, highly concentrated seawater brine.

Precise automation
The system is governed by an advanced PLC, providing automated start-up, continuous salinity monitoring of the distillate, and automatic overboard dump if salinity exceeds a set threshold.

Compact footprint
Engineered onto a skid-mounted frame, our unit is optimised for tight spaces, simplifying both new-build integration and retrofit installations.

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VVD series

VOYAGÆR auxiliary equipment

automatic intelligence & fail safe operations

Managing an auxiliary system shouldn't add to your crew's workload. Voyagaer freshwater vacuum distiller incorporates a smart PLC system managing all critical parameters, putting total control at your fingertips.

reliable, consistent freshwater production

Freshwater quality
Thermal distillation produces distillate with extremely low Total Dissolved Solids (TDS)—often below 5 ppm. This makes it ideal for sensitive applications like high-pressure boiler feed water, where scaling must be absolutely prevented.

Immunity to feed water variables
Unlike other technologies that quickly bind or foul when operating in turbid coastal waters, estuaries, or areas with high biological content, a vacuum distiller doesn't care about the physical quality of the feed water. It boils what it takes in.

energy efficiency redefined

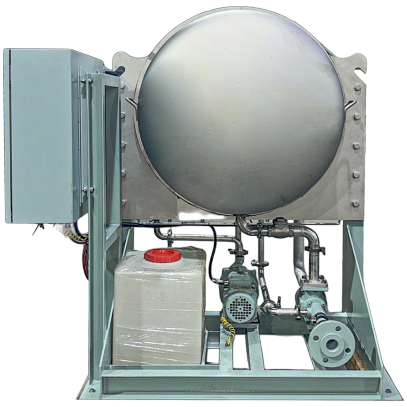
Operating under vacuum, the boiling point of the incoming feed water is drastically lowered - often to between 40°C and 50°C. This allows the system to utilise low-grade waste heat that is already available on board.

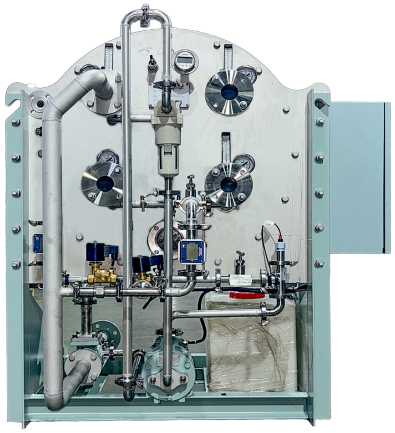
Whether harnessing the thermal energy from the ship's main engine jacket cooling water or utilising alternative heat sources, the distiller continuously vaporises seawater with exceptional energy efficiency.

minimal capex

Negate costly and labor intensive routine of replacing sensitive, fragile components present in other technologies.

Our distiller operates with robust, low maintenance mechanical components.







parameters of production freshwater vacuum distillers

MODEL	VVDS-T5	VVDS-T10	VVDS-T15	VVDS-T20	VVDS-T30	VVDS-T40	VVDS-T50
CAPACITY (M3/DAY)	3 - 5	8 - 12	12 - 17	17 - 22	28 - 36	40 - 48	50 - 60
EVAPORATOR PLATE STACK	TITANIUM						
CONDENSOR PLATE STACK	TITANIUM						
SUPPLY VOLTAGE	ACCORDING TO CUSTOMER REQUIREMENTS						
FRESHWATER SALINITY	< 10	< 10	< 10	< 10	< 10	< 10	< 10

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agent details

our agent network