

CLEANTECH SOLUTIONS for workboat and special vessels



*Cleantech Solutions.
Anywhere.*

Vacuum collection
Wastewater treatment
Ballast water management
Fresh water generation
Marine growth prevention
Dry and wet waste treatment
Corrosion protection



We know your industry

Evac is the world's leading provider of integrated water and waste management systems, as well as corrosion protection systems, for the marine and offshore industries. We are a complete system provider whose products meet all your needs.

As there are limited opportunities for service and maintenance in this challenging environment, we focus on ensuring construction is simple and reliable. You can rely on our specialist design team to help you to find the best solutions for your waste, wastewater, and fresh water management processes. Thanks to our global service network we can offer support, spare parts and service.

Bespoke solutions for changing needs
Our customers have very different needs, so we pride ourselves on our ability to take customer needs and changing operating areas into account right from vessel construction, with our large offering and flexible processes. Our systems meet the strictest International Maritime Organization environmental regulations, and can also be operated in Environmentally Sensitive Sea Areas and Special Areas.



Vacuum collection



Wastewater treatment



Ballast water management



Fresh water generation



Marine growth prevention



Dry and wet waste treatment



Corrosion protection

Evac Complete Cleantech Solution

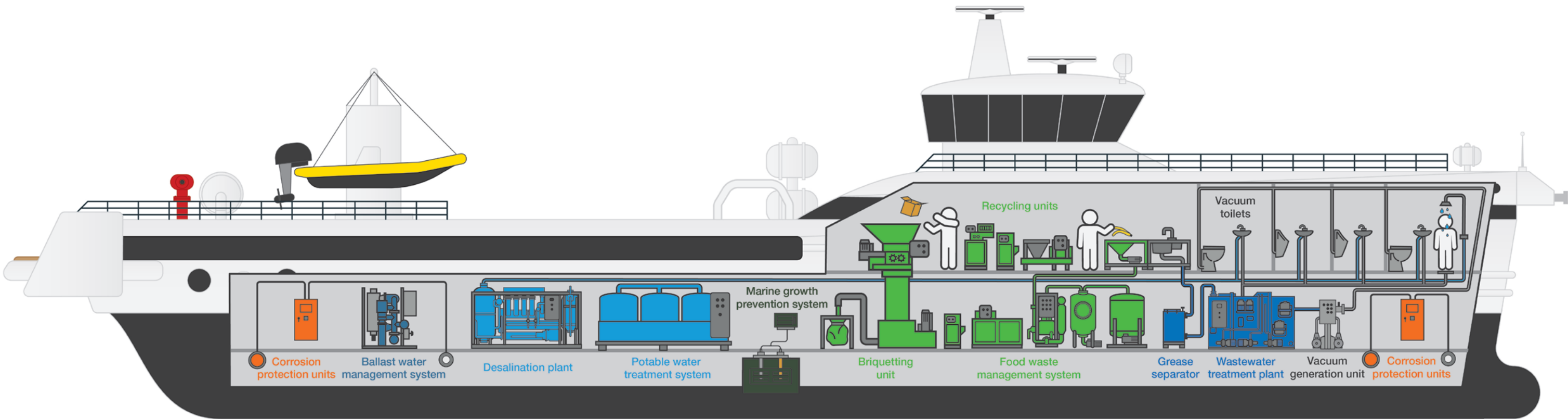
The Evac Complete Cleantech Solution covers all your needs in terms of integrated water and waste management and corrosion protection systems. This comprehensive one-stop-shop offering is what sets us apart from the competition.

We are your global service partner throughout the life-cycle of your vessels. Purchasing all your services and cleantech solutions from a single supplier simplifies coordination and integration during your shipbuilding project.

Once the systems are installed, it makes managing and maintaining them easier and more efficient. We also offer retrofit system update projects in the later stages of your vessel's life-cycle in order to meet any future changes in regulations.

Benefits

- Fewer partners means easier communication and saves time in project coordination
- Similar user interfaces and technologies make crew training easier and more efficient
- Smooth and efficient system integration, management, and troubleshooting
- Single point of contact for after sales service and spares





Vacuum collection

Vacuum collection units collect sewage, condensation, and food waste by vacuum pumping it into a sewage treatment plant or collection tank. Since the 1970s, Evac has designed and manufactured a variety of vacuum collection systems including water-saving vacuum toilets, food waste collection units, and vacuum and collection units for condensation, which are typically used in conjunction with cooling equipment both on land and at sea.



Evac Optima vacuum toilets

Evac Optima vacuum toilet models are the quietest vacuum toilets on the market according to independent research. It uses our proven pneumatic flush mechanism with flush memory and vacuum sensor technology. With Evac Optima there are no overflows or unflushed toilet bowls. In addition, we are the sole supplier of vacuum urinals.

Evac vacuum toilet accessories

Wide range of optional covers and buttons are available and we have also made toilets in custom colors and shapes. In addition to pneumatic operation an autoflush option with infrared sensor is also available.



Evac Stainless steel vacuum toilets

The Evac stainless steel models are durable vacuum toilets that are a natural option for installation where there are high demands on equipment.

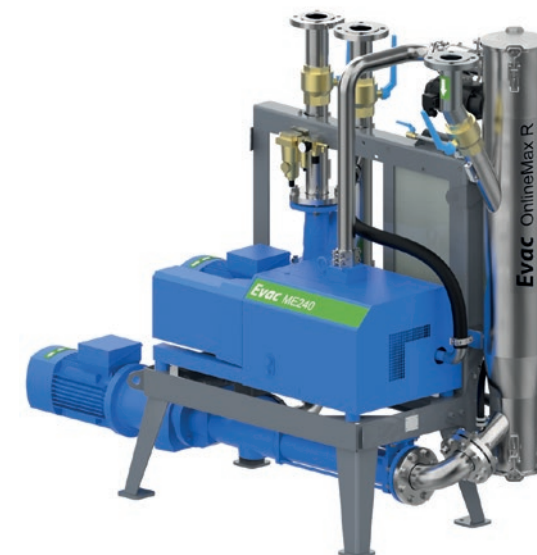
Our stainless steel vacuum toilets operate in the same way as equivalent porcelain models. It is equipped with the proven, fully pneumatic Evac discharge valve and mechanism, with flush memory and vacuum sensor technology.

Evac OnlineVac

The Evac OnlineVac is a durable, low-maintenance online vacuum generation unit that macerates sewage and generates the vacuum required for the discharge process. The vacuum is generated and sewage pumped by means of a special liquidring screw pump, manufactured – along with the pump casings – from high-quality, corrosion-resistant stainless steel.



Evac OnlineVac
- a durable low-maintenance vacuum generation unit.



Evac OnlineMax R

The Evac OnlineMax R is the most powerful and energy-efficient online vacuum collection system on the market. The Max concept was designed as an energy efficient way to meet the increasing demand for larger vacuum capacity in vacuum toilet systems on large vessels. The Evac OnlineMax R offers significant long-term operational savings – the bigger the vessel, the greater the cost efficiency.

Evac Easyfit

Our durable Evac EasyFit ejector vacuum collection units use proven, reliable technology. Its flexible design makes it suitable for a range of different applications and also allows for a choice of holding-tank alternatives. It can be mounted directly in the ship's hull tank, or connected to a sewage treatment plant as a combined unit.



Evac OnlineFlex

The Evac OnlineFlex uses robust mechanical components to create and maintain constant vacuum in a vacuum toilet system without the need for intermediate tanks.

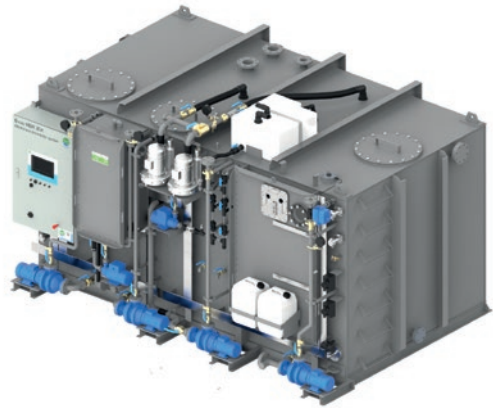


Evac OnlineFlex offers a good discharge head in simple and compact package.



Wastewater treatment

Wastewater treatment systems separate and neutralize organic contaminants in wastewater to comply with national and international legislation. Our offering includes biological and electrolytic wastewater treatment plants that refine black and gray water, as well as grease separators to separate grease from kitchen and galley wastewater.



Evac MBR

The Evac MBR, membrane bioreactor, is a biological sewage treatment plant that offers advanced black and gray wastewater treatment solutions. It directly replaces traditional biological units, and with its membrane technology it easily fulfills all current and imminent treatment requirements. It allows vessels to operate in environmentally sensitive areas, treating and discharging all wastewater generated by passengers and crew without threat to health or the environment.

Evac EcoTreat

The Evac EcoTreat biological wastewater treatment plant provides a cost-effective treatment of black and gray water, it also meets and exceeds the latest environmental standards.



Evac wastewater treatment plants are certified to meet IMO MEPC 227 (64) and U.S. Coast Guard type approval.

Evac wastewater pre-treatment

The Evac grease separators, Evac EcoTrap and Evac SGT, separate grease from galley wastewater. Grease is harmful to piping, valves, tanks, pumps, and other components of sewage and wastewater treatment systems.



Evac ORCA IV B

The Evac ORCA IV B electrolytic wastewater treatment plant is designed to treat black and gray wastewater aboard vessels. The compact, modular design makes it ideal for both installation on new vessels and retrofitting existing vessels. It operates on a batch basis but is basically continuous, is fully automatic in normal operation, and only requires low maintenance. Depending on the model, the hydraulic load for black and gray vacuum wastewater treatment ranges from 1 350 to 63 000 liters / 357 to 16 643 gallons per day.

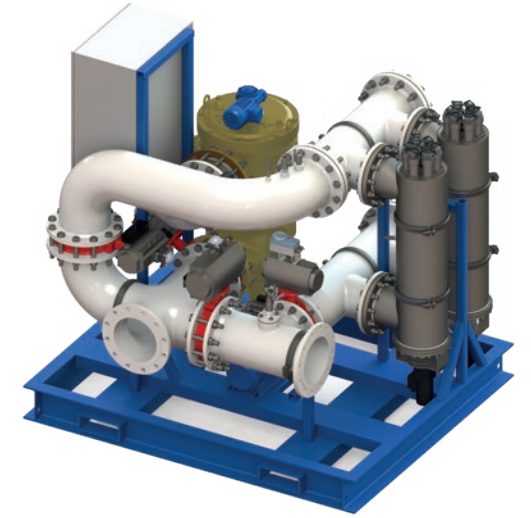


Ballast water management

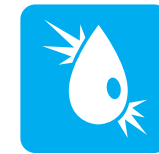
The Evac Evolution ballast water management system (BWMS) effectively removes organisms and pathogens from ballast water. This is achieved using a combination of filtration and UV technology, processes which are entirely free of chemicals.

The space saving Evac Evolution BWMS is suitable for most workboat and special vessels and is now in the final stages of achieving revised IMO G8 and U.S. Coast Guard Type Approval (status 12/2018). The system developed by Cathelco has many innovative features including a unique feedback 'loop' based on the measurement of UV transmission which determines precise dosage.

It automatically adjusts to different sea-water conditions in harbours and estuaries, ensuring that the optimum UV dose is applied at all times, but saving power whenever possible. Effective in fresh, brackish and seawater, the Evac Evolution BWMS enables vessels to operate without restriction. The system is available with capacities from 34m³/h to 1,500m³/h in a single unit. It can be supplied in modular form for retrofits or skid mounted for newbuild applications.

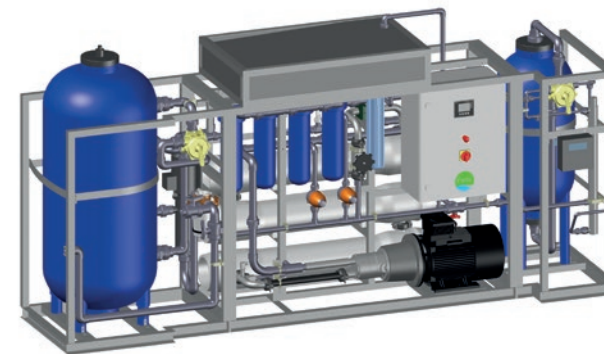


Cathelco
Part of Evac Group



Fresh water generation

Water treatment units turn seawater into process, service, and drinking water. The equipment also filters and disinfects water, adjusts its hardness, and mineralizes fresh water that has been created or stored. We offer seawater desalination units using reverse osmosis (RO), as well as potable water treatment equipment using mineralization and disinfection.



Evac ROSYS M desalination plant

These medium sized, modular reverse osmosis plants with daily generation capacity of 30, 60, 90, or 120 m³ are environmentally friendly, robust, easy to install and operate, quiet, and have an extremely small footprint.



Evac WASYS

Our highly sophisticated systems produce high quality potable water that meets all relevant regulations, including those from the WHO and USPH.



Dry and wet waste treatment

Evac's dry and wet waste systems manage mixed or recyclable waste in a way that is safe, convenient, environmentally friendly, and energy efficient, reducing the volume through compaction and shredding. Moreover, they fulfill the regulations defined by IMO Marpol 73/78 Annex V that covers garbage waste types such as food and galley waste, dry waste and dangerous waste.



Evac U80 glass crusher

The Evac U80 glass crusher is a user-friendly solution for the processing of glass. Bottles are manually fed through the feed pipe and the glass pieces are collected in a bin, reducing their volume by approximately 80%. The crushed pieces are around 40mm in size, ideal for recycling with a minimal amount of dust. With safe and splinter-free operation, the crusher starts automatically when the lid is lifted and stops when the bin is full.

Evac UBP 40 and UPB 80 compactors

Cardboard is easy to send for recycling if properly compacted and this also reduces the disposal cost. The robust Evac UBP baling presses with the electromechanical drive designed for easy maintenance and contain no hydraulics. The Evac UBP features plug-and-play installation with automatic phase order control and an indication is given when a chamber is full. The Evac UBP comes in two sizes, 40 and 80.



Evac OWMS Food waste management system

The Evac food waste vacuum collection system is designed for the hygienic collection and treatment of food waste in compliance with IMO Marpol 73/78 Annex V, U.S. Coast Guard and other relevant regulations. Food waste is conveyed reliably, even when it contains large amounts of bulky or starchy substances such as pasta, rice, bread or potatoes, even fish skin, seashells and large bones.

The system can be supplied with a GPS Discharge Control system which ensures that food waste is discharged into the sea only when allowed.



Evac briquetting unit

The Evac briquetting unit is an advanced waste compaction system for minimizing the storage volume of dry waste on board vessels. The unit includes a shredder, a fire gate, a shredded waste storage tank, and a briquetting machine.

The fully automated unit has a small footprint and requires minimal intervention from the operator. The Evac briquetting unit can process recyclable and non-recyclable waste and has a very high compaction rate. Recyclable waste of the same kind can be briquetted ready for processing on shore, while non-recyclable waste briquettes can be burned in the incinerator. Stored briquettes do not leak liquids or dust, keeping storage areas cleaner.

Evac UMCC multi chamber compactor

The Evac UMCC, multi chamber compactor, can separate and compact several different waste fractions. The compactor has unique double-stroke and stay-n-hold functions for an increased compaction rate. The general waste is compacted in plastic bags, while plastic film and cardboard are baled and tins and cans compacted.





Marine growth prevention

We provide systems developed by Cathelco specifically for preventing bio-fouling in the seawater pipework of workboats and special vessels. These have compact control panels and a range of anodes which can be fitted within seachests or strainers.

The systems are easy to install and automatic in operation, making very little demand on crew time. In addition, the latest Quantum control panels provide comprehensive information about the performance of the system which can be fed to the ship's bridge computers.

As the world's largest manufacturer of marine growth prevention systems (MGPS) for seawater pipework, Cathelco has a record of more than 50,000 installations.

In operation, the copper anodes produce ions in concentrations of less than 2ppb which are sufficient to prevent barnacles and mussels from settling in the pipes. The organisms are not killed, but pass through the pipework to discharge without any effect on the wider marine environment. At the same time, the aluminium anodes produces ions which create an anti-corrosive layer on the inside of pipes. The system quickly pays for itself by reducing maintenance costs resulting from manual cleaning and premature pipework renewal.

The most widely used marine growth prevention system in the world.



Cathelco
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Corrosion protection

We provide reliable and technically advanced Cathelco solutions to hull corrosion problems using impressed current cathodic protection (ICCP) systems.

A range of anodes and reference electrodes are available to suit all hull profiles. The anodes are diver changeable which means they can be changed, if necessary, without the need for drydocking.

The most important feature of an ICCP system is that it automatically detects the electrical 'potential' at the hull/seawater interface and automatically raises or lowers the output to the anodes. In this way, the ship receives the optimum level of corrosion protection at all times.

Reliable and technically advanced solutions to hull corrosion problems.



Cathelco
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Service

Close to you where ever you travel

We are your global service partner throughout the life-cycle of your cargo vessel. We have service hubs in North America, Northern Europe and Southern Europe. We offer a wide range of spare parts and exceptional service through our extensive global network of offices and representatives.

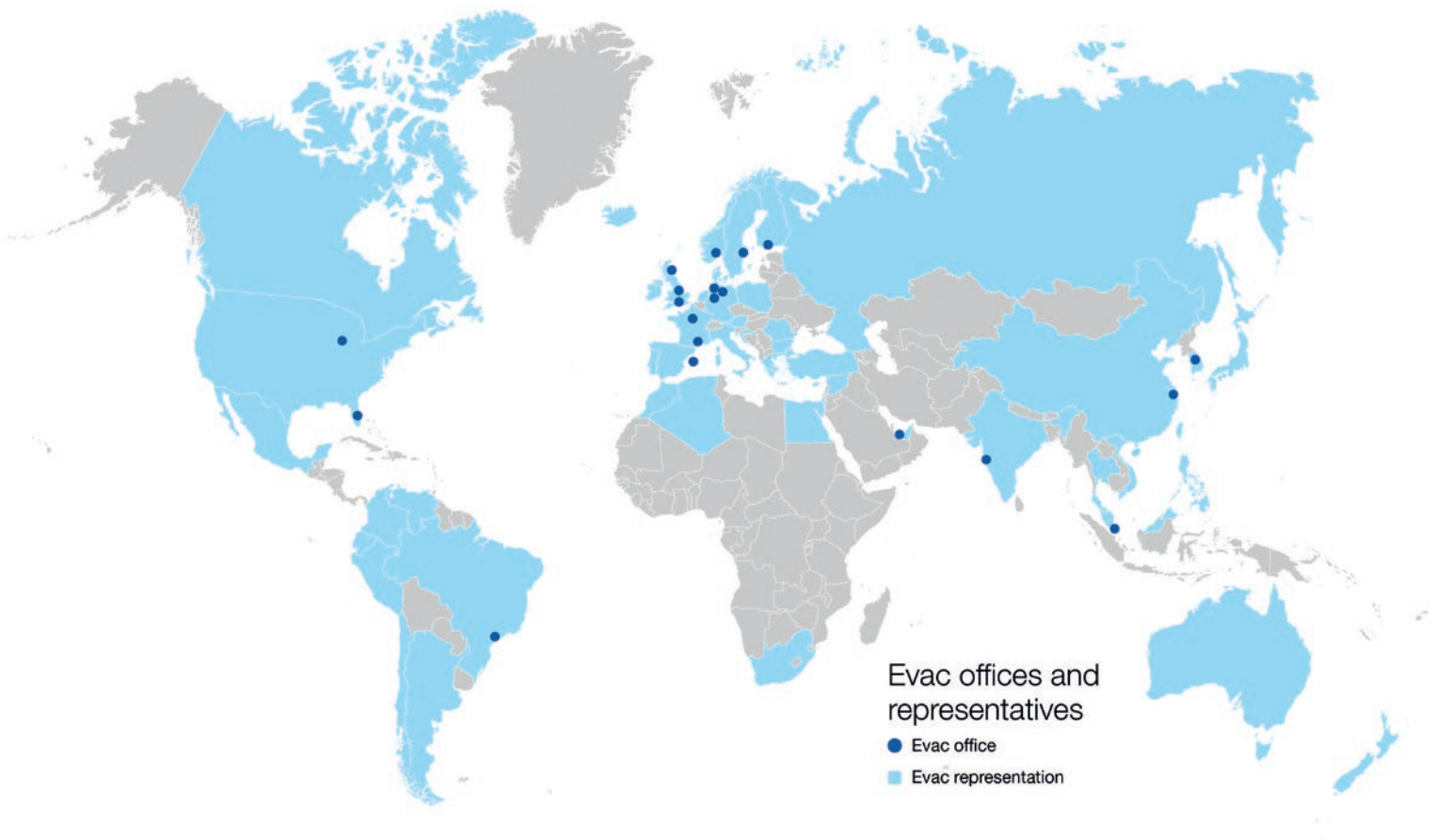
We support our stakeholders by providing:

- Engineering and technical advice
- Supervision
- Installation and start-up
- Service and repair
- Service contracts
- Refurbishment and retrofit
- Spare and replacement parts
- Training and education
- Onboard system and spares analysis.





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Read more about our references on
www.evac.com/references



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Wastewater
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Corrosion
protection

Evac is the world's leading provider of integrated water and waste management systems, as well as corrosion-protection systems, for the marine, offshore, and building industries. Our cutting-edge solutions and services have been helping leading global players in these industries to significantly reduce their environmental footprint for 40 years. With offices in 14 countries across four continents and representatives in more than 70 countries, we pride ourselves on being close to our customers wherever in the world they are located.

* Solutions for
building industry
customers are
sold by Bvac

Our contact information at
www.evac.com/contacts

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