The Evac Evolution ballast water management system is based on a combination of filtration and UV technology. It has been installed on a range of vessels from cruise and cargo ships to offshore support vessels and luxury yachts.

The key difference between the Evac Evolution and its competitors is the use of a special UVT ‘feedback’ system ensuring effective UV dosage, precisely regulated (through the measurement of UV transmission) to give substantial benefits in reduced power consumption.

The Evac Evolution ballast water management system is designed and manufactured by Cathelco.

Approved to the latest U.S. Coast Guard and IMO G8 standards
Precise adjustment to different water qualities
A sample of sea water is taken before the chambers and the UVT sensor measures the UV light transmittance. From this data, the automation control unit calculates the correct UV dosage. UV intensity meters check that the correct dosage has been received. This ensures effective irradiation, but saves power whenever possible.

Helix flow through UV chambers
The inlet manifolds are designed to make water flow in a helix.
This ensures the maximum surface area of the water is exposed to the light for the maximum irradiation of organisms. At the same time, baffles create a lateral movement bringing organisms from the edge closer to the UV lamps.

Easy, intuitive control systems
The choice of local, remote or full integration with ship's computer systems.
Easy to read schematics show sea water routing, plus read outs indicating the transition state of valves. Simplifies the process of gathering the data required to maintain a Ballast Water Record Book.

Based on a combination of filtration and UV technology, the Evac Evolution BWMS is available with capacities from 34m³/h to 1,500m³/h in a single unit. The equipment can be provided skid mounted or in modular form simplifying retrofit installations where there is the need to make the best use of available space.

During uptake the sea water passes through the filtration unit where the larger organisms and sediments are removed. At regular intervals, the retained material is automatically back flushed and discharged at the original ballasting site with minimal reduction of the ballast water flow during the back flushing process.

The sea water continues to UV treatment where smaller organisms, bacteria and pathogens are killed before the water passes to the ballast tanks. During ballast water discharge, the sea water bypasses the filter unit and goes directly to the UV chambers where it is sterilized for a second time. This avoids the risk of any contamination due to re-growth in the ballast tank.