

Hydropath Marine Ltd

Environmentally friendly electric
water conditioner for chemical
free water treatment on board
your vessel



HYDROPATH
MARINE

Hydropath Marine Technology

Hydropath Marine Technology uses an AC electrical signal to prevent the formation of limescale deposits on the surfaces of pipes and equipment and also to eliminate bacteria.

Hydropath Marine uses a unique patented technology to apply an electrical field to the pipe and the water contained within, using a signal consists of a series of exponentially decaying sine waves, of frequency approximately $\pm 150\text{kHz}$.

The unit fits around the pipe with no need for cutting or plumbing. A ferrite ring passes through the unit and encircles the pipe.

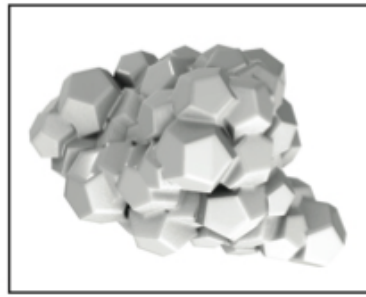
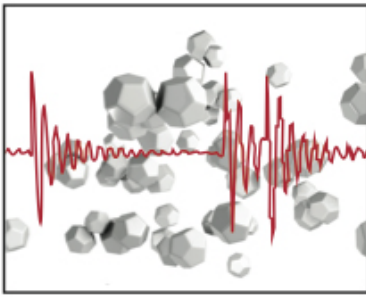


The difference between Hydropath Marine and other physical water conditioning technologies is the induced signal and its ability to continuously condition the liquid solution throughout an entire system. Hydropath Marine water conditioners induce the signal into any water pipe on which they are installed, metal or PVC.

Installation is straight forward. It does not require any dismantling of pipes, but is just an "ADD ON" unit, which is simple and small in size.

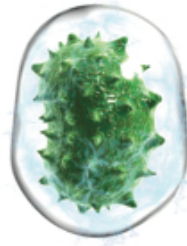
Pay Back period is short with Hydropath Marine unit, in view of the savings of chemicals and cleaning costs. The energy consumption is negligible in comparison with the energy saved through an improved heat transfer.



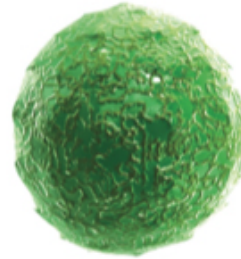


The electric signal causes mineral ions to form suspended clusters that turn into stable crystals when temperature or pressure changes occur. The suspended crystals will prevent scale from building-up in pipes and on heating elements.

Hydropath Marine Technology can reduce the problem of biofouling common in recirculating water systems. The unit creates "virtual electrodes" in the water and as the bacteria pass these they become electrically charged.



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2



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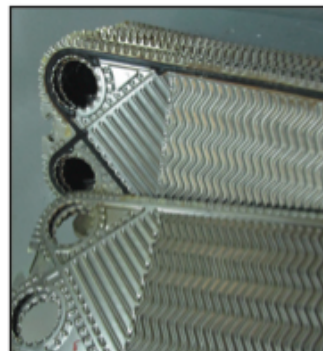
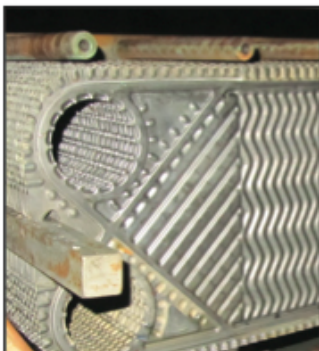
The charged bacteria attract a wetting layer of extremely pure water. This is then forced into the bacteria by osmotic pressure, causing the bacteria to swell and die via osmotic lysis.

As well as killing bacteria and algae that pass through the unit, the unit also transmits a signal up- and downstream, which causes existing biofilm to detach.



Without Hydropath Marine:

- 24 hours cleaning process
- Expensive chemical usage
- Staff exposure to hazardous chemicals
- Damage to the plates and seals
- Slime and mud accumulation



With Hydropath Marine:

- 2-3 hours cleaning process
- No chemicals usage
- Low maintenance
- Reduced down time
- No slime or mud accumulation



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Hydropath Marine Ltd.

was established to introduce the shipping industry with an advanced and long established water treatment technology by Hydropath Technology Ltd.

Hydropath Marine Ltd offers low maintenance costs and environmentally friendly solutions for water treatment on board your vessel.

Hydropath Marine Ltd systems, designed for purpose, will protect your vessel from limescale and biofouling, saving the ship owner substantial costs for chemicals and labor. The electronic treatment removes the need for crew members to be exposed to noxious chemicals used for cleaning and biofouling prevention, and eliminates the release of those chemicals into the marine environment.

