Electrolytic Anti-fouling:
Marine Growth Prevention System (MGPS)

50 YEARS PROVEN EXPERIENCE IN CATHODIC PROTECTION

JENNINGS ANODES

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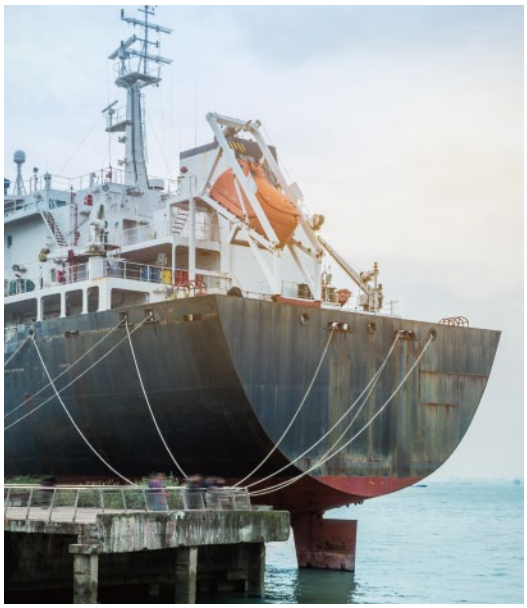
Ships use seawater for several purposes, and one of the primary functions is cooling the engine and parts of the ship while sailing. However, as the seawater passes through the various pipes and parts to cool the ship's engine, marine organisms could deposite along their surface.

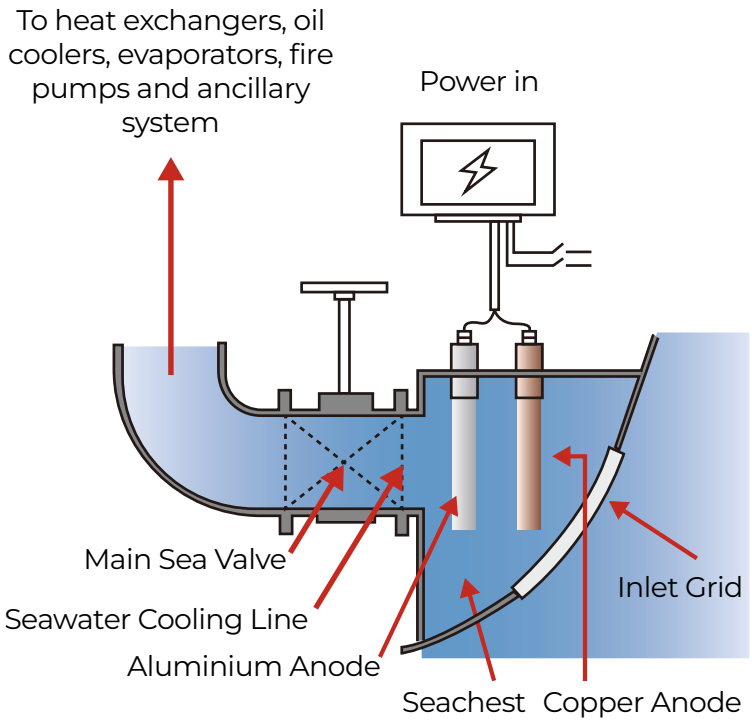
To protect and purify the surface of ship's mechanical parts, our electrolytic anti-fouling anodes combo system function as both anti-fouling agent and corrosion inhibitor. The fouling organisms can be inhibited from growing by dosing small quantities of Cu ions into the water with a total anti-fouling effective rate over 95%. And aluminum hydroxide colloid formed could provide an anti-corrosive film over the sea water piping system —— keeping corrosion rate less than 0.03 mm/year.

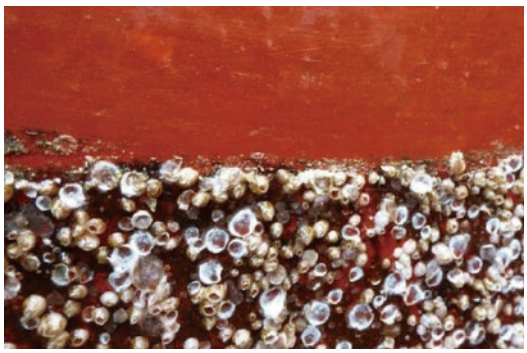
Environmental Friendly
only 2 ppb of Cu ions will be released into sea water with no chlorine evolution

Easy Installation
anode will be pre-assembled before shipping and ready for both newly installation and retrofitting

Less Maintenance
system operate automatically and reduce manual maintenance







Before

After

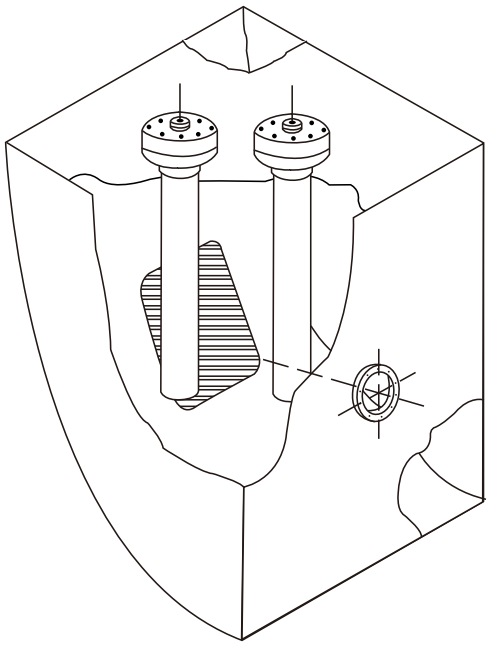
SYSTEM COMPONENTS

The MGPS system comprises anode combo for anti-corrosion and anti-fouling, control panel, junction box, etc.

Anti-fouling Anodes

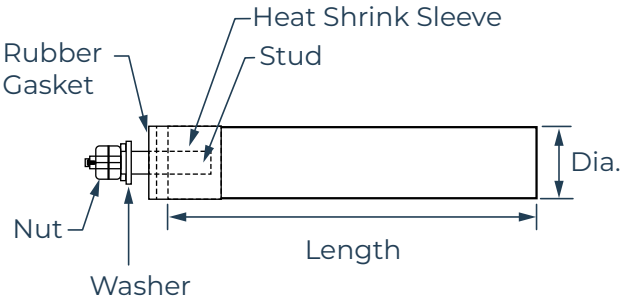
- **Copper Anode**

  Copper anode produces copper ions which are transported by the seawater and carried into the pipework system to prevent marine growth.



- **Aluminum Anode**

  Aluminum anode produces aluminum hydroxide which spread throughout the pipe work and produce an anti-corrosive layer on the internal surface of sea water cooling lines.



The size (diameter and length) of the anodes is determined based on seawater velocity (inlet water debit), design life and consideration of the maintenance or dry docking schedule for the vessels. Standard sizes range from 50mm to 150mm in diameter and 100mm to 2,000mm length.

Note: Cofferdam can be customized according to flange size.

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Control Panel

Each unit supplies two group of anodes. PLC integrated displays each anode current and system operation status,and setting parameters. This allows visual monitoring of all working status of each anode.

IP rating: 44
Power Source: 110V/220V, 50-60hz
Output Voltage: 0~12VDC/anode
Output Current: 0~2A/anode
Standard Colour: RAL 7035
Overall Size: 425x350x200mm
Manual or automatic switching
Green “Power ON” indicator LED
Red LED and onscreen warning indication for anode failure

Junction Box

Outer Shell: ABS / ALUMINIUM / SUS316 / GRP
Shell Thickness: 1.5mm
Door Thickness: 2mm
Terminals: 4 / 8 / 12 / 16
IP Level: IP65

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