

Marine Growth Prevention System (MGPS) Anti-fouling System



Electrolytic Anti-fouling

Introduction

Ships while sailing use seawater for several purposes, One primary function seawater serves is to cool the engine and parts of the ship while it's operating. However, As the seawater passes through the various pipes and parts of the ship's engine, marine organisms could deposit along their surface

The main fouling organisms (macrofouling) can be inhibited from growing by dosing small quantities of copper into the water. The ionic products formed by the copper anodes are hostile to marine fouling and is carried by the flow of water to settle on surfaces where marine fouling is most likely to adhere.

The copper anodes are generally installed in combination with aluminium anodes. The transport of the copper ions is assisted by aluminium hydroxide created by the aluminium anodes which flocculates with the released copper ions. Aluminum hydroxide colloid formed could provide an anti corrosive film over the sea water piping system.



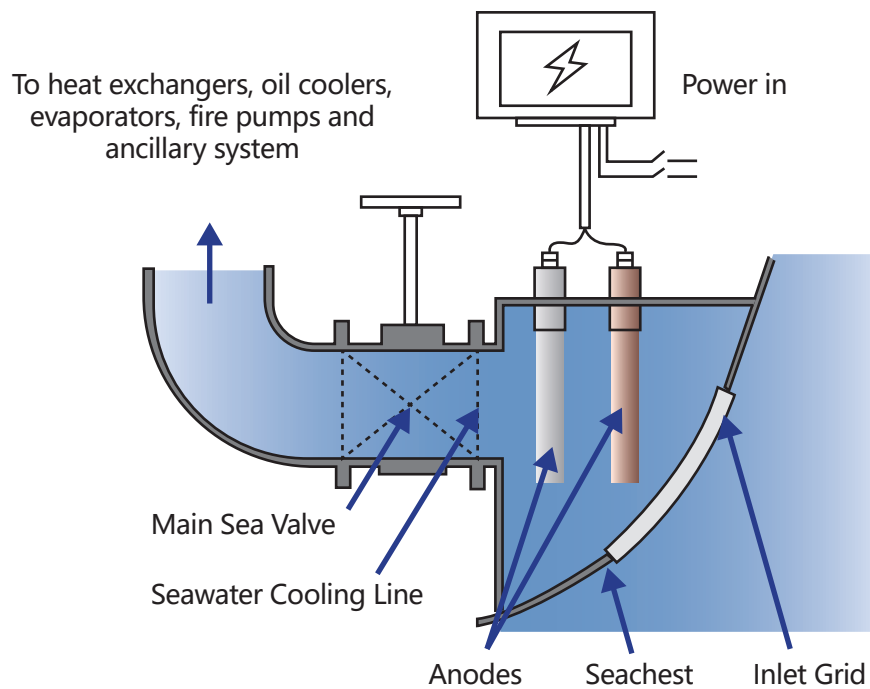
Features

- ▶ Functioning as both anti-fouling agent and corrosion inhibitor. Keeps corrosion rate <0.03 mm/yr and anti-fouling effect $>95\%$.
- ▶ Environmental friendly, only 2 ppb of Cu ions will be released into sea water with no chlorine evolution.
- ▶ Easy installation as anode will be pre-assembled before shipping and ready for both newly installation and retrofitting.
- ▶ Little Maintenance required. The system operate automatically and minimize the requirement for manual maintenance.

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Components

The MGPS system comprises Anti-fouling anode, Anti-corrosion anode, Control Panel, Junction Box, etc.



Anti-fouling Anodes

Available anodes include: Cu alloy anode, Al alloy anode.

Diameter: Customize from 50mm-150mm

Length: Customize from 0.1m-2m

Cofferdam: select from flange mounting/welding



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Power Control

Remote Display Unit with LCD enables crew to easily check all recordings without scroll of display and each location of anodes and reference electrode can be found out on its mimic board.

Optional device Output: select from 4, 8, 12, 16 channels

Size: Customize or recommended



Junction Box

Shell: carbon steel

Terminals: customized from 4, 8, 12 and 16

Protection Level: IP65 or customized

Shell Thickness: 1.5mm

Door Thickness: 2mm

