YUXI
CORROSION CONTROL

IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM

FOR HULL CORROSION PREVENTION

ASTM INTERNATIONAL Standards Worldwide

ABS Quality Evaluations, Inc. Management System Certification

CERTIFIED ISO 9001:2015 COMPANY

DNV

AMPP CORPORATE MEMBER

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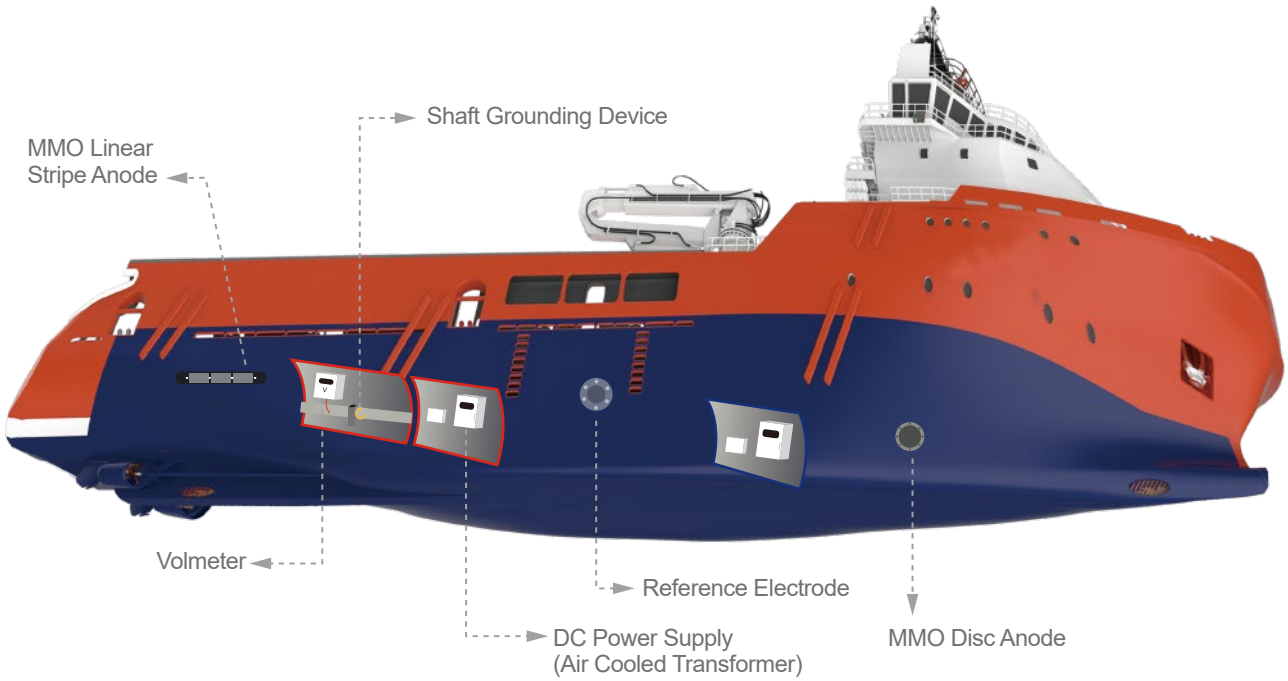
Impressed Current Cathodic Protection System for Hull Corrosion Prevention

Marine ship undergoes corrosion in various aspects. To raise the level of corrosion suppression, impressed current cathodic protection (ICCP) system is considered to be an optimum solution - fuel cost saving achieved by a smoother hull surface compared with sacrificial anode system.

The electrical potential is monitored by reference electrodes which are fitted at both port side and starboard side between the anodes and been reflected to the power supply unit. Thus the whole system could continuously defect the electrical potential at the hull/seawater interface and automatically adjust the protection level.



Advantages

- Fuel cost saving achieved by a smoothier hull surface compared with sacrificial anode
- Longer operational lifetime and less maintenance requiments
- Unlimited protection capacity until anode coating breakdown
- Continuously monitoring and automatic operation
- Adjustment of the protection level

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Disc Anode

Shaped as a circular/elliptical flat plate, this slim disc anode fits flush with the hull surface —— minimizing the water flow resistance and maintain the flow dynamics during voyages. Its low profile also avoids the problem of rubbing by anchor chains.

Item No.	Shape	Dimensions	Current(Nom./Max.)	Lifetime
YX-MMO-VC500	Circular	Φ500mm (Φ196.9")	118A/195A	25 yrs.
YX-MMO-VC400	Circular	Φ400mm (Φ157.8")	75A/125A	25 yrs.
YX-MMO-VO430	Oval	430x210mm(169.3"x82.7")	42.5A/70A	25 yrs.

Linear Stripe Anode

With a powerful output in relation to its surface area, the linear anode enables large vessels to be protected with fewer anodes. It may be installed on all types of vessels where anodes are positioned close to the engine room.

Item No.	Dimensions	Current(Nom./Max.)	Lifetime
YX-MMO-VL1510	1510x230mm(594.5"x90.6")	60A/100A	25 yrs.

Recessed Type Zinc Reference Cell

Technical Measurement	Performance
Substrate	Zinc (Purity>99.996%)
Potential	-1.042 V
Potential Fluctuation	< 0.015 V
Insulation Properties	180 MΩ
Water Tightness	withstand 196kPa water pressure (> 15mins)

* The potential is with respect to a saturated calomel electrode.

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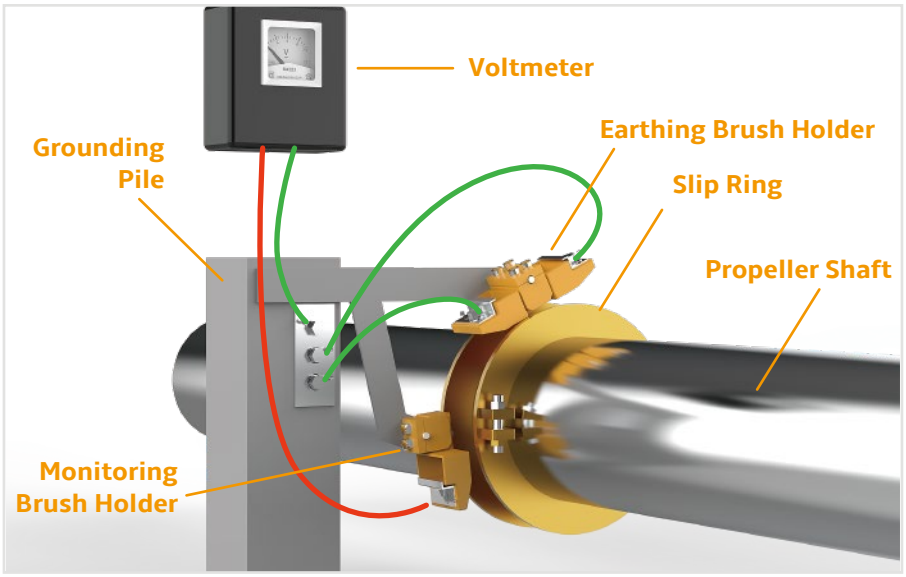
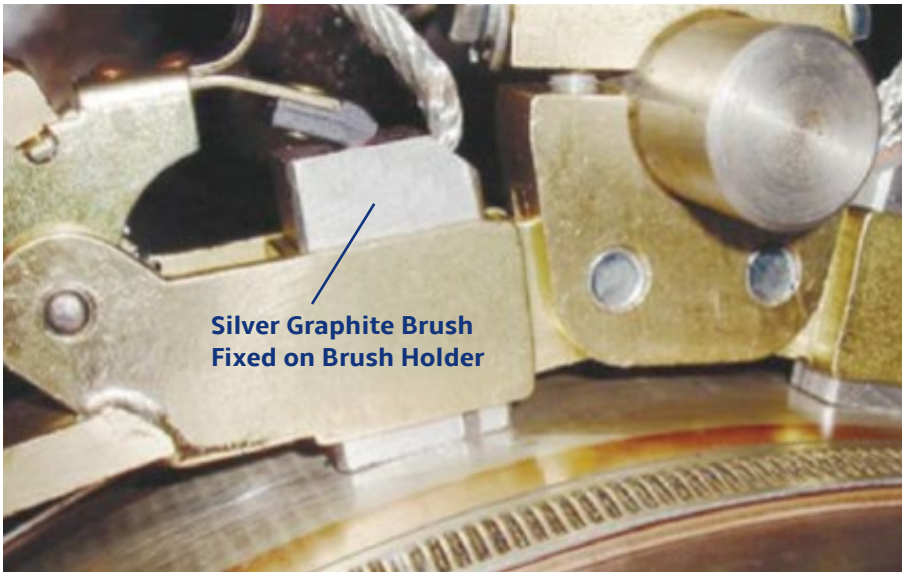
■ Shaft Grounding Device



Slip Ring

- Silver Content: > 85%
- Lifespan: > 20 years



Silver Graphite Brush

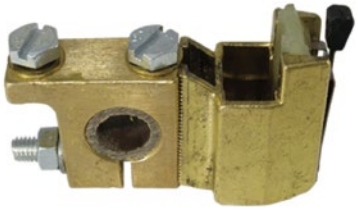
- Silver Content: > 85%
- Lifespan: > 1 years

Earthing Brush Holder

•Double balancing earthing brush holder with pressure setting

Monitoring Brush Holder

•part of propeller shaft earthing monitoring set



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Power Supply Unit

FUNCTIONS

- Auto/Manual switching
- Overload protection
- Alarm

Technical Measurement	Performance
Power Sources	AC 220V/110V(±10%), 50Hz(±5%)
Output Voltage	0 ~ 24 V
Output Current	0 ~ 600 A
Output Phase	Single
Ripple Coefficient	≤ 5%
Designated Potential	- 3000mV ~ 3000mV
Working Temperature	-15℃ ~ 45℃
Fixed-potential Accuracy	≤ 20mV
Fixed-current Accuracy	≤ 1%
Working Efficiency	≥ 80%
Insulation Resistance	> 1MΩ
Protection Grade	IP44

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Industrial Corrosion Control Solutions Provider

Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheeps with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.

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