REVOLUTIONIZING MARINE CORROSION PROTECTION

SMartyr SCP

A Smart, Sustainable Solution

Learn how our eco-friendly system protects your investment and the environment

CORROSION PROTECTION

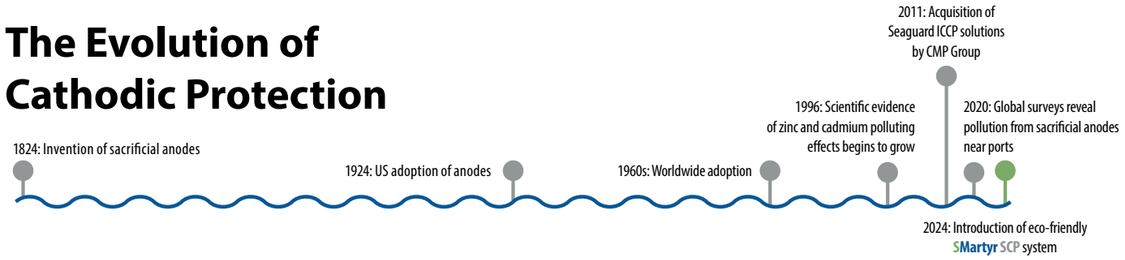
CMP Group Ltd.

PLUMBING TECH

qualitymark
Trusted professionals & superiority in innovation

Martyr ANODES

The Evolution of Cathodic Protection



In 1824, Sir Humphry Davy invented the zinc anode, initiating cathodic protection to prevent metal hull corrosion. Zinc anodes gained popularity in Europe and the U.S., with military standards emerging in the 20th century. By the 1970s, **Martyr Anodes** (part of CMP Group) became a leading zinc anode supplier for marine vessels.

Environmental concerns over zinc and cadmium led to the adoption of aluminum anodes in the 1980s, offering effective corrosion protection with less ecological impact. By the 1990s, Martyr pioneered the promotion of sustainable aluminum anode designs in North America.

In the late 20th century, Impressed Current Cathodic Protection (ICCP) systems emerged, using electrical currents for uniform protection. CMP Group's acquisition of Seaguard International in 2011 expanded its offerings to include both sacrificial and ICCP solutions, solidifying its industry position.

As the environmental awareness in the late 20th century shifted the focus to more sustainable materials, there has been 200 years without a major development in how we protect our boats… until now.

Understanding Cathodic Protection

Cathodic protection is a technique to prevent metal corrosion by turning the metal surface into the cathode of an electrochemical cell. It's widely used in marine environments to protect ships, docks, and pipelines. This process stops corrosion by either using sacrificial metals or applying a controlled current to the structure.

Types of Cathodic Protection

	Sacrificial Anode Protection Uses sacrificial anodes (Zinc, Aluminum, and Magnesium)	**Impressed Current Cathodic Protection (ICCP)** Uses an external power source with inert anode (Titanium)
Advantages	• Simple • Cost-effective • Minimal maintenance	• Adjustable • Long-lasting • Efficient
Disadvantages	• Limited lifespan • Less effective in large applications • Environmental impact	• More complex • Requires constant power • Higher Maintenance
Environmental Impact	Harmful to marine ecosystem	Higher energy consumption

Environmental Concerns

Zinc anodes contain toxic cadmium, which can harm marine life. Aluminum can also release excess aluminum ions into the water, affecting ecosystems. ICCP systems, using controlled currents, reduce the need for consumable metals, making them a more eco-friendly option, yet require power and more complex setup.

Introducing the SMartyr SCP System

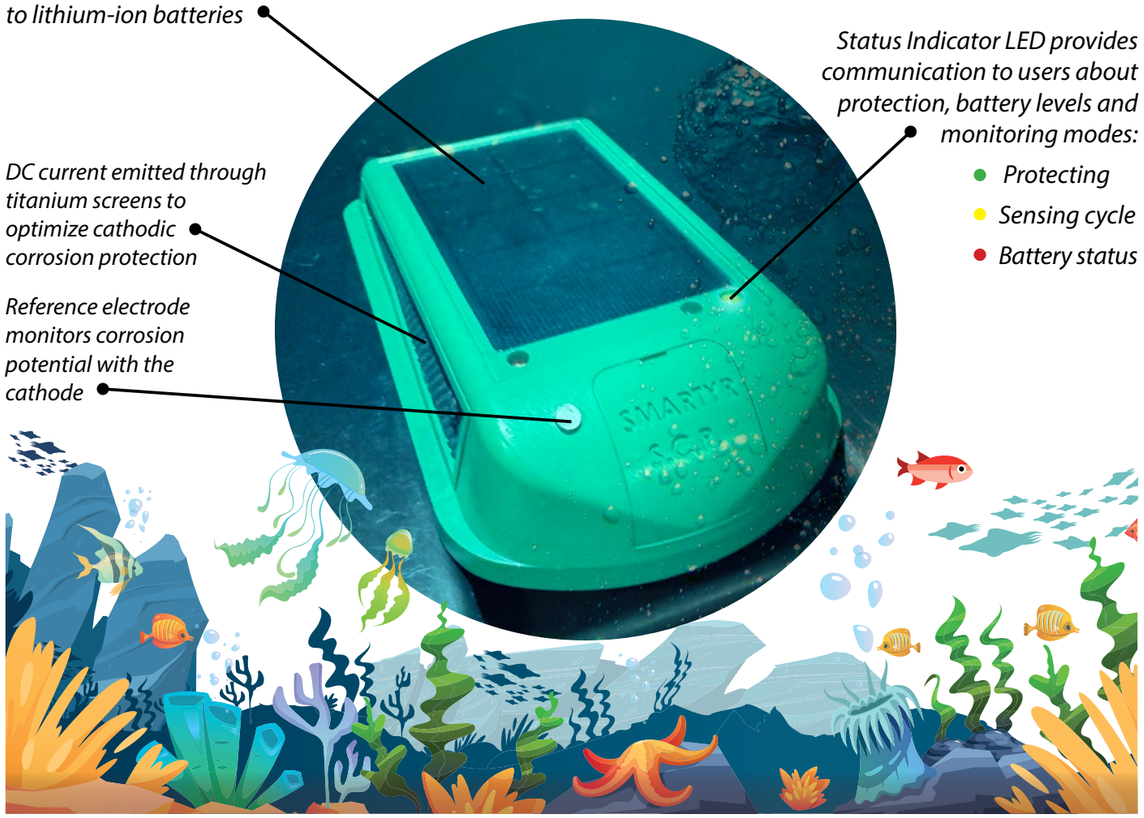
- **Eco-friendly:** Free from harmful metals like cadmium, ensuring no seabed pollution
- **Innovative Technology:** Patented system that harnesses solar power to deliver continuous protection
- **Longevity & Maintenance Reduction:** Requires fewer replacements compared to traditional anodes
- **Ease of Use and Installation:** No drilling or wiring required

Advantages Over Traditional Systems:

Provides continuous protection with less environmental impact	Adaptable to various salinities, ensuring effective corrosion protection across diverse marine environments	Offers long-term cost savings due to its durability and extended lifespan

Applications: Ideal for yachts and a wide range of boats.

SMartyr SCP: A Smarter, More Sustainable Solution



SMartyr SCP

Protect your investment, safeguard the environment with SMartyr SCP System

martyranodes.com | MartyrAnodes | martyranodes

CMP Group Ltd.

PLOMBINO TECH

qualitymark
Trusted professionals & superiority in innovation

Martyr ANODES