

## Ampak® Impressed Current Cathodic Protection (ICCP)

Cathodic protection with high-quality ICCP systems.

The maritime and offshore industry is dealing with the problem of corrosion every day. Corrosion results in a lowering of your investment and is a problem that needs to be, and can be, prevented. Although metal surfaces can be protected with a protective, anti-corrosion coating general use will result in wear and tear of the protective layer. This wear can be microscopically small, but the corrosion it allows to seep through can be astronomically large. Only through extra protection in the form of cathodic protection will your ship or offshore structure be fully protected against corrosion.

Ampak® delivers a high-quality solution against corrosion alongside our traditional sacrificial anode system: Impressed Current Cathodic Protection (ICCP), ICCP is a system that is comprised of anodes, a controller power unit and reference electrodes. The system protects a wide range of metallic structures by constantly checking the systems integrity and proactively changing depending on environmental factors: ensuring an optimal protection against corrosion problems. With our expertise we can assist you with consulting, system design and evaluating current systems.

## Ampak® Marine Growth Prevention Systems (MGPS)/ Impressed Current Anti Fouling (IC AF)

Cathodic protection with high-quality MGP systems.

Water cooling and firewater systems are dependent on the ability of water to freely traverse the system. All forms of biological fouling (marine growth like for example microorganisms, algae or plants), could be a threat to your system water flow. Our Marine Growth Prevention systems (MGPS), also known as Impressed Current Anti Fouling (ICAF) can solve this problem by actively preventing biological fouling through introducing copper particles into the system. Our system comprises of specially alloyed anodes which are electrically connected to a small, digital rectifier. Installation of our MGP system is easy and could be done within water or when a ship is in dock. Do note that our MGPS/ICAF systems are for dealing with marine growth only and we always advise traditional cathodic protection to protect your seachests, boxcoolers or water pumps from corrosion.

## Ampak® Special casting

Because Ampak® has our own foundry where we cast sacrificial Anodes we can also cast special castings on your demand. What do we mean with special casting? Special castings are castings we made from an example, from a sketch or from a drawing. Actual castings can be completely modified to your wishes. Ask us about your custom needs!

### Materials available to cast:

- Different Aluminium Alloys
- Different Zinc Alloys
- Different Copper Alloys
- Different Iron Alloys

## Ampak® products are made in the EU

Ampak® has its own fully equipped foundry in the Netherlands. We make it our mission to produce high quality products and choose to do so in Europe where we can ensure full compliance with international regulations and can ensure speedy international delivery without you having to wait for months to get shipments from low wage countries where quality is not ensured.

## Ampak® Quality Control

Ampak® has its own fully equipped laboratory with Optical Emission Spectrography for analyzing different materials and the facility to do duration tests on materials. We constantly look for ways to improve our products and to make sure our products are one of the best in the market.

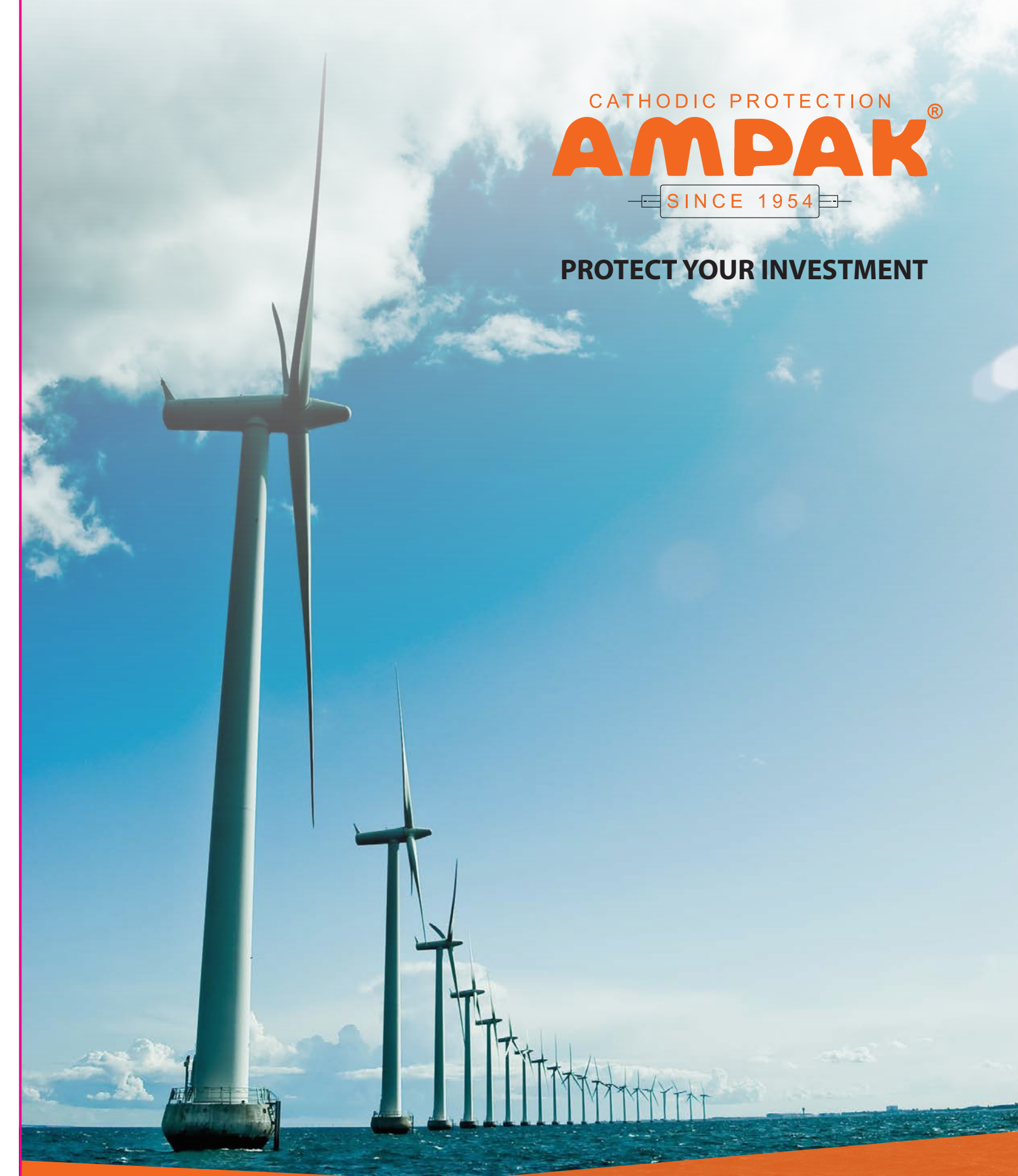


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CATHODIC PROTECTION  
**AMPAK**<sup>®</sup>  
— SINCE 1954 —

**PROTECT YOUR INVESTMENT**



**SACRIFICIAL ANODES**

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## Ampak® Zinc anodes

Cathodic protection with high-quality zinc anodes for salt water.

### Advantages:

- Corresponds to US MIL Spec. A-1800 1K
- Remains electro-chemically active in salt water
- Uniform corrosion pattern, reliable electrical capacity with long life
- Different alloy specifications casted to customer needs

### Applications:

- Corrosion protection in salt water
- Available as welded or bolt-on types
- Hull anodes and ballast tank anodes available
- From standard to customized anodes

### About us:

Ampak® is the globally known brand for cathodic corrosion protection. It is synonymous with high-quality anodes and Ampak's complete and long-term expertise in the field of design, production and application of corrosion prevention systems. Our company closely cooperates with major ship-owners, the maritime and offshore (wind) industry, port authorities and maritime design companies.

Depending on the environment, the size, type of construction and the time until the next scheduled maintenance, Ampak® offers different cathodic protection systems. As a general rule we recommend selecting anodes suitable for the water the vessel regularly operates in.

## Ampak® Aluminium anodes

Cathodic protection with high-quality aluminium anodes for salt water and brackish water.

### Advantages:

- Tested according to D.N.V. RP-B-401
- Very economical corrosion protection due to high electrical capacity
- Reduced weight and more environmentally friendly compared to traditional zinc anodes
- Corresponds to NORSOK Standard M-503 specification

### Applications:

- Corrosion protection in salt water and brackish water
- Anodes available as welded or bolt-on types
- Hull anodes and ballast tank anodes available
- From standard to customized anodes

### About us:

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## Ampak® Magnesium anodes

Cathodic protection with high-quality magnesium anodes for fresh water applications.

### Advantages:

- Available in two basic types with voltage outputs of approx. 1.55 V and 1.75 V
- Remains electro-chemically active in fresh water
- Uniform corrosion pattern, reliable electrical capacity and long life
- Different alloy specifications casted to customer needs

### Applications:

- Corrosion protection in fresh water
- Anodes available as welded or bolt-on types
- From standard to customized anodes

### About us:

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