Offshore solutions

Cathodic Protection
Corrosion Engineering
Inspection Services
Rope Access Services
Material Testing

A Longer Life
Products & Services for Corrosion Prevention

Sacrificial Anodes
At MME Engineering Ltd. (based in Faversham, UK) we manufacture sacrificial anodes for the marine, offshore, renewable energy, and civil engineering industries. We are able to comply with the strictest requirements for quality as well as short delivery terms. An efficient certification structure guarantees an accurate and professional order processing.

MME’s aluminium and zinc sacrificial anodes (SA) are suitable for all types of application, and can be used for protecting:

- Harbours
- Jetties
- Platforms
- Ship hulls
- Ballast tanks
- Drill rigs
- Pipelines
- Offshore wind structures

Cathodic Protection Engineering & Surveys
MME has its own in-house FEM facilities for electrochemical modelling, for hydrodynamic modelling (water refreshment inside monopiles) and mechanical modelling (wave load calculations on support structures).

Our inspectors carry out full inspection services on all types of cathodic protection systems, monitoring the degree of protection of the structure. Inspections can be carried out offshore and if applicable during dry-docking, and consist of:

- ICCP system commissioning & inspection
- Anode inspection
- Corrosion inspection
- Detailed reporting

In-house FEM Analysis

Fluid dynamics
External analysis
Internal analysis
MME is one of the main suppliers of products and services for corrosion prevention by cathodic protection for a wide variety of submerged metallic structures.

**ICCP System**
An Impressed Current Cathodic Protection (ICCP) system consists of a combination of anodes and reference cells connected to a control box. The reference cells monitor the electrical potential at the underwater structure and send a reading to the control box which automatically raises or lowers the output to the anodes.

The current from the anodes prevents corrosion on the surface of the structure under protection.

**Service & Maintenance Contracts**
MME Group could be of contractual service to windfarm owners in the field of:

- Corrosion monitoring
- CP monitoring (SA & ICCP)
- Upgrade of existing cathodic protection systems
- Supply of replacement parts for non-MME systems
- NDT & Coating inspections

**REFERENCES OFFSHORE WIND PROJECTS:**

- **Blyth:**
  - OWF, SA Internal and external
- **Walney Extension:**
  - OWF, SA external
- **Beatrice:**
  - OWF, SA external
- **Kentish Flat:**
  - OWF, Consultancy
- **Nordergründe:**
  - Design & supply of in-/ external ICCP
- **Nordsee One:**
  - Design & supply of in-/ external ICCP
- **Rampion:**
  - Supply of SA
- **Gemini:**
  - Design & supply of in-/ external ICCP
- **Luchterduinen:**
  - Supply & design of internal SA
- **Humber Gate Way:**
  - Supply of SA
- **Princess Amaliawindpark:**
  - Supply of SA
- **Bard Offshore 1:**
  - Design & supply of in-/ external ICCP + monitoring
- **F3FA:**
  - Design & supply of SA & ICCP
- **Chevron Haven Platform:**
  - CP for life-time extension, design & supply
- **Skysaver:**
  - Design & supply of SA & ICCP
Offshore Gangways

Under the trade name ‘Harbinger’ MME Group offers lightweight aluminium access equipment. It comprises a range of high quality seawater resistant aluminium gangways, accommodation ladders and dedicated access equipment for offshore solutions. Both standard and custom-built equipment, like automatic heave compensated systems.

Products and services:
- Offshore Gangways
- Bridges
- Accommodation ladders
- On-site repairs
- On-site servicing and testing

Our service engineers are LEEA trained, have offshore certification and NDE certificates.

Monitor and Remote Control:
MME’s ICCP systems do have integrated monitoring facilities for different functionalities and can be used for long-life protection (15 to 35 years) of:
- Submersibles
- Jack-up Rigs
- Ship Hulls
- FPSOs
- Offshore Wind Foundations
- Harbour Quays & jetties
- Coastal Protection

The R&D and manufacturing of the MME ICCP systems and MME Corrosion Monitoring systems is carried out at our HQ in The Netherlands.
Marine / Offshore Surveys
MME's Marine Services division is a well known specialist in ultrasonic thickness measurements (UTM) and close-up surveys. A reliable condition assessment of a ship or offshore structure is important to the owner, but also a commitment to our modern society.

Other services:
- Visual Coating- and Crack Inspections
- Steel Repair Calculations and Surveys
- Repair Supervision
- Coating repair services
- Video Inspections Survey (CCTV)
- Wind Turbine Blade Inspections
- Condition Assessment Programs (CAP/CAS)
- Rigging and lifting
- Project Management
- Rope access solutions for UTM and NDT (IRATA certified)

MME has been certified by all major classification societies in accordance with the Unified Requirements of the International Association of Classification Societies (IACS) and ISO 9001.

Non-Destructive Testing
MME Group is a market leader in material testing in accordance with international standards.

Inspection methods:
- Ultrasonic Testing
- Radiography
- Magnetic Particle Inspection
- Dye Penetrant Testing
- Eddy Current Testing
- Visual Inspection
- Phased Array Ultrasonic Testing (PA)
- Time-of-Flight Diffraction (ToFD)
- Corrosion Inspection
- Thermography
- Hardness Testing
- Crack Depth Measurements

References Offshore NDT Projects
- **Kriegers Flak:** NDT of Offshore substation modules
- **OWF Greater Gabbard:** NDT inspection of monopoles
- **Belwind 1:** NDT Inspection of foundations
- **Bligh Bank:** UT of pitch cylinders
- **Princes Amaliapark:** NDT Works offshore / MPI / UT / Rope Access
- **Globe Tech 1:** NDT Works offshore / MPI / UT / Eddy Current examination
- **Riffgat:** NDT Works / MPI / UT
- **Maersk Resilient and Reacher (NDT and Maintenance (offshore):** NDT Works on-shore on spud cans / MPI / UT
- **Gryphon Alpha:** NDT Works on-shore / MPI / UT / Eddy Current examination / Visual Inspection
- **FPSO Petrojarl I - EPC Redeployment upgrade:** Inspection In-service Program (IPP) according DNV OSS101 / Special Survey / NDT by use of ET, MPI & UT
MME Group stands for quality & durability

For MME Group, quality is of the essence. Whether it is laboratory testing of materials, non-destructive testing of structures or the inspection of ships: our experienced specialists use the best equipment to ensure the most reliable results.

The MME Group consists of four specialised operating divisions, which main activities are material testing, inspection and corrosion prevention. Since its founding in 1963, the company has grown steadily, whilst maintaining the optimal balance between the different activities. After a successful start in the maritime industry, MME Group developed into a leading all-round specialist with a vast knowledge and experience. An efficient certification structure guarantees our customers that their requirements are fulfilled accurately and professionally.

‘A longer life’: is our mission, put into practice with full dedication of well-trained specialists on a daily basis.