

Solutions for a wide range of markets

A Longer Life





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Mankind creates increasingly large objects. Our society can no longer do without bridges, ships, drilling rigs, refineries and other complex structures.

Without due attention to quality and safety, these objects can pose a threat to people and to the environment. Ascertaining material integrity and protection against corrosion are therefore vitally important. MME Group is your partner in achieving this.

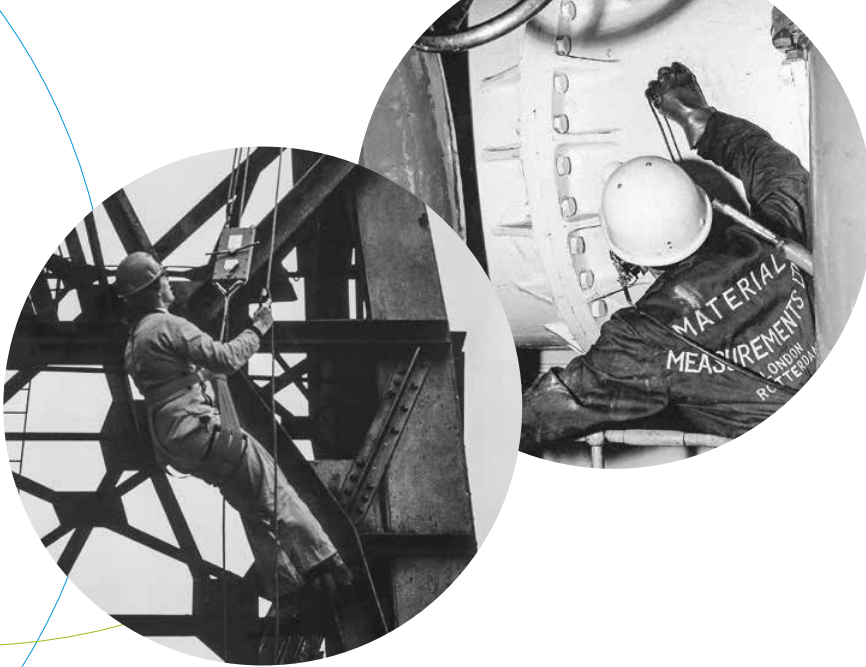
MME Group is a family owned business that was founded in The Netherlands more than 50 years ago. Since then, it has expanded to become a globally operating and well respected leader in its fields of activity. These include (Non) Destructive Testing, Marine Surveys, Cathodic Protection, Marine Growth prevention, Rope Access, Aluminium Boarding Equipment and Playground and Recreational Safety services.

These products and services help manufacturers, owners and operators safeguard the integrity and profitability of assets and products for the entire lifecycle. In doing so, we contribute to "A Longer Life" for the assets and those involved with them.



Scan the QR-code in each section of this brochure with the camera app on your phone for more information





History

A Longer life since 1963...

Back in the day, before the 1960s, special surveys of ships required drilling holes in a ship's hull to determine steel thickness. Obviously, this was an inefficient and costly practice.

After emigrating from the United Kingdom, Cedric Talbot started the company Materiaal Metingen NV in The Netherlands in 1963. He was one of the first pioneers who saw the potential of using ultrasonic technology to carry out marine inspections. The first models of this Non-Destructive Testing equipment were heavy and bulky. However, not having to drill holes was well worth the effort and the new technology found quick adoption throughout the marine industry.

After a few years, Cedric expanded the companies' scope into corrosion prevention for ships, offshore structures and industrial installations by partnering with the UK based company Wilson Walton Ltd. The business received a considerable boost when it was contracted by the Dutch oil company Shell to survey their tanker fleet. With such references, Materiaal Metingen soon became a trusted partner for oil majors such as Exxon, Total, Aramco, Chevron and Texaco.

Making use of its worldwide network among shipping companies, the company started selling high quality Harbinger aluminium boarding equipment. From the 1980s, the company further broadened its field of activity, offering a growing range of Non-Destructive Testing services across all branches of industry from several locations in The Netherlands.

From the beginning of the 1990s, the company, since then known as MME Group, made a number of strategic acquisitions. After having acquired the NDT training centre of the Rotterdam Drydock Company in 1989, Materiaal Metingen Europe BV was founded a year later. This division further specialised in the development of state of the art corrosion and growth prevention solutions. In 1993, the Destructive Testing Laboratory of the Dutch steel piping supplier Van Leeuwen Buizen was also acquired. In the same year, MME Group opened its anode foundry in the United Kingdom. With these expansions, the company became a major player in material science, testing, inspection and corrosion prevention.

Nowadays, MME Group is still family owned and operates all over the world in Offshore Oil and Gas, Offshore Wind, Shipping, Civil Engineering, Machine Building and other industries. It offers a wide range of products and services that help owners, operators and manufacturers realise "A Longer Life" for their assets and products. With more than 250 employees, 7 branch offices in The Netherlands and the UK and a worldwide agent network, MME Group is at your service!



Markets



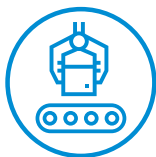
Offshore Oil & Gas

Whether you're dealing with installed base assets, newbuilds or production of components, it is vital to have a reliable partner for quality assurance, condition monitoring and protection against corrosion.



Offshore Wind

Corrosion is one of the largest threats to the long-term integrity and profitability of offshore wind foundations. Regardless of the asset's lifecycle phase, you should worry about its exact condition and about protection against corrosion.



Machine Building & Steel Construction

Manufacturing forms the backbone of the global economy. Companies that produce parts, systems and large constructions make possible the progress we see in areas such as transportation, infrastructure and (renewable) energy.



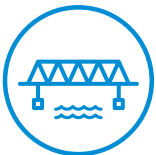
Shipping

Business success for you as a shipowner depends largely on a variety of external factors you can't control. What you can control is the way you run your operations and how you take care of your vessels.



Shipbuilding & Shiprepair

The best way to achieve a high return customer rate is to deliver vessels that keep operating safely and efficiently long after the warranty period expires. To a large extent, this depends on the suppliers you select.



Civil Engineering & Infrastructure

Civil engineering and infrastructure assets are always intended to last for decades. This makes condition monitoring and protection against corrosion a top priority of the asset manager.



Process industry & Energy

To optimize uptime, efficiency and TCO, you need detailed insight in the state of your production facilities. This information will allow you to apply data driven maintenance policies.



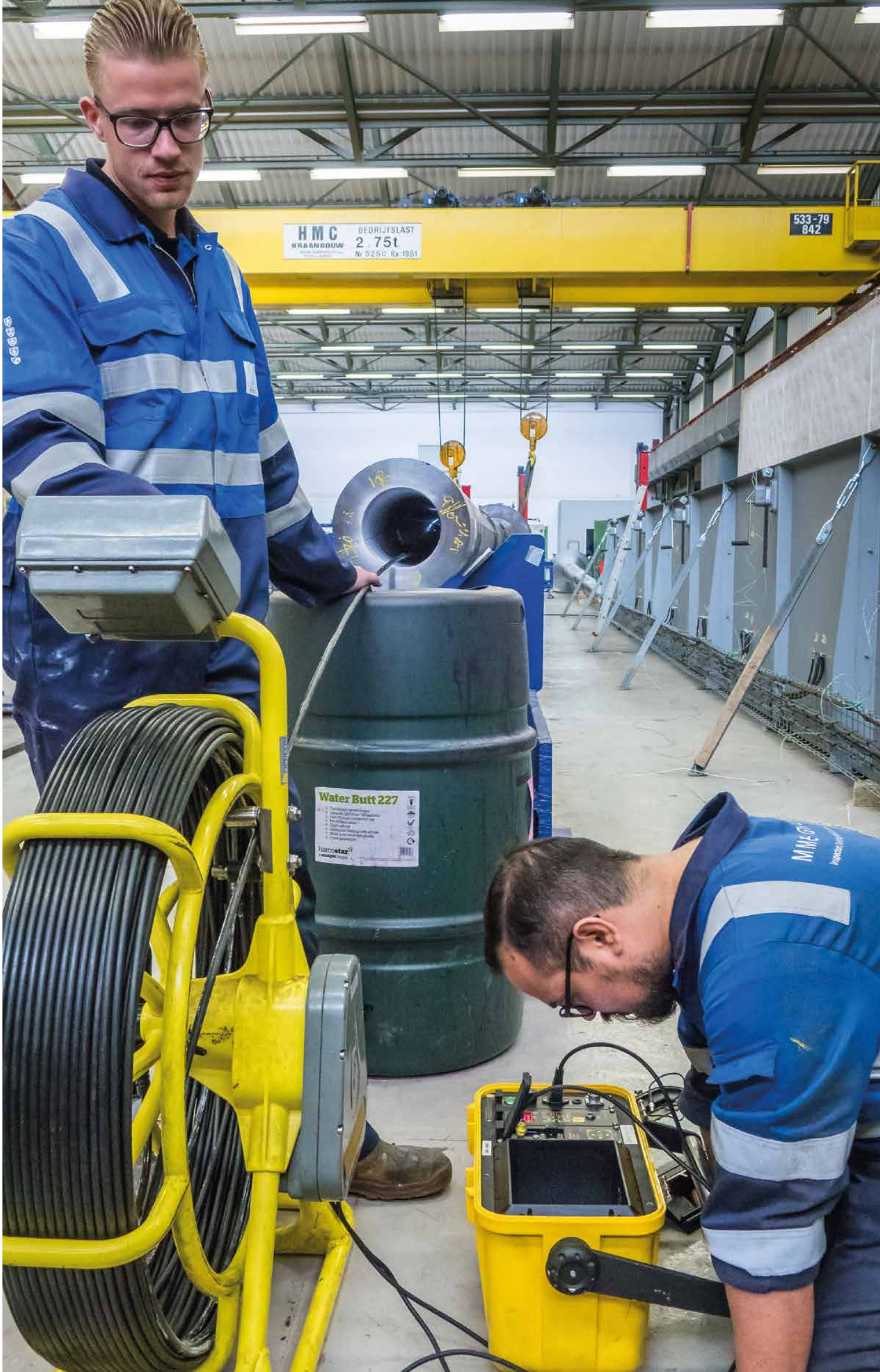
Megayachts & Leisure Yachting

Megayachts are the absolute pinnacle of shipbuilding excellence. Those who are in the position to acquire this category of vessels demand nothing but the very best. The best known yacht builders in The Netherlands and around the world are among our valued customers.



Recreational Industry

Owners and operators of playground equipment or attractions are obliged to keep this equipment in compliance with applicable regulations. MME Group offers services that help you ascertain the safety of your recreational equipment.





mme.group/ndt1



Non-destructive Testing (NDT)

Preventing material failure & assuring compliance

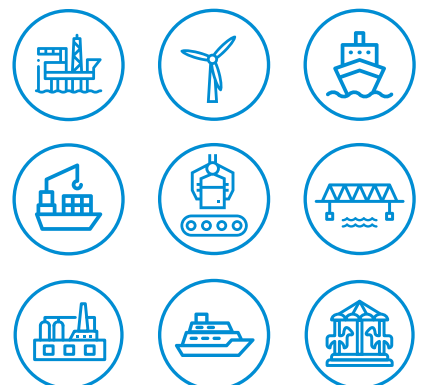
Whether you're involved in manufacturing or you manage industrial assets, ascertaining material integrity is a top priority. The quality of welding and other production processes can literally make or break your success.

Our efficient Non-Destructive Testing (NDT) services help you detect defects in base materials, products, installations and equipment. This provides asset management data which enables you to prevent damage and related cost resulting from material failure.

Our Non-Destructive Testing Methods:

- Ultrasonic Testing (UT)
- Radiographic Testing (RT)
- Magnetic Particle Testing (MPI)
- Penetrant Testing (PT)
- Eddy Current Testing (ET)
- Visual Inspections (VT)
- Hardness Testing

Used in these markets:





mme.group/and1

Advanced NDT

At the forefront of NDT innovation

The ongoing innovation process in engineering industries means that structures and systems become more complex. At the same time, demands for performance, sustainability and project efficiency also increase. Therefore, conventional NDT inspection methods don't always match these high demands.

MME Group employs a number of advanced NDT methods that provide improved inspection results, easier interpretation and faster processes. Advanced NDT Inspection results are recorded digitally which allows for easier integration in paperless project workflows.

Our technical department is at your disposal to take on specific challenges and develop tailor-made inspection procedures. Check the overview of our advanced NDT methods below. Contact us to find out how we can help you save on maintenance expenditure and at the same time improve quality and reliability.

Our Advanced NDT methods:

- Digital Radiography (DR)
- Phased Array (PA)
- Time-of-Flight Diffraction (ToFD)
- Automated Ultrasonic Testing (AUT)

Used in these markets:





MME GROUP
Inspection, Testing and Corrosion Specialist



mme.group/mas1



Marine Surveys

*Your partner for integrity,
compliance and profitability
of your vessels*

Reliable and cost efficient condition assessment of a ship is not only important to the owner. It also means a commitment to our society and the environment. From its earliest years, MME Group has helped ship owners realize a "A Longer life" for their vessels through marine surveys.

Our Marine Survey division provides a full range of inspection services that enable owners and operators to safeguard the integrity, compliance and profitability of their vessels for the entire lifecycle.

In addition to Ultrasonic Thickness Measurements (UTM), our Marine Survey Division specialises in:

- Visual coating and crack inspections
- Steel renewal calculations and surveys
- Measurements for owner interest
- Corrosion inspections
- Ultrasonic Tightness Testing
- Video inspection surveys (CCTV)
- Condition Assessment Programs (CAP/CAS)
- Vessel pre-docking inspections
- Rope access services for UTM and NDT (IRATA certified)

Used in these markets:





MME Group is certified for UTM inspections by the following class societies:



Destructive Metallurgical Laboratory



mme.group/lab1

Testing quality from base material to end product

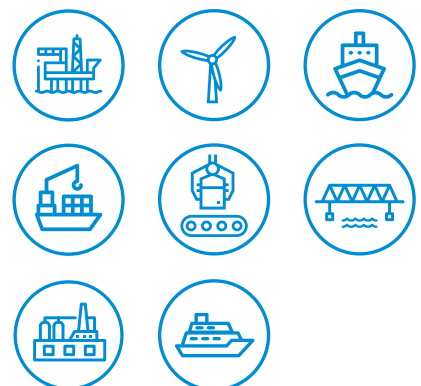
Creating reliable constructions and products starts with the quality of the used base materials. Making sure that the used materials meet the applicable standards and requirements therefore plays a vital role in all industries.

Our highly specialised Destructive Testing Laboratory has decades of experience in supporting base material producers and Original Equipment Manufacturers (OEMs) in this field. The combination of both non-destructive and destructive testing and an in-house machining shop for production of testing specimens means MME Group can deliver high quality testing services with short lead times at competitive rates.

Our specialisations:

- Qualification of welding procedures and welders according to EN15614 / ISO 9606-1 / ASME and AWS
- Testing for upgrading of metal semi-finished products (plates, pipes, shafts, forgings and castings)
- Bolts, nuts and other mechanical fasteners according to ISO 898
- Gears (a.o. hardening depth)
- Testing of cutting edge roughness, hardness and squareness according to EN-1090-2
- Failure analysis

Used in these markets:







mme.group/ra1



Rope Access

A safe and cost-effective alternative

Safely carrying out work at height always poses a challenge. Conventional access solutions such as cherry pickers or scaffolding are not suitable for all situations. Oftentimes, Rope Access is a cost-efficient and safe alternative. Choosing Rope Access can reduce a project's total lead time by 50% or more. The same goes for the amount of working hours "at risk". It is often possible to carry out Rope Access work without interrupting production processes or temporarily closing buildings.

MME Group has a vast experience in applying Rope Access techniques in compliance with the highest safety standards such as IRATA, VCA**, NOGEPa and EUSR. Our pool of in-house IRATA certified technicians and supervisors consists of more than 50 specialists. In addition, we own all the required equipment. Therefore, we are able to achieve extremely short mobilisation times. Contact us to find out what added value our specialisation in the field of Rope Access can have for your organisation.

Our Rope Access Activities Include:

- Inspections
- Maintenance & Repair
- Rigging & Lifting
- Rescue
- Consultancy

Used in these markets:









mme.group/tra1



NDT Training

Investing in human capital

Supporting A Longer Life for materials, products and structures is only possible with skilled staff. Recognizing this importance, MME Group founded the first Non-Destructive Testing Training Centre in The Netherlands in 1969. Our in-house training facilities enable a constant development of our inspectors' qualifications. This leads to efficiency and flexibility that is much appreciated by the clients of our Testing & Inspection Division.

Besides training MME Group inspectors, our NDT Training Centre also trains employees of other inspection bodies, quality services and laboratories. Participants who pass the exams and meet the other requirements of the standard, are awarded certificates that are in accordance with ISO 9712. These certificates are issued by Hobéon SKO.

We currently offer the following courses:

- Training Eddy Current (ET)
- Training Radiographic Interpretation (RI)
- Training Magnetic Particle Inspection (MPI)
- Training Penetrant Testing (PT)
- Training Radiographic Testing (RT)
- Training Ultrasonic Testing (UT)
- Training Visual Inspection (VT)

Used in these markets:





mme.group/prs1



Playground & Recreational Safety

Playing it safe

Playing is indispensable for the intellectual, social, motoric and emotional development of children. Playground equipment and other recreational objects can therefore be found everywhere in our living environment. Indoor and outdoor playgrounds, amusement parks, schoolyards, swimming pools and sports grounds are just a few examples. Children can only enjoy the beneficial effects of play if it can take place in a safe environment.

In The Netherlands, all playground equipment that is not intended for private use needs to be inspected in compliance with the Commodities Act on Attractions and Playground Equipment (Warenwetbesluit Attractie- en Speeltoestellen). MME Group has been appointed by the Dutch Ministry of Health, Welfare and Sport to inspect and certify playground equipment according to the applicable standards.

Quite literally, supporting A Longer Life starts with creating a safe playing environment for the youngest and most vulnerable members of our society.

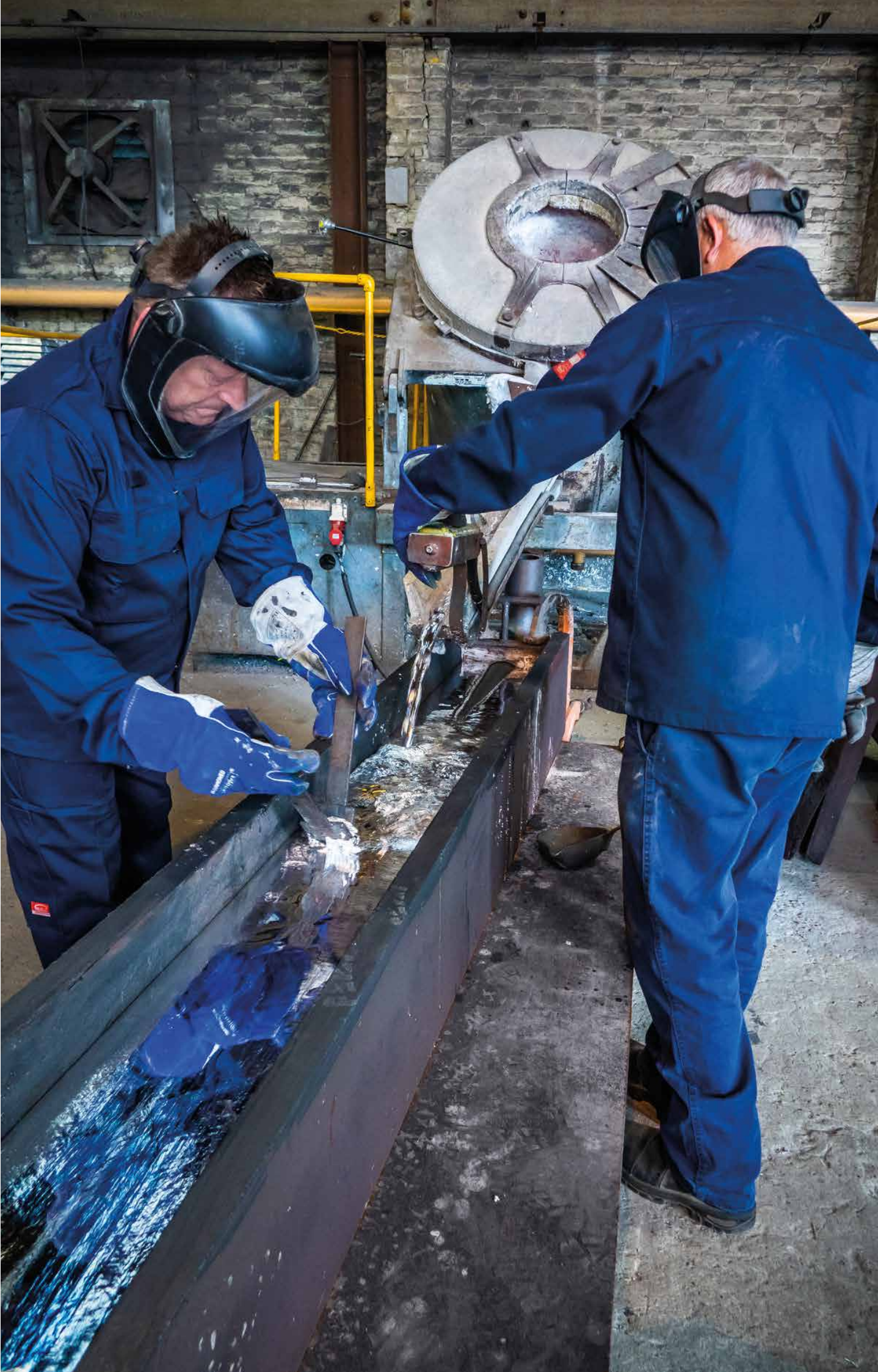
MME Group is your partner for:

- Statutory inspections
- In-service inspections
- Head Injury Criterion (HIC) test

Used in these markets:









mme.group/sa1



Sacrificial Anodes

The standard method for corrosion prevention

Besides coating, the standard protection method for submerged steel structures is the use of sacrificial anodes. These are made of a more active or less noble metal (usually zinc or aluminium). The sacrificial anodes are attached to the steel structure and since they oxidize more easily, they turn the structure itself into a cathode. The electrons leave the structure through the anodes which slowly dissolve. Applying this physics principle protects the steel structure against corrosion.

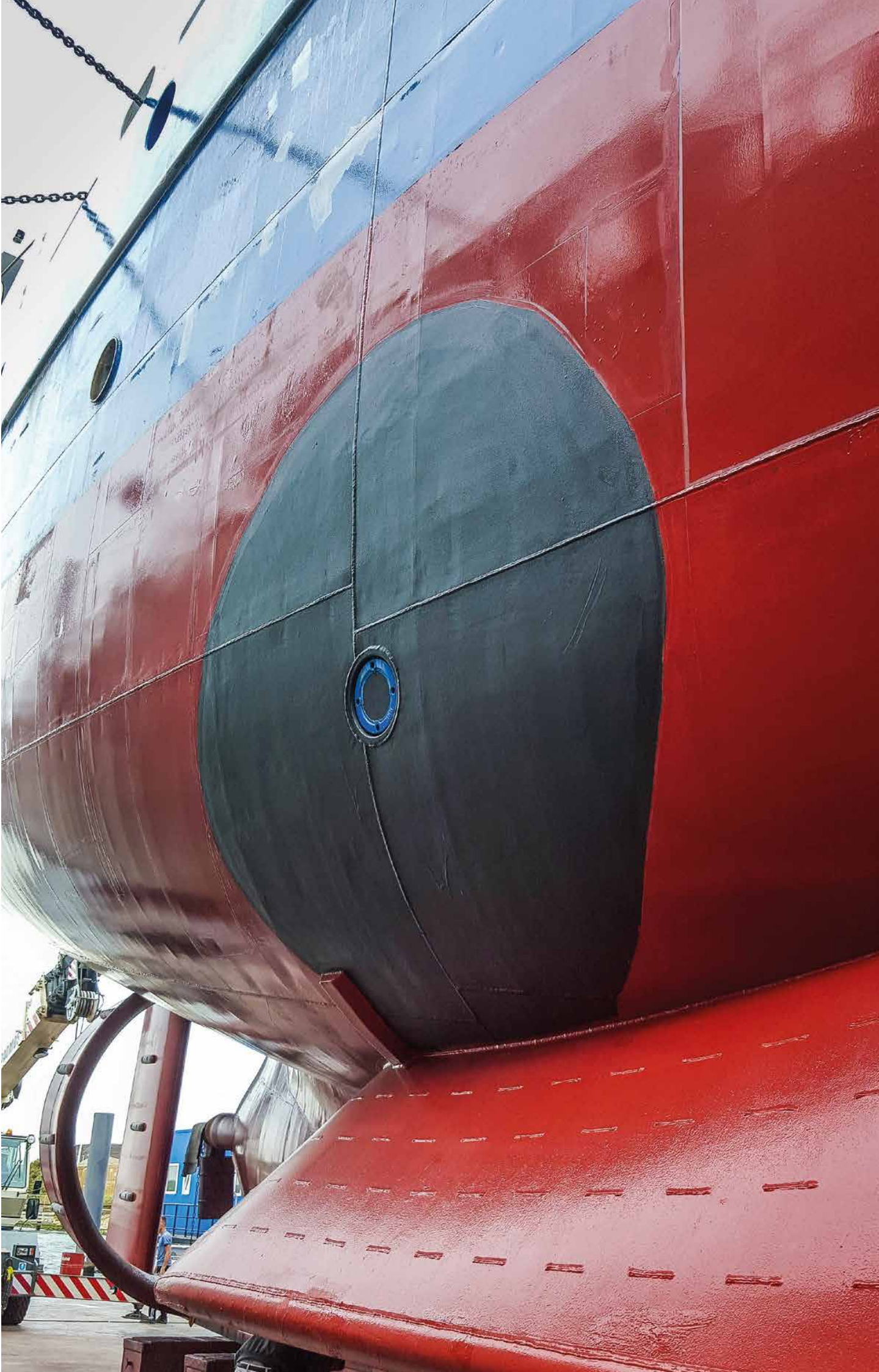
MME Group has decades of experience in applying sacrificial anodes to protect the following types of steel structures:

- All seagoing vessels (hull, ballast tanks, seachests, thruster tunnels, rudders)
- Offshore platforms
- Offshore wind turbine foundations
- Offshore pipelines
- Wet infrastructure (docks, piers, locks, quay walls, jetties)

All zinc and aluminium anodes in our product range are produced in our fully owned ISO 9001 certified foundry located in Faversham (UK). With a distribution centre in the Rotterdam (The Netherlands) area, we can supply a large range of anodes from stock to almost any location in Europe in a matter of days. We also provide services for installation of sacrificial anodes under water using divers and above water using Rope Access.

Used in these markets:







mme.group/iccp1



Impressed Current Cathodic Protection

Advanced systems for guaranteed protection

Sacrificial anodes are a passive protection method that doesn't accommodate for changed circumstances such as coating damage or changes in the salinity of the water. Their volume is also calculated for a specific lifetime, after which they need to be replaced.

Impressed Current Cathodic Protection (ICCP) systems consist of one or more reference electrodes and several ICCP anodes which are all connected to a power unit. The reference cells measure the underwater electrical protection potential and based on this data, the power unit regulates the required output to the anodes. The resulting impressed current prevents the corrosion process from taking place.

These advanced systems allow for real-time monitoring and guarantee the required protection level at all times. A correctly installed, operated and serviced ICCP system can function for 25 years or more. We can configure ICCP systems from standard components or work out a custom-built solution for specific vessels or structures.

Used in these markets:





mme.group/icaf1

Growth Prevention (MGPS/ICAF)

Prevent reduced vessel performance due to marine fouling

Marine fouling in seawater cooling systems is a threat to the performance of ships and installations. Removal of marine growth in a ship's seawater lines also leads to increased cost and delays during maintenance. To reduce this risk, MME Group developed the Marine Growth Prevention System (MGPS), also known as Impressed Current Anti Fouling (ICAF).

MGPS / ICAF systems use copper anodes that are connected to a compact control unit. An impressed current is sent to the anodes which releases a small amount of copper ions into the water flowing through the ship's sea water system or seachests, creating an environment which prevents the settlement of micro-organisms.

Advantages of MME Group MGPS / ICAF systems:

- No subscription fees & free logsheet service
- Efficient functioning of cooling water and fire fighting systems
- Easy to install during newbuilding or as retrofit
- Easy to maintain due to automatic operation
- System fault alarm indication via LEDs, LCD screen and Modbus protocol
- Additional corrosion prevention
- No need to handle hazardous chemicals (as opposed to dosing systems)
- Several ranges to suit vessels of every size
- Cost effective, elimination of pipework cleaning
- Lower energy consumption than electrochlorination
- Compatible with open and closed cooling systems



Used in these markets:









mme.group/harb1



Harbinger Boarding Equipment

Safe transfer of crew and passengers in any situation

Harbinger is the trade name for MME Group's marine aluminium Boarding Equipment. It comprises a wide range of high quality seawater resistant aluminium gangways, accommodation ladders and other types of access equipment. Besides the standard product range we also manufacture bespoke access equipment.

We offer a wide range of products:

- Accommodation Ladders (ISO 5488)
- Gangways
- Accessories & Spares

Advantages of Harbinger Boarding Equipment:

- Lightweight systems (1/3 of comparable steel structures)
- Low crane capacity needed due to reduced weight
- Seawater resistant aluminium: no coating of galvanizing necessary
- Maintenance free because of a self healing oxide layer
- Manufactured in a DNV-GL recognised ISO 9001:2015 welding shop
- BSMA 78 / ISO 7061 and BSMA 89 / ISO 5488 compliant products

Used in these markets:





MME Group Locations

The Netherlands:

Head Office

NDT - Laboratory - Rope Access
Sacrificial Anodes - ICCP/ICAF
Boarding Equipment - Marine Surveys
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