

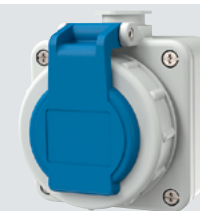
# POWER YOUR SHIPYARD



SOLUTIONS FOR SHIPYARDS AND THE SHIPBUILDING INDUSTRY

 **MENNEKES**

MY POWER CONNECTION



 You can find more information on our website



## You are buoyed up ...

... not only with your ships, but also with MENNEKES at the shipyard! There is virtually no other industry that has such a high demand for industrial plug and socket connections and distributors as the shipbuilding industry.

In shipbuilding halls the number of permanently installed supply points is already enormous. On the ship segments, where numerous welders, in addition to performing many other tasks, must also be concurrently supplied with mobile energy sources, optimal energy is always the central work prerequisite. In this regard, all plugs and sockets, distributors or connection cables must withstand the toughest conditions; operation often takes place under difficult circumstances and the work environment is usually harsh. Therefore rely on a partner that meets the most rigorous requirements. MENNEKES sets standards – in the quality of its products as well as with intensive consulting and planning. Implement individual solutions and benefit from many years of experience in energy distribution at shipyards ...

**... with MENNEKES.**





## Contents



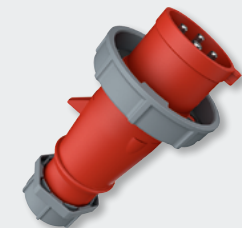
Permanent installation



Mobile applications



On the ship



Container ports



References



We are **MENNEKES**



## The basic infrastructure for shipyard halls and buildings.

In addition to the manufacturing of entire ships and ship segments, all types of repairs also take place in shipyard halls. Not only are the dimensions of these shipyard halls and docks gigantic, the energy requirements and the number of plug and socket connections are also enormous.

To ensure smooth operation under these harsh conditions, the highest standards are necessarily imposed on quality and material. In this area MENNEKES already offers a variety of standard solutions.

Moreover, the specific requirements are often quite individual. Whether you are the director of production, director of maintenance or the planner – MENNEKES is the optimal partner for your specific requirements. We can respond with great flexibility to your requests in our development and production and can implement the receptacle combination that is ideal for you.





## The basic infrastructure for shipyard halls and buildings.

1

### Wall mounted receptacles

- Increased corrosion protection
- Fusing as well as residual current protection
- Robust quality and durability



X-CONTACT  
INSIDE



2

### AMAXX receptacle combinations

- Simple, self-explanatory operation
- Enclosures of high-quality thermoplastic



Here you can find our AMAXX  
product video



You can find more information on our website



## The basic infrastructure for shipyard halls and buildings.

3

### AMAXX receptacle combinations, special solution

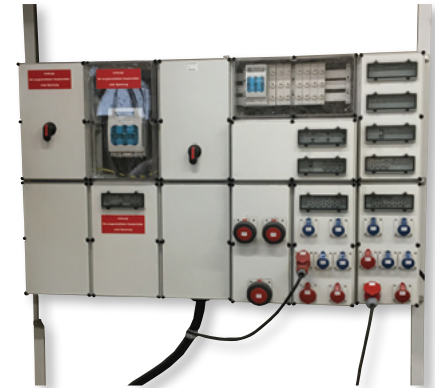
- The receptacles are individually fitted for on-site requirement
- Enclosure can be flange-mounted



4

### Special wall combinations

- Large individual solution
- Busbar systems are possible



Here you can find our AMAXX  
product video



You can find more information on our website



## Permanently installed solutions for shipyard halls

### Wall mounted receptacles.



In addition to the classic wall mounted receptacles, the MENNEKES range up to 400 A also includes variants with increased corrosion protection and fusing, as well as residual current protection. This pays off, particularly in the shipbuilding industry, where the demands imposed on material and products are extremely high. In this application robust quality and durability are characteristic of every single wall mounted receptacle and receptacle combination, so that your employees can concentrate completely on their work.

Another aspect that applies in particular measure for shipyards, and which is very important to us for our products, is the simple, self-explanatory operability. More so than in other industry segments, often many people of different nationalities work together in the shipbuilding industry. Consequently, the intuitive use of our products, without the necessity of verbal explanation, is of special significance. MENNEKES meets this requirement through a unique, pragmatic design vocabulary and a clear colour-coding of functions.



## Permanently installed solutions for shipyard halls

### Wall mounted receptacles.

1

#### Wall mounted receptacles

- With X-CONTACT: ensure safe contact and simple handling
- As much as 50% less expenditure of force



2

#### Wall mounted receptacles

- fused, switched and interlocked
- Robust quality and durability







## Permanently installed solutions for shipyard halls

### Wall mounted receptacles.



” Robust quality, simple, intuitive operability, and a clear pragmatic design vocabulary – this is our commitment, from professionals for professionals!



## Permanently installed solutions for shipyard halls

### AMAXX receptacle combinations.

The AMAXX receptacle combinations from MENNEKES are the central element of the permanently installed energy distribution. Thanks to their modular structure they can be put together individually and precisely as needed for each point in the shipyard hall. Thus they form the foundation of the power distribution in the hall. Depending on ambient conditions the enclosure material can also be selected appropriately for the respective requirement, e.g. AMELAN for high chemical resistance, with outstanding mechanical, thermal, and electrical characteristics, or EverGUM with high dimensional stability and resistance to aging.

Energy and data can easily be combined thanks to the modular system. MENNEKES offers the right combination for every requirement: from the smallest AMAXX receptacle combination with one segment, to the largest with five segments, and extending to the suspended receptacle combinations. They can be fitted with an extensive range of options in six different enclosure sizes, and as always in an appealing design: With AMAXX from MENNEKES virtually an infinite number of combination possibilities open up for the qualified electrician.





## Permanently installed solutions for shipyard halls AMAXX receptacle combinations.

1

### AMAXX receptacle combinations

- For different applications
- Modular structure
- Self-explanatory operability



2

### AMAXX receptacle combinations, special solution

- Individual project planning
- Customer-specific solutions
- Virtually an infinite number of combination possibilities



Here you can find our AMAXX  
product video



You can find more information on our website



## Fixed applications for shipyard halls

### Special solutions – custom-manufactured, easily installed, unit-tested.



For special requirements, together with you we plan the appropriate special solution, which we develop and implement as a custom solution for you. MENNEKES has extensive experience in the implementation of such customer-specific solutions, for the shipbuilding industry in particular.

For us at MENNEKES the intensive dialogue with our customers is the most important driving force for innovation and development. This provides us with a continuous, as well as intensive and unfalsified impression of what is required in everyday practice.

Often impetus arises from such individual insights that drive us to new product innovations. Not rarely, series production products are developed from individual solutions, or we learn things from individual solutions that we can transfer into series production.

Thus our strength in such individual solutions becomes our engine for permanent further development and our lived proximity to our customers and their needs.



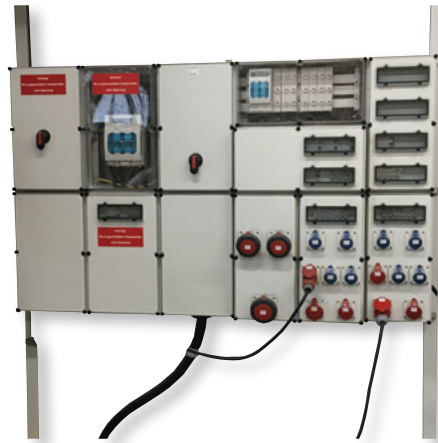
## Fixed applications for shipyard halls

**Special solutions – custom-manufactured, easily installed, unit-tested.**

1

### Special wall combinations

- Shore connection is possible
- Integration of diverse switchgear is possible





## Mobile solutions for the shipbuilding industry

### Applications within the shipyard.

In shipyard halls permanently installed electrical installations are available for energy supply outside of the ship. If energy is brought onto the ships and into the ship segments through large mobile distributors, things can get quite busy and crowded. Man and material must be heaved through the manholes, which serve as accesses to the tanks. As a rule, there are a number of welders with their equipment at the plant – a special challenge for organization of the electrical supply cables. MENNEKES also has the right solutions on hand for this particular environment.

MENNEKES not only offers mobile solutions for the shipbuilding industry, but also permanently installed electrical installations on the vessel. Thus MENNEKES quality also remains on board as part of the shipbuilder's workmanship.





## Mobile solutions for the shipbuilding industry

### Applications within the shipyard.

1

#### EverBOX – mobile distributors

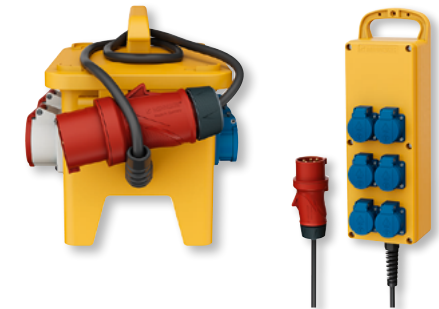
- Robust
- Stackable
- Easy handling due to integrated carrying handles



2

#### EverGUM compact and receptacle strips

- Signal yellow enclosures
- Available in various sizes





## Mobile solutions for the shipbuilding industry

### Applications within the shipyard.

3

#### Rework trolleys

- Safe and mobile solution that meets customerspecific requirements







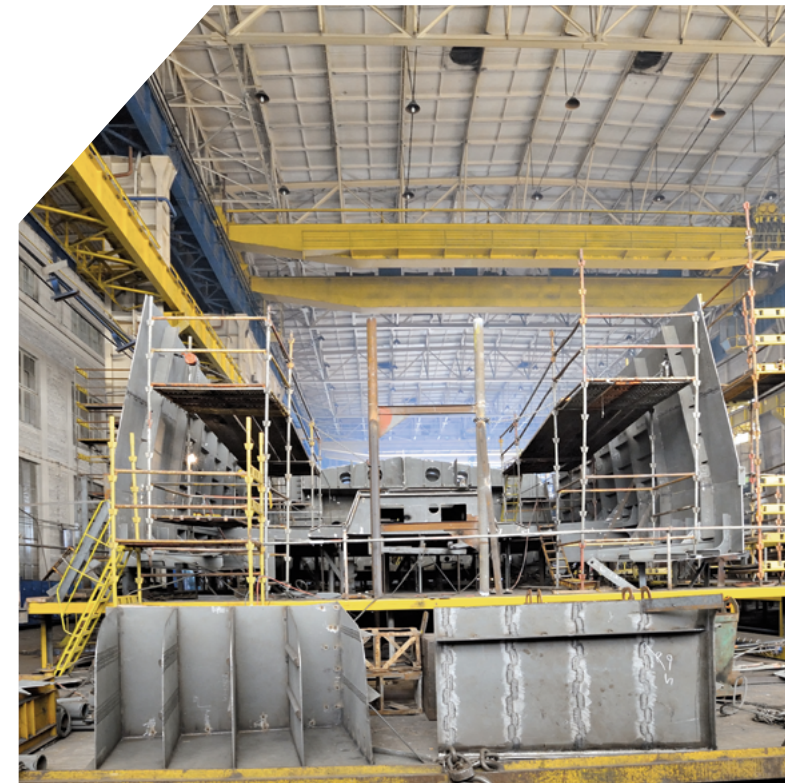
## Mobile applications for shipyard halls

### Mobile distributors.

It is likely that the mobile distributors are primarily exposed to the most extreme stress. Just the constant transport in the shipyard halls alone imposes particular requirements on the stability of the product.

The robust, stackable, insulated enclosures from MENNEKES are optimally suited to withstand this stress in indoor and outdoor use. They protect the receptacles and installed devices through their stable enclosure frame.

The enclosures of our EverGUM distributors are made of a solid rubber mixture. The material has a high resistance to disruptive current and tracking.





## Mobile applications for shipyard halls

### Mobile distributors.

1

#### EverBOX – mobile distributors

- Can be fitted with up to 125 A
- Protection against condensation with IP67
- Robust enclosure



2

#### EverGUM compact and receptacle strips

- Impact-resistant
- High dielectric strength and creep resistance
- Compact: underpart of the enclosure with 77 mm ground clearance
- Receptacle strip: possible window size for six or eight module widths





## Mobile applications for shipyard halls

### Special solutions.



Based on our years of experience working together with shipyards, we see a special requirement for individual solutions, particularly in the planning of mobile distribution in shipyards and on the dock. Since, to a great extent, mobile distribution must be matched to the specific production processes, here as well the need for customer-specific solutions is greatest.

Consequently we have already implemented many mobile distributors as special solutions in accordance with specific customer requests. Contact us. The earlier you integrate us in your planning, the better we can respond to your specific requirements. Plan with MENNEKES, then you can count on a solution that is perfect for your desires, particularly when the objective is flexible applications in shipyard halls.



## Mobile applications for shipyard halls

### Special solutions.

1

#### Rework trolleys

- Mobile and crane-compatible
- Wind-up mechanism for the supply cable





## Applications on the ship

### **MENNEKES quality also installed on the vessel.**



High-quality solutions for industrial plugs and sockets are also in high demand on ships. Particularly in the function areas of the ship – from the galleys to the plant rooms, from the engine rooms to the storage and container areas – there is also a need at many locations for the proven MENNEKES quality in running operation of the finished ship.

Thus, for example, MENNEKES supplies AMAXX receptacle combinations for cruise ship fleets. MENNEKES is also represented on-board other ships, with DUO devices.

But MENNEKES quality is not only in demand in the cruiser segment, it is also in demand in the container shipping segment as well. For example container ships have been equipped with reefer container plugs and sockets from MENNEKES.

MENNEKES is not only found in the shipyard or in the shipbuilding industry, it is also installed on-board the ship whenever the most rigorous requirements must be met.



## Applications on the ship

### MENNEKES quality also installed on the vessel.

1

#### Wall mounted receptacles **SCHUKO®**

- Resistant to pressurized water
- The first choice for flooding or spray water



2

#### Wall mounted receptacles **DUO**

- switched and interlocked
- If the receptacle is switched on it is not possible to remove the plug



Here you can find the advantages of our DUO wall mounted receptacles



Here you can find our assembly video of our DUO wall mounted receptacles





## Solutions for container ports

### Made for the most demanding environments.

As the specialist for industrial plugs and sockets, in area of container shipping MENNEKES is the first address for the highest quality and the most demanding environments.

Whether AM-TOP plugs and sockets, switched wall mounted receptacles or AMAXX receptacle combinations – MENNEKES has the right solution for the wide range of requirements imposed on energy distribution for container ships or at the container terminal.





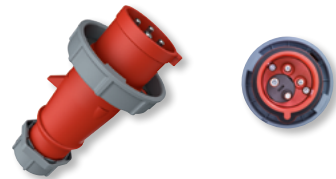
## Solutions for container ports

### Made for the most demanding environments.

1

#### AM-TOP plugs and sockets

- Stable, single part body
- Threaded fitting ensures hold and protects against self-loosening



2

#### Wall mounted receptacles

- Available with or without fusing
- Highly heat-resistant contact carrier
- Nickel plated contacts



3

#### AMAXX receptacle combinations

- Robust enclosure
- Modular design



Here you can find the advantages of our DUO wall mounted receptacles



Here you can find our assembly video of our DUO wall mounted receptacles

Here you can find our AMAXX product video





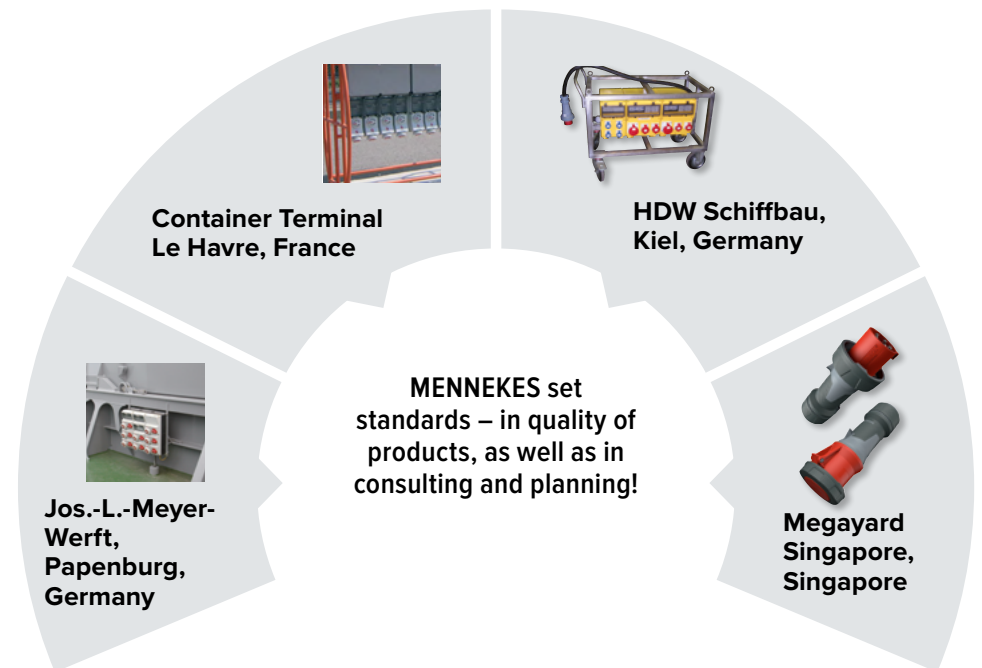


## We clear the decks in energy distribution With MENNEKES on board.

MENNEKES is the partner for energy distribution at shipyards and in the shipbuilding industry. Whether for construction of luxury yachts, cruise ships, or container vessels – MENNEKES has years of experience and profound expertise relative to the needs and concerns of shipbuilders.

Many well-known shipyards around the world have already put their trust in MENNEKES when the issue is energy distribution in the hall, on the dock, at the shipyard, and on the ship. In this regard, the fact that MENNEKES also supplies parts of the finished vessel in the form of plugs and sockets onboard is an indication of the trust that is placed in the quality offered by MENNEKES. However, it is not only the typical high quality that characterizes us as a reliable partner in the shipbuilding industry, it is also and quite particularly our competence in the planning and implementation of custom-made solutions that is highly esteemed. Because in this area, in particular, we can incorporate our industry competence and knowledge of the specific procedures individually towards optimal solutions for you.

Look to MENNEKES if you are looking for a safe harbor for your energy distribution!





## We clear the decks in energy distribution With MENNEKES on board.

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- Meyer Turku Oy, Finland
- STX, France
- DCMS, France
- Fincantieri, Italy
- Mitsubishi Heavy Industries, Japan
- Megayard Singapore, Singapore





## Contact persons at MENNEKES.



Do you have questions about our solutions and products?  
You can find our contact persons on our website:





## MY POWER CONNECTION

### We are MENNEKES.

The MENNEKES Group is the world's leading provider of industrial plugs and sockets and e-mobility charging solutions. Our „type 2“ charging plug has been the official standard connector for electric vehicles throughout the European Union since 2014. Since our family-owned company was founded in Germany's Sauerland region back in 1935, it has spread around the world and is currently represented in 90 countries by subsidiaries with a total workforce of around 1,400 employees.



We produce plugs and sockets, receptacles and receptacle combinations in a vast range of types and models.

Our robust, long-lived solutions are deployed wherever electric power needs to flow reliably and consistently: in industrial applications, railway and transport companies, mining and shipbuilding industry, in container ports and at airports, on trade exhibitions, in stadiums and data centers. In the field of e-mobility, MENNEKES supplies appropriate solutions and equipment for future mobility. Our range includes charging plugs and cables, intelligent charging columns and wallboxes, billing services and a network of trained installers – for private, industrial, commercial and public applications. For the automotive industry and its suppliers, we also make charging inlets and cables for electric cars.