



Rheinhold & Mahla

Since 1887



Experts for ship interior.

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R&M Group

Welcome on board



The Rheinhold & Co. factory, 1900

Our headquarters are located in Germany, where we have been at anchor since 1887. R&M is a company with tradition and consistency in changing times. Our logo for the company brand contains the name "Rheinhold & Mahla", which were the original founders, the brothers Otto and Sartorius Rheinhold as well as the brothers Emil and Carl Mahla. A further integral part of the logo is the Greek letter Lambda (λ). It is a symbol used in formulas for thermal conductivity.

The R&M Group is a global provider of individual and turnkey solutions for interior outfitting on board all types of ships and maritime facilities such as special vessels, cruise ships, ferries, and offshore platforms. The extensive portfolio comprises services along the entire value chain, including product development, project engineering, consulting, production and logistics, project management and site executions for new builds, conversions, and repairs. We perform thermal and acoustic insulation, noise and vibration protection, interior systems, design and installation of heating and air

conditioning systems as well as the construction of pipelines. Projects are carried out by an excellent team of several subsidiaries worldwide. In the process, we always aim to find tailor-made solutions for all customers.

In the maritime industry, it is very important to observe the environment and the related changes in order to quickly react to them. The market environment is faster, and it is needed to be more flexible than ever before for secure positioning in the market. R&M has implemented optimization processes and have registered continuous growth. With our wide-ranging expertise in combination with unique technical know-how and highly specialized engineers as well as profound ship industry knowledge, we have gained an excellent reputation as a global leader.

As the lifecycle partner of maritime industry, we always deliver the highest quality of services, products, and solutions. The R&M Group applies risk management and stringent supply chain management processes to ensure that the envisaged performance is guaranteed. We continuously adopt the necessary measures to secure financial stability and investments in future innovations.

Our prime motivation of actions is the success of our customers and therefore, the well-being of passengers and crew members on board. We stand for safety, comfort, and pleasure of them.

R&M has introduced a quality management system in accordance with the international norm DIN EN ISO 9001 and uses this successfully. As a result, we have ensured at all times that work processes and procedures for quality assurance are planned, implemented, documented, and monitored with a focus on results and the customer. The main principles of this DIN standard are, for example, customer focus, process orientation, and continuous improvement.

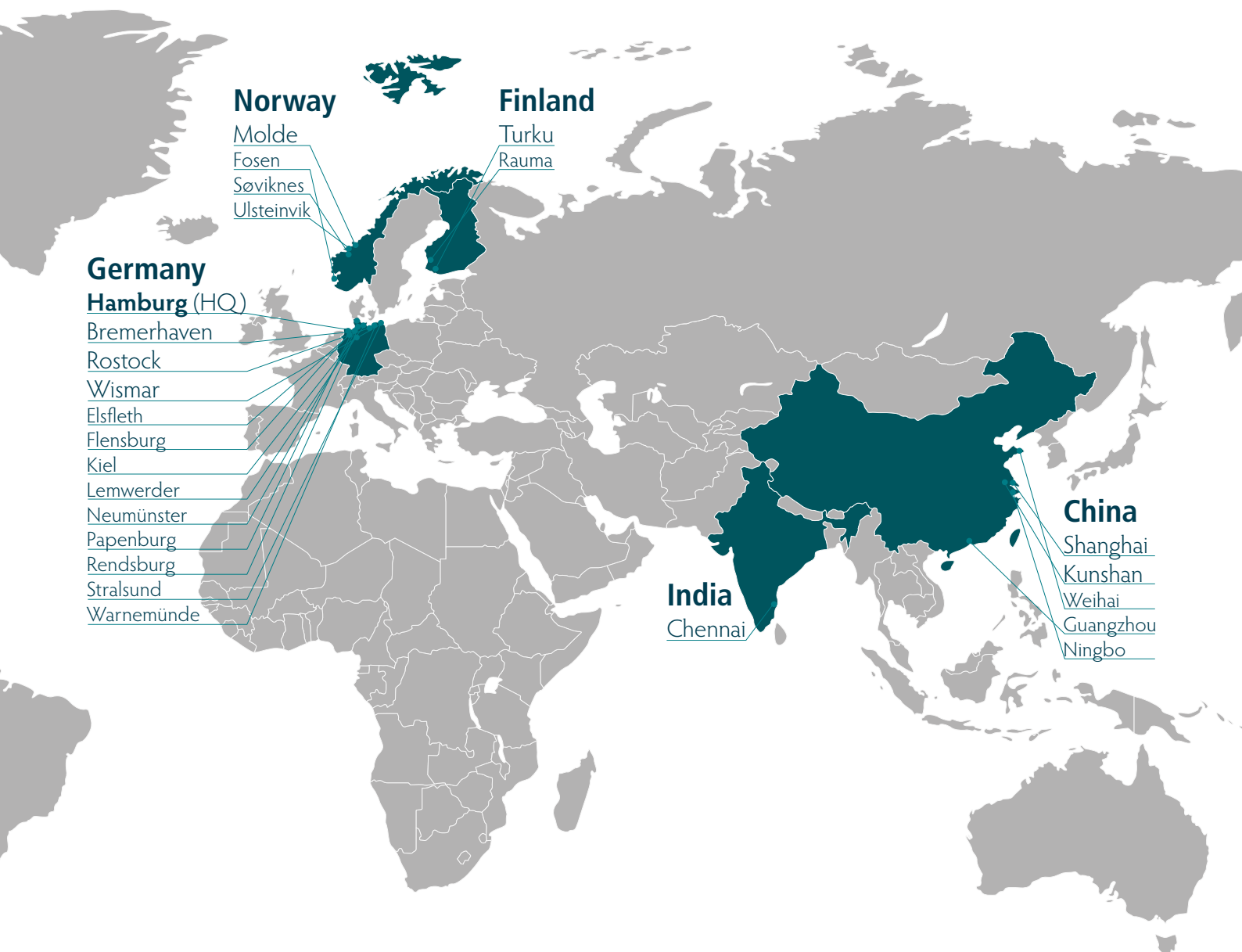


R&M headquarters in Hamburg/Germany

R&M Group

R&M Worldwide

Our locations and sites worldwide.



R&M Group

Broad experience in all business sectors

The R&M Group has many years of experience in interior outfitting on board of all types of ships and maritime facilities. There are many different specifications for every type, which have to be met.

Cruise and Ferry

- Cruise ships
- River cruise ships
- Expedition vessels
- RoPax ferries
- RoRo ferries

Offshore

- Platforms
- Platform supply vessel
- Offshore supply vessel
- Construction support vessel
- Well intervention vessel
- Seismic vessels

Special Vessels

- Mega yachts
- Authority vessels
- Pilot boats
- SWATH vessels
- Research vessels
- Fishing vessels

Navy Vessels

- Surface vessels
- Support vessels
- Submarines



Overview of the entire portfolio



Rheinhold & Mahla
Since 1887

Experts for ship interior.

New build & Refit	Services	■ Product development ■ Project engineering ■ Consulting ■ Supervision ■ Production & Logistics ■ Project management ■ Site executions
	Products	■ Walls ■ Ceilings ■ Floors ■ Doors ■ Furniture ■ Wet units/pods ■ Prefab cabins
	Solutions	■ Insulation ■ HVAC ■ Prefab Consulting & Planning

Cruise & Ferry

- Cruise ships
- River cruise vessels
- Ro-Pax ferries
- RoRo ferries
- Expedition vessels





Others

- Mega yachts
- Authority vessels
- Pilot boats
- TUG/RTT vessels

- Research vessels
- Fishing vessels
- Surface vessels
- Support vessels
- Offshore service vessels

- Submarines
- Platform supply vessels
- Offshore support vessels
- Offshore support vessels
- Offshore support vessels



Passenger area

- Cruise and motor cabins ■ Sunr.
- Prefab cabins ■ Wet unit



Crew area

- Prefab cabins ■ Wet units
- Recreational rooms ■ Mess rooms



Public area

- Restaurants, bars, lounges ■ Discos, cinema
- Spa, wellness ■ Staircases, corridors



Utility area

- Galleys, pantries, provision stores ■ AC rooms
- Laundry ■ Bridges ■ Engine rooms



China

- Shanghai
- Kunming
- Wuhan
- Nanjing
- Tianjin



Finland

- Turku
- Helsinki



Germany

- Hamburg ■ Backport
- Bremerhaven ■ Emden ■ Wilhelmshaven
- Bremen ■ Bremerhaven
- Kiel ■ Lübeck
- Hamburg ■ Kiel ■ Lübeck
- Hamburg ■ Kiel ■ Lübeck



India

- Chennai



Norway

- Molde
- Trondheim
- Ålesund



Our range of services includes individual and turnkey solutions; services like product development, engineering & consulting, production & logistics, project management & field-executions, and maintenance & refurbishment; our products such as walls, doors, floors, ceilings, wet units, cabins, and furniture; as well as solutions in HVAC, piping systems, shipfitting, and insulation. We operate in the various sectors on board every type of ships and maritime facilities.

Our focus is on the well-being of the crew members and passengers on board, which is also reflected in our slogan "Mittelpunkt Mensch. Comfort and safety on board." To achieve this result, the balance between λ (thermal conductivity), f (vibration), dB (sound), and $^{\circ}\text{C}$ (temperature) has to be coherent. The significance of the Lambda symbol in our logo stands for exactly this. Be it during the planning, preparation, or realization phase of a project, we guarantee with our products, solutions, and services maximum comfort and safety on board for our customers globally.

Visual/Steel-to-steel turnkey solutions

The portfolio of the R&M Group covers services, products, and solutions for new builds, conversions, and repairs. This includes thermal and acoustic insulation, noise and vibration protection, accommodation systems, the design and installation of heating and air conditioning systems; as well as the construction of pipelines and furniture, which are all integrated parts of turnkey solutions.

Be it engineering, project management, the production of interior accommodation, insulation, or installation, the R&M Group supports its customers along the entire value chain. As we are able to realize turnkey solutions, our customers have fewer interfaces and thus benefit from smoother processes.

Services

From the initial ideas to the finished interior outfitting, our priority is customer satisfaction. Therefore, we always have the view for the entirety. Our comprehensive concepts include a long-term service level agreement and reliable services for our customers at all times.

Product development

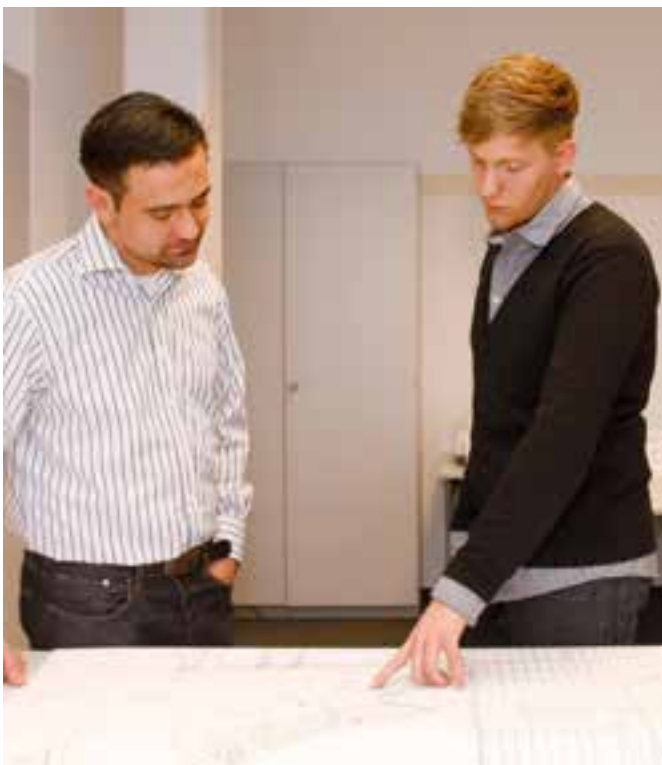
Innovation is our passion

Ever since our foundation in 1887, we have been investing in our innovative capacity. We collaborate with various different research institutes worldwide enabling us to keep our broad product portfolio at the cutting edge. Thus, we can quickly and effectively react to changing customer needs.

Our team consists of highly qualified engineers with many years of experience and technical know-how in ship interior fittings. Experienced engineers and technicians design, develop, and test customized concepts, particularly for thermal and acoustic insulation and fire protection, while keeping in mind international regulations for

shipbuilding. Such concepts are based on a comprehensive calculation of acoustics. We have patents and utility models ranging from multilayer-panels and floor modules to de-icing with vibration. These enable us to enhance and boost quality for our existing products and for new products yet to come.

Especially in today's market, it is very important to be innovative and to have an in-house research and development unit. We know this at R&M, and therefore continuously work on creating new solutions.



Engineering & Consulting

Excellent engineering skills

R&M has deep knowledge of shipbuilding standards and processes based on many years of experience combined with our high quality and cost effective project execution model.

Benefits for our customers

- Value adding solutions coming out of effective collaboration across our worldwide organization and its vertically integrated delivery portfolio
- Increased flexibility and improved time to market through on demand, project based engineering services
- Risk and cost control by using standardized processes and our rigorous application of quality and performance control mechanisms

The engineering Team is familiar with all types of maritime applications and their technical specialties. This provides our team with deep understanding of the specific requirements that each type of ship demands, be it cruise ship, ferry, offshore vessel or mega yacht.

We believe that knowledge consolidation between domain experts from the global R&M Team is a key factor for successful project execution. This combined expertise puts R&M into a position to cover the whole shipbuilding lifecycle from planning and construction to refurbishment and redesign of every area on board.

R&M deploys advanced tools for the design and optimization of all projects. Layout, simulation, planning, and optimization are conducted using up-to-date 3D engineering programmes and tools that enables our customers to develop and simulate adequate

solutions supported by R&M's engineers and architects starting from a very early stage of the ship design process. These help us to create digital mock-ups according to the needs of the customers, which can be modified as desired in real time according to the needs of the customers.



Design and planning

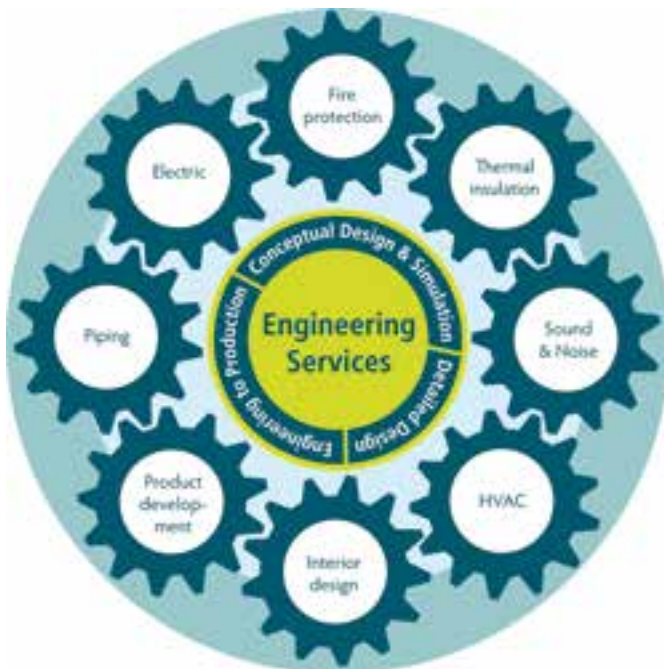
Our engineers develop outfitting solutions, that fulfill individual design and function requirements. Photorealistic visualizations of interiors replace the construction of elaborate physical mockups, significantly reducing the time and expense involved.

- Analysis and calculations
- Design and specifications
- 3D modeling and design
- Photorealistic simulation
- Simulation of sound, temperature, and heat conductivity
- Design of interior fittings

Preparing for production and installation

We apply all the measures needed to ensure the high-quality production and smooth onboard installation of the materials required.

- Production drawings
- Designs and sectional plans
- Installation plans
- Product selection
- Drafting of material lists
- Interface optimization
- Logistics for worldwide shipping
- Trials and approval testing



Production & Logistics

Just in time and just in place worldwide

R&M manufactures products such as walls, ceilings, doors, floors, wet units, cabins, and furniture at the highest quality and according to modern and standard requirements. We provide efficient, customized, and individual and complete solutions in maritime interior design. The products are manufactured in our production facilities in Germany and in China, where we have sophisticated, efficient, and worker-friendly production lines. Thanks to our integrated supply chain management, our deliveries are in time and in place. The logistics department is extremely well organized around the world.

Furthermore, the production at every location is frequently controlled by experts to ensure that all processes are in line with proven certifications such as DIN EN ISO 9001. Workflow management systems are used in our applications in combination with production planning and control systems (PPC) as well as computerized numerical control machines (CNC).



Project Management & Field-Executions

Experience speaks for itself

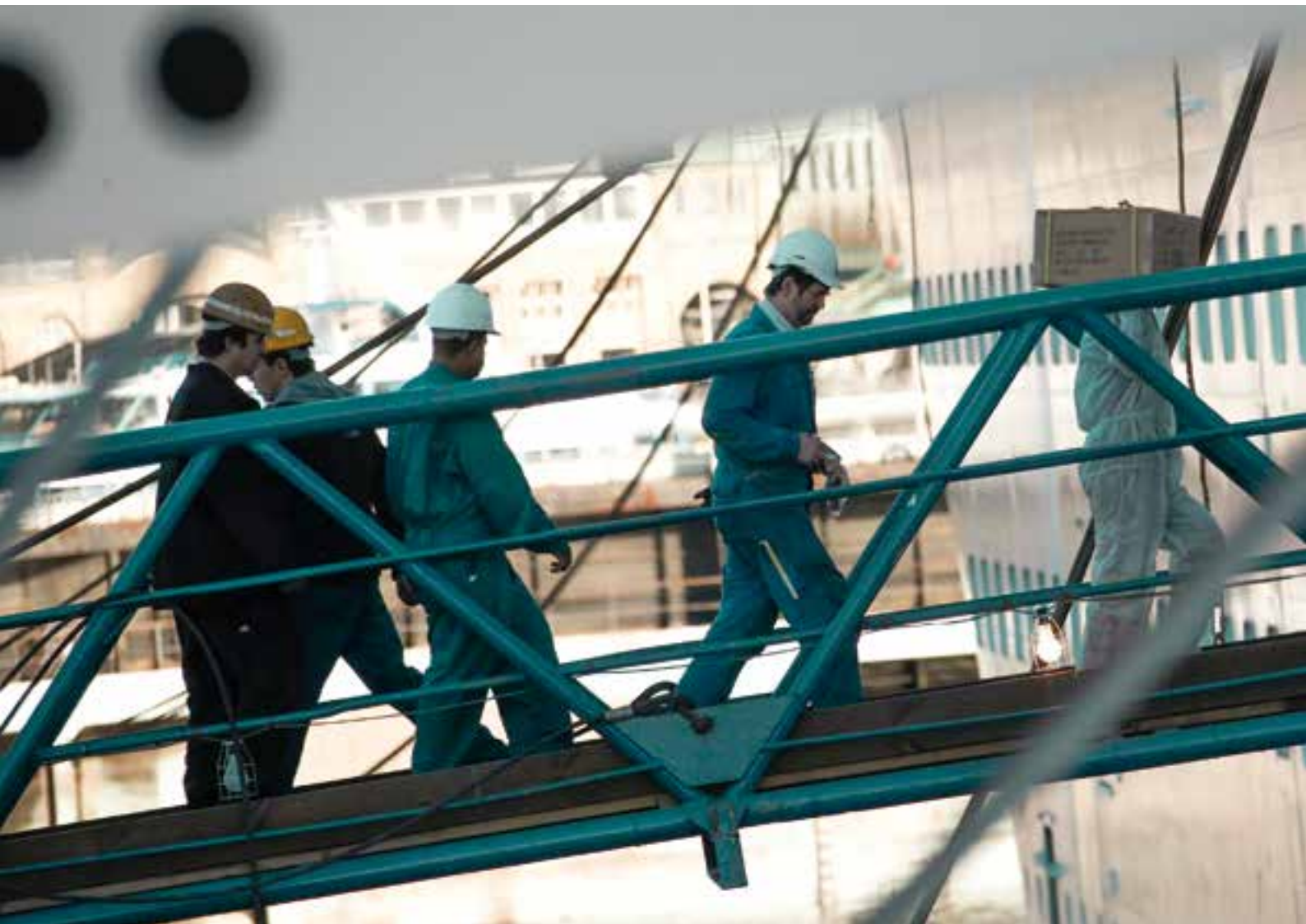
Both for small and large projects, the planning phase is the most important step and has to be performed on a professional level. R&M takes a well-structured approach to deliver on its promises in a controlled manner. This approach covers the entire lifecycle of our projects.

The key aspects of this approach

- Well thought through delivery plan which is based on R&M's experience and proven delivery approach
- Rigorous quality management procedures help to enforce excellent results to our clients

- Strong governance and risk management to control the uncertainties of shipbuilding projects
- Experienced and highly motivated teams, who have the relevant expertise using state of the art tools
- Leadership commitment to deliver on our promises to our clients – right down to the last detail.

Our motivated teams on site are multi-skilled and interdisciplinary, and are therefore able to execute all actions seamlessly in close collaboration with owners, architects, and shipyards.



Maintenance & Refurbishment

Along the entire ships' lifecycle services

The R&M Group is able to serve the customers along the entire ships' lifecycle. We can offer turnkey solutions and our customers have the possibility to reduce interfaces, save costs, and increase efficiency. R&M acquired the company Sea Level Marine LLC in 2015 to align its resources. This enables R&M to offer a service of refurbishment in a perfect way.

R&M is your lifecycle partner, and, thus, also for maintenance and refurbishment. This is a very large benefit for you, as it enables you to avoid having many interfaces. R&M can support you at every stage of the ship's lifecycle.

All ships are exposed to extreme conditions in a salt environment and have to be maintained and refurbished after a certain period, depending on usage, abrasion, and size. Our services range from recording the damage to inspection in conjunction with the shipping group's inspectors.

Professionalism, flexibility, and competency count – so turn to our highly qualified R&M Team.

Our services

- Engineering
- Ship inspections
- Repairs offshore
- Material and spare parts deliveries
- Supervision and project management
- Service level agreements

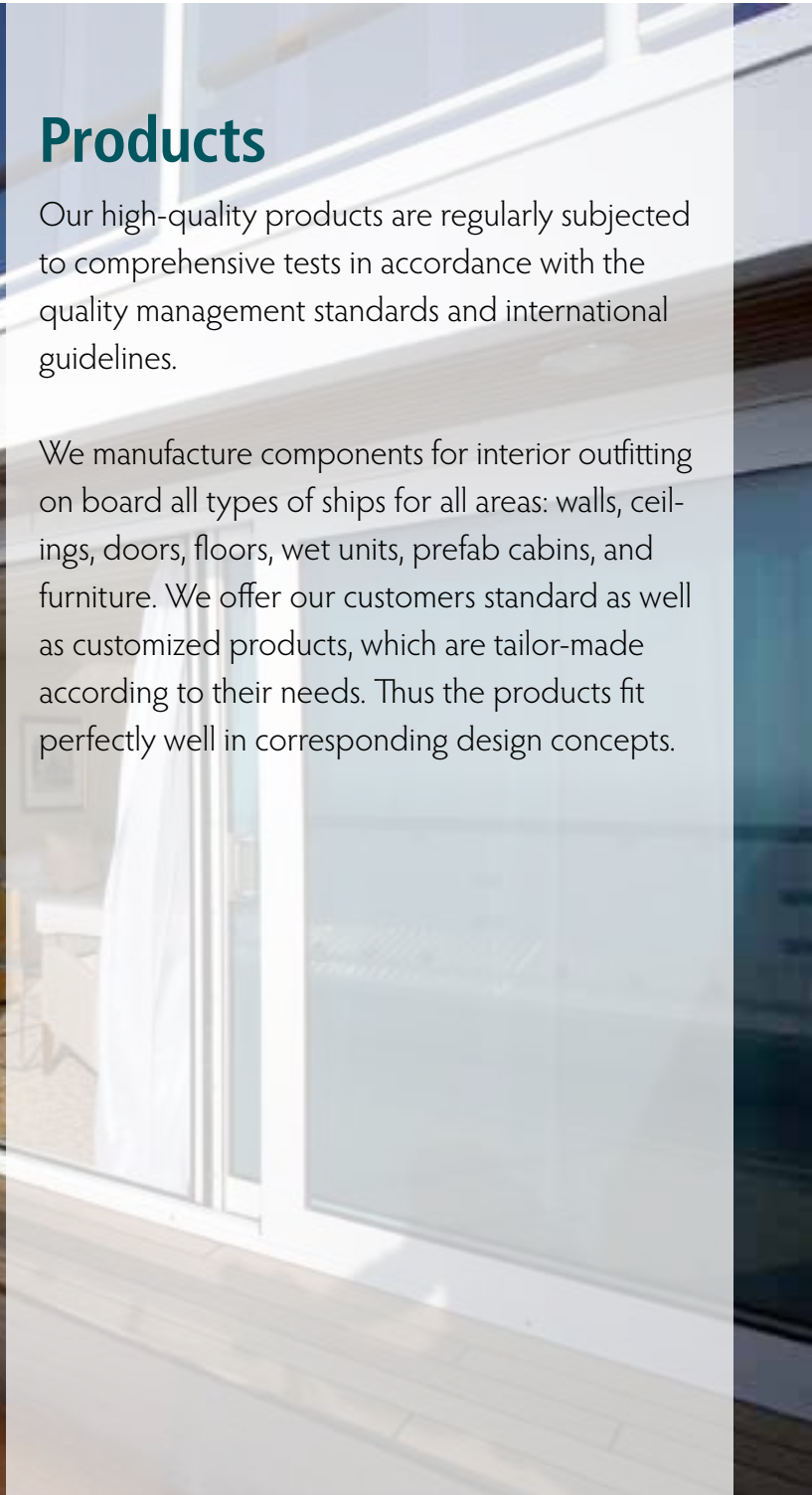




Products

Our high-quality products are regularly subjected to comprehensive tests in accordance with the quality management standards and international guidelines.

We manufacture components for interior outfitting on board all types of ships for all areas: walls, ceilings, doors, floors, wet units, prefab cabins, and furniture. We offer our customers standard as well as customized products, which are tailor-made according to their needs. Thus the products fit perfectly well in corresponding design concepts.



Product facilities

Standard and customized products



alvedoor marine

Product Division of R&M Group



R&M acquired the company Alvedoor, originally founded in 1975 as a manufacturer of doors for ships. Following this merger, the existing product line of the former company R&M Marine Products was merged with Alvedoor's product portfolio to form our product division of the R&M Group: Alvedoor Marine.

Alvedoor Marine, the product division of the R&M Group, has two production facilities: in Wismar is its accompanying logistics center in Rostock (Germany), as well as in Kunshan (China).

Wismar

Our production facility in Wismar produces furniture according to standard specifications and individual customer requirements.

From here our excellent design solutions are continuously developed. Thanks to the latest computerized numerical control (CNC) machines, we are also able to meet the most specific requirements in a short turnaround time while maintaining our quality guarantee. Furthermore, together with our suppliers we can offer a range of products, from sophisticated stainless steel work and superior solid surfaces to creative mirrors, glass features, and high-grade upholstery.

Rostock

In Rostock, which is very close to Wismar, our central warehouse and logistics center is located as well as the facility for final assembly of our furniture manufacturer from Wismar.





Kunshan

Our largest production facility is located in Kunshan, near Shanghai, the famous metropolitan city in China. There we produce doors, high-grade wall and ceiling panels, as well as wet units. European standards of quality and international logistics guidelines are strictly observed during the manufacturing process. The team is multinational and has long-term experience.

Our services

- Individual customizations and configurations on request
- Complete installation for electrical, air conditioning and sprinkler systems
- Just-in-time delivery
- Guarantee of quality
- Assembly line for prefabricated wet units and cabins on site
- Tested and approved structural materials
- Worldwide shipping, assembly, and installation



Walls

Various wall styles with best fire protection



Apart from quality, our walls of different classifications and surface coatings are equipped with the best possible fire protection to ensure the highest level of safety. To guarantee comfort on board for every passenger and crew member, all walls are tested for sound insulation according to the international guideline ISO 140-3 and can achieve noise values up to 61 dB. We offer all interior architectural preferences and requirements in a variety of designs and colors. We manufacture single, double, and multi-layered walls. To meet individual customer requirements, all walls feature A and B classification and are available with steel, stainless steel, aluminum, or PVC coatings, and varnished in RAL and NCS colors.

Standard wall panels

The standard wall panels are available in widths of up to 1,200 mm and heights of up to 2,500 mm.

- Single wall (30 mm, 40 mm)
- Double wall (25 mm)
- Multi-layered wall (50 mm)

Classifications

- A-60
- B-15
- B-0

Surface coatings

- Steel, stainless steel
- Aluminum
- PVC
- RAL and NCS varnish colors

Ceilings

All decks on board demand perfect ceiling systems

Our ceiling systems consist of metal layers filled with mineral wool. Because of their construction, we can guarantee robustness and simple installation on board. They are tested for fire protection and are soundproof. In addition to our standard ceiling fixtures, the panels can also be fitted with tested fireproof inspection hatches. The panels have a size of 300 mm to 600 mm in width and 3,000 mm in length. But the panels can also be produced in other sizes and with all surfaces tailored to customers' needs.

We offer three types of ceiling systems, which differ mainly in their installation method:

- Systems that can be disassembled at any time
- Design with a tongue and groove connecting system
- Design with panels that can be bolted to one another



Standard ceiling panels

The ceiling panels come in a standard size, measuring 300 mm to 550 mm in width and 3,000 mm in length. They can also be manufactured and supplied in other sizes if required.

- Ceiling panel (25 mm, 50 mm)
- Ceiling panel with shadow gap (20 mm)

Classifications

- B-15/A-30
- B-0/A-30

Surface coatings

- Steel, stainless steel
- Aluminum (C-class only)
- RAL and NCS varnish colors
- Perforation (mainly for machinery control rooms)

Floors

Floors with excellent noise reduction properties



On board every type of ship, many different noises and vibrations as well as physical forces can permeate through all the decks. Therefore, it is very important to install floors that hinder this on a high level – our products are the perfect solution. And because fire protection is another important aspect, our floor systems are tested for dangerous fire situations in accordance with international guidelines.

Available in classifications ranging from A-60 to C-class, the floor systems are suitable for each purpose.

A-60 floor

A high fire protection classification and excellent acoustic insulation means that this floor can be used in all areas on board the ship. To install this floor, the panels are simply laid out on the ground and welded together at various points.

C-class floor

This floor is ideal for use in areas where no specific fire protection requirements are stipulated by international regulations. The design of this panel is similar to that of the A-60 floor panel, the only difference being that the insulation under the outer steel layer covering is thinner.

Doors

Safety and privacy

The cabins for the crew and the passengers on board are only complete when equipped with a door. It gives the passengers and the crew inside a sense of safety and privacy. Alvedoor Marine offers doors in fire classification B for the usage in cabins and doors in fire classification A for the usage in areas that require higher protection. Doors in classification A can be fitted either by welding or by bolting them to the surrounding steel structure. The doors can be applied with a clearance opening measuring up to 2,700 mm in width and 2,000 mm in height, depending on the product type.

For interior areas the installation of cabin doors featuring fire protection classification B-15 is stipulated by law. Alvedoor Marine provides cabin doors with clamping frames for that purpose. These clamping frames can be fitted during assembly into the wall structure or can be integrated into an existing wall system using a two-part frame. In principle, our doors can be outfitted with all the relevant accessories and include the right surface coating to match the design of the existing environment.

Standard doors

- Single-hinged doors
- Double-hinged doors
- Sliding doors

Classifications

- B-15
- A-15
- A-60

Surface coatings

- The door leaf can be coated with PVC, varnished, or made from stainless steel
- The frame can be varnished or made from stainless steel



Wet units

Functionality and beautiful design

In our production facility in Kunshan (China), the manufacturing of wet units is our everyday business, in time and in a variety of designs tailored to customers' needs. This specifically includes the accessories, for example, the shower, mirror, or sink as well as any other wishes. We deliver the wet units in time. The wet units are ready to operate immediately. The pipelines for fresh, gray, and black water and the wiring for the electrics are already installed when the wet unit is delivered.

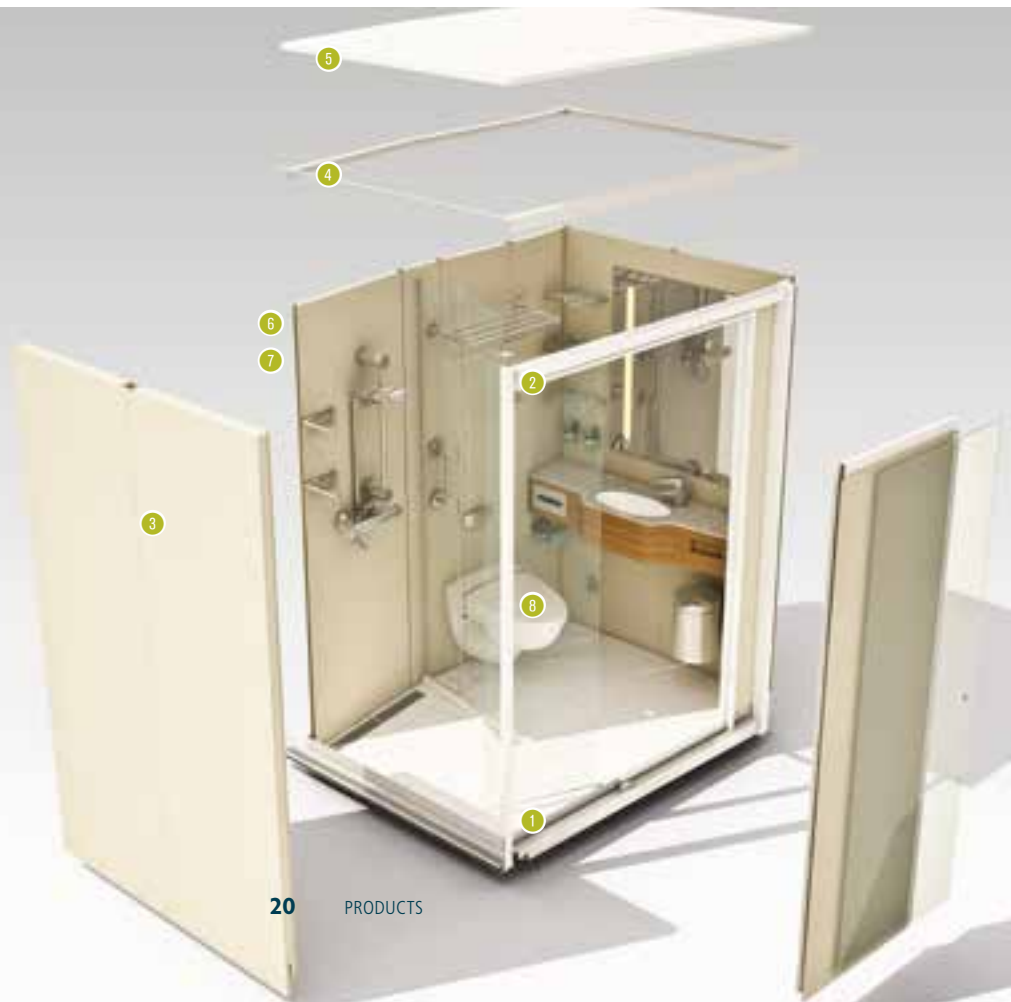
The most important facts about our wet units

- B 15 design with high damping properties
- Stainless steel, aluminum, or preserved black steel floor pan with a Bolidt floor, epoxy coating, polyurethane, or tile covering
- Sandwich-style walls coated with PVC film in various patterns, or steel walls with outside insulation, and tiles or plastic surfaces
- Inspection panel behind the toilet bowl for accessing the vacuum technology
- Sandwich-style door with air gap below door leaf, lock, and door limiter
- Sandwich-style ceiling coated with PVC film or with lacquered surface
- Ceiling light, wall lights, and illuminated mirror cabinets
- Stainless steel black water pipes
- Plastic or copper fresh water pipes
- Air conditioning system for exhaust air, installed in the wall or ceiling panel



Wet unit structure

- ① Fully welded floor pan with integrated connection for pipes
- ② Door frame with connection profile for incorporating the cabin wall system
- ③ Wall panels bolted together for good stability. The insides of the panels are lined with PVC-coated steel sheets; the outsides of the panels consist of galvanized steel sheets.
- ④ Corner profile made of galvanized steel to strengthen the wall connection
- ⑤ Ceiling panel is 30 mm thick. Cables and cutouts are covered by special insulation on top
- ⑥ Exhaust air diffuser
- ⑦ Copper or plastic fresh water pipes
- ⑧ Vacuum or gravity-fed toilet



Cabins

Homely atmosphere for feeling good

We design and construct high-quality cabins with the latest standards, which can be fully prefabricated. Thanks to our diversity in production to produce all components of a cabin for every type of ship. For example, we have long-lasting experience in producing fully outfitted wet units. Specially sealed floor pans ensure that the wet units are watertight. The electrical connections and pipelines can be installed to the on board systems immediately after the wet units have been installed. All models of cabins consist of variable wall and ceiling systems, doors, furniture, and a wet unit.

In case installation time on board is short, our prefabricated cabins are the right choice to support our customers in delivering in time. The fast and professional manufacturing process and short delivery times enable us to seamlessly integrate the wet units to be seamlessly integrated into the ship's ongoing construction process. Prefabricated modules give us the ability to deliver everything to customers' requirements effectively.

Cabin structure

- 1 Bottom frame welded with U-profile connection for wall panel installation
- 2 Wall panels bolted together to ensure overall stability. Panels are made of PVC-coated steel sheets on the inside and galvanized steel sheets on the outside.
- 3 Door frame with connection profiles for mounting on corridor wall system
- 4 Corner profile for strong connection to galvanized steel wall
- 5 Porthole made of PVC-coated metal sheets with insulation on rear
- 6 Fully equipped wet unit with all the necessary mounting points in inspection area for easy access
- 7 Ceiling profile (hat profile) – guarantees a stable connection to the surrounding wall elements of the entire cabin
- 8 Ceiling panel is 30 mm thick. Cables and cutouts are covered by special overlying insulation.
- 9 Insulated ventilation duct for transporting fresh air into the cabin. The fan housing is located in the inspection area for easy servicing.
- 10 Furniture to meet customers' specifications and taste



Furniture

Sophisticated design meets impressive functionality

It is not enough to simply have the perfect cabin with suitable walls, floors, doors, and more. You also have to equip the cabins with appropriate furniture for the best interior concept. Whether hand-crafted individual pieces or series production items, we incorporate our customers' requests into all our product designs and developments.

Alvedoor Marine's furniture line ranges from sofas and seating, wooden or metal beds to table, and counter systems of all kinds and wall, ceiling, and pillar panels can be customized to suit individual needs. With regard to the materials, we consult our customers and offer an abundance of options. Our stylish solutions are not only a sight to see, but also suitable for extreme usage and in extreme conditions regarding vibrations, fire protection, and durability.

Our services

- Diverse range of panel materials for furniture, e.g. solid surface panels, glass and metals
- Advice on implementation with regard to furniture design, decorative work, and upholstery
- Individual items of furniture with rounded or curved molded parts
- Integration of an extensive range of technical equipment, e.g. refrigerators and lighting
- Special requirements, e.g. CNC finishing on molded parts
- Custom-fit weight management
- Worldwide shipping and assembly
- Work preparation by use of CAD/CAM Solutions for all customer desires with a "Design to Build" philosophy

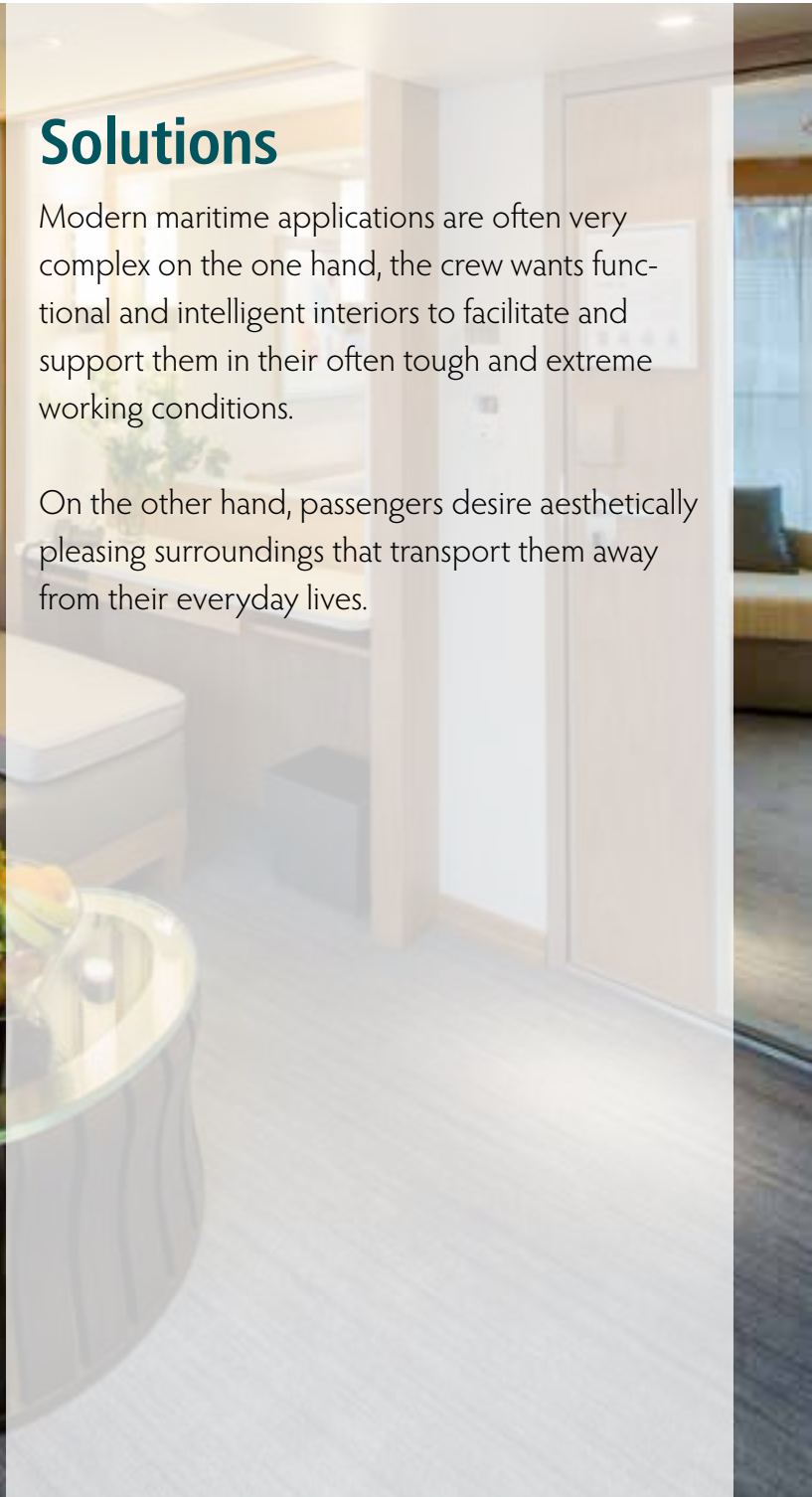




Solutions

Modern maritime applications are often very complex on the one hand, the crew wants functional and intelligent interiors to facilitate and support them in their often tough and extreme working conditions.

On the other hand, passengers desire aesthetically pleasing surroundings that transport them away from their everyday lives.



HVAC – Heating, Ventilation, and Air Conditioning

HVAC solutions



Perfect indoor air quality on board, very good air quality in a closed corpus by sufficient ventilation, humidity control and, as a final point, potential for a natural ventilation system: On the one hand, the most important prerequisites for both the crew and passengers alike when it comes to feeling good. On the other hand, they are essential for the uninterrupted operation of machines, systems, and equipment. This is not only expected by passengers and crew, but also regulated by law. Whether it is a passenger or crew cabin, utility or public area, R&M offers the optimal thermic comfort and controlled air solutions for comfortable indoor climate. Undoubtedly, the precise air distribution in all AC rooms, which are designed centrally by R&M, and the correct air balance plan always give the ideal conditions.

The different requirements on board have to be considered: For example, the kitchen must always have exhaust hoods due to the cooking odors, and the windows of the bridge must not fog up so that the captain can have the perfect view. We aim to do our best for the comfort of the crew and the passengers on board. We plan and implement perfect HVAC systems and support our customers – from the planning stage through to project completion.

As a competent partner, we develop tailor-made heating, ventilation, and air conditioning systems (HVAC) for ideal temperature, humidity, and air purity. We always aim to develop efficient and energy-saving concepts, taking into account the latest quality management systems such as DIN EN ISO 9001. Today, it is more important than ever to have reduced heating costs and take care of the environment. That is what we give our customers, guaranteed.

Our experts implement the most efficient and sustainable solutions, including basic design with transmission calculation, the preparation of an air balance plan, a detailed design with the preparation of indication diagrams, the coordination and technical planning, implementation, and commissioning. Even after the project has been completed, we continue to be at our customers' side for maintenance and repairs.

Our services

- Engineering
- Project management
- Installation
- Commissioning
- Maintenance and repairs

Insulation

For best temperature in all areas on board

Our insulation solutions have been well established at the international shipbuilding market ever since our foundation representing the roots of our company. This means we have an abundance of know-how within our Research & Development department for this special subject. Insulation has to be well planned and installed and is extremely essential for ensuring high energy efficiency, the required safety, and necessary comfort on board.

Particularly for noise-sensitive areas on board offshore vessels, which are used in drastically changing temperature and climate conditions, or for cruise ships with high noise emissions within working and living areas, as well as for piping systems that transport goods at a temperature of unusual minus or plus degrees.

Economically sustainable solutions using environmentally friendly and energy-efficient materials as well as quick and reliable completion of the insulation work are a main priority for R&M.

Our services

- Thermal insulation
- Fire safety
- Noise and vibration protection
- Floor insulation
- Pipeline and surface insulation
- Insulation of exhaust and HVAC systems
- Insulation of cargo tanks on LNG tankers
- Pressure hull insulation for submarines
- EMC (electromagnetic compatibility)



Piping systems

Optimal circulatory system on board

The right piping systems on board every ship type are absolutely essential. We plan, coordinate, and install piping systems from partial to overall sections, both special and customized solutions. Compressed air, coolant as well as fresh, gray, and black water have to be carried safely through the ship.

Obviously, this requires expertise, design know-how, and long-lasting experience. R&M stands for these and assumes responsibility for every piping system.

Our services

- Design and specification
- System conceptualization
- Coordination of planning, drawing up of parts lists, installation, and drawings/construction schedules as well as their implementation
- (Pre-)fabrication, supply, and installation
- Insulation of pipe work
- Pressure-testing and register certifications
- Supplier management
- Execution and project management



Shipfitting Steel works



Section shipbuilding, steel construction, and industrial assembly of all types of vessels, including tankers, container ships, passenger and special-purpose ships, as well as offshore platforms are some of the key responsibilities of R&M. Fabricating everything from individual sections to large modules of high-alloy steel weighing between two and a thousand tons as well as hull, structure, and superstructures. R&M guarantees reliable and flawless delivery. The repair of every conceivable part is also one of our main competencies.

R&M offers its customers an extensive portfolio, ranging from advisory and the drafting of a manufacturing profile to the planning and execution of the project, including coordination with the classification society. Our qualified team with many years of experience in section shipbuilding, certified by the American Bureau of Shipping (ABS) classification society, takes care of all orders professionally and in time.

Our services

- Steel construction
- Section shipbuilding
- Ship repair
- Industrial assembly



On board

Both passenger and crew areas need to provide private atmosphere and every guest on board has to feel comfortable. Perfect interior and calm are indispensable factors.

All public areas must suit many tastes, lifestyles and generations and simultaneously provide entertainment.

The area, which is characterized with the highest standards, is the utility area. There, everything has to be optimal, so that all movements can be done in the best way during the shipping.



Passenger areas

Only the best for your guest

The combination of style, individuality, functionality, and quality with a clear message for the passenger is a challenge. The message for the passenger states: This is your cabin, your comfort zone during your journey. R&M is aware of this and meets all requirements. For example, when building a cruise ship, R&M's consistently high supply capability helps boost the cost-effectiveness of every ship-building project.

Our services

- Responsibility of the entire logistics chain
- Execution and project management
- Prefabricated wet units and prefabricated cabins to reduce turnaround time
- Flat-packed wet units and prefabricated cabins
- Just-in-time delivery



Crew areas

Feel at home on the high seas



There are three different aspects that play an important role in outfitting crew areas: It is workplace, recreation room, and private retreat. All requirements have to be met and therefore experience is important. R&M pays particularly close attention to the conceptual optimization of workflow processes as well as to the protection against noise, vibration, and temperature extremes.

R&M offers tried-and-tested solutions for

- Cabins and wet units
- Recreational rooms
- Crew mess rooms

Public areas

Great places to be and relax



Public areas are always a special challenge for both the shipbuilder as well as for the interior outfitter. Every ship has its requirements and has to be designed in line with certain themes. R&M has been working on these challenges for decades. Today we are a specialist on board.

For each and every ship, R&M develops effective design solution in keeping with the character of the vessel, which makes every cruise an unforgettable experience.

We design, develop and implement for you

- Restaurants and bars
- Wellness and spa
- Staircases and corridors
- Lounges, discos, casinos etc.



Utility areas

High quality, safety, practicality, and design combined



The interior in the utility areas has to meet high quality, safety, practicality, design, fire and vibration protection requirements as well as, perfect climate and well-designed room utilization concepts. The engineers of R&M meet these with sophisticated and economical outfitting concepts and implement them professionally and according to customer requirements. All products and structures meet the highest quality standards and the requirements of the United States Public Health Service (USPH).

In particular, galleys frequently perform logistical as well as culinary feats, often under difficult conditions. R&M offers solution from planning to installing extremely durable and functional kitchens as well as consultation concerning the storage of provisions or meal preparation and distribution.

We can offer and deliver for example

- Provision shelves and pallets
- Catering equipment and neutral furniture
- Cold and freezer rooms and dry stores
- Laundry areas and equipment
- Service corridors and lobby areas



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