

# MARINE HVAC DESIGN

Design & Consultancy



## MARINE HVAC DESIGN

Is a leader in the design and engineering of HVAC systems for Maritime & Offshore environments. Our projects take us all over the world, and cover offshore installations as well as every type of vessel up to aircraft carriers, and the largest cruise ships.

### DESIGN & ENGINEERING

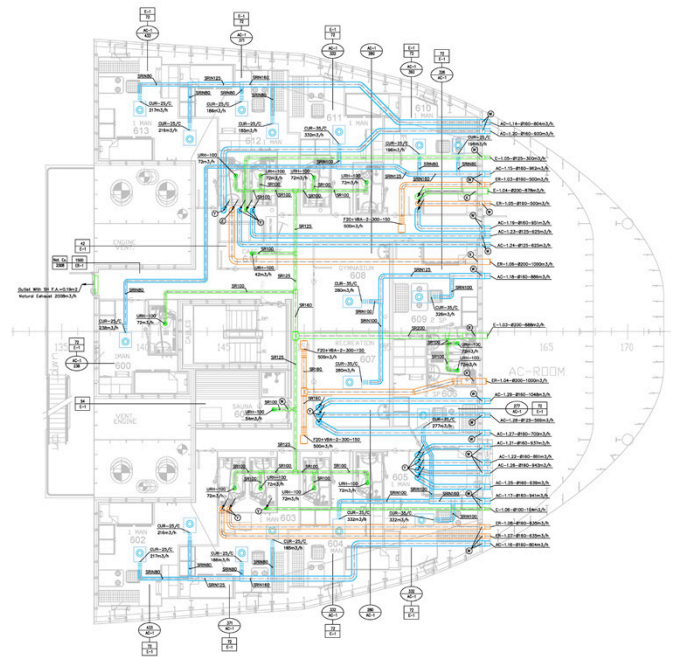
MARINE HVAC DESIGN handles HVAC assignments on new builds, refits and conversions on every type and size of vessel, all over the world.

We provide support in every stage of the process, from basic design to detail design & industrialization. Our support ranges from consultancy and project management, to basic design, and engineering.

As consultants, we are able to check and approve designs as a third party, carry out inspections and surveys on site, and assist with procurement as well as budget price breakdown.

Our broad range of experience gives us the ability to adapt and deliver the service that best suits our clients' requirements.

**OUR INDEPENDENCE FROM EQUIPMENT MANUFACTURERS AND SUPPLIERS MEANS WE ARE ABLE TO CUSTOMISE OUR SOLUTIONS TO MEET OUR CLIENT'S NEEDS.**



#### CONSULTANCY

- Design checks
- Drawing approvals
- Inspections and surveys
- On-site support/supervision
- Procurement assistance
- Selection of suppliers
- Third party investigations
- Price breakdown support and analysis
- Commissioning
- Expert witness
- Project management

#### DESIGN & ENGINEERING

- Preliminary design and specification
- Basic and detail design
- Transmission, airflow calculations
- Machinery airflow calculations
- Colour plans/ Air balance
- Process flow diagrams and P&ID
- System and equipment lists
- One line diagrams - 2D and 3D layout
- Piping and installation diagrams
- Chilled water diagrams
- Noise & pressure loss calculations
- EL / Automation diagrams

#### DETAIL DESIGN

- Design checks
- 3D Coordination of deck areas and AC stations for ducting, piping, equipment and cable trays
- Space analysis
- Clash detections
- Penetration drawings
- Spooling
- Installation drawings
- Industrialization drawings



## MARINE HVAC DESIGN

Our team has been involved in some of the most challenging projects in terms of technical complexity, coordination, and organization.

### OUR TEAM

Our permanent, in-house team of mechanical engineers and designers are equipped with in-depth specialist knowledge of THERMODYNAMICS, HEAT TRANSFER and FLUID DYNAMICS, enabling us to define the best solution for each HVAC project individually.

MARINE HVAC DESIGN's dedicated 3D modelling team has in-depth knowledge and experience with the main marine design software tools on the market, enabling us to deliver high-quality 3D models.

Our team is committed to engaging a wide market, monitoring and assessing technological developments as they emerge in order to keep MARINE HVAC DESIGN at the forefront of this sector.

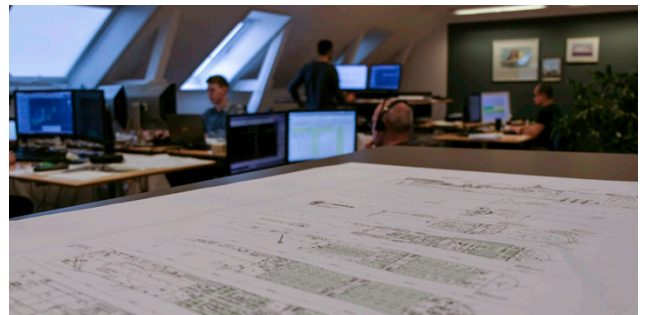
### OUR MISSION

To be the preferred HVAC specialist providing world class services to meet our clients' highest expectations based on our expertise in Design, Engineering, and Consultancy.

#### KEY REFERENCE PROJECTS

- Cruise vessels: latest and advanced Mega Cruise Vessels
- Navy vessels: Frigates / Corvettes / Aircraft Carriers
- Offshore: FPSO / Drilling Rig / Offshore Flotel
- Yachts: from 24m to 130m
- RoRo, ConRo
- Ferries
- Special Purpose Vessels
- Conversion / Refit

For more references, please visit our website [www.marinehvacdesign.com](http://www.marinehvacdesign.com)







## MARINE HVAC DESIGN

### Always Innovative

## OUR SOFTWARE

To conduct our HVAC projects, we utilise advanced specialised software. Tailor-made reporting tools ensure that each client receives regular reports to match their specific needs and requirements.

### SAMBA

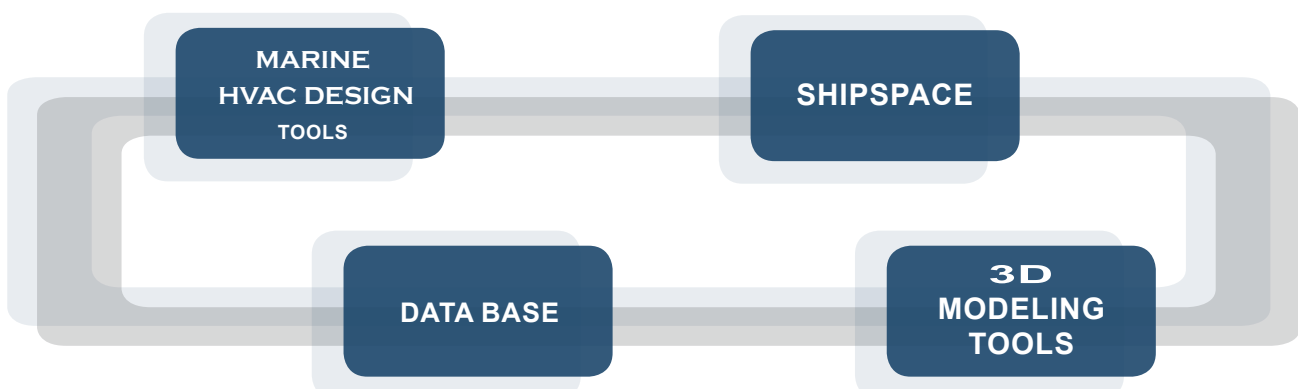
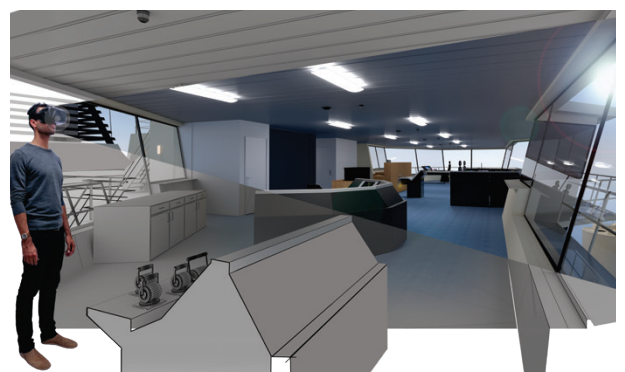
MARINE HVAC DESIGN has developed its own air conditioning calculation software; SAMBA, which enables us to fulfil any project design specification. We can therefore offer our clients an increased design accuracy leading to more effective and efficient installations.

### 3D MODELLING SOFTWARE

MARINE HVAC DESIGN uses software such as Foran, AVEVA, Nupas CADMATIC, SM3D, MicroStation NX Siemens among others.

### SHIPSPACE

ShipSpace is a groundbreaking Virtual Reality (VR) design system that allows engineers, designers and owners to step onboard to explore and examine HVAC installations therefore enabling them to make a more precise and exhaustive evaluation of the project even before construction of the vessel begins.





## Experience

MARINE HVAC DESIGN offers over 30 years' experience in the design of HVAC systems for all types of vessel across the entire spectrum of maritime sectors.

## Excellence

Numerous prestigious projects across the industry and notably in the Navy and Cruise sectors where strong performance is demanded.

## Consultancy

We are able to assess third party designs, carry out surveys & inspections, onsite technical support for design, procurement & commissioning.

## Coverage

Our scope of work covers the design of HVAC systems for both newbuild vessels and refit and conversion projects. We provide flexible support for any phase of a design or engineering process.

## Vision

Inspiring our team to be the best they can be to provide unique designs where comfort and sustainability are key factors.

## Guidance

As a dedicated service provider, independent of any equipment suppliers, we specialise in the delivery of efficient, custom-made solutions based entirely on our clients' requirements.

*"We began to work with KNUD E. HANSEN, when we needed an HVAC specialist for the Queen Elizabeth Class. They performed very well for us and we've gone on to work with them on other projects as a result. In particular, KNUD E. HANSEN showed themselves to be incredibly flexible, willing to mobilise as many people as we needed, wherever we needed them to be. I attribute this adaptability to the close-knit, trusting relationships between personnel. The culture at KNUD E. HANSEN ensures total efficiency."*

SHANKAR RASIAH, AERIUS

*"KNUD E. HANSEN showed themselves to be very professional and totally dedicated to our project. Our cooperation could not have been better. We started out with one A4 page of specifications and, from this, KNUD E. HANSEN quickly developed the entire yacht."*

PER BLINKENBERG-THRANE, 24 M EXPLORER TYPE MOTOR YACHTS

*"KNUD E. HANSEN designed a total of 18 ships for my family's company. We spent countless days discussing our dreams, aspirations and passions. The relationships we developed became so personal that design decisions became automatic. The creativity and talent in KNUD E. HANSEN is boundless. KNUD E. HANSEN provided us with precision, accuracy and consistent quality. We knew we had a reliable design to work on. And, of course, the personal attention was outstanding – we felt we were one big family."*

ALEX PANAGOPOLOUS



[www.marinehvacdesign.com](http://www.marinehvacdesign.com)



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