

Integrated Bridge

MANTA Bridge System

At the forefront of navigational technology.

Unique Bridge System

Whatever the size of your vessel, MANTA, the world-leading integrated bridge system from Kelvin Hughes, can be tailored to your bridge environment. Marking another milestone in the ongoing programme of product innovation and development at Kelvin Hughes, such is the quality of MANTA that it was specified by Cunard for installation on its QM2 flagship. But MANTA's modular concept, sophisticated design and advanced ergonomics make it ideally suited not only to superliners, but also to superyachts and other kinds of vessel.

MANTA Multi-functionality

- MANTA Bridge provides multi-function displays which are able to access information from any processor connected to the system.
- Each display can show ARPA, ECDIS, CAAS/HAP conning, AIS, VDR real time recording or auxiliary data from engine, fire or cargo control systems.
- MANTA Bridge uses display concepts already proven in the aviation industry by our parent company Smiths Group, a world leader in aerospace.
- TFT high resolution displays are available in 17" diagonal size (MANTA 1700), 20" diagonal size (MANTA 2000) or in 23" diagonal size (MANTA 2300) with local trackerball or remote ERGO Pod control.

Tailored Design

At Kelvin Hughes an ongoing programme of product design, development, support and training allows us to target our prime objective - to meet customers' needs and their expectations of performance, value and quality, through the pursuit of excellence, innovation and integrity.

Features

- **Unique bridge system**
- **Total package capability**
- **All the displays are the same**
No need for different displays for different functions
- **Multifunction displays**
- **Integration**
- **Built in redundancies**
Full inter-switching of the display functions allows for built in redundancies
- **Ergonomics**
Flush mounted, panel mounted or desk to mounted, the displays offer full flexibility in ergonomic layouts
- **Flexibility of design**
From a simple 3 display system to full watch-one bridge
- **Ergo-pods**
All controls of displays can be operated from the arm of the navigators chair
- **Operator training**
In house or onboard training on individual products or complete systems
- **Interface knowledge**
Experienced team with installation and interface experience
- **Dedicated support team**
Pricing, Design, Interface, Installation, Training
- **Modular design**
Systems can be designed to suit the size and shape of any bridge
- **Design partnerships with yards and owners**
Experience with worldwide yards and owners
- **Total programme management**
From conception to handover in conjunction with the yards, owners and operators
- **Product support**
Worldwide 24/7 support for all bridge equipment



Core Components

Radar

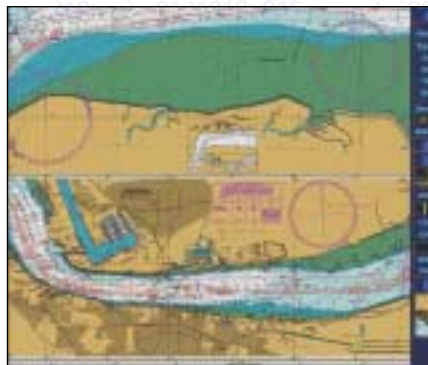
Kelvin Hughes has a range of radar systems to suit all types of vessels. They are ready to connect to VDR, are AIS compatible and are capable of automatic tracking of up to 50 targets at any one time. Displays are available in a number of configurations, including ARPA, ATA and EPA, connectable to various transceivers and antennas. Kelvin Hughes advanced radar systems are highly sophisticated, easy-to-operate and offer a complete range of features to provide you with power, accuracy, versatility and flexibility.



ARPA, ATA and EPA Display Configurations are available

ECDIS

Using state of the art technology, MANTA ECDIS offers a vast array of advantages to the navigator, from immediate situation awareness, to sophisticated alarm signalling and transfer through interaction with Vector charts. Ideal for a fully integrated bridge system or as a stand-alone unit, ECDIS has full AIS readiness to follow in the same trackball and three button operational mode as the very successful Kelvin Hughes range of Radar and Chart systems. The highly intuitive user interface is designed with the mariner in mind, offering quick, easy-to-use menus and an on-line user manual.



State of the art ECDIS technology



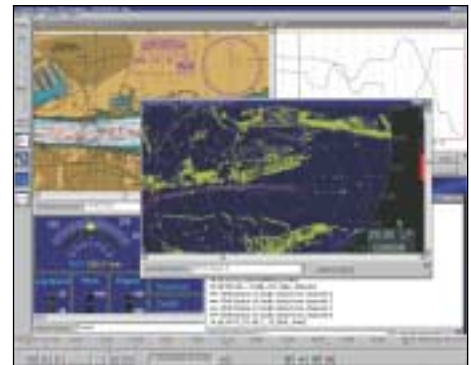
Voyage Data Recorders

The Kelvin Hughes NDR-2002 is a type approved Voyage Data Recorder which exceeds the requirements of IMO Performance Standard A.861(20) for Shipborne Voyage Data Recorders (VDR). The complete system is designed and manufactured by Kelvin Hughes and its parent company Smiths.

The VDR collects data from sensors on board the vessel and stores it in digital format in an externally mounted Crash Survivable Module, a tamper-proof unit designed to withstand the extreme shock, impact, pressure and heat, which could be associated with a maritime incident. This can be retrieved from the vessel and the stored data replayed.



Voyage Data Recorder Crash Survivable Module



Voyage Data Recorder Multiple Windows

HAP (Harbour Approach and Pilotage)

The MANTA HAP Display combines chart and sensor data in one dedicated, central display. Data presentation can be configured during installation to suit different customer requirements.

The MANTA HAP uses the same hardware as the MANTA ECDIS, so can be used as the required fully approved backup ECDIS.

Consoles

The versatility of the Kelvin Hughes MANTA Integrated Bridge System allows any number of auxiliary consoles to be added to the basic radar and navigation displays.

The modular layout means that a variety of centre consoles and angular units can be offered to fit the requirements of the ship and operator.

Additionally, the centre consoles can be adapted to accept equipment from a number of Kelvin Hughes preferred third party suppliers.



HAP/Conning Display



MANTA Modular Console

Kelvin Hughes Integrated Bridge Systems have been designed to meet the ever-changing demands of the marine community.

Total Package

Gyrocompasses

The CMZ700 gyrocompass from Kelvin Hughes provides three simple system configurations, from a basic gyrocompass system suitable for smaller vessels, a dual gyrocompass system, which meets the requirements of various classification society rules (DNV-WI, Lloyd's).

Trackpilot

The Kelvin Hughes SEM200 is a fully adaptive autopilot. The operator can select light, medium or loaded loading conditions, and economy, medium or precise steering performance.

Autopilot

Kelvin Hughes PT170 and PT70 autopilots have superior operability and functionality, meeting the needs of a comprehensive range of vessel applications, from large tankers to small freighters

Single Axis Logs

The EML500 Electromagnetic logs are compact and user-friendly. A range of remote displays is also available. GPS input is available for backup speed indication.

Echo Sounders

Kelvin Hughes GDS 101 navigation echo sounder is based on the latest computer techniques offering all features demanded on-board a modern ship.

GMDSS

With the introduction of the compact Husun System 4000 GMDSS console, with integrated SSB, DSC and telex, Kelvin Hughes sets new standards for price, size and performance in the GMDSS market.

SatComs

The Kelvin Hughes Husun brand is a world leader in the technologically advanced field of maritime radios. A full programme of satellite systems is offered, including Mini-M, Sat-C and Sat-B, a breakthrough in maritime aerial technology and reliability.

Fleet 77

Fleet77 is the next generation of maritime satellite communication terminals and will give you 24/7 online access to any vessel anywhere in the world. The Fleet77 transceiver provides a constant two-way link to Inmarsat satellites offering Inmarsat Fleet MPDS communication

Internal Coms

Kelvin Hughes internal communications products provide safe and efficient systems, which meet the requirements of international legislation and have the flexibility needed for varying vessel installations.

Dual Axis Logs

SAL T2 Dual Axis Doppler logs give Longitudinal & Transverse Bottom Track, Longitudinal Water Track and Depth. Unique Docking Display shows bow and stern speed.

AIS

The new generation Automatic Identification System (AIS) from Kelvin Hughes provides you with the optimal AIS system for use on all types of ships. The NIS 2002 MkII is fully compliant with international regulation and standards as well as with national and class requirements.

DSAS

The Fleet Alert DSAS is a self-contained unit consisting of a compact integrated Inmarsat D+/ GPS transceiver, power management unit and back-up batteries, constructed with a ruggedised polycarbonate enclosure in turn protected by a stainless steel casing and having multiple external panic points.

DGPS

The Kelvin Hughes MX Series has a Smartlink® Interface providing Route-plan transfer to Nucleus radar. With a sunlight readable panorama display, the unit is enclosed in a splashproof enclosure. It is fully compatible with WAASS/EGNOS.



Gyrocompass Control Box MKC 320/321

SEM200 Trackpilot



Autopilot Control Stand Upper Panel



Husun System 4000 GMDSS



GDS 101 Echo Sounder Operator Unit



Husun Inmarsat-B System



NIS2002 AIS Display



MX420 DGPS

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Type Approvals

Kelvin Hughes equipment is EU MED WheelMarked in Europe and nationally type approved in the UK, Greece, Russia and China.



Type Approval Certificate for Track Control System comprising Nucleus 5000/6000 ECDIS or MANTA 2300 ECDIS and SEM200 Autopilot.



MANTA display on pedestal

KELVIN HUGHES total marine navigation solutions

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