



BridgeControl System Line

- | | |
|-----------------------------|----------------------------|
| ARPA Radars | GPS |
| Electronic chart systems | DGPS |
| Navigation planning systems | GMDSS radio consoles |
| Conning displays | Inmarsat B, C, M or mini-M |
| Gyro compass systems | VHF radio telephones |
| Magnetic compasses | MF/HF radio stations |
| Autopilots | Weather facsimile |
| Steering controls | Navtex receivers |
| Alarm units | EPIRB, SART |
| Speed logs | |
| Echo sounders | |
| Wind meters | |

For ship owners, shipyards and system providers who require reliable and easy-to-use navigation systems, Raytheon Marine's products make up a complete navigation solution that surpasses the competition in performance and price. Unlike other marine electronics providers, our products are backed by a global service network of 30 spare parts depots and 300 service organizations.

The modern, flexible design of the Bridge Control can be used for all ship's bridges and all conceivable ship's operating requirements. The user-friendly technology designed for One Man Bridge operation reduces workload and stress.

The Raytheon Marine bridge concept achieves the goal of improving safety, efficiency and operational economy through functional integration of Radar, ECDIS and Track Controller.



- complete bridge system
- completely compatible subsystems
- flexible design
- easy to operate – simple to install
- turnkey solution from one supplier

NautoPilot® 2000

NautoPilot® 2000 series offers the following operational features.

- adaptive, digital heading control
- precision and economy mode
- ECDIS trackkeeping function
- for One Man Bridge acc. to DNV-W1
- adaptable for any type of rudder/steering gear
- quick tune function for easy adaptation to the actual ship's behavior

Pathfinder®/ST MK 2



Communication Systems



NautoConning®



NautoSteer® Manual Steering Control System.

Today, approx. 13,000 ships use Raytheon Marine steering control all over the world.

NautoSteer®

- handwheels, tillers, FU and NFU
- standard systems and dual systems
- remote controls for bridge wings and other stations.

ECDIS

- emergency steering controls
- rudder angle indicator systems
- adaptable for any type of rudder/steering gear

Standard 20





**INMARSAT -B
satellite communication systems
Raytheon 3250 and 3250 E**

- high quality digital voice at 16 kbps
- group III telefax at 9.6 kbps
- asynchronous data transmission up to 9.6 kbps
- high speed data transfer at up to 56/64 kbps
- TELEX at 50 baud (option)

GMDSS Station available in 250 W/400 W/800 W

- modern technology
- easy operation
- high safety level
- simple installation
- compact design
- various console sizes
- integration with commercial communications
- worldwide Raytheon Marine service network



**NautoConning® is the central display- and management system
for the ship's command.**

- navigation information display
- bridge alarm monitoring
- operator fitness check
- data logging
- sensor selection
- DNV alarm management

Standard 20 Digital GyroCompass.

A modern navigation system requires a high degree of automation with the highest level of safety.

- high precision
- fast follow-up rate
- speed error correction (option)
- dynamic error correction (option)
- self-aligning repeaters
- Rate-of-Turn indicators
- gyro compass and TMC-combination
- fast settling (option)



Pathfinder®/ST MK2 Radar - the latest innovation in ATA/ARPA radar technology

- color displays available in medium or high resolution
- easy to use with combination of traditional dedicated controls and point-and-click menu operating system
- superior target detection and clutter suppression including patented "rain rate process"
- high Performance Log Receiver with 130dB dynamic range
- screen size 21" (12" PPI) or 29" (16" PPI)



Modular Navigation Hardware

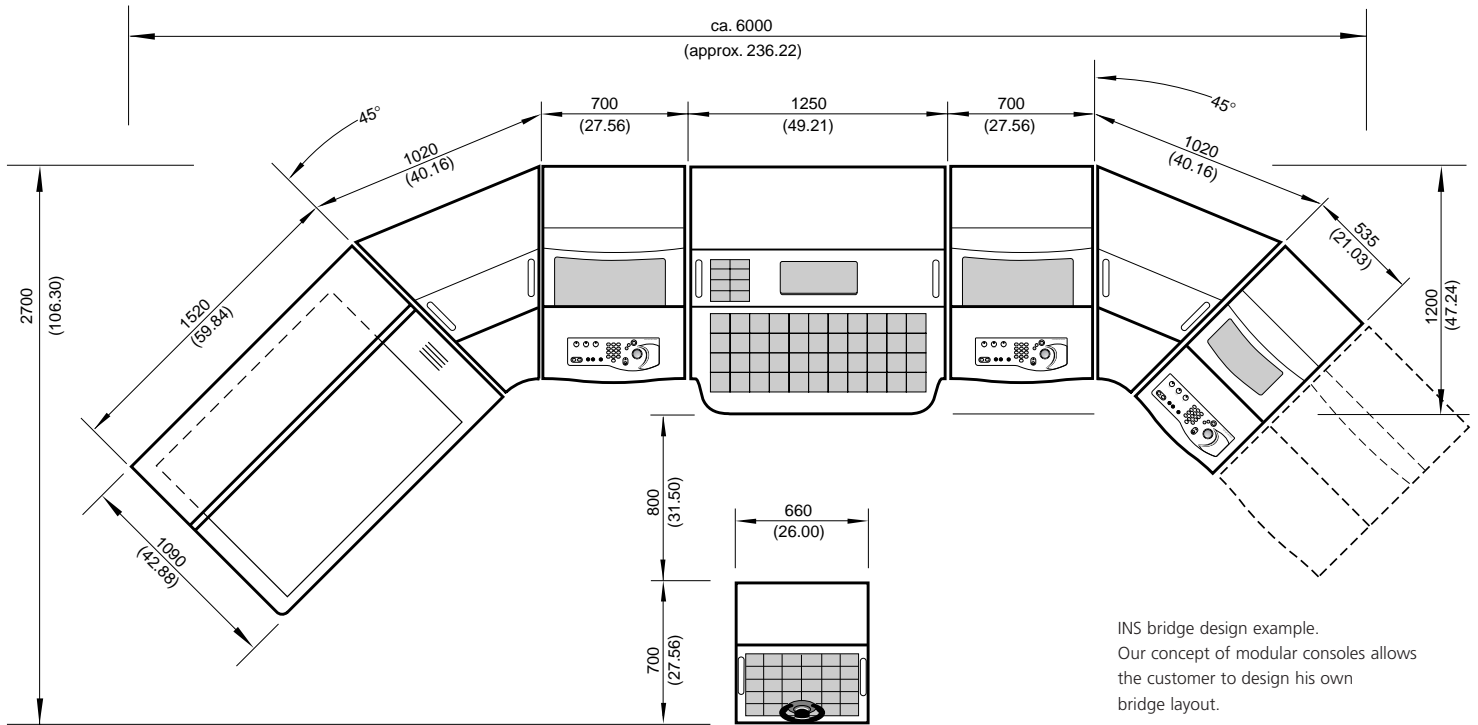
- tested as a system before leaving our factory.
- The modular construction allows simple installation on ships of any size and type.



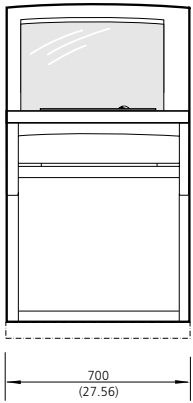
Pathfinder®/ST MK2 ECDIS was developed according to the latest specifications of the IMO, IEC and IHO

- worldwide chart coverage
- safety depth contour alarm (grounding avoidance) activates visual and audible alarms when the ship has deviated from the track, is nearing shallow water, has reached the wheel-over-point or infringes on safety zones
- screen size 21" or 29"
- route planning and route monitoring
- radar/ECDIS overlay

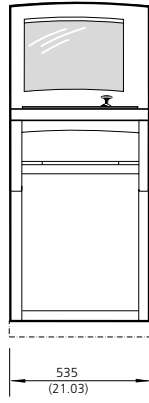




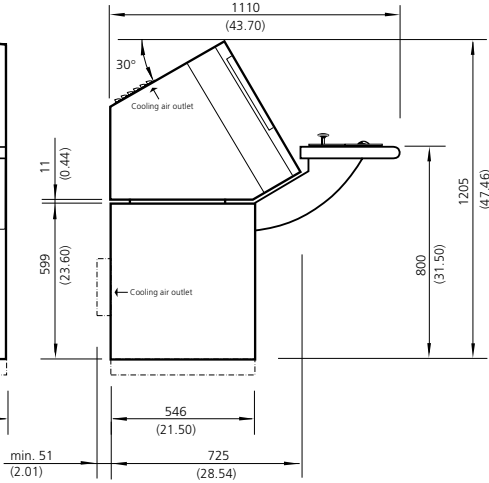
INS bridge design example.
Our concept of modular consoles allows the customer to design his own bridge layout.



Deck stand/29" monitor



Deck stand/21" monitor



Registered Trademarks
Pathfinder® Raytheon Marine Company
NautoPilot® Raytheon Marine GmbH
NautoConning®
NautoSteer®
ComPilot®

Please contact us for further detailed brochures.

Dimensions in mm (inches)

Subject to alteration due to technical developments without notice.

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