



**BRIDGE MATE™ BY MARINE TECHNOLOGIES**

## **BRIDGE MATE DP CHAIR**

### **EXPERIENCE COMPLETE VESSEL CONTROL AT YOUR FINGERTIPS**

The Bridge Mate Dynamic Positioning (DP) concept can be easily integrated into the vessel operator's chair utilizing a distributed architecture that emphasizes both redundancy and segregation philosophies, while minimizing cable installation. The Bridge Mate DP Chair brings complete vessel control to the operator's fingertips utilizing a 15-inch touchscreen monitor incorporated into to the chair's armrest. Manual, joystick and DP operations are all conveniently centralized, providing comfort and ease-of-use. Providing the perfect solution for those looking to accommodate a narrow bridge or obtain a compact solution at a lower price, the Bridge Mate DP Chair is available with DP 1 and DP 2 operator stations and can substitute or complement traditional stand-alone DP consoles on the bridge. Chair configurations with a dedicated DP operator station and Multi-Function Workstation(s) for bridge applications are also available.

The robust Bridge Mate DP design is important on vessels where a service and system specialist is not available 24 hours a day, every day. In addition to distributed operator stations and DP control computers, the Bridge Mate system has distributed thruster and sensor interface units based on a stand-alone IO unit specially designed for use on DP vessels. Each interface unit can be placed close to the thrusters, the reference systems and the sensors to be interfaced. The design of the interface unit makes the Bridge Mate system well suited for retrofit and upgrading within all equipment classes.



**FOR SHIP OWNERS CONCERNED WITH QUALITY AND SAFETY**



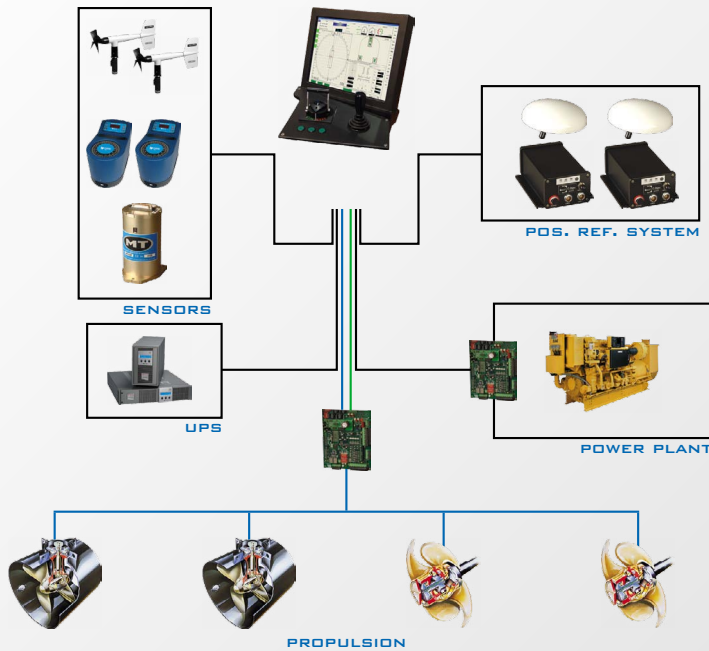


FIGURE 1

### BRIDGE MATE DP 2 SYSTEM

A DP 2 system is composed of the same modules as a DP 1 system, but the number of modules have been increased for redundancy in order to comply with Class 2 rules. A DP 2 system will use three control computers and, typically, two operator stations. Using three control computers makes it possible to perform majority voting between the computers, and to reject a computer should it fail.

The number of IO units is typically much higher on a DP 2 system, as there will be a dedicated IO unit for each set of sensors, each position reference system, power source and each thruster. This configuration is used to provide redundancy at all levels to make sure that any single failure will not result in loss of position.

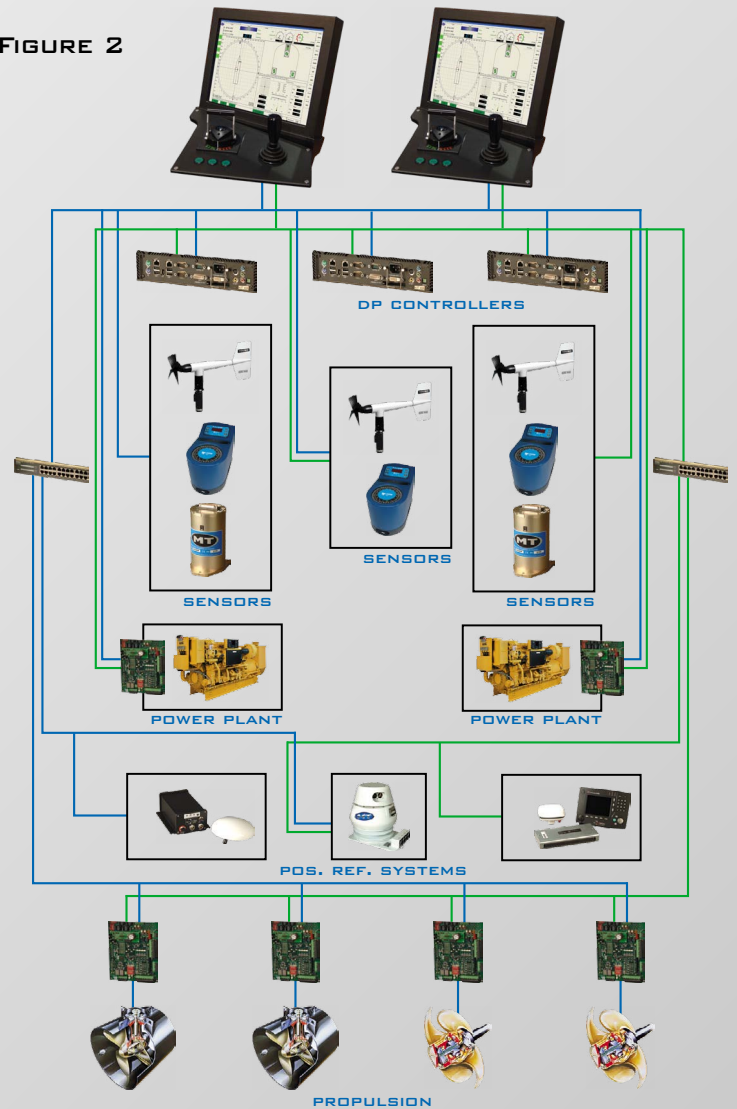
The compact design and distributed architecture makes the system well suited for retrofit. Upgrading from a DP 1 to a DP 2 system is an easy process since the same hardware modules are used for both types of systems, only differing in the number of units used. Figure 2 shows a typical DP 2 configuration, where all the modules are connected via a redundant, dual network.

### BRIDGE MATE DP 1 SYSTEM

The Bridge Mate system architecture for a Class 1 system is based on a fully distributed concept as shown in Figure 1. A DP 1 system will have a single control computer, one operator station and separate IO units interfacing the sensors, positioning reference system, power source and thrusters.

An independent joystick system can be interfaced to the Bridge Mate DP system.

FIGURE 2



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