

## Marex SB – Optimized for water jet propulsion and controllable pitch propeller systems



Professional technology with all options



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Optimized for small yachts and work boats, the Marex SB perfectly suits for the retrofitting of these types of vessels as well.

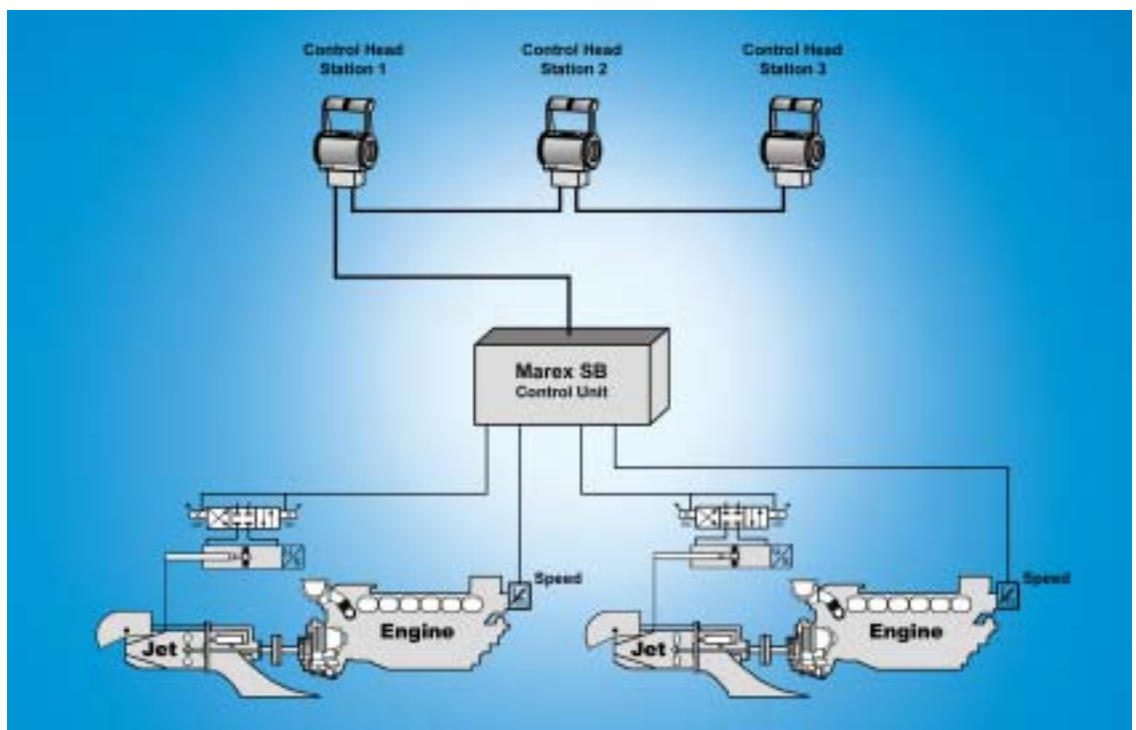
- Replacement of sluggish mechanical controls
- Individually adaptable to the propulsion system
- Low installation and wiring costs due to CAN-bus technology
- High control accuracy
- Low operation forces
- Control diversity of speed, pitch resp. water jet

## The components

- Control head for combined setting of speed and pitch direction resp. jet adjustment for single or twin-engine systems
- Control head for separate setting of speed and pitch resp. jet setting
- Control unit containing the remote control software and the input/output components
- I/O extension boards (option)
- Actuators for mechanical speed control and mechanical pitch resp. “bucket” setting
- Push-pull cables

## The individual solution

The schematic diagram shows a standard configuration of a twin-engine system with three control stations, electrical speed setting and electrical control of the proportional valve of the jet propulsion combined with actual value feedback.





## The system

Marex SB stands for “Small Boat” and is designed for boats with diesel engines and jet propulsions. Aside from jet propulsions also simple controllable pitch propeller systems can be controlled. The electrical control replaces mechanical chains and cables over pulley of existing systems. In this case the control of mechanically activated speed governors and the adjustment of the pitch or jet are realized by electrical actuators and short push-pull cables.

The latest electronics in the control unit evaluates the lever position of the control heads and converts them into commands for the activation of the propulsion system.

The following types of control are possible:

### Speed:

- electrical 4-20mA
- electrical PWM
- electrical 0-10V DC (via resistance)
- mechanical (via actuator 70mm stroke)

### Pitch resp. jet (bucket):

- electrical PWM (for proportional valve)
- electrical PWM (for ON/OFF-valve)
- mechanical (via actuator 70/120mm stroke)

## The technology

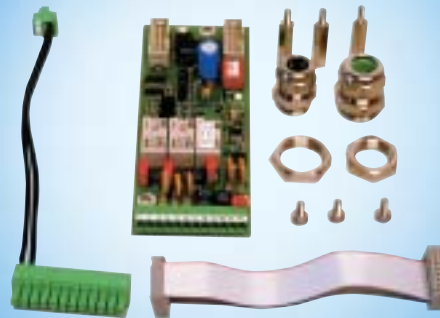
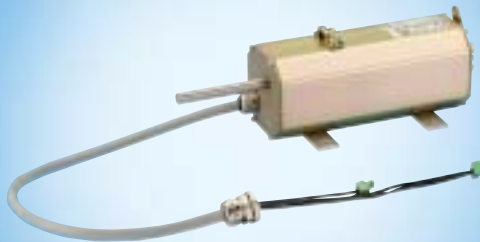
A CAN-bus cable connects the control heads with each other (up to 6 units) and to the control unit installed near the engine(s). Engine speed, jet propulsion and controllable pitch propeller can be controlled fully electronically, fully mechanically or in a combined way.

### Operation safety – certification

All components correspond to the highest demands of safety and fulfill the requirements of the most important classification societies.

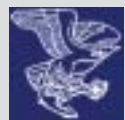
### Tests

Endurance, vibration, high-voltage, temperature, salt mist, EMC, inflammability, declination.



Our products are developed according to the instructions of following classification societies

Germanischer Lloyd, Rina, Nippon Kaiji Kyokai, ABS, BV, LR, Korean Register, Russian Maritime Register, Polski Register



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