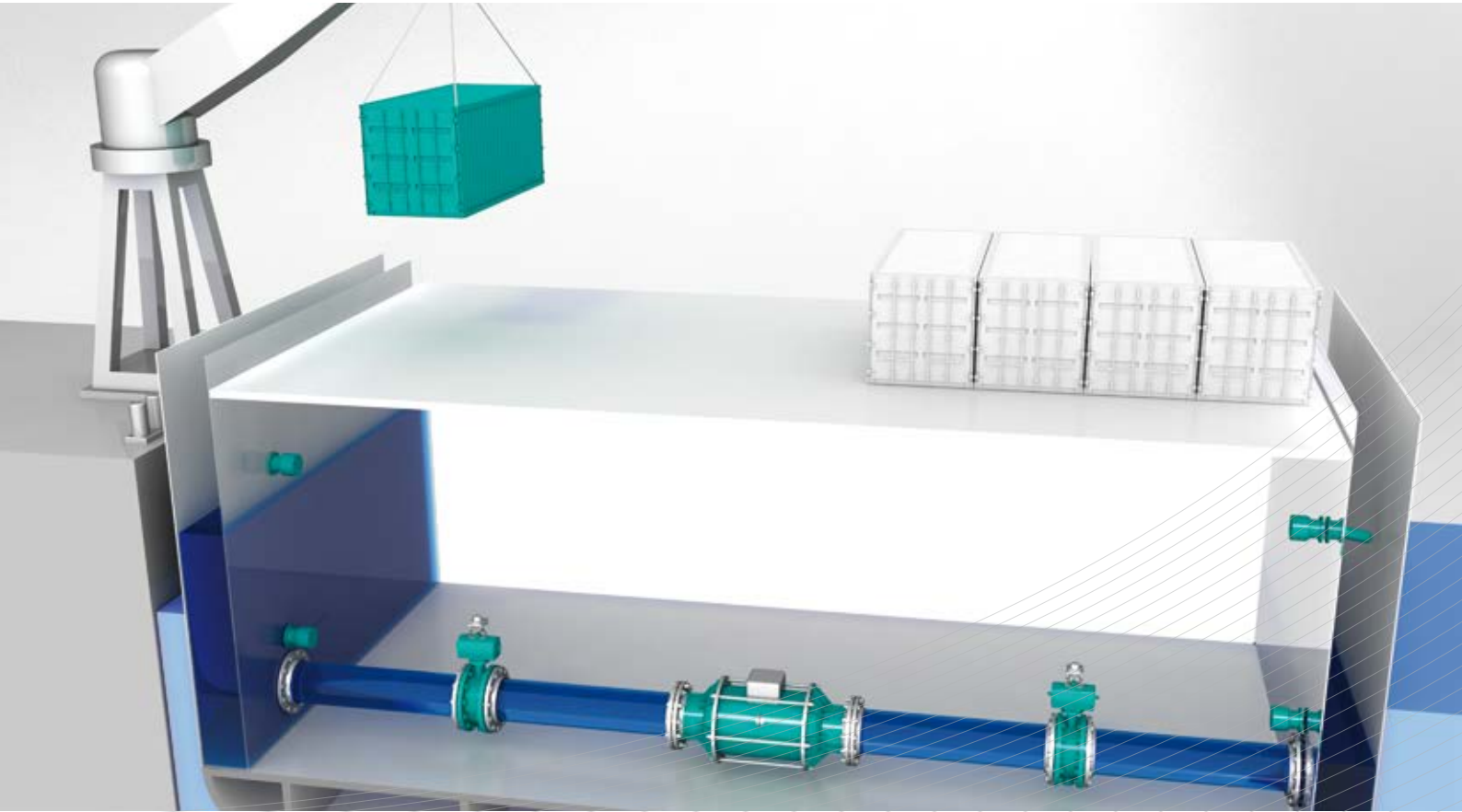
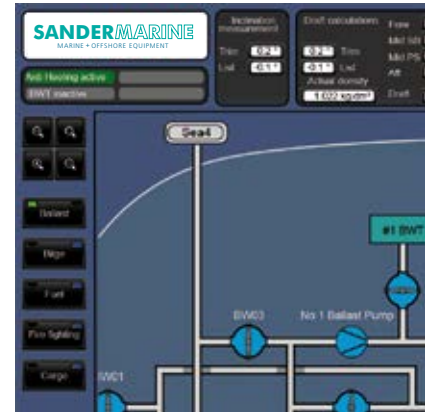


SANDERMARINE

MARINE + OFFSHORE EQUIPMENT

SANHEEL ANTI-HEELING





The anti-heeling system keeps the ship upright during cargo operations

NO COMPROMISES! SANDER ANTI-HEELING CONTROL

Choosing your anti-heeling control system from the SANDER range guarantees the highest possible compatibility. Why mix different systems when you can have the perfect solution from one source?

SANHEEL means anti-heeling the SANDER way: It detects the heeling angle of the vessel and rebalances the ship automatically by pumping ballast water from starboard to port-side or vice versa.

Thus loading and unloading can be operated continuously and in reduced time while the vessel is kept safely upright.

The control system evaluates the connected inclination sensor and automatically controls the mass flow through the valves and the pump to compensate the heeling by weight transfer.

SANHEEL can operate with reversible and non-reversible pumps, using remote-controlled valves to direct the ballast water flow.

For safety reasons the system is provided with emergency stop equipment which can be pushed at all operating stations.

Type approved by GL.

SANHEEL - YOUR BENEFIT:

- Become more efficient by safer and rapid cargo loading, shorter harbour time and less port dues.
- Protect your investment: SANHEEL reduces damage to ramp, rolling cargo and containers. It ensures the safety of the ship, its machineries – and the people on board.

SANDER ANTI-HEELING CONTROL – SYSTEM OVERVIEW

ANTI-HEELING CONTROL PANEL

The control panel is designed as a touch panel and can be integrated in the control box or in an existing console. The first panel is the master, all other panels are working as slaves. Each panel is equipped with an emergency stop button. A dimmable version for the wheel house is available.

ANTI-HEELING CONTROL BOX

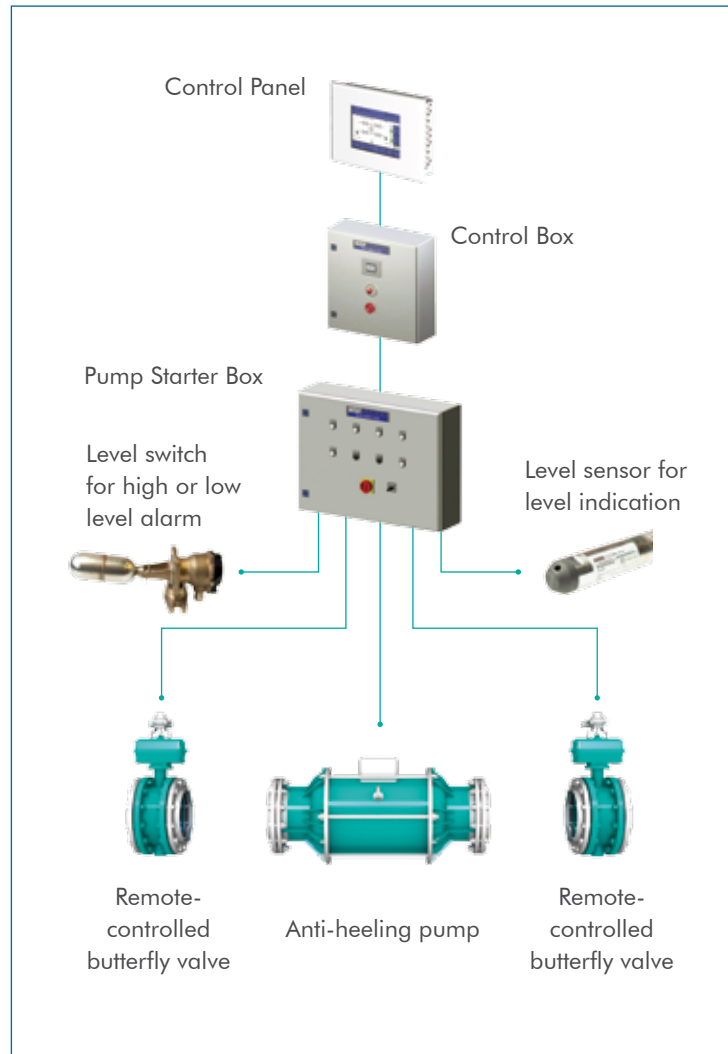
(with or without control panel) The control box contains the power supply 24VDC, line protection for 24V, SPS with I/O modules, software, safety relays for emergency stop, inclinometer and the terminals for the pump starter box and the control panels.

ANTI-HEELING PUMP STARTER BOX

The pump starter box contains the control of the heeling pump, the terminals for level switches and pressure sensors and the terminals for control and feedback of the connected butterfly valves.

BE ON THE SAFE SIDE

For the unattended operation a mercury tilt switch is built in that turns off the weight transfer operation independently.



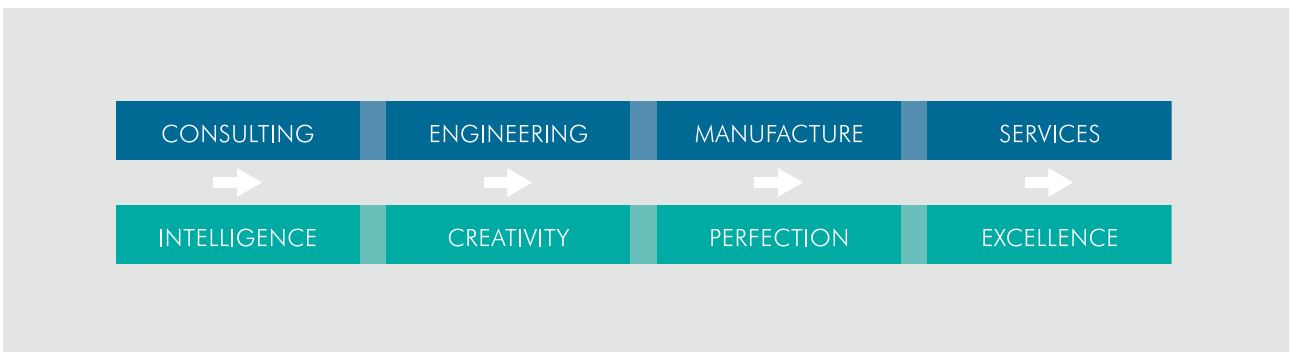
THE MULTI-PURPOSE FLEXIBILITY OF SANHEEL ALLOWS APPLICATION ON HEAVY-LIFT AS WELL AS ON CONTAINER VESSELS.



AGENTS AND HEADQUARTERS



BUSINESS ACTIVITIES



SANDER ENGINEERING. SOLUTIONS THAT WORK.

No matter how big or complex your liquid and gas management project, SANDER provides turnkey, computer-controlled and completely automated solutions, construction and installation services for the entire equipment we manufacture and provide. Our staff is committed to satisfying our clients' most exacting requirements.

WE BUILD MORE THAN INTELLIGENT AUTOMATION SYSTEMS – WE BUILD RELATIONSHIPS.

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