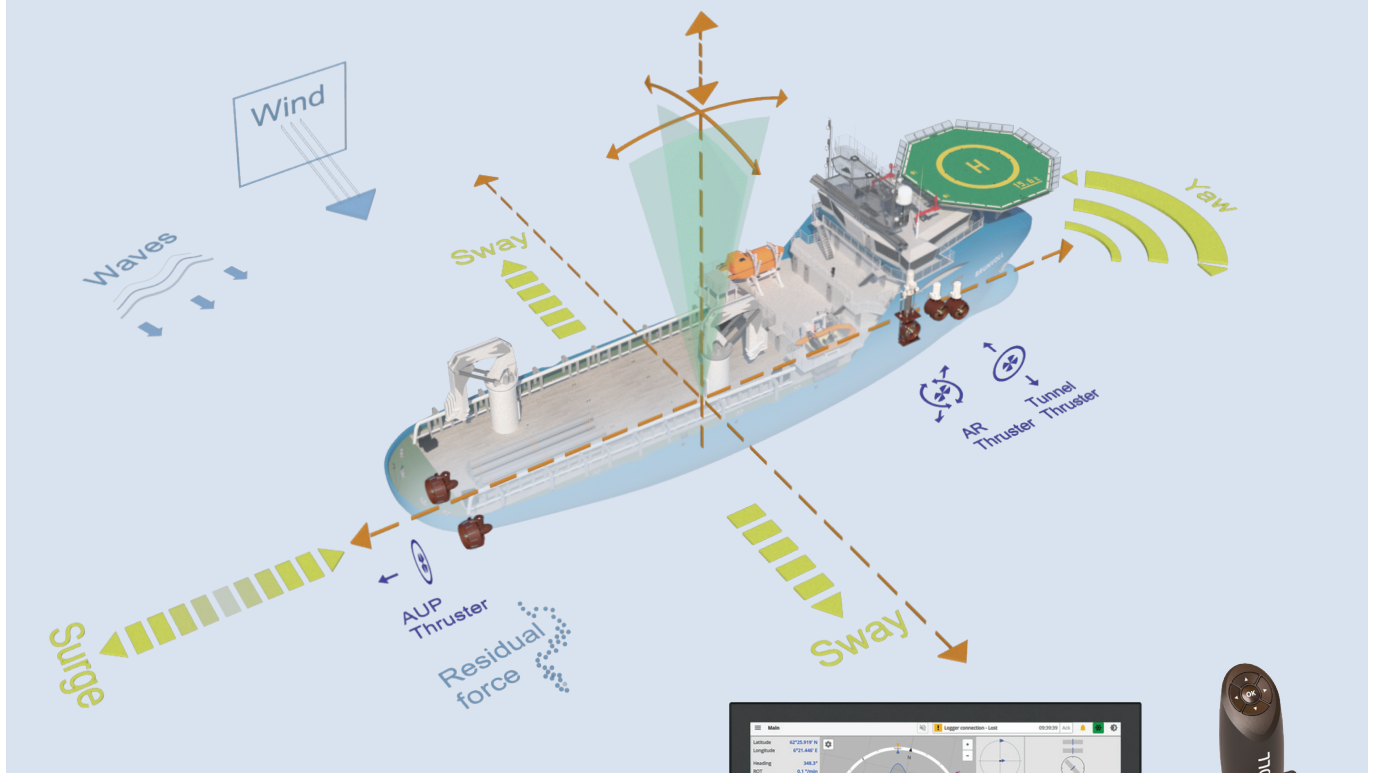


BruCon

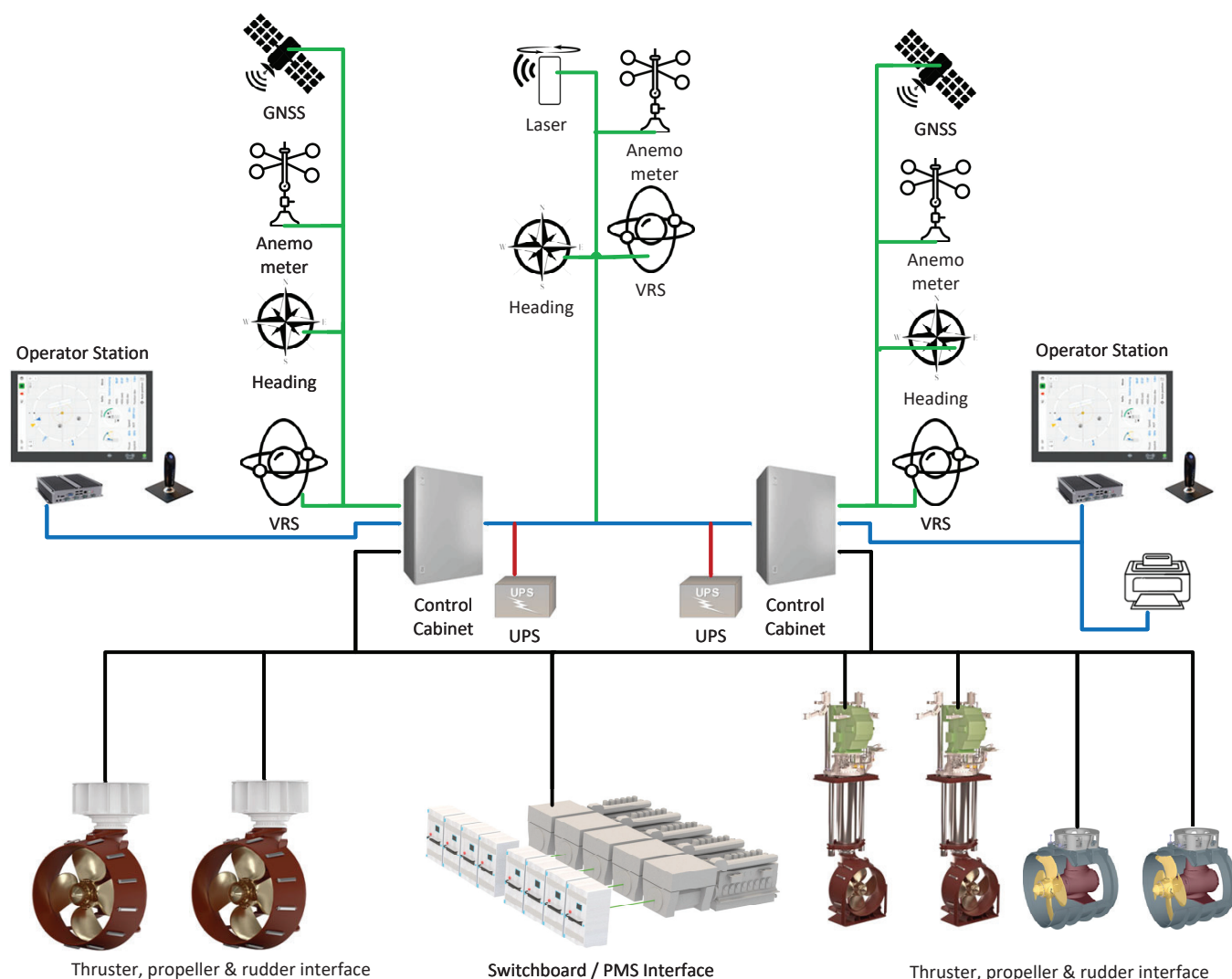
Dynamic Positioning System



Brunvoll Dynamic Positioning (DP) and Joystick (JS) systems, with focus on enhanced user experience and performance. Designed for all kind of vessels.

- BruCon DP (Dynamic Positioning) controls thrusters, propulsion and rudder units in the most efficient and economical way possible.
- BruCon DP follows our long traditions for in-house development and plays an important role in Brunvoll's strategy for autonomous vessel operation.
- Designed to comply with IMO DP1, DP2 and DP3 requirements.
- BruCon DP user interface are designed for compact operator stations, full size operator stations and for integration in operator chairs.
- Interface to all relevant sensors and position reference systems.
- BruCon JS (Joystick system) is part of the BruCon product family and can be used either standalone or as the independent Joystick as in a classed DP system.
- Effective and functional Bus or hardwired interface to external systems.
- Intuitive system operation. Designed for low user threshold.
- Optimal thruster allocation with focus on reduced energy consumption and wear and tear.
- Advanced simulation and modeling is utilized to reduce sea trial time.
- All basic modes of operation required from a modern DP system are covered in the standard BruCon DP delivery.
- Optional functions are available for more advanced DP operations, like:
 - Follow target
 - Waypoint tracking
 - Wind turbine field mode
 - ECO DP
 - Online Capability plot

BruCon DP2 Single line diagram



Requirements for DP systems

Equipment	DP class 1	DP class 2	DP class 3
Control systems with operator station	1	2	2 + 1 back-up
Independent joystick with auto heading	Yes	Yes	Yes
Manual levers for each thruster	Yes	Yes	Yes
Heading sensor	1	3	2 + 1 back-up location
Attitude sensor	1	3	2 + 1 back-up location
Wind sensor	1	3	2 + 1 back-up location
Position reference system	1	3	2 + 1 back-up location
UPS	1	2	2 + 1 back-up location

- Developed in-house by the Brunvoll Autonomy team with more than 20 years' experience from the DP industry.
- The DP team has developed DP control systems for more than 300 vessels within various market segments.
- The DP products are built on the fifth generation BruCon control system software platform. This is shared with the propulsion & thruster control systems, CMS and autonomy products
- BruCon simplifies maintenance and reduces spare part stock by standardizing on «off the shelf» hardware