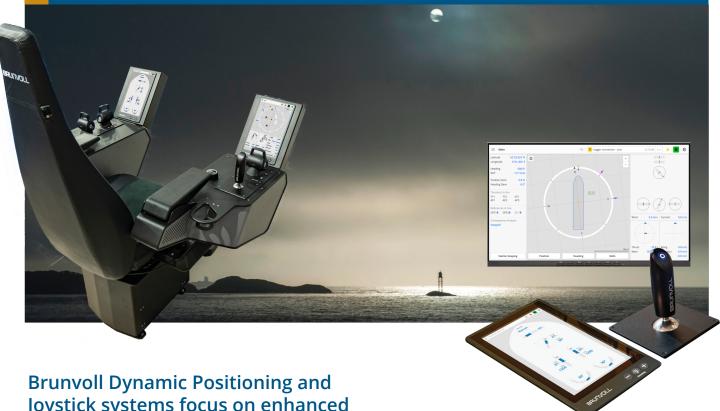


BruCon Dynamic Positioning System



Brunvoll Dynamic Positioning and Joystick systems 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.

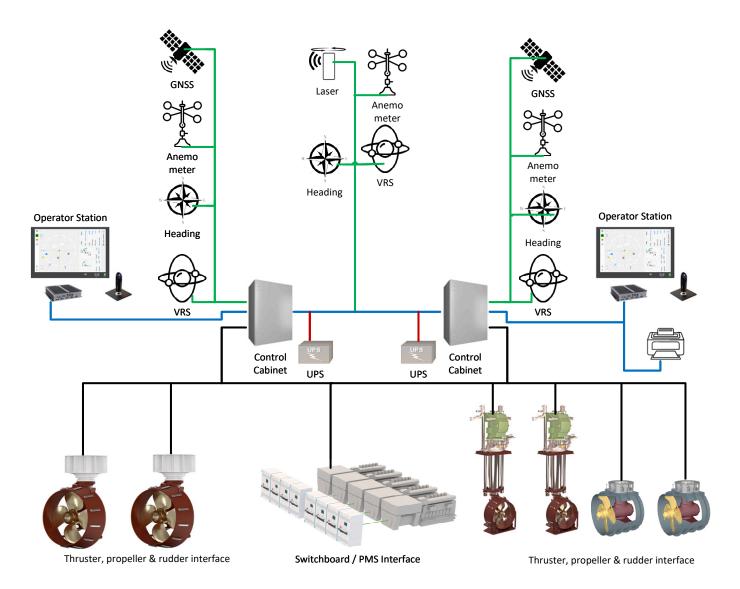
Advanced simulation and modeling is utilized to reduce sea trial time.

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
- Towing
- 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 in back-up location
Attitude sensor	1	3	2 + 1 in back-up location
Wind sensor	1	3	2 + 1 in back-up location
Position reference system	1	3	2 + 1 in back-up location
UPS	1	2	2 + 1 in back-up location