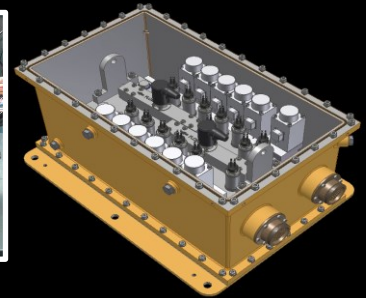


## PRODUCT PORTFOLIO

### HYDRAULIC CONTROL UNITS/ VALVE PACKS

Subsea hydraulic manifolds and units designed in accordance with project and client requirements. Typically, hydraulic control units consist of DCVs, PT, flow meters for control and monitoring of subsea functionality. Can be supplied as part of installation structure or be ROV retrievable.



### SUBSEA HYDRAULIC PUMP UNIT

Robust Subsea Hydraulic Pump Units, SHPU's, suitable for both mineral and water based hydraulic fluids in low and high pressure hydraulic systems.

Scalable design to meet customer required working pressure and can be configured with different pumps, motors (AC/DC) and instrumentation options. Typical diameter ranges from Ø100mm and above depending on requirements. Battery packs, fluid reservoirs and other can be integrated.

Currently, SHPU are used in pressure balanced drilling systems with a very good track record. Can also be used for WO and other subsea HPU applications.



### SUBSEA CIRCULATION PUMP

Low power 24V DC subsea circulation pump for various fluids. Designed for 90 bar internal pressure (compared to external pressure) for circulation of fluids in pressurized systems.

Advanced controller functionality for stand-alone operation with auto start-up or manual remote start/stop and pump speed control. Can be easily integrated into subsea control systems by use of RS-485 interface allowing for continuous monitoring and control. Designed to handle blocking (closed by failure) of the circulation loop without pump damage or system power overload.

