

PRODUCT PORTFOLIO

SUBSEA CONTROL SYSTEM

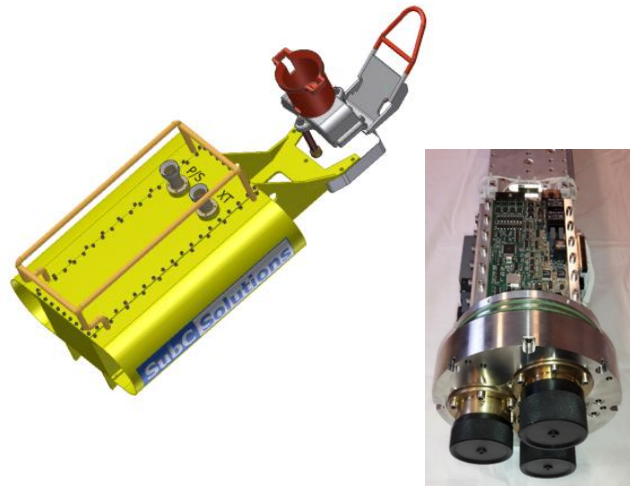
SubC Solutions proprietary subsea control and monitoring system, CPod™, consists of configurable equipment such as Subsea Electronic Modules (SEM), Topside control equipment, Hydraulic Control Units (HCU), Subsea Hydraulic Pumps Units (SHPU), Sensors, Electrical Valve Actuators, junction boxes and other equipment. The CPod™ subsea control and monitoring system can be configured for XT, WO, Drilling and to virtually any other subsea application.

CPod subsea control and monitoring system has been utilized in subsea XT control modules (SCM), balanced pressure drilling systems, magnetic pig detection systems and communication and monitoring systems to mentioned some of the applications.

SUBSEA CONTROL MODULES

SubC Solutions has the capabilities and knowledge to make tailor-made electro-hydraulic control modules. Either in a traditional SCM design, using an MQC plate with a bolted-on control unit or other versions.

Our philosophy is to design for flexibility, scalability, utility and use standard DCV, flowmeters, pressure transmitters, and other hydraulic components. The I/O is scalable to fit customer requirements.



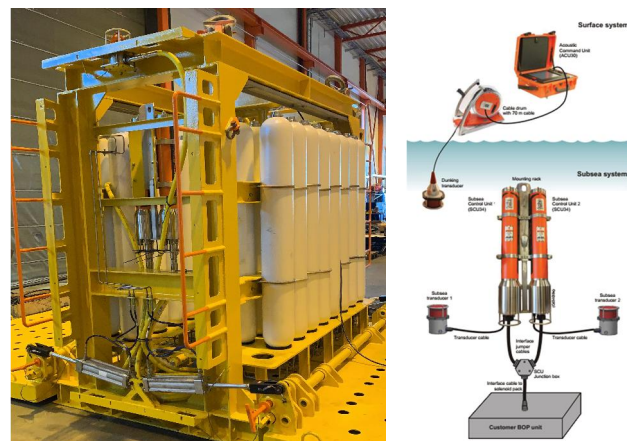
SUBSEA ACCUMULATOR MODULE

Developed and assembled in cooperation with PSW Technology.

The acoustic operated Subsea Accumulator Module (SAM) enables hydraulic power to BOP, SSD or other well intervention systems.

The system features a hydraulic accumulator bank with SubC Solutions hydraulic control unit, controlled from the Rig by use of an acoustic control system with subsea batteries.

The system can be configured to interface a plentitude of acoustic suppliers and can also be operated by use of an umbilical or cable.

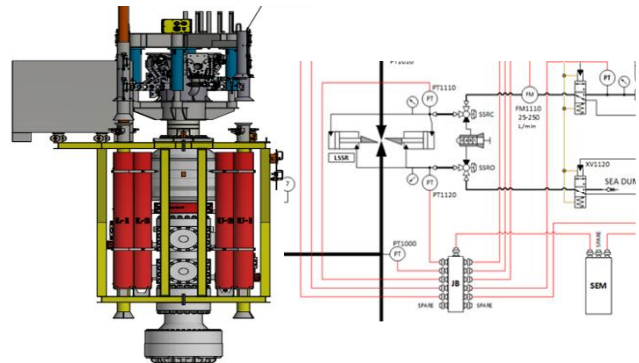


PRODUCT PORTFOLIO

SSD Monitoring System

Monitoring system for Subsea Shut-in Device (SSD) interfacing RLWI/WOCS system. Delivery scope:

- SEM's
- Wellbore PT/TT
- Hydraulic pressure transmitters
- Flow meters
- High flow DCV's
- Junction boxes, cables and connectors



ELECTRO-HYDRAULIC CONTROL SYSTEMS

Control systems used for pump control in advanced drilling system.

Deliver encompass MCS, Topside Power and Communication Module, SEM's, Hydraulic Control Unit, Subsea HPU, junction boxes and distribution system.

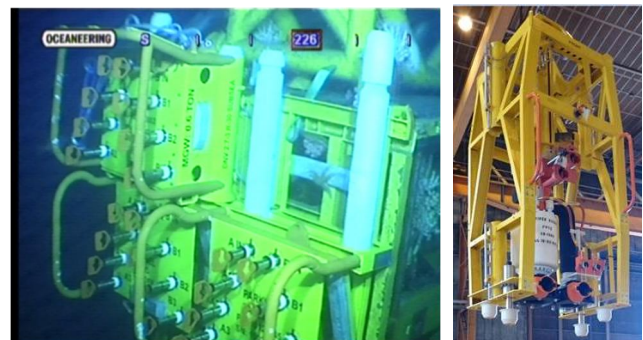


SUBSEA STRUCTURES

SubC Solutions provides structures in accordance with customer requirements. SubC Solutions can provide design, structural analysis, and fabrication of structures.

Anode analysis (Norsok M-503 or DNV RP-B401)
DNV 2.7 certification.

ROV interfaces in accordance with ISO 13628-8 /
API 17H



PRODUCT PORTFOLIO

MAGNETIC PIG TRACKING SYSTEM

Communication system for subsea Pig detection installed on a 30km umbilical power cable and hooked up to the existing power line of an existing SCM using a filter module on the break-out connection.

Topside communication unit was integrated in the existing control system, connected to the existing SCPU and the magnetic pig tracking control unit.



TOPSIDE COMMUNICATION EQUIPMENT

A complete unit that provides power supply and communication to the subsea system. The system is based on modular equipment with plug-in modules installed in standard 19" rack modules for easy installation and replacement.

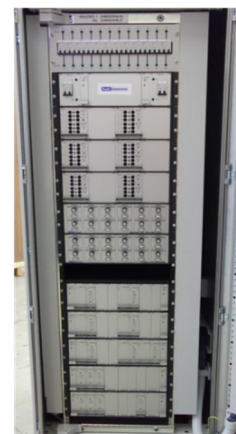
Components include modems, power filters, power supplies and communication controllers. Communication interfaces is serial port and Ethernet.



Topside cabinets

Cabinets for installation on platforms and vessels for power, control and communication with subsea equipment. Modular design with rack modules for easy service and repair.

Installation on instrument rooms with protected environment. Optional Atex certified cabinets for installation in Ex zones.

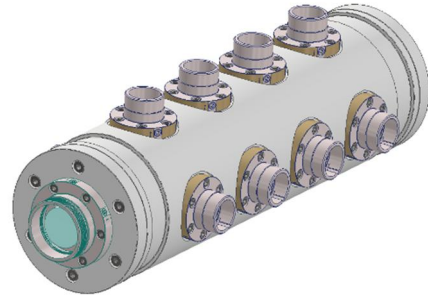


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JUNCTION BOXES

Various junction boxes for dry-mate and wet-mate connectors have been delivered to various projects for power and signal distribution.

Junction boxes can be configured to suit any application.



MAGNETIC PIG DETECTORS

The sensor and PCB are developed and qualified in cooperation with the customer. Compact magnetic sensors with dry mate connector, multiple interfaces, and power options. Easy to customize design for other sensor types or interfaces. Designed and qualified in accordance with ISO API-17F.

Can be used in stand-alone systems connected directly to topside or with a battery powered ROV display. The sensors can also interface existing subsea control system with several communication interface options.



SUBSEA VIBRATION DETECTOR

Standalone vibration logging unit for easy ROV installation and retrieval.

Small size, long battery life and large logging capacity for monitoring of shock and vibrations on structures and installations. Dry mate connector for charging, data readout and configuration

