



## Well Access Remote Distribution System (4WARD)

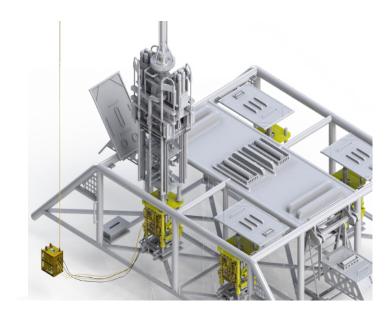
Transforming subsea operations to achieve safer, more cost efficient outcomes by simplifying well access controls, removing the XT umbilical, and reducing Red Zone activity and exposure.

4WARD is an adaptable, multi-vendor XT control system ready to meet the industry needs and support the transition away from conventional Workover Control Systems (WOCS & IWOCS). It addresses the challenges associated with managing an open water XT umbilical, handling large heavy topside equipment, and minimising Red Zone activities.

## **FEATURES**

- → 4WARD configurations
  - Power and Comms cable or
  - Power and Comms via Battery and Acoustic signal (Umbilical-Less)
- → Compact XT control system with a small footprint and lightweight design
- → Multi-vendor XT and control fluid compatibility for flexibility in operations
- → Real-time monitoring and diagnostics, including data trending
- → Fully redundant system in the event of loss of communication and power
- → Adaptable for controlling Light Well Intervention (LWI) & Riserless Light Well Intervention (RLWI) systems





By relocating the equipment and services traditionally located topside to the seabed, 4WARD provides a tailored modular system offering flexibility and a fully redundant subsea workover control system for safe and efficient operations.

Positioned subsea, 4WARD is designed to control, test and monitor XT functions during operations via flying leads connecting all hydraulic and electrical functions between 4WARD and the XT.

The smaller, lighter and simpler 4WARD solution is the future of subsea control systems, challenging past and present operations that rely on WOCS and/or IWOCS packages.

## **BENEFITS**

- An independent control system reducing setup time and increasing operational efficiencies during deployment from a vessel or rig.
- Simplifies installation, workover and plug & abandonment (P&A) operations.
- Provides a single interface with the ability to operate multi-vendor XT's.
- Umbilical-less configuration eliminates the need for an open water umbilical.
- Simplifies deployment and reduces rig handling challenges compared to traditional larger, heavier systems.
- Optimises ROV operations with minimal handling time.

**4Subsea** is a leading provider of technology and services that help operators optimise energy production from subsea oil & gas fields and off-shore wind farms. We combine domain expertise with data analytics and digital services to maximise lifetime of assets, reduce operational cost and optimise future projects through data-driven design.

The company was established in 2007 and clients include the major energy operators as well as the large suppliers of subsea equipment. 4Subsea is headquartered in Asker, Norway with additional offices in Bergen, Kristiansand, Stavanger, Rio de Janeiro, Kraków and Aberdeen. 4Subsea is a company in the Subsea 7 Group.

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