Subsea Safety Systems



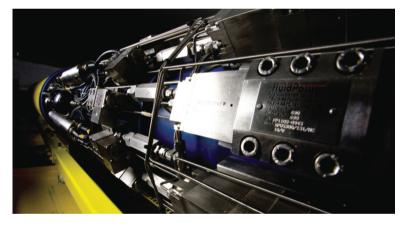
EXPRESS Control System

The EXPRESS subsea control system is Expro's market leading electro-hydraulic (EH) control system. Simplex control provides fast response times and the highest reliability during well testing, completion or intervention operations. In addition Multiplex real-time data feedback verifies equipment integrity and provides accurate subsea diagnostics. The EXPRESS system is used in conjunction withe Expro's Landing String systems (ELSA®); reducing rig time and increasing safety to personnel and equipment.

Why EXPRESS?

Today's offshore operations venture into deeper water environments and cover more challenging well conditions. This has increased the importance of rapid and reliable system responses.

Electro-hydraulic control systems greatly reduce the response times required to achieve the present industry requirements for well isolation and disconnect protocol. They also allow the umbilical size to be reduced enabling access to ultra-deep water environment with proven technology. EXPRESS achieves well closure and disconnect within a 15 second time period, regardless of water depth, meaning EXPRESS is the number one choice for safe and effective solutions in increasingly challenging environments.



EXPRESS control options

- Exploration & appraisal: 3" up to 15,000psi
- Completion & intervention: $6^3/4$ " and $7^3/8$ " up to 10,000psi, $6^1/8$ " up to 15,000psi
- Designed and manufactured in accordance with: ISO 13628-7, ISO 13628-4, ISO 10423 & API 16D

EXPRESS compatibility

The EXPRESS system works in conjunction with Expro's range of Landing String Systems (ELSA®) which provide a field proven solution for rapid dual barrier well isolation, coiled tubing cutting capability, and quick disconnect from the well in both shallow and ultra deep water. This is of paramount importance when conducting well testing and completion activities from dynamically positioned drilling vessels in water depths up to 10,000 feet (3038 m), where significant response time limitations of conventional control hydraulic systems prevail.

The EXPRESS Control System provides the highest level of safety and reliability available. Expro will work closely with you, the client, to meet your requirements.

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Applications:

Drill stem testing, well clean-up and extended appraisal operations

Well completion and intervention operations

All subsea well operations requiring rapid disconnect and / or well isolation

System designed to operate in applications with pressures of up to 15,000psi and temperatures of 250°F (121°C)

Features & Benefits:

Rapid ESD time (<15 seconds)

Simplicity in function control design: reduces risk and improves reliability

No subsea control electronics or power supply: maximising reliability

Modularity: maximises adaptability and interchangeability Independent multiplex data acquisition: provides subsea data and diagnostics with no control system interference

Hydraulic backup: maximises system operability and reliability Electrical redundancy of EH control functions via dual coil solenoid valve circuitry





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