

EXPRESS – Express Control Systems

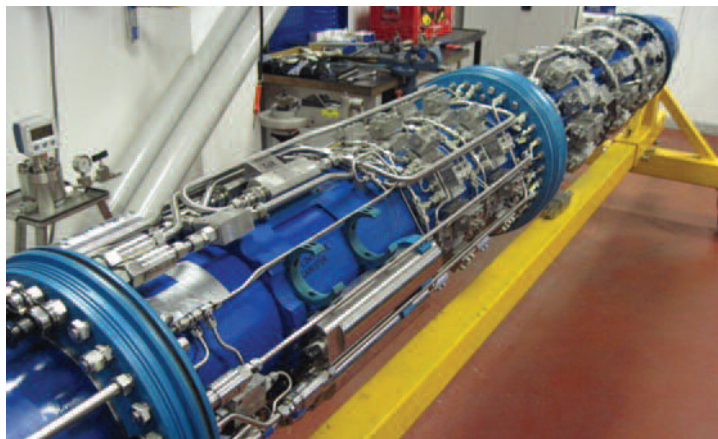
Expro's EXPRESS systems control landing and testing string functions during well testing, appraisal, completion and intervention operations. Electro-hydraulic control improves response times, reduces the physical umbilical size on deep water applications and addresses the disconnect philosophy from dynamically positioned mobile offshore drilling units.

EXPRESS employs electrical communication as the primary control method, rapidly improving response times and eliminating the response constraints of conventional hydraulic systems due to water depth. The EXPRESS system comfortably achieves the present industry requirements for the "red alert" disconnect protocol, achieving system shut-in or well closure and disconnect within 15-seconds.

The modular design of the EXPRESS range is extremely flexible and can be adapted to accommodate a wide range of operator applications and subsea tree configurations. The EXPRESS systems are designed for deployment in applications with differential pressures of up to 15,000 psi and temperatures up to 300°F.

The designs are fully adaptable from 3" to 7" landing strings and provide hydraulic control to the subsea landing string and completion equipment where applicable. EXPRESS provides a fully integrated control system for Expro functionality and incorporating operation of the tubing hanger running tool, tubing hanger and downhole functions.

Data feedback of pressures and temperatures from the EXPRESS control system module can be provided by the addition of a monitoring and surface read-out package. This information provides valuable confirmation of downhole tool functions.



Shallow water, moored vessel (<5,000ft)

Expro offers direct hydraulic control systems for subsea well interventions in water depths up to about 5,000ft from moored vessels.

Shallow water, dynamically positioned vessel (<5,000ft)

Our hydraulically-piloted downhole accumulator (EXPRESS-HC) and associated test string equipment is ideal for worldwide well testing applications from semisubmersible and drill-ship-type vessels. The EXPRESS-HC delivers the reduced subsea shut-in and unlatch times required for operations from dynamically positioned vessels.

Deepwater (up to 10,000ft)

In these extremely challenging conditions, conventional hydraulically controlled systems have significant response time constraints. Our most technologically advanced range of control systems (EXPRESS EH, CI and HP) has electro-hydraulic control functionality for additional response and functional flexibility and employs electrical communication for high speed primary control. Field-proven in the Gulf of Mexico and West Africa, it achieves rapid response times that meet and exceed the industry emergency disconnect requirements for well closure and can disconnect in less than 20 seconds.