

SURELOCK™

DIVERLESS END CONNECTOR



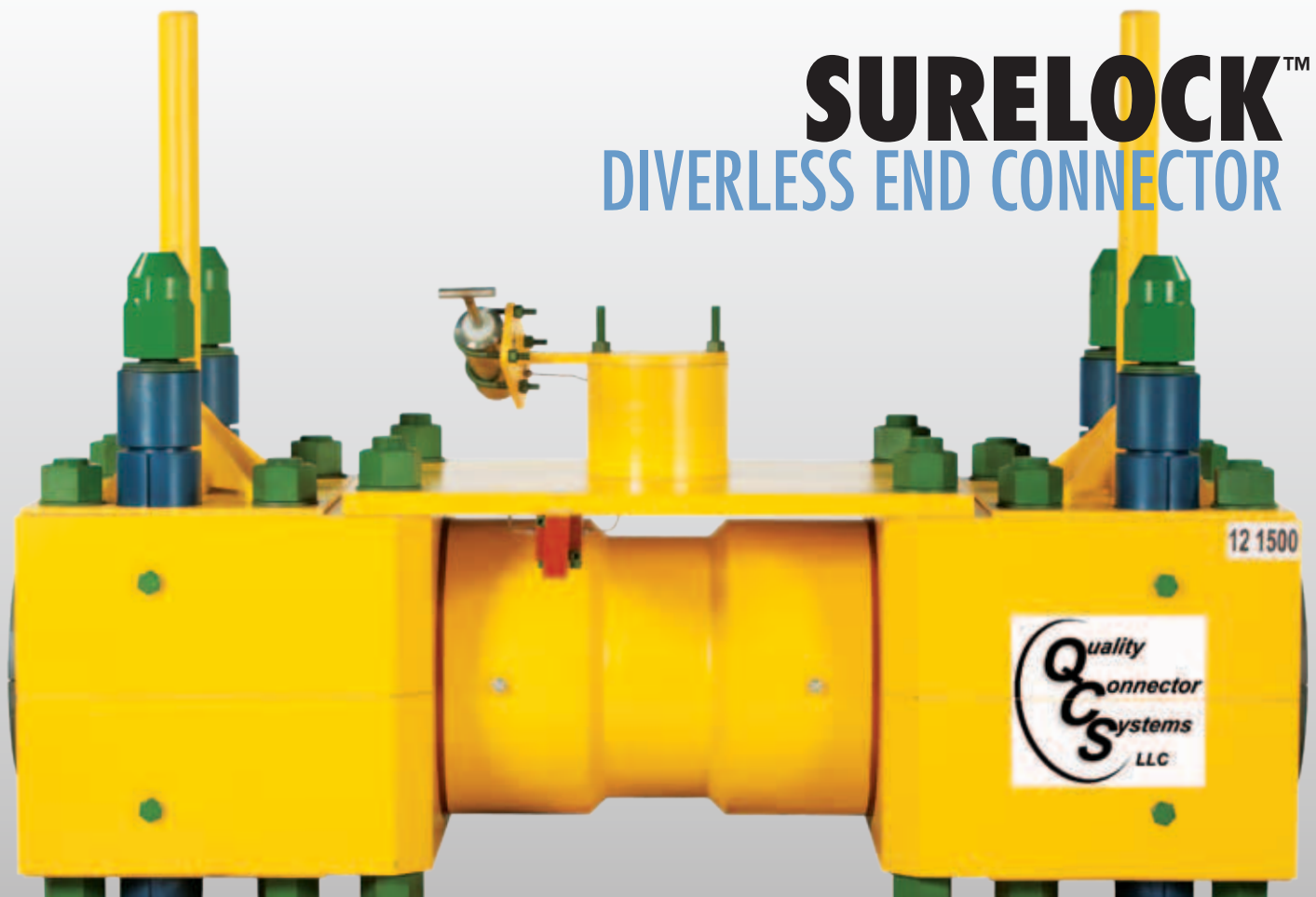
SURELOCK™ (SLC)

The Quality Connector Systems, LLC SureLock™ Diverless End Connector is designed to allow pipeline operators the ability to repair damaged pipelines in extreme water depths beyond the reach of conventional manned diving operations. The connector is designed to permit an “in-line” repair, eliminating the need for costly “U-shaped” type jumper connectors.

In designing the SureLock™, QCS utilized existing technology to the fullest, incorporating a “collet” structural attachment system and a dual Viton sealing system much like the gripping and sealing systems used for the QCS GripLock™ diver installed mechanical end connector. The dual Viton sealing system permits the operator to perform an annulus test verifying the integrity of the seal after installation of the SureLock™.

SURELOCK™

DIVERLESS END CONNECTOR



DESIGN FEATURES AND BENEFITS

The SureLock™ grips and seals are actuated by the uniquely designed recoverable running tool which is manipulated and powered by a remotely operated vehicle. The hydraulic pressure from the ROV to the running tool activates dual torquing systems that tighten two integral bolts on the connector simultaneously. The tightening of the bolts drive internal components forward which set the grips and seals simultaneously. Using running tool body spacers, a single running tool system functions for multiple sizes of SureLock™ connectors and can be recovered for use on future installations. The running tool is also employed to activate the QCS Diverless Repair Clamp.



ROV Operated Running Tool

