

Vector Optima® E-Connector™

Fully Electric | API 6A | 15,000 psi | Remote Operation

The Vector Optima® E-Connector is a fully electric, API 6A clamp connector for high-pressure operations. It features a single leadscrew, a self-aligning hub, metal to metal seal with a reverse integrity test port and seal performance monitoring, and a fail-safe locking system. Integrated monitoring tracks clamp torque, position, and seal-related pressures during operation.

Key Features / Capabilities

Electric Actuation

- ✓ Single electric leadscrew; no hydraulic hoses, pumps, or accumulators.

Remote Control & Monitoring

- ✓ Ethernet-based operation via integrated control function or laptop; outside the red zone.
- ✓ Monitors clamp torque, turns, position, back-seal pressure, and bore pressure.
- ✓ Indicator light shows clamp position; one inverted unit can operate for multiple connections.

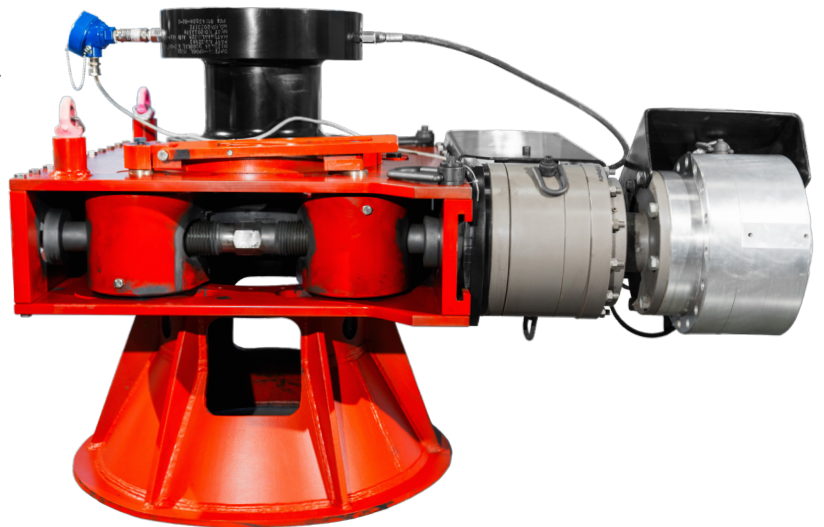


Seal Verification

- ✓ Annulus port supports integrity test without disconnecting and can monitor seal condition during operation.

Fail-Safe Lock

- ✓ Mechanical brake prevents clamp back-off from vibration or stack movement.
- ✓ Clamp remains mechanically locked if power is lost.
- ✓ Pressure interlock prevents disconnect under load.



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TECHNICAL SPECIFICATIONS

Parameter	Specification
Pressure Rating	Up to 15,000 psi (API 6A 15K)
Temperature Range	–20 °F to +250 °F
Interface Sizes	5-1/8" and 7-1/16" API 6A 15K Flanges (other interfaces available upon request)
Actuation	Class 1 Div 1 electric motor driven single leadscrew
Sealing	Vector Duo seal™ seal with annular test port
Construction Materials	Available in all specifications. Modular for customization.
Control Unit	Digital interface with flow meter and pressure transducer; multi-connection capable

Applications

- ✓ **Frac Operations:** Rapid connection/disconnection of frac trees and manifolds across multiple wells.
- ✓ **Wireline / Pump-Down:** Remote connection of lubricator stack during all operations required.
- ✓ **Well Testing / Flowback:** Fast tie-in of test manifolds with in-situ seal verification.
- ✓ **Emergency Disconnect:** Controlled separation from a safe distance; connector remains locked until intentionally released.