

**CURTISS -
WRIGHT**

Subsea Canned Motor ESP

As Tough As The Service



Subsea Canned Motor ESP

Designed and Built for Offshore Reliability

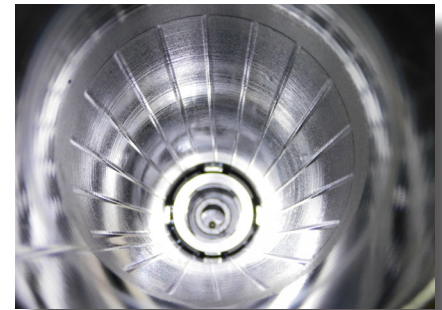
Subsea Canned Motor ESP

- First ever barrier fluid-less ESP for long life
- 1750 HP, 30-65 Hz design for operational flexibility
- Built with corrosion resistant alloys for offshore durability
- No dielectric fluid to top off for easier installation



Canned Motor: Hermetically Sealed Stator and Rotor

- Dry, 1 ATM environment for electrical windings
- High-temperature insulation system
- No protector seal section needed
- Field proven process lubricated bearing technology



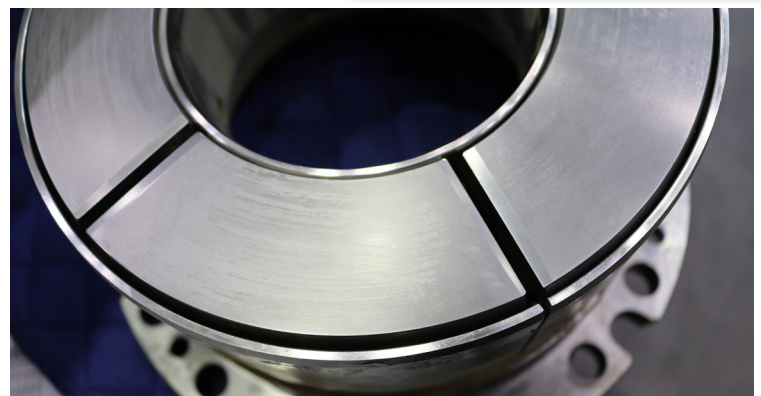
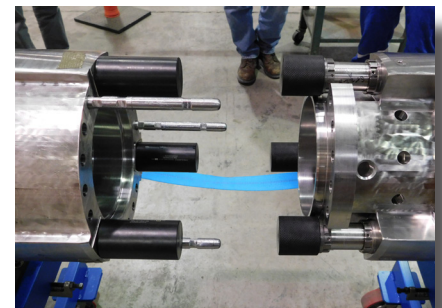
Multistage Pump: Designed to Perform

- Operating range of 10,000 to 45,000 bpd
- 40 stage, gas tolerant design (up to 40% GVF)
- Continuous operation at elevated viscosities
- Self-leveling, process lubricated thrust bearing



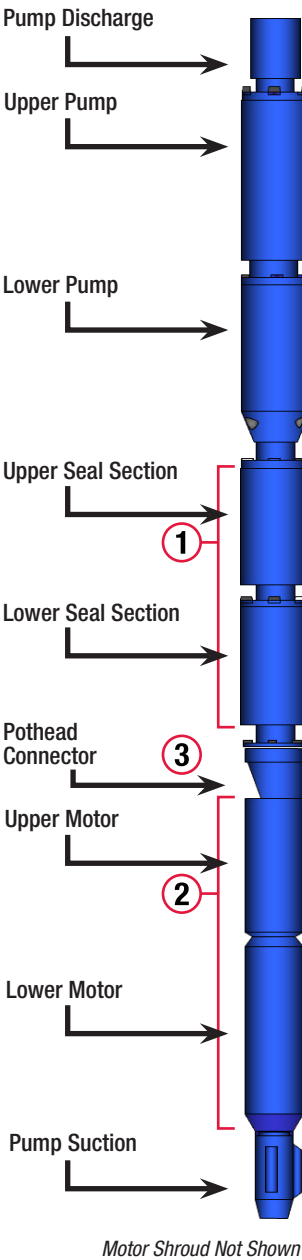
Power Connectors: Engineered for Reliability

- Metal sealed motor connectors – no pothead or elastomers
- Industry's only SEPS qualified ESP connectors

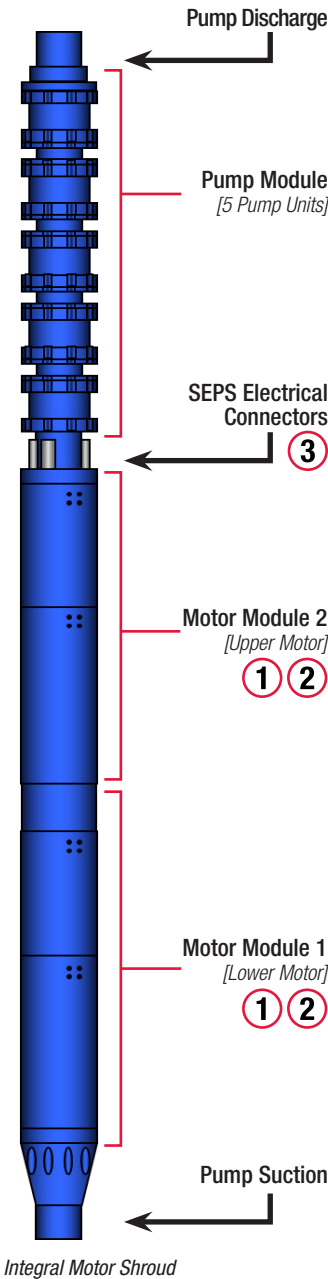


Traditional ESP vs Subsea Canned Motor ESP Comparison

Canned Motor ESP Developed to Eliminate ESP Failure Modes



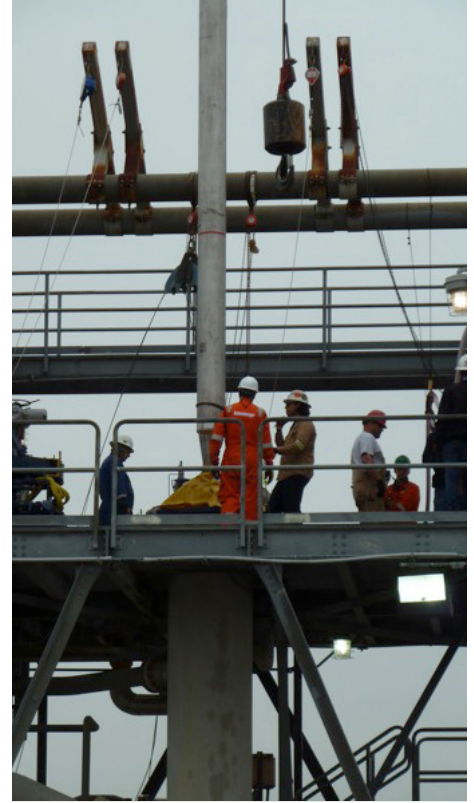
ESP Historical Concern	Canned Motor ESP
1 Protector / Seal - Seal leakage from particle ingress, shaft misalignment, or thermal issues compromises barrier fluid - Compromised motor barrier fluid can damage motor insulation and/or rotor cage	1 Canned Motor - Eliminates the need for a shaft seal and barrier fluid for the motor - Maintains insulation system in a dry, 1 atm environment providing inherent protection to motor insulation & rotor bars for life of the unit
2 Motor Insulation - Relies on barrier fluid cleanliness and protector/seal (known failure point) - Pressure compensated arrangement leads to mechanical loading/fatigue over time	2 Potted Wound Stator - Field proven high temperature insulation system (200°C for 40 years continuously) - Designed & factory tested to withstand voltage spikes
3 Pothead Connector - Susceptible to insulation breakdown due to voltage spikes and thermal breakdowns - Exposure to process fluid damages seals, insulation, and current carrying components	3 Penetrator Connector - Designed & qualified per SEPS-1001 industry standard for subsea pumps - Uses metal-to-metal seal to prevent process fluid ingress into motor



Subsea Canned Motor ESP

Engineered for Offshore Service
Hermetically Sealed Motor

Eliminates Mechanical Seals
Next Level Reliability



Contact Details



www.cw-ems.com/emd/markets-and-products/subsea-oil-and-gas



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