

Frontier Series

Vertical Wellhead Connector

The Vertical Wellhead Penetrator System is one of our most popular products and comprises of a Lower Hanger Penetrator and a Surface Connector (which can be either 45 or 90 degrees). The Single Mandrel 3-Phase Vertical Penetrator for ESP Wells is for use in 3.25" Bore Sizes and complex applications. It is suitable for High H₂S and/or High CO₂ wells and for the highest power ESPs.

Electrical Specification - (values may differ depending on model and materials)

Maximum Voltage:	8 kVAC
Maximum Working Current:	250 A
Maximum Working Temperature:	180°C (356°F)
Maximum Working Pressure:	7,500 psi
Maximum H ₂ S:	40%
Maximum CO ₂ :	90%

Key Performance Features

Unique Protection System

Internals have total isolation from well fluid environment for exceptional reliability.

Unique Pressure Barrier Technology

Zero Gas Leakage, total safety security with zero possibility of surface explosions.

Factory Moulded Lower Pigtail or Field Attachable

Only a horizontal splice is needed when factory moulded; no lower connector; removes wellbore mating interference. Eliminates weak spot and removes critical process from rig floor. No on-site specialist required.

'Plug & Play' Design

Single, factory assembled and tested product, prevents damage during installation. No special training, or specialist required. Saves rig time and eliminates human error.

Permanently Activated Internal Seals (tested during assembly)

No pressure-activated seals, no possibility of gas migration through penetrator, even at low pressures.

Compact Design

Entire penetrator is enclosed and protected by the wellhead, avoids penetrator damage when landing hanger.

No Specialist Tooling Required

Reduced risk of delays due to missing or broken specialist tooling.

Unrivalled Reliability Track Record

Total confidence of reliability.

Other Key Features

- Debris caps provided
- Gold Plated Pins and Sockets
- Qualified to IEC60502
- Only NACE MR01-75 Materials used
- Bottom Fed for easy installation
- Available with 45° or 90° Surface Connectors

Experience

The industry's unchallenged number one choice for reliability. Exclusive supplier to the demanding North Sea market for over 20 years.

