

ESP Feed Through Systems

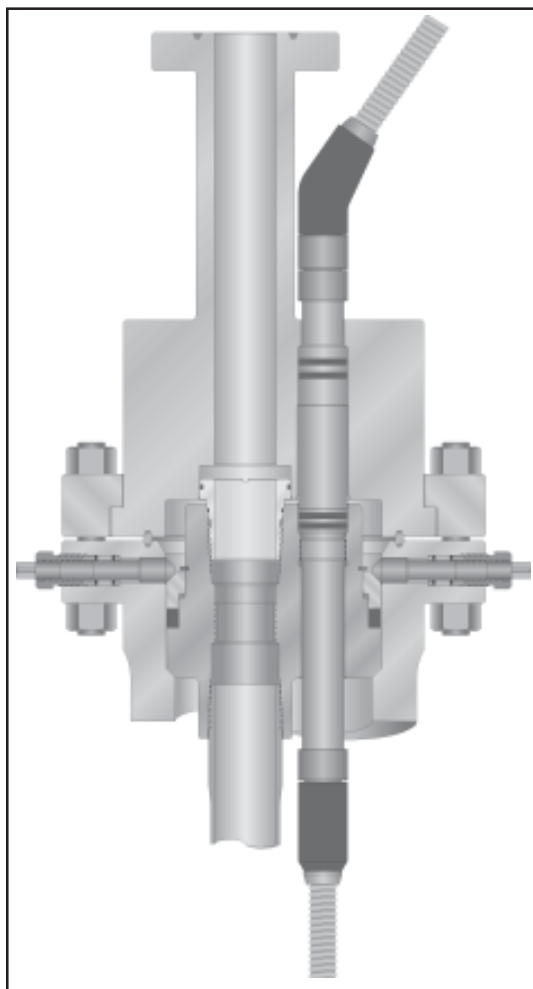
When the oil is heavy or reservoir pressure is depleted, it is often necessary to resort to artificial lift methods for bringing the oil to the surface. A commonly used device is the electric submersible pump.

The pump is made up into the bottom of the tubing string as it is run in the hole. An electric cable, which will eventually transmit power to the pump, is run side by side with the tubing string. The ESP tubing hanger is eccentrically aligned, offsetting the tubing string to allow passage of the electric cable through the hanger to the outside. A mandrel with a uniquely designed, pigtail style electric plug connector on each end creates a totally sealed conduit for passing the electricity from the outside power source through the wellhead housing and into the production annulus.

ESP equipment is designed for hostile environments and can be adapted for temperatures up to 350°F, pressures up to 10,000 psi and for highly corrosive service.

Adapter Assemblies

ESP systems are often used in rework applications. Adapter assemblies are available in common sizes and pressure ratings to connect to existing wellheads without removing the tubing head. They are completely compatible with the ESP hangers and mandrels and provide the simplest method for converting a well to an ESP system.



SD and SD-CL Dual Completion Tubing Hangers

Dual completion tubing hangers are segmented designs available for both offshore and onshore applications (with or without continuous control lines). Both designs can be used in the SD Tubing Head.

The annulus seal is energized by running in the lockscrews after both hanger segments are landed. The SD-CL hangers provide a control line nipple which supports and seals the control line while protecting it from the extrusion seal. Both the SD and SD-CL designs use seal subs which are installed after the hanger is landed to seal on the dual adapter.

An internal profile is provided in each hanger segment for setting a back pressure valve.

