

Cable Packoff Eliminated Need for ESP Wellheads and Cable Penetrators, Cut Installation Costs by 85%

CHALLENGE

Reduce customer CAPEX and OPEX related to wellhead equipment

SOLUTION

Use a cable packoff solution with existing SRP and PCP wellheads to eliminate the need for buying an ESP wellhead

RESULTS

- Eliminated the need for an ESP wellhead and a cable penetrator, saving €612,000 EUR across 18 wells
- Cut installation costs by 85%
- Reduced delivery time by half to just 30–60 days

An operator in Romania wanted to lower the cost it was paying for penetrator systems on low-pressure wells—none over 21 MPa (~3,000 psi). And it was frustrated with the long delivery times required for specialized electrical submersible system (ESP) wellheads and penetrators to arrive after being ordered.

An ESP wellhead and penetrator are the most common hardware used for providing an access point for running electric cables downhole. They are designed to maintain a seal around the cable, keeping well pressures from escaping at the wellhead.

The problem is that purchasing the required ESP wellhead (€30,000 EUR) and penetrator (€10,000 EUR) typically costs around €40,000 EUR. In a field where the operator planned to install ESPs on 18 wells, the total cost for this solution was estimated at €720,000 EUR. On top of that, delivery time can take up to 120 days for the ESP wellheads and up to 90 days for the penetrators.

The Novomet team devised a way to use the sucker-rod pump (SRP) and progressive cavity pump (PCP) wellheads already in place—eliminating the need to replace them specialized ESP wellheads—in combination with a cable packoff method instead of a cable penetrator system.

This solution eliminated the need to order and install ESP wellheads and cable penetrators, cut installation costs by 85%, and reduced delivery time by half. Across 18 contracted wells, this solution will save the operator €612,000 EUR (over \$675,000 USD).

Details:

- For use in wells up to 21 MPa
- Certified for wells in Zone 0 and Zone 1 (not for Zone 2 wells)
- To be used in wells without a tubing hanger



Cable packoff hardware can be used with a wellhead adapter (left), or it can be run through the annulus (right).

Romania