Double Block & Bleed Test / Isolation Plug

A Secure Isolation Solution for Hydrotests
Curtiss-Wright EST Group’s Double Block & Bleed Isolation Plug answers an industry need for more efficient and reliable isolation options for hydrotreating operations. The plug affords safe isolation of piping during pipeline repairs and can be quickly repositioned across new welds for hydrotreating—saving time and costs in the process.

The plug’s dual port design creates a positive pressure barrier between the seals, safely isolating hot work from residual upstream gases or fluids, and allows water or other test media to circulate between the seals, providing improved cooling during pre- or post-weld procedures.

The plug helped an ILB OC refinery in Spain conduct pressure tests within a tight maintenance schedule. The refinery’s maintenance crew consulted with EST Group application specialists to select the proper plug size and seal material for their hydrotreating operations. Based on the refinery’s specs, EST Group manufactured and delivered the plug quickly, allowing, ILB OC to conduct laboratory-simulated hydrotreats to gain familiarity with the plug’s operation and installation procedure prior to live testing.

“With the proper training from these lab simulations, we had assurance that we could safely install the plugs and carry out each hydrotest to the required pressure,” explains Francisco Caparrós Quiles, Reliability Engineer at ILB OC. “It gave us the desired confidence to move the plug to the plant.”

The plug’s lightweight aluminum and steel body allowed ILB OC’s maintenance crew to quickly position and move the plug from spool to spool, without the use of cranes or other heavy lifting devices. Since the plug could be deployed across a small section of pipe, the refiner was able to perform pressure tests with less than a gallon (3.8 L) of test media—significantly cutting down fill times and reducing waste/treatment expenses.
The isolation plug performance exceeded expectations in each line tested. The plug's seals reliably held pressure during each test, with some lines tested up to 325 BarG (4,714 PsiG). Pressure tests were successfully completed allowing the refiner to bring the lines back into service quickly while minimizing downtime and maintenance costs. Satisfied with the safety, reliability and overall performance of the isolation plugs, ILBOC plans to order additional plugs in other sizes.

Curtiss-Wright EST Group offers a full line of Test & Isolation plugs, and maintains a large inventory ready to ship globally. Additionally, 24/7 emergency design and manufacturing services are available to custom-build plugs to customers’ specific application needs, including construction composition, pressure ratings, size ranges and seal materials.

For more information, visit cw-estgroup.com. Contact us at est-info@curtisswright.com or +1 215.721.1100 / 800.355.7044 to speak with one of EST Group’s Product Experts today!


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Reliability Engineer at ILBOC