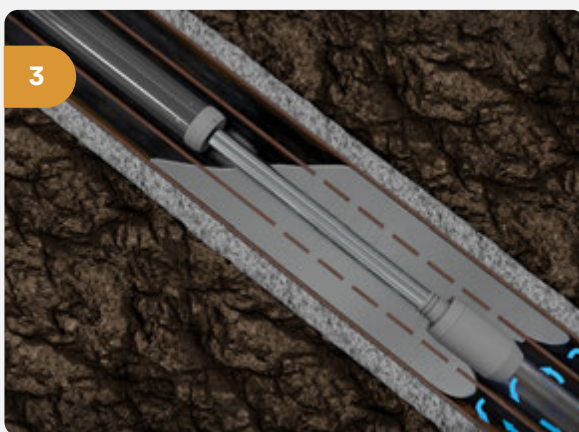
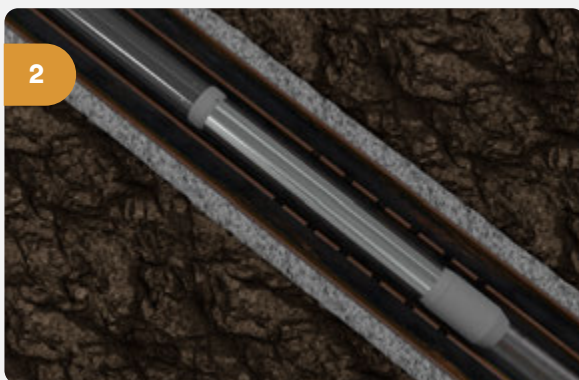
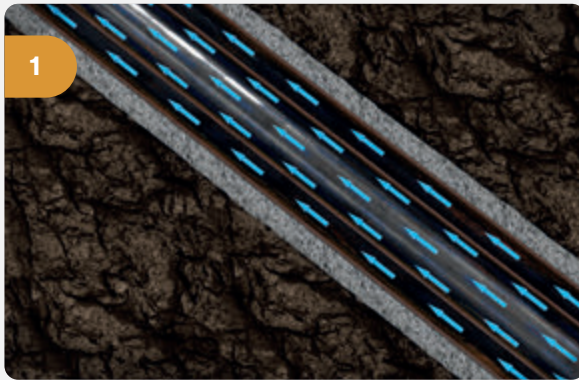


Provide a Permanent Seal in Multiple Annuli



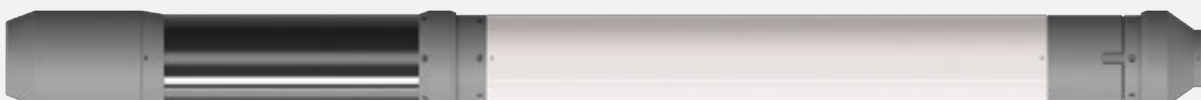
APPLICATION

The Wel-lok™ STC (Seal Through Casing) has been developed to achieve a gas tight VO seal well annuli that cannot be achieved by traditional cement balance plugs. Run on electric line, this tool a truly rigless solution without the need for surface pumping equipment to circulate the alloy in place. Due to its viscosity and density, once melted the liquid alloy will flow through the perforated holes with gravity into the annulus. When it cools below its melting point it solidifies, expands and creates a gas tight seal across the entire wellbore. The entire process, from melting to solidification, takes place in minutes and the seal is ready to test within an hour.

WEL-LOK™ - AN OVERVIEW OF THE TECHNOLOGY

The Wel-lok™ technology consists of utilising a modified thermite chemical reaction heater to melt bismuth-based alloys downhole. The melted alloys have a viscosity similar to water, and a specific gravity 10 times that of water, allowing them to flow into the smallest areas of a wellbore without the need of any surface pumping equipment. As the alloys cool and solidify, they expand to provide a seamless gas tight seal that is non-corrosive and not affected by H₂S or CO₂.

The Wel-lok™ technology consists of utilising a modified thermite chemical reaction heater to melt bismuth-based alloys downhole.



Features



WEL-LOK™ STC FEATURES

- No mechanical parts
- Electronically activated
- One trip operation
- Differential pressure ratings up to 10,000 psi
- Available in a range of sizes to suit API & non API tubing and casings
- Temperature ranges up to 160 °C

KEY BENEFITS OF USING WEL-LOK™ STC FOR INTERVENTION

- Can be used even in damaged and corroded tubings and casings
- Creates a gas tight barrier without the need to pump from surface
- Non-corrosive and not affected by H₂S or CO₂
- Can seal in cased or open hole
- Can seal in multiple annuli in a single run
- Reduced intervention costs
- Reduced corporate liability