wel-lok™ TDAP

Thermally Deformable Annular Packer

Reduce Gas Migration in the Annulus of New Wells

Differential Pressure	Up to 10,000 psi
Maximum Tool Pressure Rating	20,000 psi
Temperature Range	0 - 175°C
Conveyance	Eline, Slickline, Coiled Tubing, Drill Pipe
ADR Classification	Not classified as dangerous goods
Casing Grade	All grades
Max Well Bore Deviation At Setting Depth	0 - 88°

Application

The Wel-lok™ TDAP (Thermally Deformable Annular Packer) was developed as a preventative tool to be run as part of the original casing string.

The TDAP can be used immediately as a primary barrier to seal the annulus or if your workflow demands it, a secondary insurance policy for the likely future failure of primary cement or resin.

wel-lok™ TDAP Features

- Advanced bismuth alloy technology with expanding metal seals
- Non-elastomeric seals
- No moving parts, therefore high reliability
- Customizable for API and Non API Casing size
- Quick setting time - ready to pressure test in hours

wel-lok™ TDAP Benefits for Completion

- Non-corrosive and not affected by H_2S, CO_2 or acids
- Reduced environmental impact
- Permanent solution
- V0 Qualified ISO 14310 Gas Tight “Eternal” Barriers
- Can seal in damaged, irregular or oval tubulars

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wel-lok™ TDAP Technical Specifications

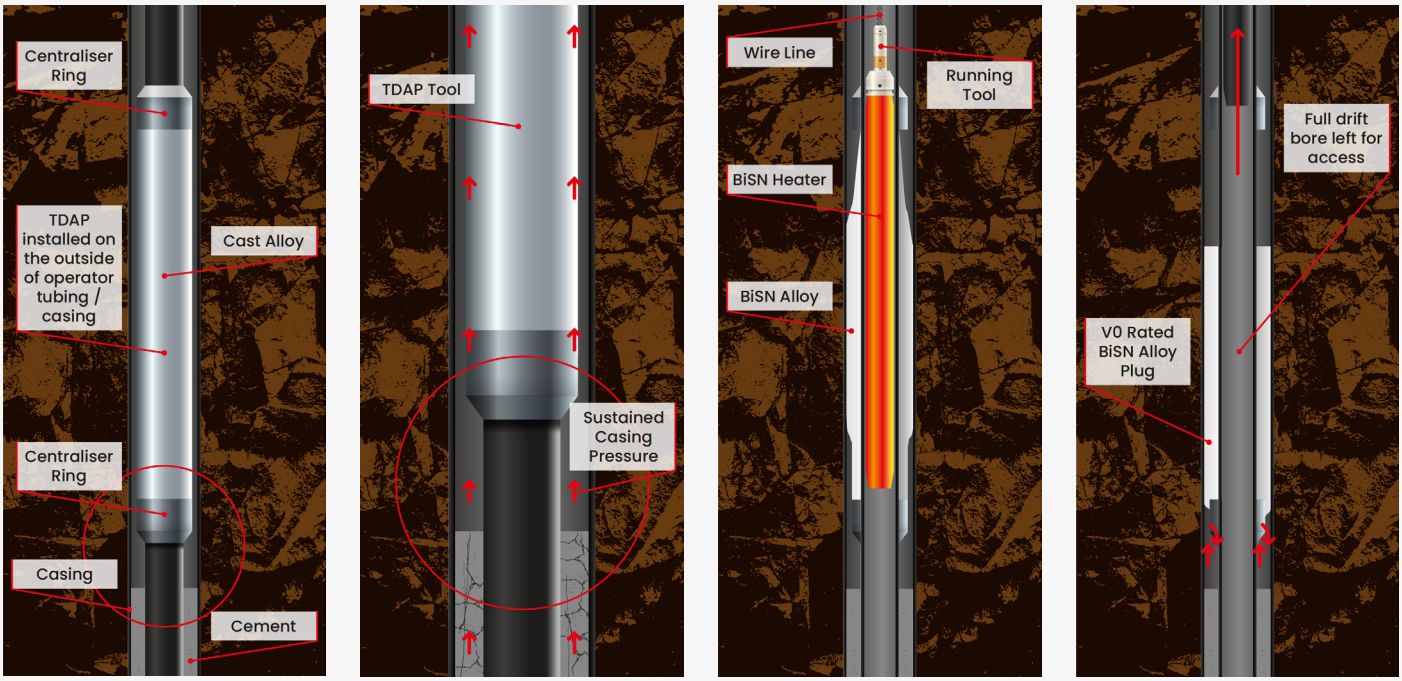
Inner Casing	Heater OD	Outer Casing
4 ½”	3.5”	7”
4 ½”	3.5”	9 ⅝”
5 ½”	4.25”	9 ⅝”
5 ½”	4.25”	10 ¾”
6 ⅝”	4.5”	10 ¾”
7”	5.5”	9 ⅝”
7”	5.5”	10 ¾”
9 ⅝”	7.625”	13 ⅜”
13 ⅜”	10.75”	20”

wel-lok™ Technology Overview

The wel-lok™ technology consists of utilising a modified 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 H_2S or $C0_2$.

Scan above to find out more

About the Application



As world leaders in the use of bismuth-based alloys and chemical reaction heaters in the downhole environment, BiSN has a portfolio of products aimed at tackling some of the most difficult issues faced by the oil and gas industry. We pride ourselves in building a responsive long-term working relationship with our customers and working closely with them to provide innovative solutions. With many hundreds of commercial deployments with all operators, in all conditions and with wide regulatory oversight globally, wel-lok™ technology is changing the face of downhole sealing in the energy industry.
See our website for our extensive case study portfolio as well as further information about us and our investors.

Seal Safer, **Protect** Forever.

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