

wel-lok™ WSO

Water Shut Off

Reduce Water Production from Wells

Water Cut	Up to 100%
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 - 86°

Application

The wel-lok™ WSO (Water Shut Off) has been specifically developed to reduce unwanted water production from wells with sand screen and open hole gravel pack (OHGP) as well as cased hole frac pack (CHFP) completions.

Unlike any other solution on the market, the wel-lok™ WSO tool seals the annulus and the wellbore in a single trip without the need for any surface pumping equipment.

wel-lok™ WSO Features

- Advanced bismuth alloy technology with expanding metal seals
- Gravity fed, no need for surface pumping equipment
- Low viscosity high density molten metal alloy flows through gravel pack
- No moving parts, therefore high reliability
- Quick setting time - ready to pressure test in hours
- Wireline deployable single trip solution

wel-lok™ WSO Benefits for Intervention

- Increased oil / gas production
- Reduced intervention costs
- Reduced water handling costs
- Non-corrosive and not affected by H₂S or CO₂
- Reduced environmental impact
- Permanent solution
- Extends production life of wells
- Can seal in damaged, irregular or oval tubulars



Seal Safer, Protect Forever.

Completion Size	Tool OD	Max Sealing ID
3.5"	2.5"	6.375"
4"	2.75"	7"
4.5"	3"	8.5"
5"	3.75"	9"
5.5"	4.25"	10"

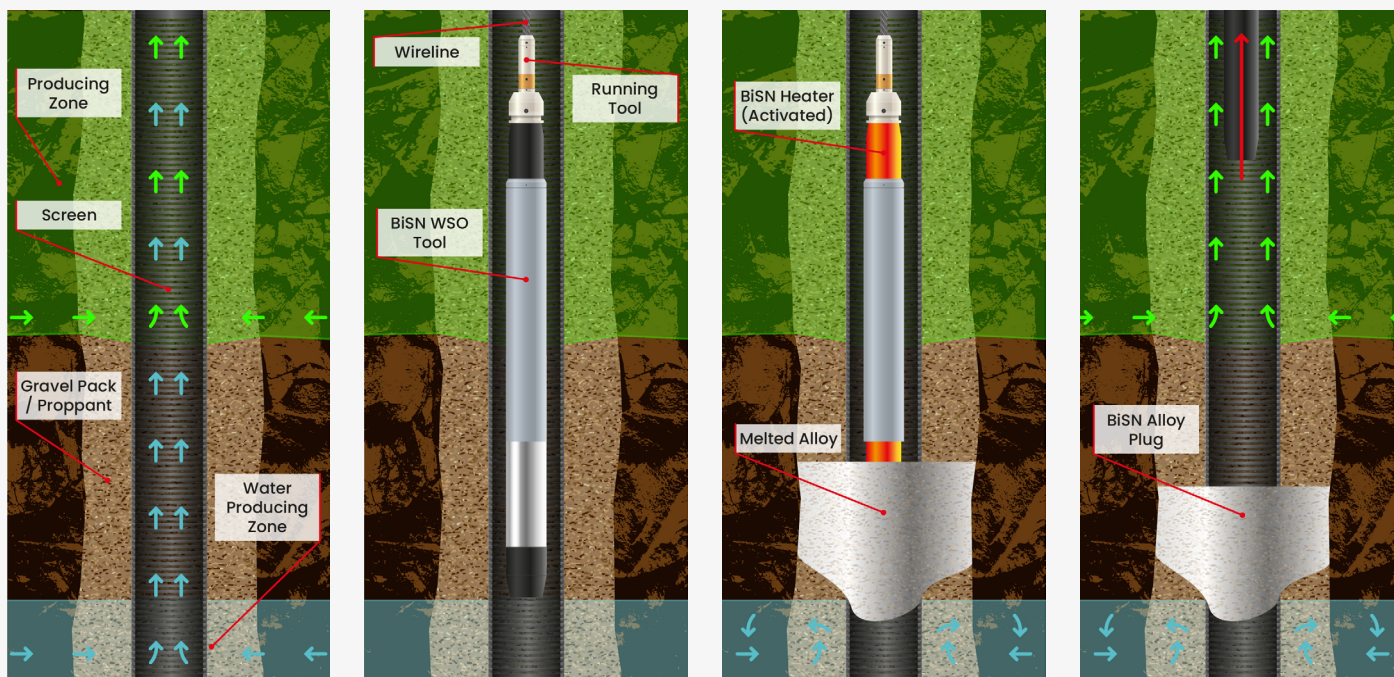
wel-lok™ Technology Overview

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 H₂S or CO₂.



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.



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