

S-ZIP

Smart Well Isolation Packer™

Overview

The S-ZIP provides a zonal isolation solution for smart wells. Both continuous flat packs or multiple control lines can be embedded in the packer, ensuring both effective sealing and communication to smart downhole devices.

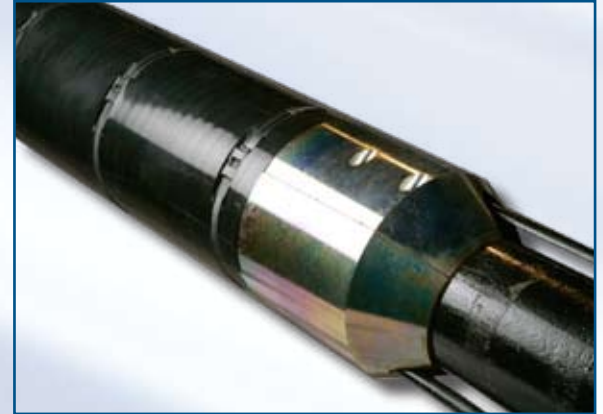
- Swellable rubber is bonded to the external of the completion tubing
- The S-ZIP is optimized for completion string applications
- The rubber reacts to oil/water and swells, ensuring a positive seal across the formation.
- Control lines can easily be made up to the packers

Features and Benefits

- Provides significant cost savings
- Strong and durable packer
- Simple - there are no moving parts
- No additional running tools or site crew
- Long life span
- Enables planning of zonal isolation
- Prevents annular flow
- Self healing
- Available for water or oil activation

Installation Process

The S-ZIP swellable elastomer is vulcanized directly onto the casing creating a strong and durable packer. The S-ZIP is shipped from our manufacturing plants to the well site or customer's warehouse in a ready to run condition. All that is required for installation is that the rig crew remove the protective covering prior to the S-ZIP being made up to the casing string. No additional assembly, running tools, or personnel are required for the S-ZIP.



S-ZIP accepts both single control lines and multiple "Flat Packs"



Make-up of control-line with the packer is extremely simple, and significantly reduces time and connections required when compared with mechanical packers

simple. efficient. reliable.

Typical Installation Layout



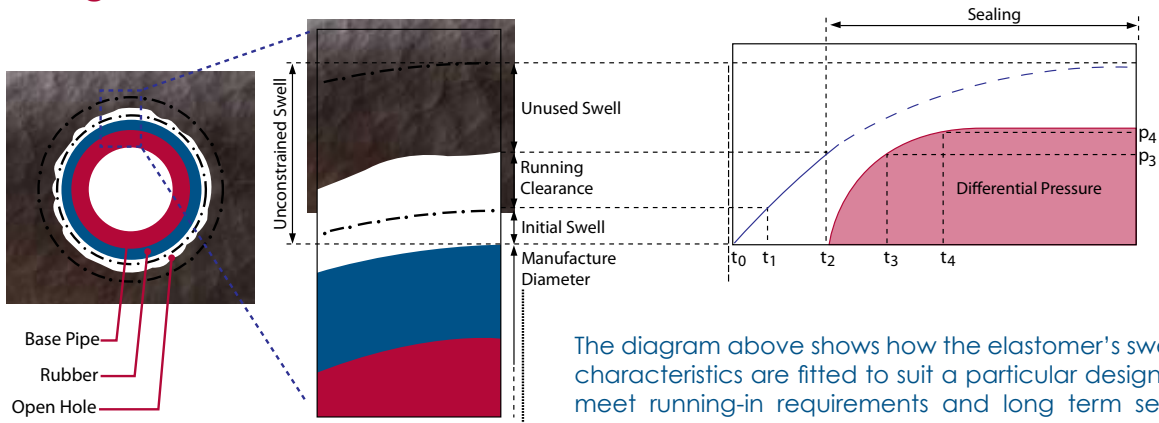
S-ZIP's are a custom design integrated into the tubing. Using our own modeling software they are designed to conform to the well size and conditions. This attention to detail ensures the optimal performance of the S-ZIP and the smart devices in the completion.

Working closely with other suppliers SWELLFIX enables the operator to benefit from a reliable and easy to install smart well with intelligent sensing and valve activation coupled with dependable zonal isolation.

Packer Specifications

Base Pipe OD (in)	4 -1/2" to 20"	Time to set	1 to 20 days
Temperature (°F)	100 to 300	Oil Swelling	Yes
Salinity (ppm)	up to 200,000	Water Swelling	Yes
Elastomer Selection	Oil, Water, Combination	Base Pipe	Any, including most coatings
Sealing pressure	Up to 9,000psi	Control Line	Single & Flat Pack

Swell Design Parameters



The diagram above shows how the elastomer's swelling characteristics are fitted to suit a particular design and meet running-in requirements and long term sealing performance.