

ISR Injection Packer



Product Description:

The Inflatable ISR Injection Packer is a specialised downhole tool engineered for the In-Situ Recovery (ISR) or In-Situ Leaching (ISL) mining. The inflatable packer creates a high-pressure seal against the wellbore wall upon inflation, allowing for the precise isolation of target zones for fluid management. To ensure maximum durability in harsh conditions, the specific elastomer and alloy types are selected based on the unique downhole chemical environment. This compatibility is verified through in-house laboratory testing of material chemical reactions during the design process, ensuring the tool maintains its integrity throughout the project lifecycle.

Applications:

- ◆ **In-Situ Recovery (ISR) or In-Situ Leaching (ISL):** Targeted injection of leaching solutions to extract minerals from ore bodies
- ◆ **Solution Mining:** Zonal isolation and fluid control for solvent-based extraction processes
- ◆ **Environmental Isolation:** Minimise the risk of the migration of lixiviants or acids into non-target geological formations
- ◆ **Pressure and Flow Testing:** Establishing wellbore permeability and injection capacity

Features & Benefits:

- ◆ **Modular Design:** Configurable to run as a single packer or a double packer system with an adjustable straddle zone
- ◆ **Optimised Flow Rate:** Engineered to allow for the maximum possible flow rate for any given borehole size
- ◆ **Customised Material Selection:** Elastomer and alloy types are selected specifically for the chemical environment to maximise tool longevity
- ◆ **Advanced Element Design:** Available in fixed-end or sliding-end configurations to optimise for specific expansion needs and mechanical stresses

