

# TS1-X

## MECHANICAL-SET DOUBLE-GRIP PACKER



The Tier 1 TS1-X is a high performance, double grip, retrievable packer with extensive field run-history.

The TS1-X is mechanically set by manipulating the tubing string a quarter turn to the right while cycling from tension to compression at the packer. The tubing may subsequently be landed in tension, neutral, or compression based on the application.

The packer is designed with a large internal bypass area which reduces the swabbing effect during installation or retrieval. This bypass closes when the packer is set. The TS1-X can be used for injection, production, temporary suspension, or stimulation.

### CURRENT SIZES

- ⇒ 114.3mm (4.5") through 244.5mm (9-5/8")

### STANDARD OFFERING

- ⇒ P-110 / L-80
- ⇒ NBR
- ⇒ EUE

### OPTIONS

- ⇒ Premium / semi-premium connections
- ⇒ CRA materials
- ⇒ Various elastomer materials
- ⇒ Wireline set
- ⇒ Shear release feature

### FEATURES & BENEFITS

- ⇒ Available in ratings up to 68.9MPa (10,000psi) for maximum diversification of application
- ⇒ Large internal bypass to minimize surging and swabbing
- ⇒ Minimal tubing manipulation to set to ensure ease of operation
- ⇒ Bypass valve located below upper slips to allow for debris agitation while equalizing and unsetting
- ⇒ Tubing can be landed in tension, neutral, or compression for flexibility of application

### APPLICATIONS

- ⇒ Production
- ⇒ Injection
- ⇒ Stimulation
- ⇒ Multiple settings
- ⇒ Temporary suspension
- ⇒ Sour service

