

FEATURES & BENEFITS

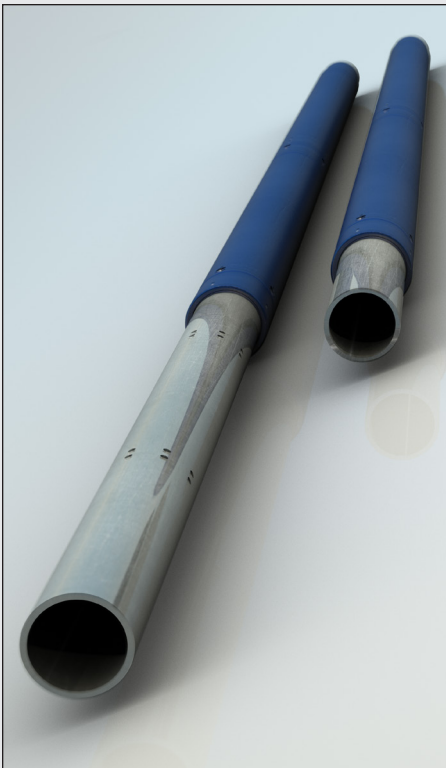
- Reliable operation over temperature extremes
- Safe installation and retrieval
- Manufactured to customer requirements

PRO-FRAC

ICD Thermal Expansion Joint

The Thermal Expansion Joint allows the tubing string to expand and contract during high temperature injection and cyclical steam operations. High alloy steel with a double chromed travelling mandrel ensures the tool is tough enough to get the job done in the most extreme conditions.

Using technology exclusive to Pro-ESI, the sealing element is designed for absolute seal integrity during high temperatures. An engineered scraper system cleans the polished mandrel during travel in both directions, eliminating scale build up preserving seal efficiency.



DIMENSIONAL AND ENGINEERING DATA		OPERATING DATA	
Casing Size	4.5 in	Tensile Strength	Up to 190,000 lbs
Casing Weight	12.6#	Compression Strength	250,000 lbs
Maximum OD	5.5 in	Burst Pressure	3000 psi
Minimum ID	3.92 in	Temperature	600°F
Length Of Tool (Extended)	17 ft	Torque	0 ft-lbs
Length Of Tool (Retracted)	13 ft	Swivel Type Straight Shear	Adjustable
Thread Size	4.5 in	Shear Force Per Pin	5,000 lbs +/-10%
Thread Type	4.5 in x 12.6# JFE Bear	Max Number of Pin	16 (80,000 lbs)
Thread Configuration	Box X Pin		
Shear Pinned Configurations	Open, Closed, & MidStroke		