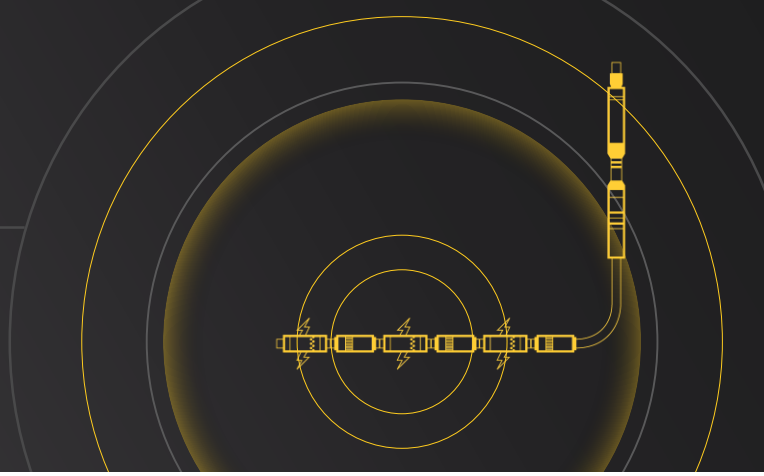


TECH DATA SHEET

Frontier Immediate Open Toe Sleeve

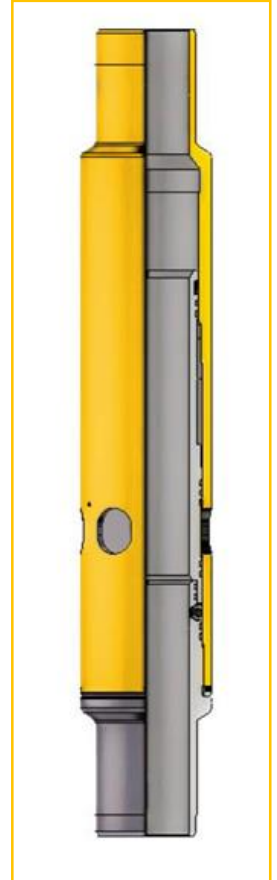


OVERVIEW

The Immediate Open Hole Toe Valve eliminates the need for Tubing Conveyed Perforating (TCP) Toe Prep by providing a simple and reliable hydraulically actuated injection path. The Immediate Open Toe Valve can be pressure tested multiple times below the activation pressure.

FEATURES

- Multiple Low-Pressure Tests can be Applied Prior to Opening
- Open Upwards and held in open position by 3 means,
- Snap Ring
- Hydraulic Pressure
- Morse Taper
- Each Valve Toe Valve Configured to Suit Well Application
- Adjustable Activation Pressure
- Rupture Disc's with +/- 2% Accuracy
- Large Flow Area Injection Ports Reduces the Risk Of Plug in the First Stage
- Opening Pressure Not Affected By Well Bore Pressure
- Optional Ball Seat, which allows for DFIT to be Performed
- Absolute Pressure Rating 22,000 psi



APPLICATIONS

- Multistage Frac Completions
- Toe Initiation

Specifications and Dimensions

Liner Size	OD	ID	Length	Flow Port Area	Rupture Disc Increments	Threads	Material	Tensile (lbs)
3.5"	4.250"	2.450"	35.3"	7.12"	500psi	**	110ksi	183,000
4.5"	5.875"	3.755"	37.8"	18.62"	500psi	**	140ksi	248,750
4.5"	5.500"	3.250"	37.5"	16.32"	500psi	**	125ksi	285,000
5.5"	7.250"	4.015"	38.4"	23.62"	500psi	***	140ksi	459,375
5.5"	7.250"	4.776"	38.4"	23.62"	500psi	**	140ksi	459,375
5.5"	6.875"	4.270"	38.4"	23.62"	500psi	**	140ksi	387,500

** Connections as Requested

*** High Pressure

