

HOWITZER®

PRESSURE TESTABLE TOE SLEEVE



OVERVIEW

Interra Energy's Howitzer D83® Pressure Testable Toe Sleeve is run on casing to the toe of the well and is pressure activated. This tool is used to both pressure test completion string integrity and establish communication to the formation prior to stimulation operations.

The proprietary Howitzer Toe Sleeve enables testing of the completion string to maximum stimulation pressure followed by the sleeve automatically opening at a lower pressure. This design enables multiple tools to be deployed in the same well to replace the first limited entry stage, saving significant time and cost.

OPERATION

The Howitzer Toe Sleeve is installed near the toe of the well as part of the casing string during the completion process. The tool can be run in a cemented or open hole completion.

After a successful pressure test of the casing, pressure is bled off, which automatically activates the tool providing assured flow area through all ports.

SPECIFICATIONS

Howitzer						
OD in / mm	Weight		OD		Sleeve ID	
	lb/ft	kg/m	in	mm	in	mm
4.5 / 114.3	11.6-15.1	17.26-22.47	5.750	146.05	3.750	95.25
5.0 / 127.0	21.4-24.1	31.85-35.86	6.250	158.80	4.000	101.60
5.5 / 139.7	17.0-23.0	25.30-34.23	7.000	177.8	4.670	118.62
6.0 / 152.4	20.0-26.0	29.76-38.69	7.000	177.8	4.778	121.36

FEATURES & BENEFITS

- Pressure test casing to maximum required operating levels prior to stimulation.
- No time limit on pressure test duration.
- Unlimited number of Howitzer sleeves can be deployed at the toe in a single cluster.
- All Howitzer toe sleeves in a cluster open simultaneously.
- Howitzer toe sleeves can be configured with limited-entry ports to match frac design.
- Large bore ID.
- Compatible with industry wiper plugs.
- Activation pressure can be configured to reservoir and customer requirements.
- Locking mechanism keeps the Howitzer sleeve open once activated.
- Meets or exceeds all North American regulatory requirements.