

GEODYNAMICS PORTED UNDERBALANCE SUB

DESCRIPTION

The GEODynamics Ported Underbalance Sub Assembly is designed to provide an underbalance condition between the annulus and tubing for tubing conveyed perforating (TCP) operations. To achieve the underbalance condition this tool uses a high strength concave ceramic disk that is placed above the flow ports of the sub body. The ports are used for production, pump volumes or to simply act as a tubing drain when pulling out of the hole.

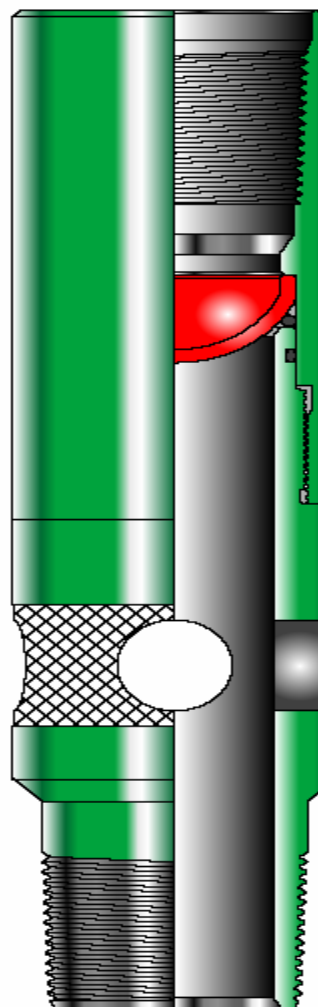
ADVANTAGES

- Economical, simple, safe and reliable
- 10,000 psi differential rating
- Full opening ID once the disk is ruptured
- Maximum flow area
- Maximum Surge Protection

OPERATION

The GEODynamics Ported Underbalance Sub is placed below the packer and should be placed a minimum of 30' above the mechanical firing head device. ***The work string must be filled while running into the well.*** When sufficient fluid is filled into the work string to achieve the desired underbalance, continue running into the well to perforation depth. Correlate TCP BHA into position and set the packer. The drop bar that is released at surface shatters the ceramic disk establishing communication to the annulus through the flow ports.

NOTE: This tool is also available without ports. In this application it is placed above the packer to achieve the desired underbalance.



SPECIFICATIONS

DESCRIPTION	2-3/8 TOOL	2-7/8 TOOL	3-1/2 TOOL
CONNECTION *	EUE	EUE	EUE
TOOL OD	3.062 in	3.688 in	4.50 in
TOOL ID	1.995 in	2.441 in	2.992 in
MAX PSI BELOW DISK – CONVEX SIDE	10,000 psi	10,000 psi	10,000 psi
MAX PSI ABOVE DISK – CONCAVE SIDE	1,000 psi	1,000 psi	1,000 psi
MAXIMUM TEMPERATURE **	450 F	450 F	450 F
FLOW PORT FLOW AREA	3.97 in sq	4.90 in sq	7.07 in sq
TENSILE RATING	135,000 lbs	198,000 lbs	270,000 lbs
LENGTH	11.0 in	11.0 in	11.0 in
WEIGHT	13.0 lbs	17.0 lbs	25.0 lbs
ASSEMBLY PART No.	08.MDSA.238.8EUB	08.MDSA.278.8EUB	08.MDSA.312.8EUB
REDRESS KIT PART No.	01.MDRK.238.9999	01.MDRK.278.9999	01.MDRK.312.9999

* OTHER THREAD TYPES AVAILABLE UPON REQUEST / ** USE VITON 90 DURO O-RINGS