

CIRCULATION SUB



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APPLICATION

Circulation sub is designed to provide circulation between completion toolstring and the annulus. Circulation sub is kept open while running the liner in a well to allow circulation through the tubing string. The sub is closed by pumping a ball to indicate bump pressure.

- Vertical, directional and horizontal wells.

FEATURES AND BENEFITS

- Can be re-opened to restore the circulation in a conjunction with stage tool.
- Installed in the casing string below the stage tool.
- All internal parts are PDC-drillable.

SUPPLY PACKAGE

- Circulation Sub.

TECHNICAL DATASHEET

TECHNICAL CHARACTERISTICS	VALUE		
Liner size, in	4.000	4.500	5.000
Open hole, in	4.874	5.626	6.000
Max OD, in	4.567	5.236	5.748
Min ID, in	0.787	1.063	1.063
ID after milling, in	3.465	3.898	4.409
Opening pressure, psi	2,320		
Closing pressure, psi	1740	1595	1450
Burst, psi	10,000		
Collapse, psi	10,000		
Tensile, kip	157	202	213
Compression, kip	79	101	108
Material*	P-110		
Max working temperature, °F	302		
Length, ft	2.3	2.5	2.4

* Other options are available as per Customer request.