

RBS

Rotational ball seat for COLOSSUS CMT and COLOSSUS UNC systems



Rated to 7,000 psi
[48.3 MPa]



Rated to 163 degC
[325 degF]

APPLICATIONS

- High-inclination wells
- Low-fracture-pressure formations
- Well applications where liner string consists of additional pressure-actuated tools, such as external casing packers (ECPs)

BENEFITS

- Simplifies seating of setting ball in horizontal applications compared with liner toe landing collar
- Saves operation time in long liners because the ball does not have to reach a landing collar at the liner toe
- Reduces risk of fracturing formation because of the sharp rise in equivalent circulating density (ECD) when conventional liner toe ball seats shear

FEATURES

- Design that ensures that the ball is dislodged as the ball seat shears
- Full-bore clearance after ball seat shears
- Design that ensures that the ball seat is completely tripped and retained in full-bore open position
- Variable shear pressure and settings
- Ceramic insert available on request to minimize erosion while pumping

The rotational ball seat (RBS) is a ball-type tubing-blockage device that is run in the liner setting string for the COLOSSUS CMT* cemented liner hanger system and the COLOSSUS UNC* uncemented liner hanger system. When pressure is required to set hydraulic liner systems, a drop ball is released from surface and lands on the ball seat in the RBS. Increasing the pressure above the predetermined shear value causes the ball seat to shear and rotate down. The ball is released, and a smooth and full ID remains through the tool.

Since the RBS is run in the setting string, it reduces formation pressure surges that are experienced when conventional liner toe ball seats shear. Once the liner hanger has been set and the RBS sheared, a full-bore ID allows normal cementing operations, including the passage of drill pipe wiper plugs.



RBS rotational ball seat.

RBS Specifications

Liner Size, in [mm]	Max. OD, in [mm]	Min. ID, in [mm]	Drop Ball Size, in [mm]	Min. ID, After Shear, in [mm]	Connection, [†] in [mm]
9.625 [168.3] and up	6.500 [165.1]	1.125 [28.6]	1.250 [31.8]	3.000 [76.2]	4.500 [88.9] IF
		1.625 [41.3]	1.750 [44.4]	3.000 [76.2]	
		1.875 [47.6]	2.000 [50.8]	3.000 [76.2]	
6.625 [168.3] to 7.625 [193.7]	4.500 [139.7]	1.125 [28.6]	1.250 [31.8]	3.000 [76.2]	3.500 [88.9] IF, Stub Acme, 8RD, 10RD
		1.625 [41.3]	1.750 [44.4]	3.000 [76.2]	
		1.875 [47.6]	2.000 [50.8]	3.000 [76.2]	
4.500 [114.3] to 6.000 [152.4]	3.070 [78.00]	1.125 [28.6]	1.250 [31.8]	1.937 [49.20]	2.375 [60.3] 8 RD EUE
		1.250 [31.8]	1.375–1.500 [34.9–38.1]	1.937 [49.20]	

[†]Other connections available on request.