J-Series Rotating Control Device



Higher performance at a lower cost.

Our J-Series rotating control device (RCD) is designed to help you overcome the challenges of drilling in extreme environments using 18¾-in. surface blowout preventer (BOP) stacks.

Every component of the J-Series RCD—from the seal element geometry to the housing material—ensures the safety of the rig crew by creating a leak-free seal between the annulus and the drill pipe. This seal enables you to safely divert fluid returns during managed pressure drilling (MPD) or other drilling applications.

The advanced bearing design and internal dynamic seals extend the bearing life, reducing bearing assembly changeouts and non-productive time. Our J-Series RCD's unique design enables you to perform bearing soft and hard redresses on the rig or at your service base. This capability eliminates the costly logistics and original equipment manufacturer service charges, significantly reducing the overall operating cost.

With a clampless hydraulic latching dog mechanism, you can safely and quickly install the bearing and seal assembly, eliminating the need for rig personnel in hazardous zones.

Our in-house finite element analysis (FEA) with hyperelastic modeling and manufacturing delivers superior sealing elements that last longer and perform better.

Technical Overview

- Manufactured in accordance with API 16 RCD
- Static ratings up to 5,000 psi
- Unique seal carrier design for extended rotary seal life
- Bearings mounted specifically for increased radial load capacity
- Precise bearing preload without the use of springs or shims
- Rotational speeds up to 215 RPM

Applications

- Managed Pressure Drilling
- Mud Cap Drilling
- Underbalanced Drilling
- · Extended-Reach Drilling
- Conventional

Options and Accessories

- Sealing element material available in rubber, nitrile rubber (NBR), hydrogenated nitrile rubber (HNBR), and polyurethane (PU)
- Logging/snubbing adaptors
- Bell nipple/overshot



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Specifications

Bowl Assembly	
Description	JRCD Bowl Assembly, J1850 W/21-1/4 2K Studded Top and 18-3/4 10K Flange Botton
Lower Connection Type:	18¾-in. 10,000 psi API Flange w/BX-164 CRA Ring Groove
Upper Connection Type: Side Outlets	211/4-in. 2,000 psi API Studded w/R-73 CRA Ring Groove
Side Outlets	71/16-in. 5,000 psi API Studded w/R-46 41/16-in. 5,000 psi API Studded w/R-39
	2½6-in. 5,000 psi API Studded w/R-24
Height:	54½ in.
Effective OD:	41¾ in.
Approximate Weight:	7,300 lb
Temperature Rating (Metallic):	-20°F to 250°F (API 16A Classification T-20)
Temperature Rating (Non-Metallic):	XX
Pressure Rating (below bearing assembly):	5,000 psi
Pressure Rating (above bearing assembly):	2,000 psi
Locking Dogs	
Operating Pressure:	1,500 psi
Maximum Working Pressure	3,000 psi
Bearing Assembly	
Description	Bearing Assembly, Dual Element, J-Series RCD
Height of Bearing (without element)	62% in. (without packer element)
Height of Bearing in Bowl (Bottom flange to top of bearing):	42¾ in.
Effective OD:	20¾ in.
Effective ID:	9¼ in.
Approximate Weight:	2,800 lb
Temperature Rating (Metallic)	-20°F to 250°F (API 16A Classification T-20)
Temperature Rating (Non-Metallic)	XX
Performance	
Static Pressure Rating	3,000 psi
Maximum Dynamic Pressure Rating:	2,500 psi (see dynamic pressure rating chart)
Maximum Dynamic Rotating Speed:	215 RPM (see dynamic pressure rating chart)
Conformance with Standards	
Design and Manufacture	API 16RCD, API 16, API 6A

JRCD Dynamic Pressure Rating



