

DHS 1400 ROTATING CONTROL DEVICE

FEATURES

- Large, heavy-duty tapered roller bearings provide low-torque rotation, excellent load support and reliable performance
- Split-body design, bearing section and mounting spool
- Compatible with rotary and top drive rigs
- Sealing elements available in natural rubber, nitrile, butyl and urethane to meet application requirements
- 17 gallon low-pressure oiler system

BENEFITS

- Diverts air, fluid steam, gas and potential harmful wellbore fluids away from the rig floor through side outlet
- One-piece combo sealing element provides convenience in changing elements and eliminates drive bushing with cap screws
- Simple and easy-to-maintain system

APPLICATIONS

- Divert drilling fluids and cuttings to solids control equipment
- Gas influx and annular containment of wellbore fluids
- Air, mist and foam drilling
- Environmental protection
- Geothermal drilling

The DHS 1400 ROTATING CONTROL DEVICE[†] (DHS 1400 RCD[†]) is an intermediate-pressure RCD that features a split-body design, bearing section and mounting spool.



Reliable Seals with Reliable Bearings Make for Reliable Performance

The bearing section is comprised of heavy-duty tapered roller bearings and a heavy-duty seal section that make this RCD extremely reliable. Sealing elements are changed out independent of the bearing section, saving rig time and eliminating the need for excess inventory on location.

The 17-gallon low-pressure oiler system provides lubrication to the bearing section. It is a simple, easy-to-maintain system that requires no electrical power and is energized by rig air supply.

Sealing Element Selection

Sealing elements are available in four different elastomer compounds: natural rubber, nitrile, butyl, and urethane, each of which has performance characteristics to meet application requirements. One-piece combo sealing elements are available from 2 $\frac{1}{8}$ -in to 5 $\frac{1}{2}$ -in drill pipe and 5-in to 9 $\frac{5}{8}$ -in casing, making this an ideal rotating head for drilling with casing. Combo elements do not require cap screws and are retrievable through a 17 $\frac{1}{2}$ -in rotary table. Special stationary casing seal element allows for running 10 $\frac{3}{4}$ -in casing.

DHS 1400 RCD Specifications	
Rotating test pressure*	600 psi
Static test pressure*	1,000 psi
Maximum rotary speed	150 rpm
Assembly height	39 $\frac{3}{4}$ in - 50 $\frac{1}{4}$ in
Maximum width of spool	38 in
Bearing assembly rotary table pass-through	22 $\frac{1}{2}$ in
Sealing element mounting	One-piece or bolt-on
Rotary and top drive capable	Yes
Maximum bearing assembly pass-through	13 $\frac{3}{8}$ in

DHS 1400 RCD Mounting Spool Specifications		
Inlet Flange	Outlet Flange	Height
11 in 3,000 psi or 5,000 psi	7 $\frac{1}{16}$ in 2,000 psi or 3,000 psi	26 $\frac{1}{4}$ in
11 in 3,000 psi or 5,000 psi shorty	7 $\frac{1}{16}$ in 2,000 psi or 3,000 psi	15 $\frac{3}{4}$ in
13 $\frac{5}{8}$ in 5,000 psi	7 $\frac{1}{16}$ in 2,000 psi or 3,000 psi	26 $\frac{1}{4}$ in
13 $\frac{5}{8}$ in 5,000 psi shorty	7 $\frac{1}{16}$ in 2,000 psi or 3,000 psi	18 $\frac{1}{16}$ in

*Pressure ratings for the bearing and internal seals have been determined through in-house lab testing with a test plug installed. Due to the uncontrolled environment of well drilling operations, M-I SWACO, its operating units, agents, and affiliates make no warranty, either expressed or implied, on the pressure ratings contained herein. M-I SWACO does not, under any circumstances, recommend that its RCDs be used as primary blowout prevention equipment. Pressure ratings vary by sealing elements material and drill pipe size. Contact M-I SWACO for application needs.

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