

Active RCD (Rotating Control Device)

The RCD is the core of any MPD system and must perform consistently and reliably without compromising key drilling parameters. HMM's Active RCD combines the benefits of both active and rotating systems, overcoming the operational limitations that currently affect the drilling industry.

Product Description

HMM's Active RCD (ARCD) is unique in its ability to selectively engage the sealing element while also rotating with the drill pipe. This eliminates unnecessary wear, maximizes seal longevity, and delivers superior performance; establishing a new benchmark in MPD.

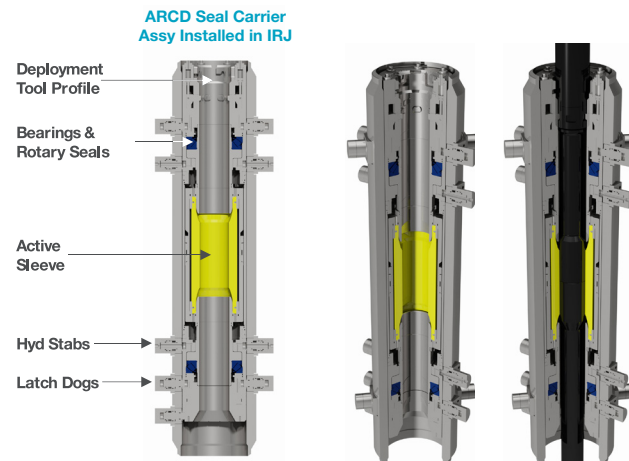
Benefits

While all RCD/ACD designs offer certain benefits, trade-offs in existing systems have limited the broader adoption of MPD.

- **Passive + Rotating:** Simple, interference-type seal and the ability to rotate with drill pipe, reduces rotational loads but sealing elements are always engaged.
- **Active + Non-Rotating:** More complex 'active' seal and simpler non-rotating design allow for selective use, but the static seal is limited by rotational wear.
- **Active + Rotating:** HMM's ARCD combines both systems' strengths and reduces drawbacks, raising the bar for performance in all phases of drilling.

Trade-Off	Description	Passive + Rotating	Active + Non-Rotating	Active + Rotating
Simplicity	Sealing Mechanism	✓	✗	✗
	Rotary Mechanism	✗	✓	✗
Performance	Stripping	✗	✓	✓
	Rotation	✓	✗	✓

The appeal of MPD is performance at the expense of cost. HMM's Active RCD makes MPD both practical and efficient, ultimately reducing the total cost of ownership for drillers and operators.



Key Features

HIGH-INTEGRITY WELLBORE SEAL | Synergy between proven Hydriil® elastomer technology and marine-grade polyurethane expertise.

ROBUST BEARING SYSTEM | High performance bearings and rotary seals, engineered to withstand severe axial and radial loads.

RIGOROUSLY TESTED | Comprehensive testing program replicating real-world operations, ensuring successful performance ahead of deployment.

Technical Specifications

Active RCD (Rotating Control Device)	
Type	Active + Rotating
Drill Pipe Size	6-5/8 in
Static Pressure	2 000 psi / 13 800 kPa
Dynamic Pressure	1 500 psi @ 200 RPM / 10 350 kPa @ 200 RPM
Stripping Pressure	1 000 psi @ 3 600 ft/hr / 6 900 kPa @ 1 100 m/h
Hydraulic Pressure	3 000 psi / 20 700 kPa
Temperature	30-150° F / 1-65°C (polyurethane)
Outer Diameter	< 18-3/4 in
Drift w/ Open Sleeve	8-5/8 in
Field Serviceable	Yes

