

## ARES 3090 Bearing Assembly

The ARES 3090 Bearing Assembly is designed, manufactured, and certified to API 16RCD specifications and guidelines. This Bearing Assembly is a significant component in Beyond Energy's Rotating Control Device (RCD). With higher dynamic pressure rating and long service life the ARES 3090 provides clients the ability to operate with 6 5/8" drill pipe with increased on bottom drilling, while reducing costly NPT and ensuring Low OpEx. The Bearing Assembly creates a pressure-tight barrier between fluid returns and personnel on the rig floor, safely containing annular fluids under pressure while drill pipe is rotating, and diverting fluids below the rig floor to the returns system without interrupting drilling operations.

### Applications

- Managed Pressure Drilling
- Underbalanced Drilling
- Pressurized Mud Cap Drilling
- Containment of wellbore returns
- Extended Reach wells
- Geothermal wells

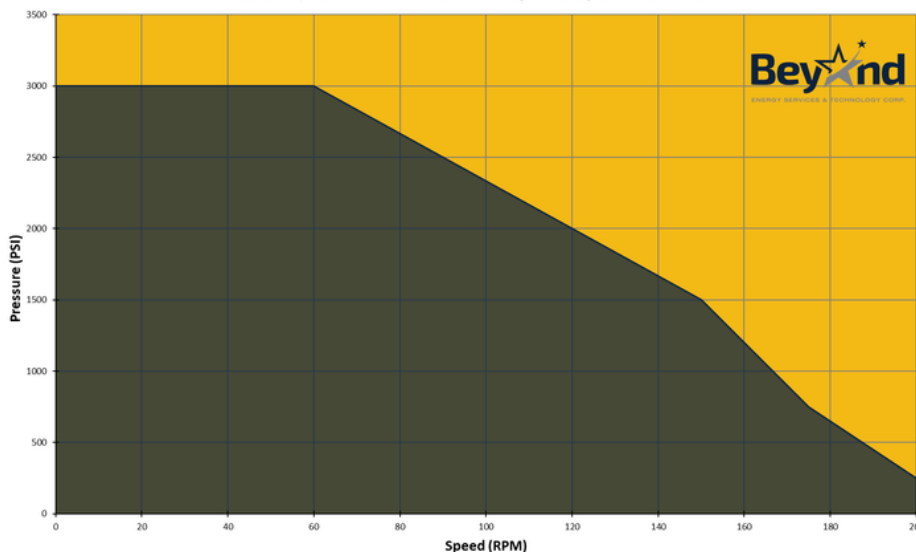
### Features and Accessories

- 5,000 psi Static Rated
- 3,000 psi Dynamic Rated
- Max Rating of 200 rpm
- 9" Passthrough
- Dual Sealing Element Capable (DUSA)
- Operates with ATLAS Class for HP operations for 4.1/2" - 6 5/8" Drill Pipe
- Optional use of TITAN Class Sealing Elements for 2 7/8" - 5 7/8" Drill Pipe
- NACE-MR0175 Compliant
- Manufactured in accordance with API Q1, ISO 9001:2015, and API 16RCD
- API 16RCD 0027 Monogrammed



**ARES 3090**

ARES 3090/POSEIDON 3090 Maximum Dynamic Operational Limits



## ARES 3090 Bearing Assembly Specifications

Physical Data		
Maximum Outer Diameter	438.2 mm	17.25 in.
Pass through Diameter	228.6 mm	9.0 in.
Weight	462.2 kg	1,019 lbs.
Height without Element	815.34 mm	32.1 in.
Height with ATLAS Class Sealing Element	1,099.82 mm	43.3 in.
Internal Fluid		
Bearing Oil Type	Chevron Meropa Synthetic EP 320	
Bearing Oil Capacity	4.5 Litres	1.2 Gallons

Operating Parameters		
Pressure Ratings		
Static Pressure Rating	34,473 kPa	5,000 psi
Dynamic Pressure Rating @ 60 RPM	20,684 kPa	3,000 psi
Dynamic Pressure Rating @ 150 RPM	10,342 kPa	1,500 psi
Dynamic Pressure Rating @175 RPM	5,171 kPa	750 psi
Dynamic Pressure Rating @200 RPM	1,724 kPa	250 psi
Maximum RPM	200 RPM	
Maximum Temperature	85° C	185° F
Minimum Temperature	5° C	41° F

Stripping Speeds vs Pressure with TITAN Elements		
All Drill Pipe Sizes	10 m/min. @ 10,342 kPa	33 ft/min. @ 1,500 psi
	20 m/min. @ 9,342 kPa	66 ft/min. @ 1,355 psi
Maximum Stripping Speed	30 m/min. @ 8,343 kPa	100 ft/min. @ 1,210 psi

Stripping Speeds vs Pressure with ATLAS Elements		
Drill Pipe Size: 5" and 6.625"	10 m/min. @ 12,066 kPa	33 ft/min. @ 1,750 psi
	20 m/min. @ 9,653 kPa	66 ft/min. @ 1,400 psi
	30 m/min. @ 7,293 kPa	100 ft/min. @ 1,050 psi
	40 m/min. @ 4,826 kPa	133 ft/min. @ 700 psi
Maximum Stripping Speed	45 m/min. @ 3,620 kPa	150 ft/min. @ 525 psi

Stripping Speeds vs Pressure with ATLAS Elements		
Drill Pipe Size: 5.5" and 5.875"	10 m/min. @ 13,790 kPa	33 ft/min. @ 2,000 psi
	20 m/min. @ 11,376 kPa	66 ft/min. @ 1,650 psi
	30 m/min. @ 8,963 kPa	100 ft/min. @ 1,300 psi
	40 m/min. @ 6,550 kPa	133 ft/min. @ 950 psi
Maximum Stripping Speed	45 m/min. @ 5,343 kPa	150 ft/min. @ 775 psi