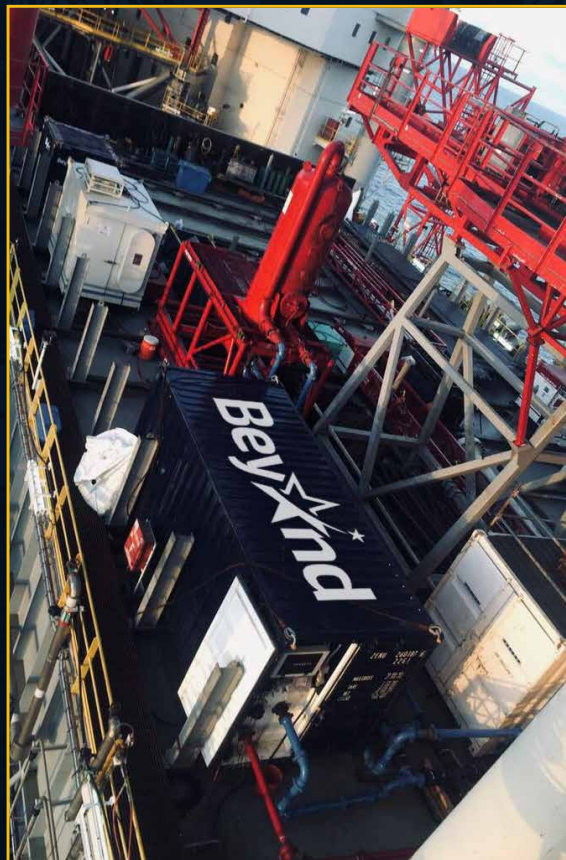


# Bey★nd

ENERGY SERVICES & TECHNOLOGY CORP.



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**Offshore MPD Services Solutions**

[www.beyondmpd.com](http://www.beyondmpd.com)

## What challenges does your company run into offshore?

Drilling sub salt in a transition zone increases the well instability and introduces a pore pressure uncertainty and an unknown drilling window?

Drilling through severely depleted zones that are conventionally unattainable due to a constricting drilling window?



### Would you like to:

Identify your well's minimum and maximum operating limits and determine the optimum mud weight to use?

Immediately recognize a change in mud flowing in or out of the well or minimize the size of any kick or loss?

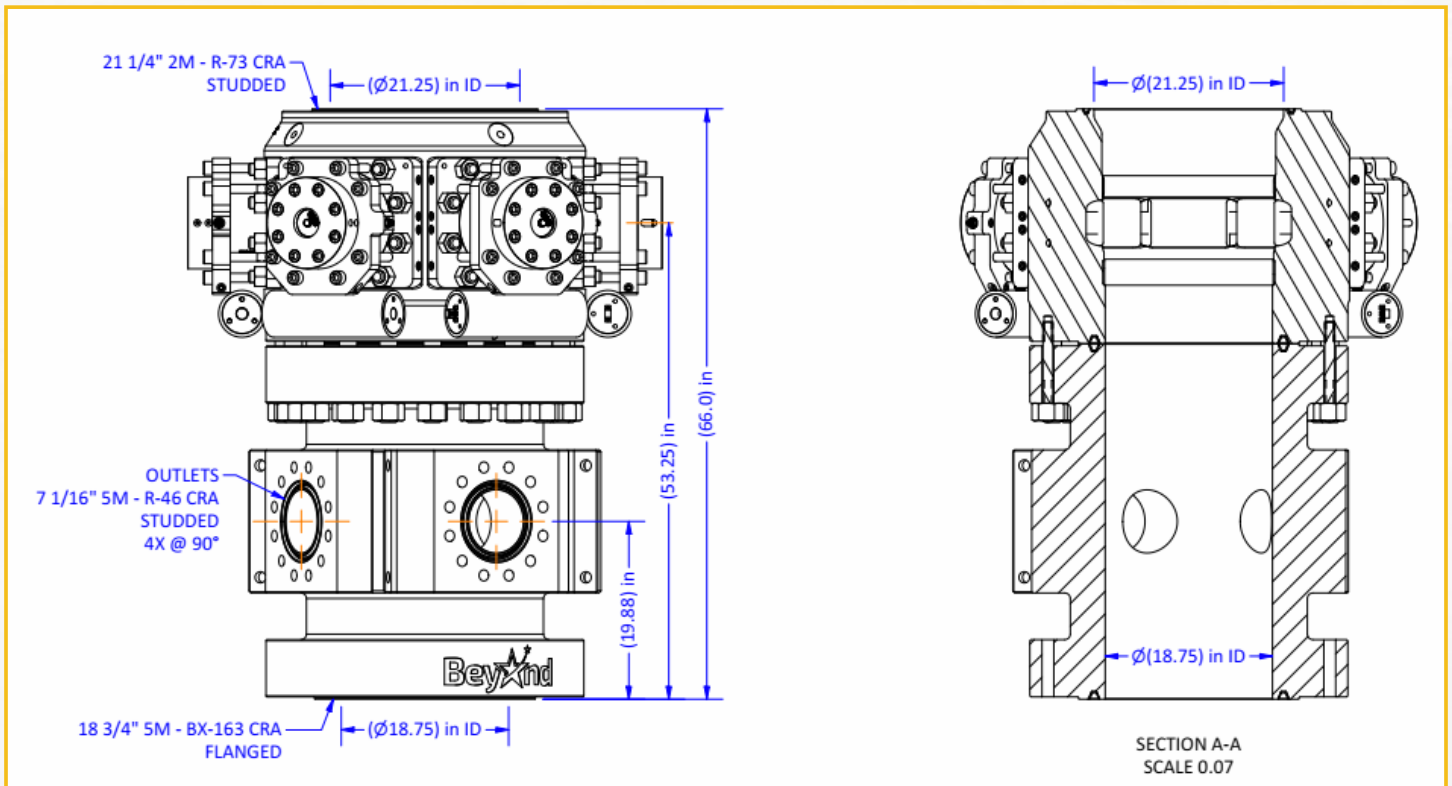
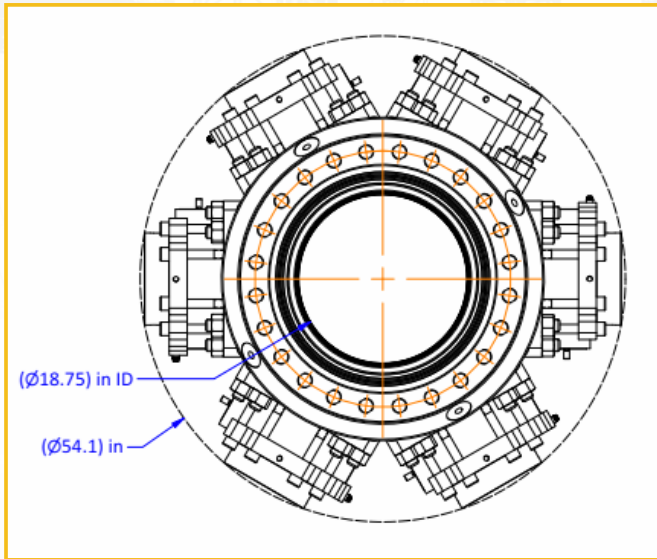
Increase drilling efficiency, drill faster, and increase downhole tools and equipment life expectancy?

Safely trip out of your well without swabbing in formation gas?

Eliminate the ballooning cycle and subsequent time-consuming well control practice associated with pressure cycling on each pumps off event, such as a connection?

**Beyond Energy MPD** is your answer to all these and more, with new and reliable equipment, experienced and highly trained field personnel, automated and intelligent software and technology, top engineering services, and unsurpassed service quality!

# ATLAS Series Rotating Control Device (RCD)



# ATLAS Series Rotating Control Device (RCD)



## Main Specifications

<b>Body</b>	ATLAS Series
<b>Inside Diameter</b>	Dictated by ID of Lower Flange
<b>Standard Bottom Connection</b>	18 3/4" 5M
<b>Standard Top Connection</b>	21 1/4" 2M
<b>Side Outlets</b>	3 x 7 1/16" 5M
<b>Equalize/Bleed Down Outlet</b>	1 x 7 1/16" 5M
<b>Optional Bottom Connections</b>	13 5/8" 5M 13 5/8" 10M 18 3/4" 10M
<b>Static Pressure Rating</b>	5,000 psi (34.5 MPa), 2,000 psi (13.8 MPa)

Outlets and Seal Bores- Iconel Inlay as standard

## POSEIDON Bearing Assembly



POSEIDON  
3078



POSEIDON  
3090

Bearing Assembly Type		POSEIDON 3078* Bearing Assembly	POSEIDON 3090* Bearing Assembly
<b>Maximum Outer Diameter</b>		19" (483 mm)	19" (483 mm)
<b>Passthrough Diameter</b>		7 3/4" (197 mm)	9" (229 mm)
<b>Static Pressure Rating</b>		5,000 psi (34.5 MPa)	5,000 psi (34.5 MPa)
<b>Dynamic Rating</b>	<b>@60 RPM</b>	3,000 psi (20.7 MPa)	3,000 psi (20.7 MPa)
	<b>@100 RPM</b>	2,500 psi (17.2 MPa)	2,330 psi (16.1 MPa)
	<b>@150 RPM</b>	1,500 psi (10.3 MPa)	1,500 psi (10.3 MPa)
	<b>@200 RPM</b>	**	250 psi (1.7 MPa)
<b>Maximum RPM</b>		200 RPM	200 RPM

\*Dual Upper Stripping Assembly compatible

\*\* Ongoing Evaluation

Liquid Nitriding / QPQ Coating as standard

# Hydraulic Power Unit “HPU”

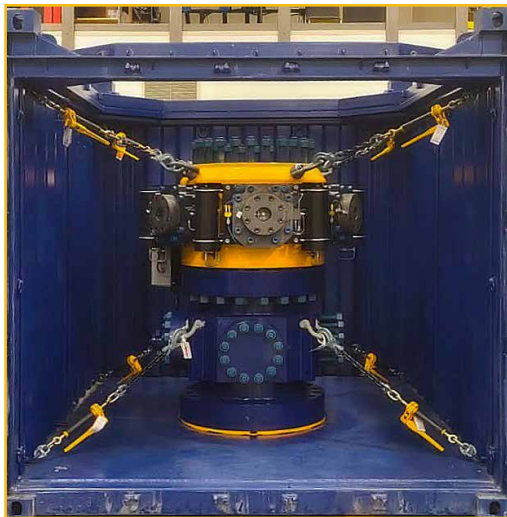
Small footprint	Air over hydraulic
120 V power supply	4x20 milliamp proximity sensors indicate fully closed (Latched) and fully retracted (Unlatched)
IECEX Zone 2 & CSA Certifications Class I DIV II (Standard)	Manual back-up hand pump integrated into console
IECEX Zone 1 & CSA Certifications Class I DIV I (Optional)	4 Hrs UPS battery backup



# DNV Container

## 10ft DNV 2.7.1 OT ATLAS Transport Container

External Dimension	Loaded Weight Ratings
Length 9.8' (2.99 m)	Max Gross Weight 22,046 lbs (10,000 kg)
Width 8' (2.44 m)	Max Payload 16,644 lbs (7,550 kg)
Height 8.5' (2.59 m)	Tare Weight 5,401 lbs(2,450 kg)



We do **Managed Pressure Drilling**.



# B.E.S.T. Integrated Choke Manifold Building

Beyond Energy has designed a fully integrated Offshore Manifold Building, which includes all components necessary to manage the surface Backpressure in MPD operations in the most optimal way possible. This innovation puts a six-inch manifold with an internal diameter of 5 1/8" inside an 8' x 20' DNV-rated sea container.

Dual choke manifold	Nitrogen Backpressure Control Panel
2 x Drilling Choke	5k high-pressure side-rated system
Pressure Relief Valve protection on high and low-pressure sides	Battery backup
Automated Backpressure Control System	Chokes can run on air in the event of a power failure
6" Coriolis Flow Meter with Flow Bypass	Fully insulated with a heater and an air conditioner



Inside



Front



Side Access

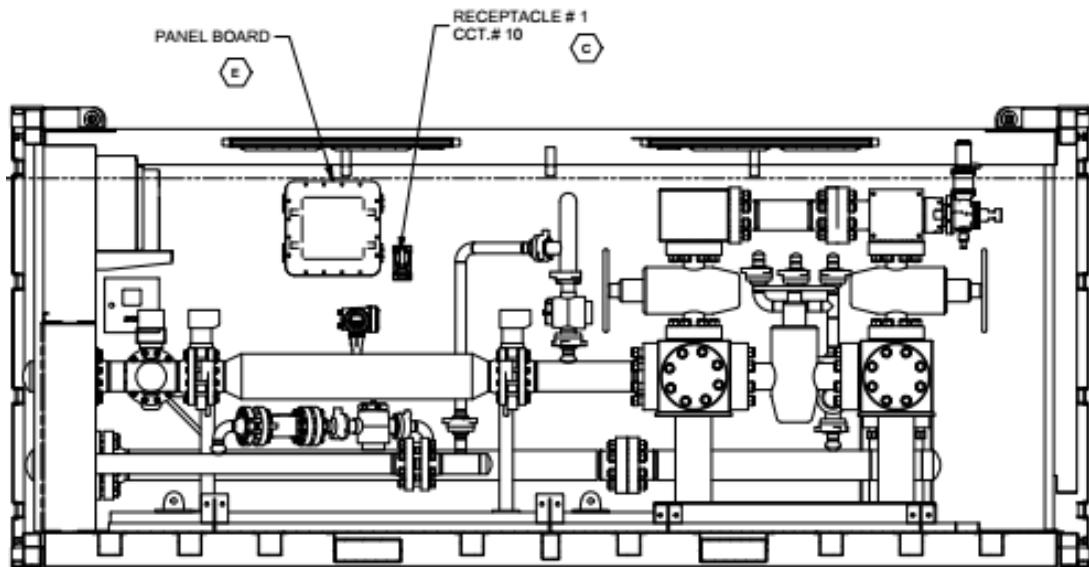
# B.E.S.T. Integrated Choke Manifold Building

## Advantages and Features

Houses PLC and HPU systems	20'L x 8'W x 8.5"H
2 x 4" MPD chokes	33,000lbs
4", 6" or larger Coriolis Meters	6" gut line
Automated PRV System	Climatized Unit

## Shipping & Classification

Container is DNV 2.7-1 Type approved	All equipment is Class I DIV II rated
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# B.E.S.T. Integrated Coriolis Flow Meter

Measured Variables	Mass Flow Rate, Density, Temperature
Density Measuring Range	400 kg/m <sup>3</sup> to 2,500 kg/m <sup>3</sup> (3.3 ppg to 20.9 ppg)
Density Accuracy	±2.0 kg/m <sup>3</sup> (±0.017 ppg)
Volume Flow Rates with 1,500 kg/m <sup>3</sup> Fluid	Up to 10 m <sup>3</sup> /min (2641 gpm)
Flow accuracy liquid	±0.10% of flow rate
Temperature Rating	-40 to 300°F (-40 to 150°C)



# B.E.S.T. MPD Engineering Services

Beyond prides itself on delivering top-tier MPD products, on-site supervision, and engineering services. This includes comprehensive technical support and a team of experienced engineers to assist with all aspects of MPD well construction, planning, operations execution, and optimization services. Using proprietary software, Beyond is committed to providing its customers with cutting-edge solutions to meet their MPD needs.

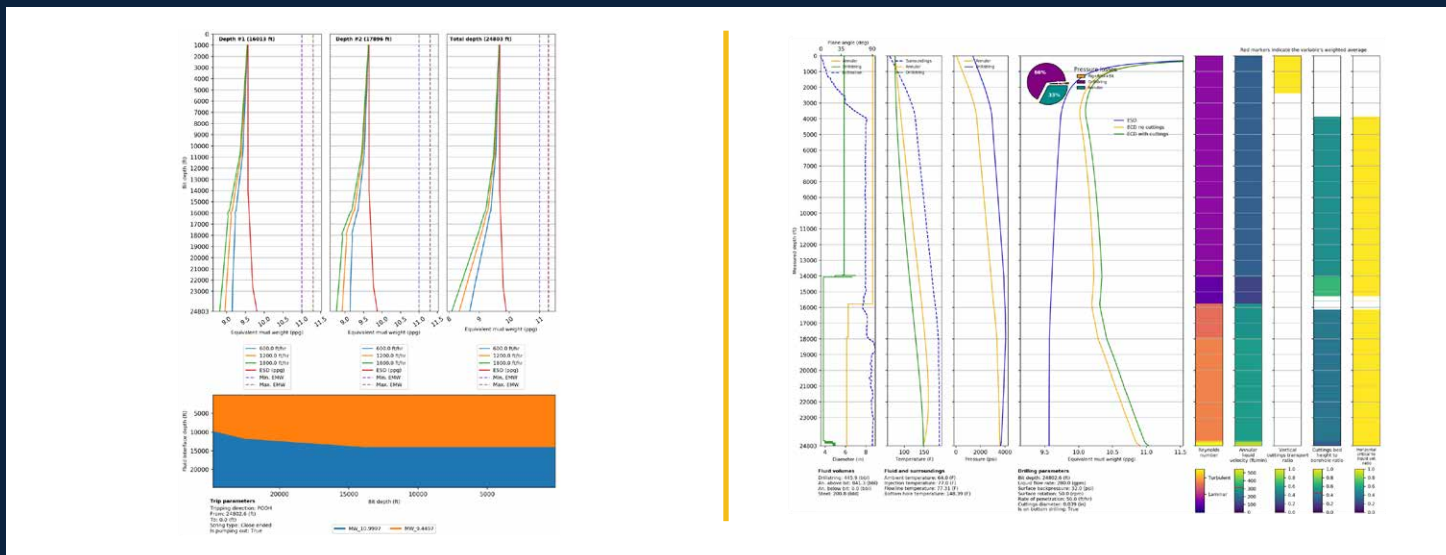
## MPD Engineering Services

MPD feasibility analysis	Mud rollover and cementing schedules in MPD mode
MPD programs	Mud density and rheology overview
Equivalent circulating and static density analysis	End of well reports
Swab and surge analyses	Real-time operations monitoring and support or on-site Engineering



# MPD Engineering Experience

Very narrow window operations	Flow drilling and multiphase operations
Well instability	Drilling optimization (ROP optimization, pressure-related events mitigation, etc.)
Salt water flow issues	HPHT operations in deep wells (depth > 30,000' or 8,000 m)
Horizontal drilling in different pressure profile zones	Cementing in MPD mode



# Full Service MPD Engineering

<b>MPD Quick Look</b>	How can MPD solve drilling problems or improve performance?
<b>Rig Survey</b>	A rig survey assesses if the rig is ready for Managed Pressure Drilling (MPD) by evaluating equipment compatibility, safety, training, workflow adjustments, compliance, and cost-effectiveness. It ensures readiness for MPD's technical and regulatory demands while optimizing efficiency and reducing risks.
<b>MPD Program</b>	Well design to meet MPD Objectives, MPD Procedures, HSE/Operational Considerations, and Well Control/Well Integrity Review
<b>Job Execution</b>	24/7 Support to provide the following at any time <ul style="list-style-type: none"><li>• Drilling Hydraulic Models</li><li>• Mud Rollovers</li><li>• Tripping Plans</li><li>• Formation Evaluation Tests</li></ul>
<b>End of Well Analysis</b>	Formation assessment (actual drilling window observed during the operation), lessons learned, opportunities for improvement

# Advantages of the Beyond MPD Systems

## Accurate Bottom Hole Pressure Management

State-of-the-art equipment and hydraulics software, coupled with the B.E.S.T. Engineering services and experienced MPD field specialists, delivers increased reliability, efficiency, and performance.

## State Of The Art Backpressure Control System

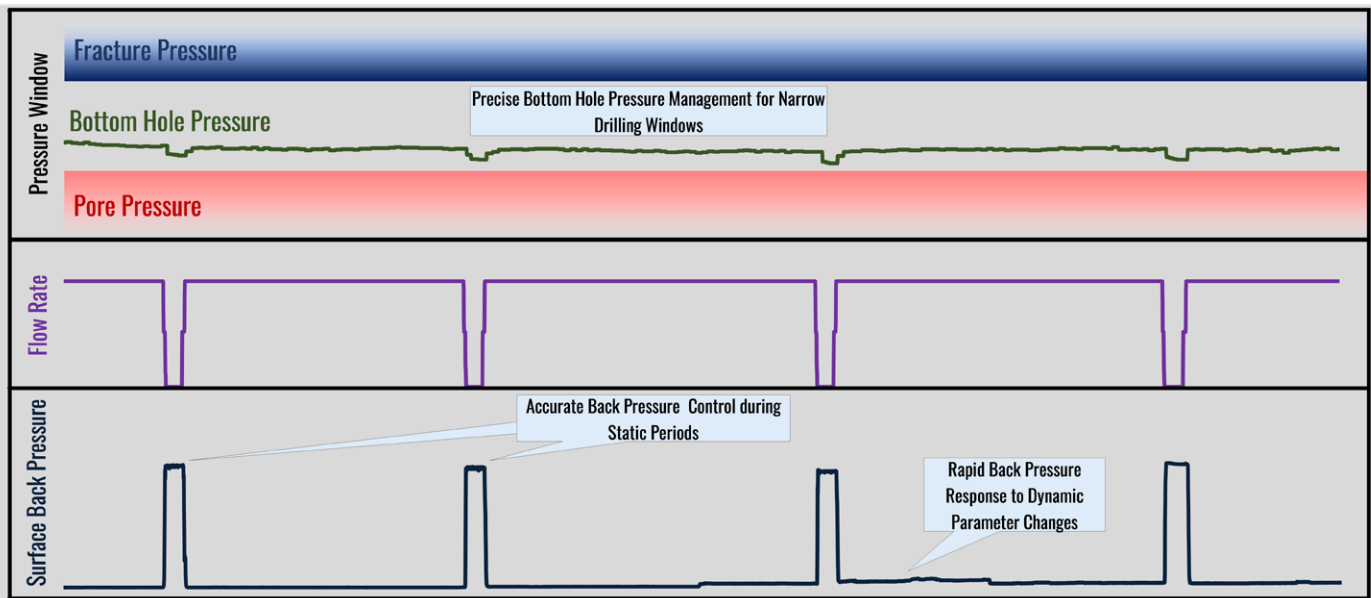
The automated Nitrogen Backpressure Management System has been designed by actual users who have in-depth knowledge of MPD operations and was created to deliver automated, rapid, proven, and accurate pressure control and to maintain bottom hole pressure during static periods.

## Minimum Crew On-site

Our standard crew that covers 24-hr operations consists of only 3 people on-site covering site supervision, equipment maintenance, RCD operations, and continuous pressure monitoring and management.

## API Maintenance Facility

The Beyond API certified maintenance facility delivers repeatable, consistent results.



# Advantages of the Beyond MPD Systems

## 24/7 Engineering Support

With the top Engineering team in the business, our staff assists our valued customers with designing their wells, supporting the field operations 24/7, and monitoring all drilling activities while ensuring the technical integrity of the drilling operations.

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## The Most Experienced and Motivated Team of Operators and Supervisors

All of our senior supervisory staff have 20+ years of global knowledge in MPD and UBD applications worldwide, ensuring your well is in the best hands possible.

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## Experience

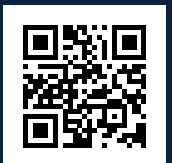
Our experienced team has drilled over 2,000 wells in the last 7 years, ranging from multiphase operations to HPHT wells with no practical drilling window, while under various conditions around the globe.

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## New Equipment & Software

New and rigorously tested and maintained equipment leads to increased reliability, efficiency, and performance

We do **Managed Pressure Drilling.**





**Compact Small Footprint**



**Reduced rigging up/down times**



**Efficiently Moved**



# Bey★nd

We do **Managed Pressure Drilling**.

