

Eco Rigs

Box-on-box Substructure
Bootstrap Mast



BENTEC Eco Rigs™: Smart. Fast. Sustainable.

Built on the trusted legacy of BENTEC Euro Rigs™, our Eco Rigs™ are engineered to meet the demands of global drilling operations - started under European standards and quickly expanded to serve multinational needs.



Compact Power for Sensitive Sites

BENTEC Eco Rigs™ are modular land rigs designed for small and environmentally sensitive locations. Their compact footprint dramatically reduces pad construction costs, while the rig's dimensions are optimized for narrow road transport—minimizing the need for exceptional permits and streamlining logistics.

Multifunctional & Versatile Drilling Operations

BENTEC EcoRigs™ are worldwide in use for Oil & Gas Drilling, Geothermal and Lithium Extraction. BENTEC EcoRigs™ can be powered in the traditional way by diesel generators or by a local grid and even grid-parallel if grid power is limited. This can even be backed up by BENTEC Battery Energy Storage Systems to optimize and minimize carbon emissions.

Engineered for Speed and Efficiency

Every component of the Eco Rig™ is built with a fast-move philosophy:

Containerized substructure and vertical lift mast enables rapid deployment.

Modular mud tank system and optimized transport units ensure safe and efficient rig moves.

Optional skidding or walking systems enable multi-well cluster operations.

Smart Integration, Minimal Downtime

The modular substructure houses noise-emitting components like the centralized hydraulic power unit, reducing environmental impact. BENTEC's own drilling equipment is pre-installed and internally connected, leading to less rig up time and faster transitions between wellsites.

Vertical Bootstrap Mast: Built for narrow roads.

Our innovative Bootstrap mast design features multiple segments and a Bottom A-frame, lifted by integrated hydraulic cylinders. With reduced dimensions tailored for narrow road transport, this mast design supports a smaller rig footprint which leads to smaller rig layouts and lower site preparation costs.

Eco-Conscious by Design

BENTEC Eco Rigs™ are built to meet stringent noise and emission regulations, making them ideal for operations in highly regulated environments such as urban drilling sites.

BENTEC EcoRigs™ are not just rigs they're a smarter, quieter and cleaner solutions to drill wells.

Most Suitable for:

Deep geothermal drilling

Oil & gas drilling

Urban drilling

Lithium extraction

Conventional & unconventional

Design Features:

Box on box substructure

Bootstrap mast

Skidding & walking

Low noise emission by design

Highly automatable

Hybrid drilling enabled

API, CE, ATEX compliant

Eco Rig™

680 t / 3,000 hp



Software Solutions

- SYNAPSE™ Rig Control System
- RigCARE™ Remote Monitoring System
- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig Walking / Rig Skidding
- Pad Drilling Package
- Noise Reduction Package
- Advanced Pipehandling Equipment
- Mud Cooler
- BOP closing Unit
- Grid Supply System
- Battery Energy Storage System

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by hydraulic cylinder
Mast height	150.00 ft (45.72 m)
Mast base	33.50 ft x 18.50 ft (10.20 m x 5.65 m)
Maximum rated static hook load	1,500,000 lbs (680 t @ 14 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	33.10 ft (10.10 m)
Free height underneath rotary table	27.90 ft (8.50 m)
Rotary capacity max	1,500,000 lbs (680 t)
Setback load max	800,000 lbs (363 t)

BENTEC Drawworks DW-E-3000-AC (Split Type)

Power rating	3,000 hp (2,200 kW)
Drill line diameter	1 5/8" (42 mm)
Maximum line pull	123,000 lbs (547 kN)

BENTEC Top Drive TD-750-HT

Load capacity	750 ton (680 t)
Electric motors	1,600 hp (1,200 kW)
Output torque	73,760 ft-lb (100,000 Nm)

Three (3) BENTEC Mud Pumps T-1600-AC-R

Electric motors	1 × 1,600 hp (1,200 kW) each
Maximum pressure	7,500 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-375 — Emergency Drive

Diameter of opening	37 1/2" (952 mm)
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Power Generation

Five (5) engines
Emergency Generator (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter

BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin

BENTEC

Bold Engineering + Technology

sales@bentec.com bentec.com

Eco Rig™

454 t / 2,000 hp



Software Solutions

- SYNAPSE™ Rig Control System
- RigCARE™ Remote Monitoring System
- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig walking / Rig skidding
- Pad drilling package
- Noise reduction package
- Advanced pipehandling equipment
- Mud cooler
- BOP closing unit
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by hydraulic cylinder
Mast height	142.00 ft (43.30 m)
Mast base	33.50 ft x 18.50 ft (10.20 m x 5.65 m)
Maximum rated static hook load	1,000,000 lbs (454 t @ 12 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	29.52 ft (9.00 m)
Free height underneath rotary table	24.27 ft (7.40 m)
Rotary capacity max	1,000,000 lbs (454 t)
Setback load max	573,000 lbs (260 t)

BENTEC Drawworks E-2000-AC (Double Gear)

Power rating	2,000 hp (1,470 kW)
Drill line diameter	1 ½" (38 mm)
Maximum line pull	105,200 lbs (468 kN)

BENTEC Top Drive TD-500-XT

Load capacity	500 ton (454 t)
Electric motors	1,140 hp (850 kW)
Output torque	52,000 ft-lb (70,580 Nm)

Three (3) BENTEC Mud Pumps T-1600-AC (R)-7 ½x12"

Electric motors	1 x 1,600 hp (1,200 kW) each
Maximum pressure	5,000 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-375 — Emergency Drive

Diameter of opening	37 ½" (952 mm)
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Power Generation

Four (4) engines
Emergency Generator Caterpillar (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter
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BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin
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Eco Rig™

350 t / 1,500 hp



Software Solutions

- SYNAPSE™ Rig Control System
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- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig Walking / Rig Skidding
- Pad Drilling Package
- Noise Reduction Package
- Advanced Pipehandling Equipment
- Mud Cooler
- BOP closing Unit
- Grid Supply System
- Battery Energy Storage System

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by hydraulic cylinder
Mast height	142.00 ft (43.30 m)
Mast base	28.55 ft x 18.54 ft (8.70 m x 5.65 m)
Maximum rated static hook load	772,000 lbs (350 t @ 10 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	29.52 ft (9.00 m)
Free height underneath rotary table	24.27 ft (7.40 m)
Rotary capacity max	772,000 lbs (350 t)
Setback load max	450,000 lbs (204 t)

BENTEC Drawworks E-1500-AC (Double Gear)

Power rating	1,500 hp (1,100 kW)
Drill line diameter	1 3/8" (35 mm)
Maximum line pull	87,100 lbs (387 kN)

BENTEC Top Drive TD-500-XT

Load capacity	500 ton (454 t)
Electric motors	1,140 hp (850 kW)
Output torque	52,000 ft-lb (70,580 Nm)

Two (2) BENTEC Mud Pumps T-1600-AC (R)-7 1/2x12"

Electric motors	1 x 1,600 hp (1,200 kW) each
Maximum pressure	5,000 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-375 — Emergency Drive

Diameter of opening	37 1/2" (952 mm)
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Power Generation

Three (3) engines
Emergency Generator Caterpillar (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter

BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin

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Eco Rig™

300 t / 1,250 hp



Software Solutions

- SYNAPSE™ Rig Control System
- RigCARE™ Remote Monitoring System
- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig Walking / Rig Skidding
- Pad Drilling Package
- Noise Reduction Package
- Advanced Pipehandling Equipment
- Mud Cooler
- BOP closing Unit
- Grid Supply System
- Battery Energy Storage System

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by crane or cylinder
Mast height	138.00 ft (42.00 m)
Mast base	21.33 ft x 18.37 ft (6.50 m x 5.60 m)
Maximum rated static hook load	660,000 lbs (300 t @ 10 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	27.00 ft (8.20 m)
Free height underneath rotary table	23.00 ft (7.00 m)
Rotary capacity max	660,000 lbs (300 t)
Setback load max	375,000 lbs (170 t)

BENTEC Drawworks E-300-AC-SG (Single Gear)

Power rating	1,250 hp (920 kW)
Drill line diameter	1 ¼" (32 mm)
Maximum line pull	74,600 lbs (332 kN)

BENTEC Top Drive TD-350-HT

Load capacity	350 ton (318 t)
Electric motors	1,030 hp (758 kW)
Output torque	46,500 ft-lb (63,300 Nm)

Two (2) BENTEC Mud Pumps T-1600-AC (R)-7 ½x12"

Electric motors	1 × 1,600 hp (1,200 kW) each
Maximum pressure	5,000 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-275 — Emergency Drive

Diameter of opening	27 ½" (698 mm)
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Power Generation

Three (3) engines

Emergency Generator Caterpillar (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter

BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin

Eco Rig™

250 t / 1,250 hp



Software Solutions

- SYNAPSE™ Rig Control System
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- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig Walking / Rig Skidding
- Pad Drilling Package
- Noise Reduction Package
- Advanced Pipehandling Equipment
- Mud Cooler
- BOP closing Unit
- Grid Supply System
- Battery Energy Storage System

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by crane or cylinder
Mast height	108.00 ft (33.00 m)
Mast base	21.33 ft x 18.37 ft (6.50 m x 5.60 m)
Maximum rated static hook load	550,000 lbs (250 t @ 10 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	20.34 ft (6.20 m)
Free height underneath rotary table	16.40 ft (5.00 m)
Rotary capacity max	550,000 lbs (250 t)
Setback load max	375,000 lbs (170 t)

BENTEC Drawworks E-250-AC-SG (Single Gear)

Power rating	1,250 hp (920 kW)
Drill line diameter	1 1/4" (32 mm)
Maximum line pull	62,000 lbs (276 kN)

BENTEC Top Drive TD-275-HT

Load capacity	275 ton (250 t)
Electric motors	672 hp (500 kW)
Output torque	35,200 ft-lb (47,750 Nm)

Two (2) BENTEC Mud Pumps T-1600-AC (R)-7 1/2x12"

Electric motors	1 x 1,600 hp (1,200 kW) each
Maximum pressure	5,000 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-275 — Emergency Drive

Diameter of opening	27 1/2" (698 mm)
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Power Generation

Three (3) engines

Emergency Generator Caterpillar (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter

BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin

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Eco Rig™

200 t / 1,000 hp



Software Solutions

- SYNAPSE™ Rig Control System
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- Cutting Return Monitoring
- Condition Monitoring

Optional Equipment

- Rig Walking / Rig Skidding
- Pad Drilling Package
- Noise Reduction Package
- Advanced Pipehandling Equipment
- Mud Cooler
- BOP closing Unit
- Grid Supply System
- Battery Energy Storage System

See: Smart Custom Eco Rig™

BENTEC Vertical Lift Mast

System	Rig up by crane
Mast height	108.00 ft (33.00 m)
Mast base	21.33 ft x 18.37 ft (6.50 m x 5.60 m)
Maximum rated static hook load	440,000 lbs (200 t @ 10 lines)

BENTEC Box-on-box Substructure

System	Rig up by crane
Height of drill floor	20.34 ft (6.20 m)
Free height underneath rotary table	16.40 ft (5.00 m)
Rotary capacity max	440,000 lbs (200 t)
Setback load max	310,000 lbs (140 t)

BENTEC Drawworks E-200-AC-SG (Single Gear)

Power rating	1,000 hp (735 kW)
Drill line diameter	1 ½" (29 mm)
Maximum line pull	49,500 lbs (220 kN)

BENTEC Top Drive TD-250-C

Load capacity	275 ton (250 t)
Electric motors	672 hp (500 kW)
Output torque	35,200 ft-lb (47,750 Nm)

Two (2) BENTEC Mud Pumps T-1600-AC (R)-7 ½x12"

Electric motors	1 x 1,300 hp (970 kW) each
Maximum pressure	5,000 psi

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	1,383 bbl (220 m³) in basic configuration
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BENTEC Rotary Table RDE-275 — Emergency Drive

Diameter of opening	27 ½" (698 mm)
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Power Generation

Three (3) engines

Emergency Generator Caterpillar (C 15 ACERT)

BENTEC Power Control Room

AC-variable frequency drive

OEM Solids Removal Systems

Shale shaker, mud cleaner with desander and desilter

BENTEC Rig Control System

SYNAPSE™ Rig Control System cyber chair in stainless steel cabin

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Smart Custom Eco Rig™

The previous pages outlined our available EcoRig™ base rig configurations. However, realizing each customer's unique vision for their drilling campaign often demands tailor made adaptations, performance upgrades and changes beyond the available design. This is all possible when teaming up with BENTEC.

Thanks to the modular design of the EcoRigs™ many adaptations are possible to meet individual operational needs. Also, due to our complete drilling equipment portfolio suited around the well we can adopt nearly any technical solution to our rigs meeting today's or future requirements of drilling wells and ensure a future-proof rig design delivering wells as safe, efficient and with repetitive performance.

All EcoRigs™ can be upgraded with the following enhancement options:

- ✓ Pressure upgrade to 7500 PSI
- ✓ Flexible mast height arrangement (triples & doubles)
- ✓ Enhanced pipe handling
- ✓ Pad drilling packages
- ✓ Noise reduction packages
- ✓ Grid supply
- ✓ Remote control packages
- ✓ Energy recovery
- ✓ Rig skidding / rig walking
- ✓ Managed pressure drilling packages
- ✓ Rig sequence automizer
- ✓ AI-based red-zone management
- ✓ AI based cutting return analysis
- ✓ Drilling enhancement tools for earlier well delivery

Many more options are also possible. "If you can imagine it — we can build it."

7,500 PSI PRESSURE RATING



INCREASED MUD PUMP HORSEPOWER



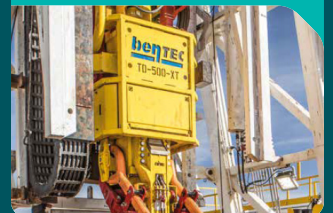
SKIDDING SYSTEM



FLOW LINE EXTENSION PACKAGE



XT TOP DRIVE SERIES



WALKING SYSTEM



Smart Custom Eco Rig™

HYDRAULIC CATWALK



PIPE GUIDE ARM



REMOTE CONTROLLED IRON ROUGHNECK



BATTERY ENERGY STORAGE



GRID POWER SUPPLY



MAST FOR DOUBLE AND TRIPLE STANDS



SOFTWARE SOLUTIONS

- SYNAPSE™ Rig Control System
- RigCARE™ Remote Monitoring System
- optiDRILL™
- optiTORQUE™
- optiSLIDE™
- optiPUMP™
- Red-Zone Monitoring
- Cutting Return Monitoring
- Condition Monitoring

