

Desert Rigs

Standard Desert Rig
Speed Rig



BENTEC Desert Rigs: Built for the Extreme. Engineered for the Performance.

When the environment gets tough, BENTEC Rigs are the solutions of choice. The BENTEC Desert Rig is a high-performance, fast-moving drilling solution built to thrive in the harshest desert environments. Delivering unmatched mobility, safety, and efficiency in a compact Rig package.



Versatility That Delivers

Whether you're drilling for conventional or unconventional resources, the Desert Rig adapts to your needs. Its flexible design supports a wide range of applications and can be upgraded with advanced automation and drilling enhancement features such as SYNAPSE™ or RigCARE™ to boost repetitive performance and accelerate well delivery.

Extreme Conditions? No Problem.

Engineered to perform under extreme temperatures, the Desert Rig provides a safe, high-quality working

environment without compromising on power or precision. It's the rig of choice for drilling contractors who demand reliability in the most challenging conditions.

Mobility Meets Efficiency

Optional skidding or walking systems for cluster drilling

Can be fitted with moving gear for ultra-fast relocations

Smart Integration for Maximum Uptime

The full suite of BENTEC Drilling Equipment is seamlessly integrated into the rig design, ensuring optimal performance

and reliability. Our proven track record delivers lowest rig NPT and lowest total cost of ownership—meeting the demands of today's drilling contractors.

Safety First, Always

BENTEC rigs can be equipped with semi-automated or fully automated pipe-handling systems, reducing manual intervention and keeping crews out of harm's way. It's not just about drilling faster—it's about drilling smarter and safer – with reliable and repetitive performance.

Most Suitable for:

Oil & gas drilling

Conventional & unconventional

Exploration & field development

High pressure high temperature wells

Design Features:

Slingshot & cantilever mast

Fast moving concepts

Highly automatable

Hybrid drilling enabled

Customizable

Standard Desert 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Elevating, Free Standing (Cantilever) Mast

System	Rig up by drawworks
Mast height	152.00 ft (46.32 m)
Mast base	35.00 ft x 8.00 ft (10.67 m x 2.45 m)
Maximum rated static hook load	1,500,000 lbs (680 t @ 14 lines)

Substructure

System	Raising by raising lines
Height of drill floor	152.00 ft (46.32 m)
Free height underneath rotary table	30.00 ft (9.14 m)
Rotary capacity max	1,500,000 lbs (680 t)
Setback load max	800,000 lbs (363 t)

BENTEC Drawworks E-3000-AC (Double Gear)

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)
Continuous torque	73,760 ft-lb (100,000 Nm)

Three (3) BENTEC Mud Pumps: T-1600-AC (R)-7 1/2" x 12"

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

Five (5) engine Caterpillar 3512B with generator Leroy Somer
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

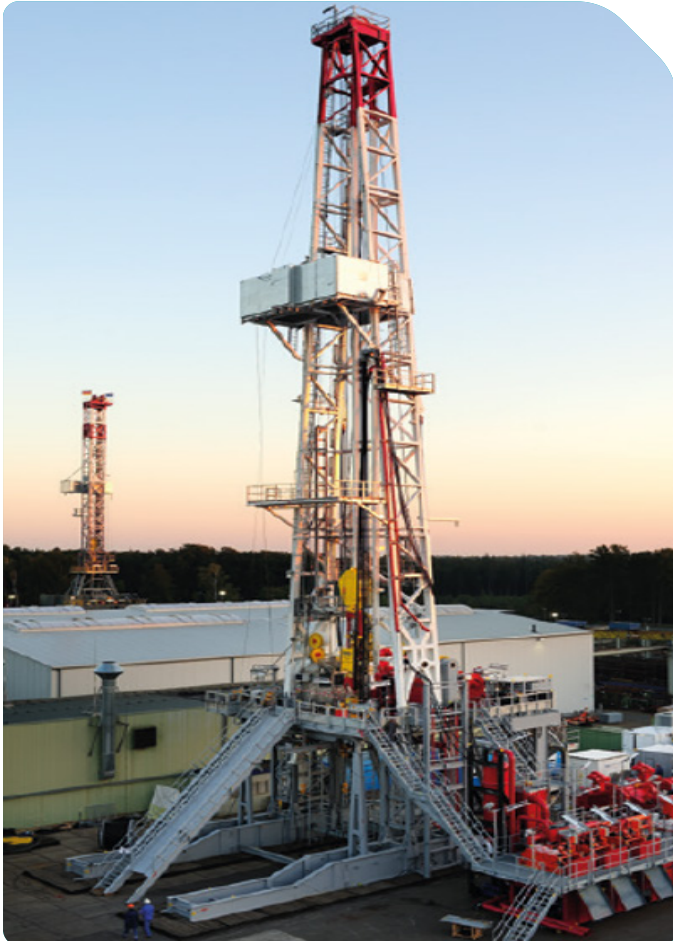
BENTEC

Bold Engineering + Technology

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Standard Desert 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Elevating, Free Standing (Cantilever) Mast

System	Rig up by drawworks
Mast height	142.00 ft (43.30 m)
Mast base	30.00 ft x 8.00 ft (9.14 m x 2.45 m)
Maximum rated static hook load	1,000,000 lbs (454 t @ 12 lines)

Substructure

System	Raising by raising lines
Height of drill floor	30.00 ft (9.14 m)
Free height underneath rotary table	25.00 ft (7.60 m)
Rotary capacity max	1,000,000 lbs (454 t)
Setback load max	700,000 lbs (318 t)

BENTEC Drawworks E-450-AC-SG (Single Gear)

Power rating	2,000 hp (1,470 kW)
Drill line diameter	1 1/2" (38 mm)
Maximum line pull	92,200 lbs (419 kN)

BENTEC Top Drive TD-500-XT

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

Three (3) BENTEC Mud Pumps — T-1600-AC (R)-7 1/2" x 12"

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

Four (4) engine Caterpillar 3512B with generator Leroy Somer
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

BENTEC

Bold Engineering + Technology

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Standard Desert Rig

350 t / 1,500 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Elevating, Free Standing (Cantilever) Mast

System	Rig up by drawworks
Mast height	142.00 ft (43.30 m)
Mast base	30.00 ft x 8.00 ft (9.14 m x 2.45 m)
Maximum rated static hook load	772,000 lbs (350 t @ 12 lines)

Substructure

System	Rig up by raising lines
Height of drill floor	30.00 ft (9.14 m)
Free height underneath rotary table	25.00 ft (7.60 m)
Rotary capacity max	772,000 lbs (350 t)
Setback load max	550,000 lbs (250 t)

BENTEC Drawworks E-350-AC-SG (Single Gear)

Power rating	1,500 hp (1,100 kW)
Drill line diameter	1 3/8" (35 mm)
Maximum line pull	78,900 lbs (351 kN)

BENTEC Top Drive TD-500-XT

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

Three (3) BENTEC Mud Pumps — T-1600-AC (R)-7 1/2" x 12"

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) engine Caterpillar 3512B with generator Leroy Somer
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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Speed Rig

200 t / 1,000 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Evaluating, Free Standing Mast

System	Rig up by hydraulic cylinders
Mast height	108.00 ft (33.00 m)
Mast base	23.00 ft x 16.00 ft (7.00 m x 4.87 m)
Maximum rated static hook load	440,000 lbs (200 t @ 10 lines)

BENTEC Parallel Lift Substructure

System	Rig up by hydraulic cylinders
Height of drill floor	25.00 ft (7.60 m)
Free height underneath rotary table	20.00 ft (6.10 m)
Rotary capacity max	440,000 lbs (200 t)
Setback load max	250,000 lbs (113 t)

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

Power rating	1,000 hp (735 kW)
Drill line diameter	1 1/8" (28 mm)
Maximum line pull	49,500 lbs (220 kN)

BENTEC Top Drive TD-250-C

Load capacity	250 ton (227 t)
Electric motors	672 hp (500 kW)
Continuous torque	35,200 ft-lb (47,750 Nm)

Two (2) BENTEC Mud Pumps — T-1300-AC (R)-7 1/2" x 12"

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

BENTEC Mud Tank System — Rectangular Tanks

Active mud volume	943 bbl (150 m³) in basic configuration
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BENTEC Rotary Table RDE-375 — Emergency Drive

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

Three (3) engine Caterpillar 3512B with generator Leroy Somer

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 Instrumentation System

BENTEC "InfoDrill" drilling information system

Ex-proof stainless steel drillers cabin

Speer Rig

250 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Evaluating, Free Standing Mast

System	Rig up by hydraulic cylinders
Mast height	108.00 ft (33.00 m)
Mast base	23.00 ft x 16.00 ft (7.00 m x 4.87 m)
Maximum rated static hook load	550,000 lbs (250 t @ 10 lines)

BENTEC Parallel Lift Substructure

System	Rig up by hydraulic cylinders
Height of drill floor	28.00 ft (8.50 m)
Free height underneath rotary table	23.00 ft (7.00 m)
Rotary capacity max	550,000 lbs (250 t)
Setback load max	350,000 lbs (160 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)
Continuous torque	35,200 ft-lb (47,750 Nm)

Two (2) BENTEC Mud Pumps — T-1600-AC (R)-7 1/2" x 12"

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) engine Caterpillar 3512B with generator Leroy Somer
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 Instrumentation System

BENTEC "InfoDrill" drilling information system
Ex-proof stainless steel drillers cabin

Speed Rig

350 t / 1,500 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

- Fast rig move packages
- Skidding / walking upgrades
- Pad drilling package
- Advanced pipehandling equipment
- Swing up / sling shot substructures
- Grid supply system
- Battery Energy Storage System (BESS)

See: Smart custom desert rig

BENTEC Open Face Self-Evaluating, Free Standing Mast

System	Rig up by hydraulic cylinders
Mast height	142.00 ft (43.30 m)
Mast base	23.00 ft x 16.40 ft (7.00 m x 5.00 m)
Maximum rated static hook load	772,000 lbs (350 t @ 12 lines)

BENTEC Parallel Lift Substructure

System	Rig up by hydraulic cylinders
Height of drill floor	30.00 ft (9.14 m)
Free height underneath rotary table	25.30 ft (7.70 m)
Rotary capacity max	772,000 lbs (350 t)
Setback load max	500,000 lbs (227 t)

BENTEC Drawworks E-350-AC-SG (Single Gear)

Power rating	1,500 hp (1,100 kW)
Drill line diameter	1 3/8" (35 mm)
Maximum line pull	78,900 lbs (351 kN)

BENTEC Top Drive TD-500-XT

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

Two (2) BENTEC Mud Pumps — T-1600-AC (R)-7 1/2" x 12"

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) engine Caterpillar 3512B with generator Leroy Somer
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 Instrumentation System

BENTEC "InfoDrill" drilling information system
Ex-proof stainless steel drillers cabin

Smart Custom Desert Rig

The previous pages outlined our available Desert Rig 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 Desert Rigs 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 Desert Rigs can be upgraded with the following enhancement options:

- ✓ Pressure upgrade to 7500 PSI
- ✓ Flexible mast height arrangement (triples & doubles)
- ✓ Enhanced pipe handling
- ✓ Swing up substructure / sling shot substructure
- ✓ Fast rig move packages
- ✓ Grid supply / hybrid power supply
- ✓ Remote control packages
- ✓ Energy recovery
- ✓ Advanced pipe handling
- ✓ 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."



Smart Custom Desert Rig

HYDRAULIC CATWALK



PIPE GUIDE ARM



REMOTE CONTROLLED IRON ROUGHNECK



BATTERY ENERGY STORAGE



GRID POWER SUPPLY



MOVING GEAR



MOVING GEAR



SOFTWARE SOLUTIONS

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

