

# EURO RIGS

Highly mobile land rigs for small and sensitive locations.

## EURO RIG™ GENERAL FEATURES

- Climate: Temperate -20°C to +40°C
  - Drawworks capacities: 1 000 hp–2 000 hp
  - Hook load capacities: 440 000 lbs–1 000 000 lbs / 200 t–450 t
  - Drilling depth capacities: Up to 23 600 ft / up to 7 200 m
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- API, DIN EN, ATEX certified
  - HAZOP risk assessment
  - CE equipment
  - Testing & commissioning



## EURO RIG™ 450 t

**Rating: 2 000 hp / 450 t**

**Static hook load: 1 000 000 lbs @12 lines / 450 t**

**Design drilling depth: 23 600 ft / 7 200 m**

## UNIQUE FEATURES

- Vertical erected mast, raised with hydraulic cylinder
- Substructure: Box-on-box type
- Freestanding mast
- Small footprint
- Noise reduced equipment and rig components made by Bentec
- According to European regulations and road conditions
- Rig moves on European roads with standard trucks
- Less NPT with Bentec TOP DRIVE
- Field approved equipment

# TECHNICAL DATA

## EURO RIGS – EURO RIG™ 450 t

The modular built EURO RIG™ is engineered with a fast-move philosophy and is one of the most modern European land drilling rigs that meets the special requirements of the European market.

The box-on-box substructure enables efficient rig moves on European roads with standard trucks. The small footprint of 40 x 55 meters reduces pad construction costs significantly.

The modular substructure consists of four sub-boxes and three drill floor parts. These boxes are used to house noise emitting components, such as the centralized hydraulic power unit. The integration of drilling equipment in substructure boxes and on drill floor parts significantly reduces the rig move times, since the equipment remains installed and internally connected during road transport.

The vertical lift mast consists of three units with an A-frame. The dimensions of the main mast parts are reduced to European road transport limits. Integrated hydraulic cylinder lift the vertical mast. There are no exceptional road permits required, except for the draw-works and mud pumps.

The rig can optionally be manufactured with skidding system or a walking system.

The containerized substructure, vertical lift mast, modularized mud tank system and optimized transport units make it possible to move the EURO RIG™ within five days with approx. 55 truckloads only over a distance of 80 km.

The main drilling equipment is AC-powered.

The equipment fitted to the rig is suitable for performance drilling. The Bentec TOP DRIVE is specially designed for rough conditions and less rig down time.

The EURO RIG™ AC is low emission, fully ATEX certified and built in compliance with the latest European regulations.

Due to this modular design, this rig type can be tailored to customers' requirements.

## TECHNICAL DATA

### MAST

Manufacturer:	Bentec
System:	Vertical lift
Mast free height:	142.00 ft (43.30 m)
Mast base:	33.50 ft x 18.54 ft (10.20 m x 5.65 m)
Hook load capacity @ 12 lines:	1 000 000 lbs (450 t)
Racking capacity:	Approx. 19 700 ft (6 000 m)

### SUBSTRUCTURE

Manufacturer:	Bentec
System:	Box-on-box substructure
Height of drill floor:	29.53 ft (9.00 m)
Height underneath rotary table:	24.28 ft (7.40 m)
Rotary capacity max.:	1 000 000 lbs (450 t)
Setback load max.:	573 000 lbs (260 t)

### DRAWWORKS

Manufacturer:	Bentec
Type:	DW-E-2000-AC
Power rating:	2 000 hp (1,470 kW)
Drill line diameter:	1 1/2" (38 mm)
Max. line pull:	105 160 lbs (47,7 t)

### IRON ROUGHNECK

Manufacturer:	Original Equipment Manufacturer Controls by Bentec
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### TOP DRIVE

Manufacturer:	Bentec
Type:	TD-500-HT
Load capacity:	500 ton / 454 t
Electric motor:	1 030 hp (758 kW)
Output torque:	46 500 ft-lbs (63 000 Nm)

### POWER GENERATION

Manufacturer:	Bentec
Engine type:	4 x CAT 3512B (or equivalent)
Generator type:	4 x CAT SR4 (or equivalent)
Emergency generator set:	1 x CAT 3456 (or equivalent)

### POWER CONTROL ROOM

Manufacturer:	Bentec
Type:	Variable frequency drive 690 V, 50 Hz or 600 V, 50/60 Hz

### MUD PUMPS

Manufacturer:	Bentec
Type:	3 x MP-T-1600-AC
Electric motor:	1 600 hp (1,200 kW) AC
Max. pressure:	5 000 PSI (350 bar) 7 500 PSI (500 bar) on request

### MUD TANK SYSTEM

Manufacturer:	Bentec
Type:	Rectangular tanks
Active mud volume:	As per customer specification
Reserve mud volume:	As per customer specification

### SOLIDS REMOVAL SYSTEM

Manufacturer:	Original Equipment Manufacturer
Shale shaker:	3 x VSM 300 (or equivalent)
Desander:	3 x 12" cones
Desilter:	16 x 4" cones
Drilling mud degasser:	Bentec type DMD 1-250
Mud gas separator:	Bentec 48" vertical type MGS V 48