

TECHNICAL DATA

TI-250MMR – 250 mt Urban Drilling Rig



TI-250MMR is our latest generation urban drilling unit, optimised for geothermal applications from 1400 meter – 3000+ meter MD, with hoisting capacity of 250 mt and pushing load of 30 mt.

We have incorporated our latest hoisting technologies and advanced systems such as enhanced energy recovery. It has been specially thought for clever logistic, as easy to move and ready to operate. Footprint has been kept to its minimum.

Single man operation, with enhanced telemetry and automation providing reliable performances.

Our optimised horizontal racking system, catwalk and roughneck allow the rig for hands free operation handling drillpipe, completion tubing and casing, in a safe and very efficient manner.

TI-250MMR rig has the capacity to adapt to a large scale of drilling locations, especially in urban area where drillpads are usually harder to access. Loads have been optimised to be easily transportable without any additional permit requirement.



GENERAL

Manufacturer: Herrenknecht Vertical GmbH
Hook Load: 250 mt (550.000lbs)
Drilling depth: 3500 m (12,500 ft)
Drillpad size: 30 x 50 m (1500m²)
Load quantity: 36 (Rig Component Only)
Noise level: Max. 50 dB(A) @ 200m

MAST

Manufacturer: Herrenknecht Vertical GmbH
Type: U Shaped, Telescopic
Deployed: 37 m (from ground)
Hoisting Capacity: 1000 kW (1340 hp)

SUBSTRUCTURE

Manufacturer: Herrenknecht Vertical GmbH
Type: Box on Box
Height of drillfloor: 9.5 m (8.8 m below rotary)
Rotary capacity: 250 mt (550.000lbs)
Rotary opening: 37-1/2" (Auxiliary Rotary)
Rigfloor dimensions: 5 m x 9 m
BOP handling: 50 mt (Handling Frame)

HOISTING SYSTEM

Manufacturer: Herrenknecht Vertical GmbH
Type: Multistage Monocylinder
Rated capacity: 250 mt (550.000lbs)
Push capacity: 30 mt (65.000lbs)
Hoisting speed: 1 m/s up to 100 mt / then 0.7 m/s
Stroke: 17.5 m, suitable to handle range III drillpipes
Tripping speed: up to 350 m/h

TOP DRIVE

Manufacturer: Herrenknecht Vertical GmbH
Type / Model: Hydraulic / TD H 300-550
Load capacity: 272 mt (600.000lbs)
Power Rating: 410 kW (550 hp)
Output Torque: 42,000 Nm @ 75 rpm (31,000 ft-lb)

IRON ROUGHNECK

Manufacturer: McCoy
Type / Model: Hydraulic / We TORQ 100
Make-up / Brake-out: 115,000 Nm / 135,000 Nm (85,000 ft-lb / 100,000 ft-lb)
Tubular range: 3-1/2" – 9-1/2"

ROTARY TABLE

Manufacturer: Herrenknecht Vertical GmbH
Type / Model: Hydraulic / DT 37.5-275
Size: 940 mm (37-1/2")
Load Rating: 250 mt (550.000lbs)

POWER GENERATION

Power supply: Diesel or Grid
Engine / Generator type: 3 x 980 KW/1310 hp 3512B Caterpillar
Emergency engine type: 1 x 600 KW/800 hp C27 Caterpillar
Medium Voltage (Grid): 10/20 KV to 690V 2 x 2,150 KVA
Hydraulic power unit: Herrenknecht Vertical GmbH,
 2 x 600 kW / 800 hp electrical motors

HIGH PRESSURE MUD SYSTEM

Type: 2 x TSP 80-120 Schäffer Urbach (3rd Optional)
Power rating: 2 x 1000 KW/1300 hp
Pressure rating: 5000 psi (350 bar)

LOW PRESSURE MUD SYSTEM

Manufacturer: Herrenknecht Vertical GmbH
Active System: 50 m³ (2 x 20m³ + 10m³)
Separation Tank: 30 m³
Mixing / Processing Tank: 75 m³ (3 x 20m³ + 10m³)
Reserve Tank: 25 m³ (1 x 25m³)
Shale Shaker (Brand/Type): 2 x Mongoose Pro + 1 x Mongoose Pro
 Mudcleaner 8T4, 3x12
Shaker Net (API) screen: 2 x 2 m² + 1 x 2 m²
Shaker Capacity: 2 x 2,500 l/min + 1 x 2,500 l/min @ 1.44 SG / API 120

WELL CONTROL EQUIPMENT

BOP: 13-5/8 3K Annular
 13-5/8 5K Double with Super Shear, 13-5/8 5K
 Single (API 16A)
Choke and Kill Manifold: 3" – 5K Manifold (API 16C)

ADDITIONAL FEATURES

Classification: CE + Zoning according to BVEG
 API for specific equipment
Number of Lifts: Core Rig – 15
 Power Module – 6
 Mud and Processing Module – 10
 Pipehandling – 5
Max Weight per Lift: 48 mt