

VERMEER 36x50 SERIES II HDD RIG TECHNICAL SPECIFICATIONS



ST. VINCENT
DRILLING

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St. Vincent Drilling Rig

The Vermeer 36x50 Series II comes with 4500ft-ib of rotary torque and 16.9 tons of thrust/pullback, the highest power-to-size in its class, powered by a 140hp John Deere turbocharged engine and weighs in at 13.29 tons. The drilling fluid system has a maximum flow of 70gpm and a maximum fluid pressure of 1100psi, it carries the Firestick II drill pipe, 152 metres in total so no need to add additional pipe when performing extended shots.

This rig is ideal for small to medium utilities ranging from 75mm to 355mm, it will effectively and efficiently install gas and utility pipelines, and is a safe and economical solution, avoiding man-made and natural obstacles, including rivers, canals, rights of way, SSSI land plus rail and roadways.

Technical Specifications

General Dimensions & Weights

Min transport length: 23.75' (7.2m)
 Min transport width: 90" (228.6cm)
 Min transport height: 90" (228.6cm)
 Weight (500' [152.4m] drill rod): 28,900lb (13,108.8kg)
 Weight with cab (500' [152.4m] drill rod): 29,300lb (13,290.3kg)

Engine

Make/Model: John Deere PowerTech 4045HF275
 Fuel type: Diesel
 Rated rpm: 2400rpm
 Gross horsepower: 140hp (104kW)
 Cooling method: CAC, air-to-air
 EPA certification family: Tier 3 (EU Stage IIIA)

Operational

Thrust/Pullback: 38,000lb (169kN)
 Max carriage speed: 116fpm (35.4m/min)
 Max spindle torque (low at max engine rpm): 5500ft-lb (7457Nm)
 Max spindle speed at max engine rpm: 210rpm
 Inner rod max spindle speed: 260rpm
 Min bore diameter (dirt): 4.5" (11.4cm)
 Min bore diameter (rock): 6" (15.2cm)
 Max ground drive speed at max engine rpm (fwd): 2.1mph (3.4km/h)
 Drill rack angle: 14.9°-17.5° (26.6%-33.3%)

Fluid Capacities

Fuel tank: 45gal (170.3L)
 Hydraulic tank: 45gal (170. L)
 Hydraulic system: 55gal (208.2L)
 Engine cooling system: 8qt (7.6L)
 Antifreeze tank for drilling fluid pump: 5gal (18.9L)

Drilling Fluid System

Max flow: 70gpm (265L/min)
 Max pressure: 900psi (6.2MPa)

Features

Drilling lights: Standard
 Flow indicator: Standard
 Stakedown system: Aggressive (optional)
 Cab: Optional
 Rubber tracks: Optional
 Remote (and fixed) tracking: Standard
 Strike alert: Standard
 Remote lockout: Standard

The drill requires drilling fluid which is run through the Vermeer 850 mixer unit, the main constituent is water which can be mixed with bentonite (clay based) or polymer dependent on ground conditions. This fluid is continuously pumped to the cutting head allowing it to keep cool, it also stabilises the bore path and acts as a lubricant allowing easy passage of the product pipe, this mud can be recycled back through the rig.

Guidance System

Guidance is achieved via the latest Digitrac Falcon F5 Aurora, this system has the widest range of frequencies so the user is assured the best frequency in each situation. Digitrac Aurora gives the rig operator rod by rod data of the bore as it happens, capturing rod number, pitch, depth and surface distance for every rod drilled, helping the operator steer an accurate bore path.

Drill Pipe - Inner

Type: Firestick drill rod
 Length: 10' (3m)
 Rod diameter: 1.66" (4.2cm)
 Joint inside diameter: .75" (1.9cm)
 Joint diameter: 1.88" (4.8cm)
 Weight: 38lb (17.2kg)

Drill Pipe - Outer

Type: Firestick drill rod
 Length: 10' (3m)
 Rod diameter: 2.625" (6.7cm)
 Joint inside diameter: 2.06" (5.2cm)
 Joint diameter: 3.313" (8.4cm)
 Weight: 83lb (37.6kg)
 Min bend radius: 169' (51.5m)
 Max rod carrying capacity: 500' (152.4m)
 Clip weight (500' [152.4m]): 7080lb (3211.4kg)

Guidance System - Digitrac Falcon F5 Aurora

Model Number/Product ID: AF10
 Power Source: 10-28 VDC
 Current: 2.1 A maximum
 Controls: 10.4" touchscreen
 Graphic Display: LCD
 Audio Output: Speaker
 Telemetry Range: 1800ft (550m)
 Telemetry Channels: 4
 Wireless LAN: 2.4GHz IEEE 802.11 b/g/n
 Bluetooth: 2.1+ EDR & Low Energy (BLE) 4.0 radio
 Operating Temperature: -4 to 140°F (-20 to 60°C)
 Length, Width, Height: 11.5in. (29.2cm), 9.3in. (23.7cm), 2.3in. (5.8cm)
 Weight: 6.4 lb (2.9 kg)

**Please contact St. Vincent Drilling
 to request a quote or for further information:**

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