

# Vermeer®

Horizontal Directional  
Drilling System

# D 100x120

*Series II*



# NAVIGATOR®

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# D100x120

## Series II

### **The D100x120 — Efficiency at its Best.**

The all new Vermeer® D100x120 NAVIGATOR® HDD is designed with the operator in mind. Drilling functions are integrated into the thrust and rotation joystick controls, providing the operator with fingertip control. Large service doors allow easy access to engine and hydraulic components.

The D100x120 Series II delivers 12,000 ft-lb (16,270 Nm) of rotational torque and 100,000 lb (45,360 kg) of thrust/pullback force to perform a wide range of bores in difficult ground conditions.

This commanding combination results in easier, more efficient handling of larger underground products. In addition, the D100x120 Series II utilizes a 200 gpm (757 L/min) onboard pump for increased backreaming and mudmotor efficiency.

The patented RockFire® Ready System is also a standard feature that allows operation of the RockFire pneumatic rock drilling system. The RockFire Ready System is also beneficial in everyday drilling, providing such features as a built-in pump bypass, adjustable thrust control, and reverse rotation pressure limiter. A three-speed rotational operation allows the operator to match rotational speeds to varying ground conditions and backreamer sizes. Increased inside drill stem diameter reduces pressure drop across the drill stem joints improving mudflow efficiency.

**4 YEAR/  
4000 HOUR  
WARRANTY**



**Protect your investment.** The industry-exclusive Vermeer Equipment Limited Warranty offers you peace of mind by providing 4 years/4000 hours of warranty protection on all rack-and-pinion gears.



**Rack-and-pinion drive.** This simple system provides smooth operation. The D100x120 Series II unique narrow rack-and-pinion design helps maintain a small footprint for access into congested areas. The rack is sectionalized and bolts on for easy repair or replacement.

# Power and Efficiency.



**Measured to exacting tolerances.** The D100x120 Series II carries up to 300' (90 m) of one-piece FIRESTICK® II drill stem in 20' (6.1 m) lengths designed to handle high torque while retaining a large inside diameter for superior drilling fluid flow.

## **D100x120 Series II Specifications**

### **General**

- Length: 410.4" (1042.4 cm)
- Width (fixed tracks): 93" (236 cm)
- Height: 118" (300 cm)
- Weight: 39,000 lb (17,690 kg)

### **Operational**

- Max spindle torque:
  - @ 70 rpm: 12,000 ft-lb (16,270 Nm)
  - @ 95 rpm: 9000 ft-lb (12,202 Nm)
  - @ 140 rpm: 6000 ft-lb (8135 Nm)
- Max spindle speed: 140 rpm
- Thrust (actual): 100,000 lb (45,360 kg)
- Pullback (actual): 100,000 lb (45,360 kg)
- Min bore diameter: 5" (13 cm)
- Max ground drive speed: 3.2 mph (5.1 km/h)
- Max carriage speed: 140 fpm (42.7 m/min)
- Drill rack angle: 22 – 33°
- Remote lockout: Yes

### **Drilling Fluid System**

- Max flow: 200 gpm (757 L/min)
- Max pressure: 1100 psi (76 bar)

### **Features**

- Breakout system: Power vise
- Drilling lights
- Flow indicator

### **Drill Stem**

- Type: FIRESTICK II
- Length: 20' (6.1 m)
- Joint diameter: 4.2" (11 cm)
- Pipe diameter: 3.5" (9 cm)
- Weight: 330 lb (150 kg)
- Clip weight (9 rod): 3400 lb (1542 kg)
- (15 rod): 5500 lb (2495 kg)
- Min bend radius: 197.4' (60 m)
- Rod carrying capacity: 300' (90 m)

### **Power**

- Engine: John Deere 6068
- Gross power rating: 225 hp (168 kW)
- Net power rating: 203 hp (151 kW)
- Rated rpm: 2400

### **Fluid Capacities**

- Engine oil (including filter): 33 qt (31 L)
- Fuel tank: 60 gal (227 L)
- Hydraulic reservoir: 60 gal (227 L)

## HORIZONTAL DIRECTIONAL DRILLING SYSTEM



**The floating vise feature** allows the breakout system to clamp the full rod upsets during breakout of the lower and upper joints. The D100x120 Series II uses replaceable breakout dies and does not require backup wrenches.



**The state-of-the-art operator's station** is elevated with an electrically operated swivel and tilt control seat. Dual joysticks control functions for mudflow, breakout vise, and throttle and are integrated into the thrust and rotation controls. This feature provides the operator fingertip control over repetitive drill functions. Drilling pressure gauges are located within operator line of sight.

## Vermeer offers everything from specialty tooling to training and technology.

At any given time, more than half of all horizontal directional drilling units in the world are Vermeer NAVIGATOR machines. To help ensure smooth-running operations, Vermeer offers everything you need – from one-day training seminars to computer software – for more efficient bore planning and performance.



**The Vermeer Cutting Edge Group** produces some of the world's most popular HDD tooling, specialty tooling, and custom-made tooling. Call for a **FREE** HDD accessories catalog! **Call 1-866-VERMEER or view online at [www.vermeer.com](http://www.vermeer.com).**



**Vermeer drilling fluid management systems** provide the horizontal directional drill with quality mud mixing in a minimum amount of time. Smaller systems are self-contained on a mounting skid. Larger systems are available preassembled on mounting platforms to provide drilling operations with greater versatility.



**Wetting agents, polymers, and bentonites** — you need the right mix to get through the tough bores. Vermeer offers specially formulated nontoxic polymer and bentonite drilling fluids to get the job done.



**Locating systems** are developed by working closely with the world's premier locating companies. Vermeer helps keep you on the leading edge of technology by offering a variety of options designed to meet the needs of varying applications.



**Vermeer features a global team of NAVIGATOR HDD solutions specialists** that provide localized training and operation expertise designed for the conditions in your area.



**One-day horizontal directional drilling seminars** offered by industry experts at a Vermeer dealership near you focus on current issues in the horizontal directional drilling industry.



**The efficient, economical way to plan a bore.** Vermeer ATLAS BORE PLANNER® software heightens professionalism by aiding the operator in preplanning the bore and comparing the planned bore path with the actual bore path. The Vermeer FieldCalc™ system combines software and a hand-held computer to provide job site calculations, including setback distance, pullback time, and point-to-point calculations.

# Your Complete Global Service Provider for Quality Parts and Service.



*Get the parts and service edge. In addition to providing quality equipment, Vermeer delivers top-quality parts and superior services. Vermeer parts are manufactured to exacting specifications to help keep your Vermeer equipment running trouble-free and at OEM specifications.*



*Vermeer offers factory-certified training programs to its dealer network to ensure that the most current service procedures are presented to the service personnel of your Vermeer dealer.*



*Genuine Vermeer parts are precision crafted to match your Vermeer equipment EXACTLY. This ensures that your system will run as smoothly as possible, with the least amount of service and maintenance.*

## Vermeer®

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