

Geoprobe® DM650 Water Well Rig

Large Residential, Light Commercial

Possessing the power to reach greater depths and the ability to support the weight of steel casing, the Geoprobe® DM650 air rig achieves mud rotary speed without sacrificing power. This rig features 28.5-foot stroke, 40,000-lb pullback, and 8,000 ft-lb of torque.

Dual Pivoting Jibs

Two jibs position primary and secondary winches.

- Primary – choose 17,500 or 12,000 lb; swings and extends to helper side.
- Secondary – choose 5,000, 2,500 or 1,800 lb; swings and extends to driller side.

Top Head Carriage

2-speed rotary drive with 8,000 ft-lb torque, 200 rpm, and 3-inch spindle thru bore. Side shift both directions with 40 inches of total travel to work with carousel and create a clear path for centerline winch operation. Durable rollers provide fast, smooth 28.5-foot stroke along with a quiet job site and simple maintenance.

Drill Mast

Reach depth with ability to support weight of steel casing, rigid drill mast provides 28.5-foot stroke and 40,000 lb pullback.

Rod Carousel

Backfeeding while running drill pipe allows operators to reach total depth from the carousel. Options accommodate preferred pipe size:

- 3.5-inch rod: 12 rods in carousel (240 feet) + 18 rods in optional box (360 feet) = 600 feet
- 4.5-inch rod: 10 rods in carousel (200 feet) + 15 rods in optional box (300 feet) = 500 feet

Mud Pump & Air Compressor

Drill larger and deeper using preferred drilling method.

- Air – choose between 500/200 or 1070/350 compressor
- Mud – up to 6 x 8 piston pump along with 4 x 3 centrifugal pump, running independently or supercharge duplex with 4 x 3 running in front

Control Panel

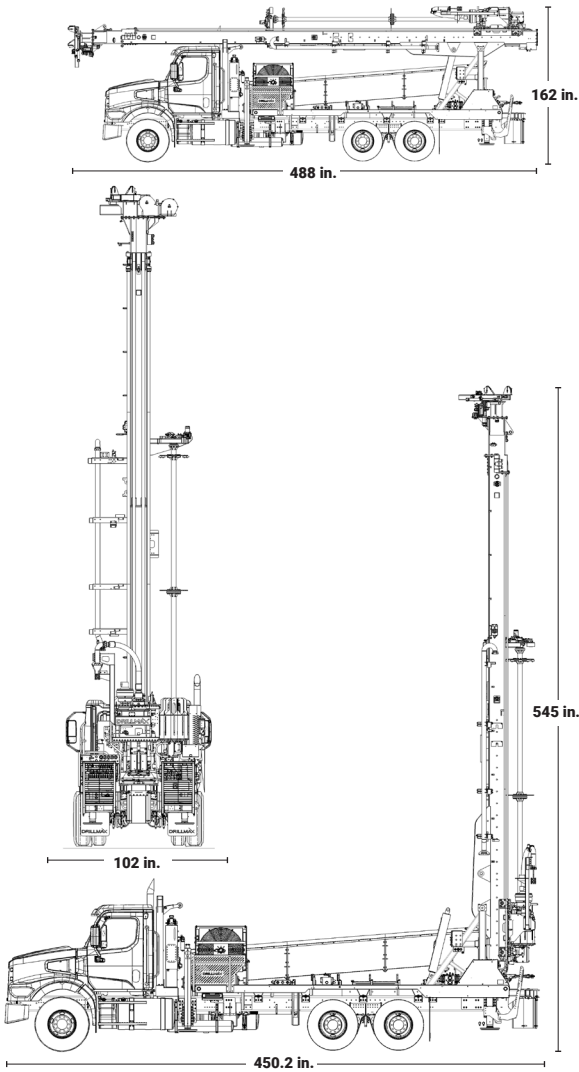
Durable, mechanical controls simplify operation and training of new drillers. Organized control panel includes engine monitoring, safety E-stop, hydraulic pressure gauges, friction control levers for mud pump and rotation circuits, and electronic throttle controls.

Table Assembly & Breakout Wrench

Hydraulically retract breakout table – quickly switching bushing sizes to provide a 24-inch opening located outside the drill mast for plenty of room to weld well casing. Utilize air fork for fast and safe tripping out.



WEIGHT & DIMENSIONS



TOOLING

Typical Geoprobe® Tooling for the DM650

- DM Drill Pipe
- DM Spring Assisted Swivel Hoist Plug
- DM Adapter Subs



Rig shown with optional features. Dimensions subject to change without notice.



OPTIONS

Tool Handling

- Sub DMR8 Flange X 3-1/2 IF Box
- Sub 3-1/2 IF Box X 3-1/2 IF Pin 24 S-S
- Float Sub DH 3-1/2 IF Box X 3-1/2 IF Pin 24 S-S
- Stabilizer Tray 10" OD X 15' Long
- Rod Spinner
- **3.5 OD Rod – (2-3/8 IF)**
 - Centralizer Kit 3.6/6, 8/10.9
 - Fork Weldment 3.5" Drill Rod
 - Sub 2-3/8 IF Box X 3-1/2 IF Pin
 - Sub 2-3/8 IF Pin X 2-3/8 IF Pin
 - Hoist Plug 2-3/8 IF - Backloading
- **4.5 OD Rod – General**
 - Centralizer Kit 4.6/6, 8/10.9
 - Fork Weldment 4.5" Drill Rod
- **4.5 OD Rod (3-1/2 IF Specific)**
 - Sub 3-1/2 IF Box x 3-1/2 IF Pin 16 S-S
 - Sub 3-1/2 IF Pin x 3-1/2 IF Pin 16 S-S
 - Hoist Plug 3-1/2 IF - Backloading
- **4.5 OD Rod (2-7/8 IF Specific)**
 - Sub 2-7/8 IF Box x 3-1/2 IF Pin 16 S-S
 - Sub 2-7/8 IF Pin x 2-7/8 IF Pin
 - Hoist Plug 2-7/8 IF - Backloading
 - Breakout Fork 2-7/8 IF

Mud & Water Pumps

- Duplex Pump 5.5 x 8
- Duplex Pump 6 x 8
- Centrifugal Pump 4 x 3 x 13
- 6 x 8 Duplex & 4 x 3 Centr Pump
- 6 x 8 Duplex & 4 x 3 Centr Supercharge Pump
- Water Injection Pump
- Water Injection Kerr Triplex
- Hammer Lubricator
- 3 in. Diaphragm Pump
- Series 4 x 3 x 13

Rod Loader & Box

- Single Rod Loader 3.5 in. Rod
- Rod Box 3.5 in. 25 Rod
- Single Rod Loader 4.5 in. Rod
- Rod Box 4.5 in. 15 Rod

Carousel

- Carousel 3.5 in. x 12 Rod
- Carousel Rod Box 3.5 in. x 18 Rod
- Carousel 4.5 in. x 10 Rod
- Carousel Rod Box 3.5 in. x 15 Rod

Air Compressor

- Air Compressor, 500 / 200 CFM
- Air Compressor, 1070 / 350 CFM

Tool Storage

- Helper Toolbox 32 in.
- Driver's Side Toolbox HD 60 in.

Winches

- Dual Pivot Extend Jib Long HD
- Dual Pivot Extend Jib HD
- Dual Pivot Extend Jib SD
- Primary Winch
 - 17,500 lbf 150 ft.
 - 12,000 lbf 150 ft.
- Secondary Winch
 - 5,000 lbf 150 ft.
 - 2,500 lbf 280 ft.
 - 1,800 lbf 750 ft.

Additional Options

- Steerable Tag Axle
- Hammer Holder - 6 in.
- Hammer Holder - 8 in.
- Hammer Holder - 10 in.
- Foam Tank Kit - 3 gal.
- Secondary Aux Pump Kit
- Hydraulic Welder Kit
- Remote Control Primary Winch/Jib
- Control Panel Cover
- Ladder w/ Full Arrestor
- 8.5 in. Centralizer
- Aux Valve for Casing Hammer



Simplified mud or air drilling suited for geothermal, water well, or irrigation projects, the DM650 is easily mobilized from job site to job site.

Videos, Photos, Specifications, Resources

geoprobe.com/dm650

