



## TD 410 Geothermal Drilling Rig

The **TD 410** is a purpose built mobile rig for fast clean installation of closed loop ground source heat pump systems. It has the ability to drill to over 200m (650 feet) deep with bores up to 228mm (9"). Its CAT C4.4 turbo diesel delivers over 70kW (90hp) making this a powerful compact and very manoeuvrable rig. Due to ACERT™ Technology the new CAT C4.4 diesel has high power 70kW (90hp), low noise and reduced emissions making it ideal for use on sensitive sites. A total rig weight of around 4,500kg (10,000lbs) keeps transportation costs to a minimum. The low ground pressure of 0.4kg/cm<sup>2</sup> (6 psi) combined with the rubber encased tracks makes it possible to track over finished surfaces without causing damage. Using rotary drilling systems, down the hole hammers and casings it is now possible to drill through all types of ground. Available with three different mast heights and other options including a removable utility tray mounted to the rear of the rig for ancillary drilling equipment such as pumps and lubricators. The **TD 410** is "First in Geothermal".™

### Standard Equipment:

- Steel crawler tracks with heavy duty rubber running surface.
- 2 Speed high torque rotation head with 60mm (2 3/8") through bore for direct flushing.
- Hydraulic side slide system so rotation head can move off the centre line of the drill string.
- Standard mast height 4.7m (15' 5"), stroke 3.6m (11' 10"), with 9,000kg (19,800 lbs) pull back.
- Mast head high speed winch, maximum line speed of 56 m/min (183 fpm) with 2000kg (4,400 lbs) line pull.
- Clamp system, 229mm bore (9") with hydraulic wrench cylinder.
- Mast side to side movement  $\pm 45^\circ$
- Mast fore and aft movement  $+3^\circ$  to  $-90^\circ$ .
- Mast support for transportation.
- Diesel tank 85 L (22.5 gallons)
- Electrical system 12 volt with auto shut downs.
- Mud/Air flushing line with 50mm (2") bore and swivel rated to 41bar (600 psi).
- Three position hydraulic stabilizer jacks.
- Hydraulic oil cooler.
- Hydraulic power take off point for flushing pumps etc.
- Spare hydraulic spool function.
- Hydraulic pressure gauges.



# TECHNO DRILL

## Specifications:

Height when drilling.*	5.4m	17' 10"
Height in transport position	2.0m	6' 8"
Width	1.22 m	4' 0"
Length in drill position	2.8 m	9' 4"
Weight.*	4,430kg	9,750lbs
Feed Stroke	3.6m	11' 10"
Pull Back	9,000kg	19,800 lbs
Maximum Torque	13 kNm	9,580 lbf.ft
Engine	70kW	90hp

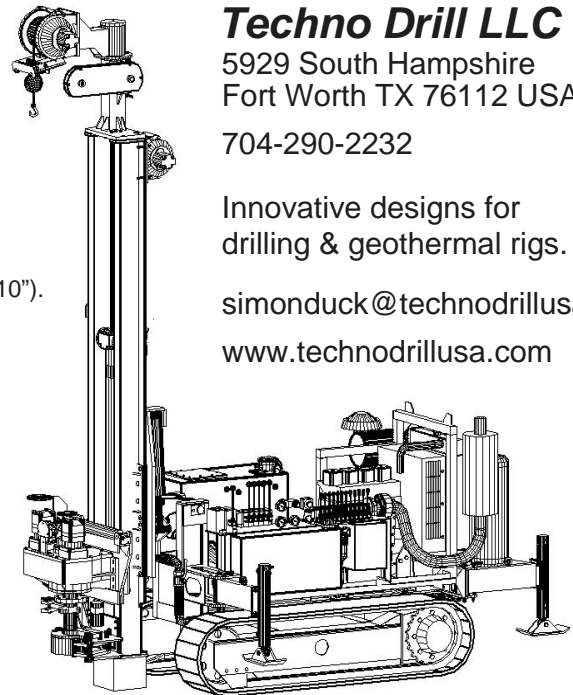
\*Dependant on options.

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**"First in Geothermal"™**

## Options available:

- Mast Heights: Standard mast height 4.7m (15' 5"), Stroke 3.6m (11' 10").
- Mast Height 3.6m (11'10"), Stroke 2.4m (7' 10")
- Mast Height 2.2m (7' 3"), Stroke 1.4m (4' 7")
- Auxiliary winch 1000kg (2,200 lbs) line pull.
- Radio controls on tracks and drilling functions.
- Mast head lights.
- In-line lubricator 26 L (7gall) for down the hole hammers.
- Flushing pump 70 L/min(18gpm) maximum flow, 38 bar (550psi) maximum pressure.



## **Techno Drill LLC**

5929 South Hampshire  
Fort Worth TX 76112 USA

704-290-2232

Innovative designs for  
drilling & geothermal rigs.

[simonduck@technodrillusa.com](mailto:simonduck@technodrillusa.com)

[www.technodrillusa.com](http://www.technodrillusa.com)

Techno Drill reserves the right to change specifications at any time without incurring obligation.



[www.igshpa.okstate.edu](http://www.igshpa.okstate.edu)

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