



## GTD GT45 DRILL RIG

The **GT series** of drill rigs are known for their **high productivity** and **reliability** in geothermal drilling, with **proven performance** in both domestic and commercial applications around the world. These rigs are the **number one choice** for **leading industry professionals**, thanks to their **versatility** and ability to handle a variety of drilling conditions with **precision** and **efficiency**.

The **GT45** model is ideal for drilling 800ft - 1000ft boreholes productively using **mud, air, and hammer** drilling methods. It is equipped with our unique **rod rack and loading system**, which is the most **robust, reliable, and safest rod handling system** on the market, ensuring **maximum safety** and **efficiency** in all drilling operations.

**FIELD-PROVEN  
UPTIME AND  
PERFORMANCE,  
BACKED BY  
CUSTOMER  
RESULTS**

**DRILL  
DEEPER AND  
FASTER WITH  
MINIMAL  
COMPROMISE**



46,000 LBS  
**PULL - BACK**

380HP  
**CUMMINS ENGINE**

20FT DRILL RODS  
**880FT ON BOARD**

**EURODRILL TOP DRIVE - RH16X**  
TORE OF 11,897LB-FT

**DRILL BEYOND**  
850FT

**GT45**

## DIMENSIONS & WEIGHT

- ▶ Length 38' 8" (11.79m)
- ▶ Width 7' 10" (2.39m)
- ▶ Height 11' 2" (3.4m)
- ▶ Weight 57,320 lbs - 70,550 lbs  
(26,000 kg - 32,000 kg)  
Actual weight will vary depending on the options selected and installed, e.g. Rods...

## DERRICK & FEED SYSTEM

- ▶ 46,300 lbs (21,000 kg) pull-back
- ▶ 17,640 lbs (8,000 kg) push-down
- ▶ 24' 7" (7.5 m) top head stroke

## DRILL PIPE & CASING

- ▶ 3½" (88.9 mm) x 20' (6 m)  
44 rod capacity - 880' (264 m)
- ▶ 3¾" (95 mm) x 20' (or 6 m)  
36 rod capacity - 720' (or 216 m)
- ▶ Max diameter 12½" (320 mm)

## ENGINE

- ▶ Cummins L9 (Stage 5)  
380 hp (283 kW)
- ▶ Typical engine speed - 1400 rpm - 1600 rpm
- ▶ Max engine speed - 1800 rpm

## ROTARY DRILL HEAD - RH16X

- ▶ Swivel with 2 -1/2 thru-hole  
202rpm at 3,717 lb-ft (5.04 kNm)
- ▶ 63rpm at 11,897 lb-ft (16.13 kNm)
- ▶ Chuck and Floating Head

## CRAWLER (TRACK) BASE

- ▶ Doosan Solar 130
- ▶ Steel with rubber pads
- ▶ Wireless remote travel

## GTD STANDARD FEATURES

- ▶ Sideshift - Sliding Drill Head
- ▶ KING OIL Swivel & Floating Spindle Sub 
- ▶ Height adjustable working table
- ▶ Double Clamps - One rotating
- ▶ Hydraulic Centralizing Rollers
- ▶ Hydraulic Breakout Chain Wrench
- ▶ Auxiliary Hydraulic Ports and Controls
- ▶ Main Winch - 11,000 lbs (5,000 kg)
- ▶ Wire/Sandline Winch
- ▶ Water Injection Mist Pump
- ▶ DTH Lube System
- ▶ Rod Rack & Rod Loader
- ▶ Self Loading Jacks/ Outriggers
- ▶ Air Compressor: 24 cfm (673 lpm),  
130 psi (9 bar)
- ▶ Centrifugal Pump: 4x3x13 Single-stage
- ▶ 5x6 Triplex Piston Pump: 317 gpm @ 580 psi  
(1200 lpm @ 40 bar)
- ▶ Hydraulic Welder & Generator (7.5 kW)
- ▶ Tablet Computer & Engine Diagnostics  
Software

## OPTIONS

- Hydraulic Sliding Rod Wrench
- Angled Drilling
- Triple Clamps
- Safety Cage
- Sandline Winch Length 1,000' - 6,500'  
(300 m - 2,000 m)
- Head 30° Angled Tip Out System

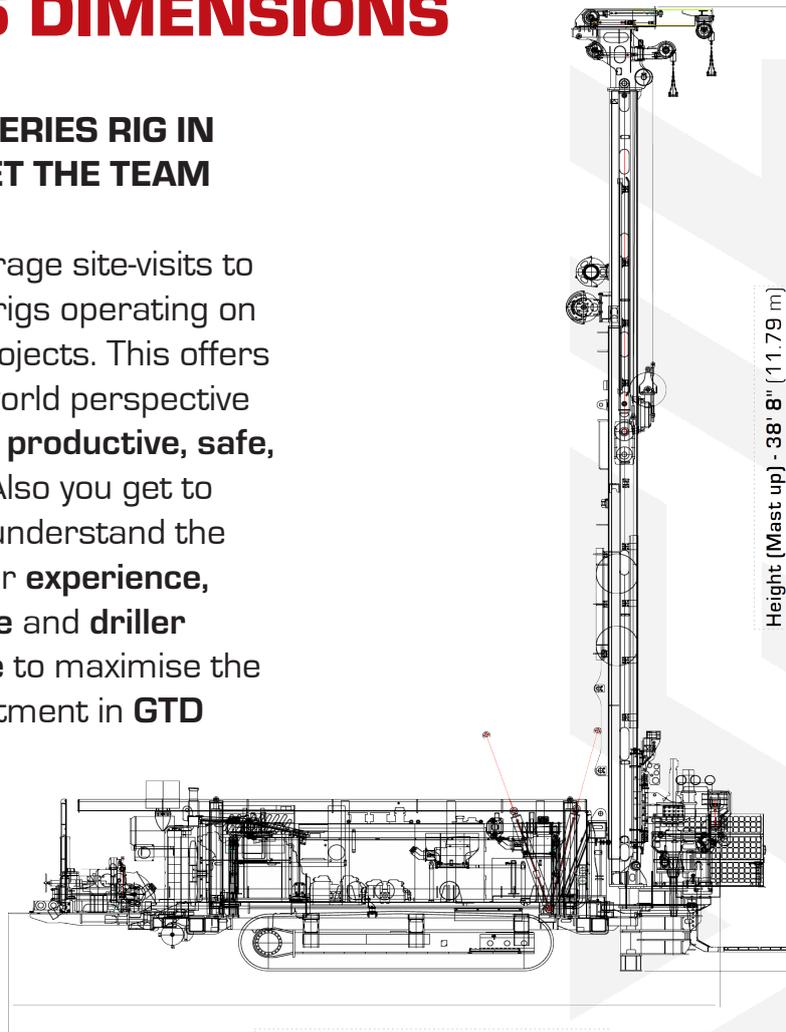
**EURO  
DRILL**




# GTD GT45 DIMENSIONS

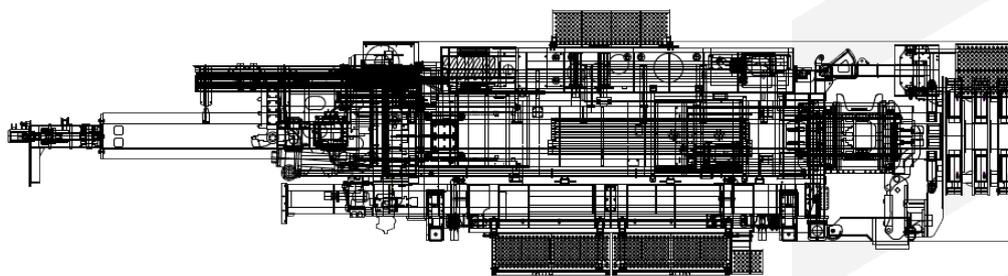
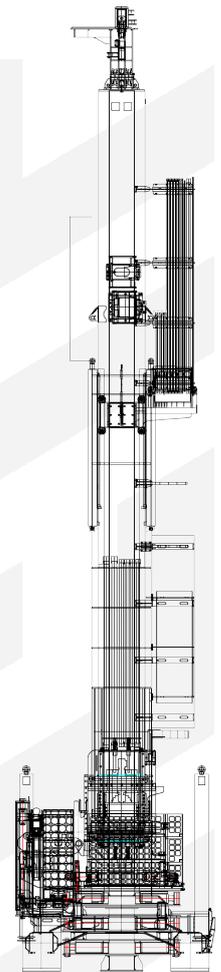
## COME SEE A GT SERIES RIG IN ACTION AND MEET THE TEAM

We strongly encourage site-visits to see our **GT Series** rigs operating on 'live' commercial projects. This offers an authentic, real-world perspective on why our rigs are **productive, safe,** and **user-friendly**. Also you get to **meet the team** to understand the additional value their **experience, abundance attitude** and **driller focused knowledge** to maximise the return on any investment in **GTD desco** equipment.

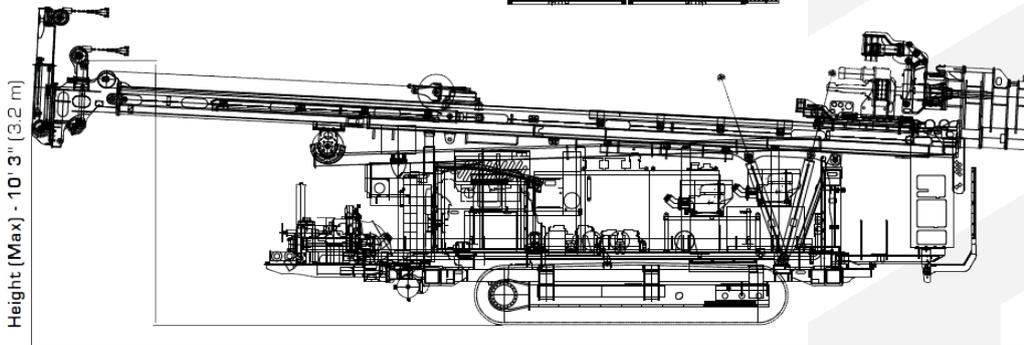


Height (Mast up) - 38' 8" (11.79 m)

Length (Max) - 38' 8" (11.79 m)

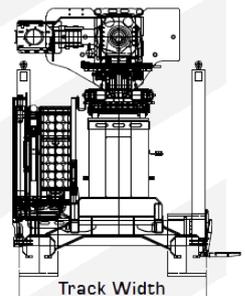


W (Max) - 7' 8" (2.4 m)



Height (Max) - 10' 3" (3.2 m)

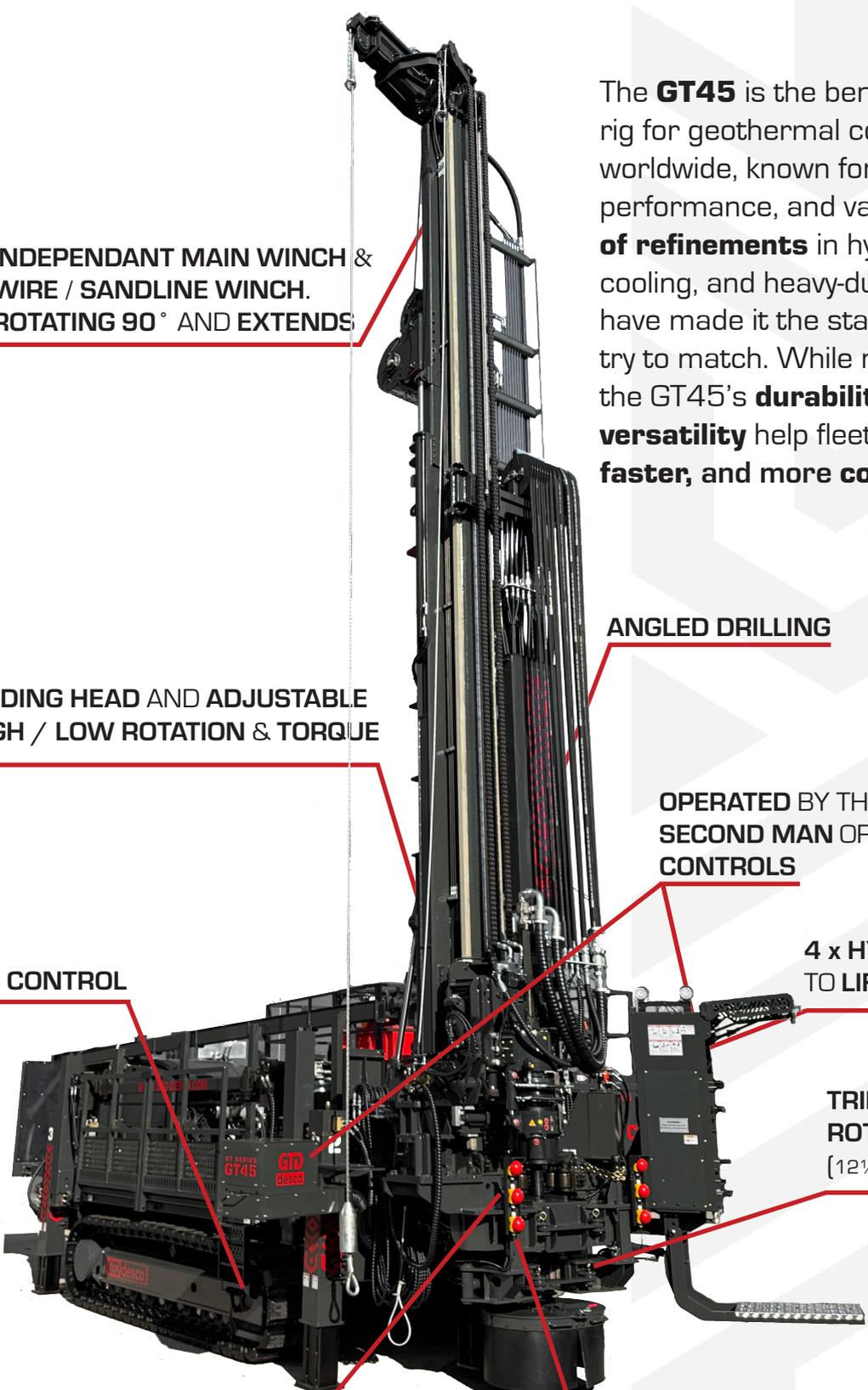
Length (Max) - 38' 7" (11.8 m)



Track Width  
7' 2" (2.2 m)

NOTE: THE MEASUREMENTS ABOVE ARE THE BASE DIMENSIONS WHICH MAY BE SUBJECT TO VARIATION DEPENDENT ON FINAL DESIGN SPECIFICATIONS. SPECIFICATIONS SHOWN ARE ONLY INDICATIVE AND SUBJECTED TO CHANGE WITHOUT PRIOR NOTICE

# GTD GT45 CORE FEATURES



INDEPENDANT MAIN WINCH &  
WIRE / SANDLINE WINCH.  
ROTATING 90° AND EXTENDS

The **GT45** is the benchmark rig for geothermal contractors worldwide, known for its reliability, performance, and value. **Decades of refinements** in hydraulics, cooling, and heavy-duty components have made it the standard others try to match. While no rig is perfect, the GT45's **durability** and **proven versatility** help fleets **drill deeper, faster, and more cost-effectively.**

SLIDING HEAD AND ADJUSTABLE  
HIGH / LOW ROTATION & TORQUE

ANGLED DRILLING

OPERATED BY THE LEAD DRILLER,  
SECOND MAN OR BOTH ON DUAL  
CONTROLS

REMOTE CONTROL

4 x HYDRAULIC LEGS  
TO LIFT AND LEVEL

TRIPLE CLAMPS, 1  
ROTATING & 2 FIXED  
(12½" (320MM) OPENING)

HYDRAULIC CENTRALIZING  
ROLLERS, SLIDING ROD  
WRENCH & CHAIN WRENCH

HEIGHT ADJUSTABLE WORKING TABLE,  
CAN BE USED AS A CASING EXTRACTOR

## GTD GT45 ADITIONAL INFO

### HYDRAULIC WELDER

Ideal for welding casing and for on-site power and welding requirements.



### SAFTEY CAGE

Meets your country-specific requirements with a safety cage and rotation cut-off.

### HYDRAULIC SLIDING ROD & WRENCH

Used if you are not confident with clamps and are worried about dropping rods.



### PUMPS

Centrifugal pump: 4×3×13 single-stage

Mud Puppy 250 or GTD own 4×3×13" heavy-duty chromoly pump  
Interchangeable parts between both

### ANGLED DRILLING

Drill up to 45° angles. As standard 20 degrees is achievable, but for greater angles we recommend moving the table travel. Keeps the site tidy when not using surface casing and diverter when air drilling.



Configured for dual mud pumps of your choice:

- Two centrifugal pumps
- or
- One centrifugal and one piston pump

### TRIPPLE CLAMPS

Useful if drilling with a lot of casing.



### High-Pressure Piston Pump

- MP1200 5×6 Triplex Piston Pump
- 317 gpm @ 580 psi (1,200 lpm @ 40 bar)

### AIR DRILLING SKIRT

Keeps the site tidy when not using surface casing and acts as a diverter when air drilling.



### RODS AND CASING

PP52 tapered flush thread delivers maximum flow and joint strength without the limitations of API designs, ensuring full hydraulic performance with leak-free connections.

### HIGH TORQUE MOTORS & REDUCTION GEARBOX

Upgrade the standard head with high-speed bent-axis motors and a reduction gearbox, giving a 24% increase in torque and increased motor life.



Premium friction-welded joints with extended, thick transition zones reduce stress concentrations and improve resistance to cyclic fatigue under high torque.

### EURODRILL RH16X

With almost double the torque of the standard GT35 drill head from a world-renowned manufacturer.



## DATA MONITORING SYSTEM

TURN YOUR DRILL SITE INTO A SMART, CONNECTED SYSTEM WITH GTD.

With **real-time data** and **remote access**, you can keep your team **informed** and in control — **reducing risk, boosting performance, and cutting downtime.**

## WIRELESS SYNC

Wireless sync keeps your **rig, solids control equipment, and data logger** in constant communication.

Stay ahead with **alerts** that predict maintenance and **catch anomalies early.**

## LIVE DATA

Live data puts speed, torque, and fluid control at **your fingertips.**

Cloud dashboards keep your data within reach, wherever you are.

## HOW IT LOOKS



[Live data read-outs positioned right above main drillers controls]

## MONITORED PARAMETERS: WHAT YOU CAN SEE

PARAMETER	PURPOSE / INSIGHT
RATE OF PENETRATION (ROP)	Tracks drilling progress: alerted drop identifies bit wear
TORQUE	Prevents overloading; flags formation changes or stuck pipe
RPM	Optimizes bit performance and drilling efficiency
MUD PUMP PRESSURE	Ensures hole cleaning, formation stability, avoids stuck pipe
MUD VOLUME / FLOW RATE	Monitors fluid usage; supports environmental compliance
HYDRAULIC OIL TEMPERATURE	Prevents overheating; aligns with GTD's upgraded cooling systems
FUEL CONSUMPTION	Tracks rig efficiency vs. torque/RPM output
WEIGHT ON BIT (WOB)	Refines ROP control; critical for bit and formation optimization
DEPTH & DRILL TIME	Tracks progress; enables per-foot cost/performance KPIs
SYSTEMS DIAGNOSTIC LOG	Includes sensor health, alerts, and error messages

# GTD SUPPORT

## FULL LIFECYCLE SUPPORT

### GTD'S COMMITMENT TO UPTIME DOESN'T END AT DELIVERY – IT BEGINS.

A wellmaintained GTD rig delivers strong ROI, safer operations, and longer service intervals, ensuring expert support is always within reach, wherever your operation is based.

## KEY SUPPORT FEATURES

- ▶ **Rapid spare parts replenishment** across the **USA, Canada, and the Rest of the World.**
- ▶ **Remote diagnostics and alert configuration** through GTD's **integrated data system.**
- ▶ Multipul **service hubs and parts stores** in **New Hampshire (USA) and Ontario (Canada) Tonbridge (UK).**
- ▶ **Onsite commissioning, training, and inspections** by **GTD North American and Global Service Teams.**
- ▶ **Comprehensive service kit** covering the first **2,000+ operating hours.**
- ▶ **Fully bespoke support and service packages** and be created to **suit your business needs.**



## GTD LOCATIONS

### GTD'S GLOBAL SUPPORT HUB NETWORK MEANS WE CAN DELIVER, WHEREVER, WHENEVER...

A wellmaintained GTD rig delivers strong ROI, safer operations, and longer service intervals, ensuring expert support is always within reach, wherever your operation is based.

#### GTD USA

75A BIRCH RD,  
SWANZEY,  
NH, 03446,  
USA

#### GTD CANADA

57 INGRAM DR,  
NORTH YORK,  
ON, M6M 2L6,  
CANADA

#### GTD UK - HQ

QUEEN ST,  
PADDOCK WOOD,  
TONBRIDGE,  
TN12 6PJ  
UNITED KINGDOM

#### GTD SOUTH KORIA

NAM-MYEON,  
JEOLLANAM-DO,  
SOUTH KOREA

# GTD SUPPORT

## GTD GLOBAL SUPPORT TEAMS

**GTD DOESN'T JUST SELL RIGS — WE SUPPORT YOUR FLEET FOR LIFE.**

Our North American field teams and global engineering group ensure your rigs stay productive, safe, and efficient year after year.

### NORTH AMERICAN FIELD TEAM



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## GET IN TOUCH NOW TO DISCUSS HOW WE CAN IMPROVE THE EFFICIENCY AND SAFETY OF YOUR DRILLING OPERATION...

For more information, contact us on [INFO@GTD-DESCO.COM](mailto:INFO@GTD-DESCO.COM)



**GT45 SPEC SHEET**

**[WWW.GTD-DESCO.COM](http://WWW.GTD-DESCO.COM)**