

The logo for GTD, consisting of the letters 'GTD' in a bold, white, sans-serif font, set against a black square background.

**GTD**

JOIN THE REVOLUTION



THE GTD  
**DIAMOND  
DRILLING  
PACKAGE**



# DRILLING PACKAGES

**RECORD BREAKING PERFORMANCE!**

» **ALL DRILLING PACKAGES ARE COMPLETELY BESPOKE, CUSTOM SPEC'D TO YOUR SPECIFIC SHALLOW GEOTHERMAL DRILLING NEEDS BUT HERE IS AN EXAMPLE PACKAGE...**

» **WHY BUY A COMPLETE PACKAGE?**

- **IT'S EVERYTHING YOU NEED - WHETHER YOU ARE A START-UP, EXPANDING OR DIVERSIFYING**
- **METICULOUSLY ENGINEERED AND SPECIFIED TO WORK TOGETHER**
- **THE MOST AFFORDABLE WAY TO BUY EQUIPMENT**
- **A SINGLE FINANCE PACKAGE**
- **ONE DELIVERY DATE**
- **REDUCED RISK (FINANCIALLY, NON-COMPATIBILITY AND TO PRODUCTIVITY)**

Leverage our decades of experience as experts in geothermal ground source drilling when specifying the most relevant package for your needs.

Our packages aren't just about equipment sales, we provide consultation, training, support (pre and post purchase) along with a complete ecosystem of supplies and consumables.

We even provide qualified access to drilling contracts as part of the wider GTD Drillers Co-operative

# OUR COMPLETE DRILLING PACKAGES ARE UNIQUE TO THE INDUSTRY





# GEOHERMAL GROUNDSOURCE DRILL RIGS & EQUIPMENT

SCAN QR CODE  
TO ACCESS THE  
MOST UP TO  
DATE ONLINE  
BROCHURE



QR.CO.DE/GTDBROCHURE

CONTACT US FOR FULL SPECIFICATION SHEETS:  
E: [INFO@GTD-DRILLING.COM](mailto:INFO@GTD-DRILLING.COM)

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## ➤ GROWTH OPPORTUNITIES IN SHALLOW GEOTHERMAL DRILLING

### LOOKING TO IMPROVE, EXPAND OR SET UP A NEW GROUND SOURCE GEOTHERMAL DRILLING OPERATION?

Ground Source Heating and Cooling (GSHC) drilling offers massive growth opportunities for drilling businesses.

With the industry currently operating at a fraction of its potential market share, now is the time to diversify and expand. Legislative changes and net-zero carbon targets are driving demand beyond the capacity of existing drilling businesses, creating a need for more GSHC drillers and specialized equipment that can boost productivity and profits.



**GTD'S EQUIPMENT IS DESIGNED SPECIFICALLY FOR THE GROUND SOURCE GEOTHERMAL INDUSTRY ALLOWING THE HIGHEST OPERATIONAL EFFICIENCY**

There is a seismic shift in the climate conscience of the public, planners and politicians. Ground Source geothermal drilling is on the right side of the argument and will continue to grow traction as the cleanest, greenest and most sustainable energy source for 'Climate Control' in every sense of the word! (Greta you can borrow that line if you fancy!)



## ➤ ABOUT GTD AND THE DIAMOND GT45 DRILLING PACKAGE

Projects are getting bigger and boreholes are getting deeper, with this in mind each component you'll find in this brochure has been carefully considered, designed and developed to reduce strain on your equipment and your personnel whilst increasing productivity.

One of the most significant barriers to ground source geothermal systems has historically been the cost of installation. Let's be honest; it still is - but doesn't have to be! GTD can drill down your costs for ground source geothermal operations, improving profits, scalability and competitive opportunities.

Whether you are an established business wanting to expand your capabilities, capacity and productivity or looking to explore the prospect of a new start-up operation, GTD is here to help you with access to a complete ecosystem of equipment, supplies and support.

### WHY BUY GTD EQUIPMENT?

GTD equipment is designed & engineered by geothermal ground source drillers and engineers specifically for the industry.

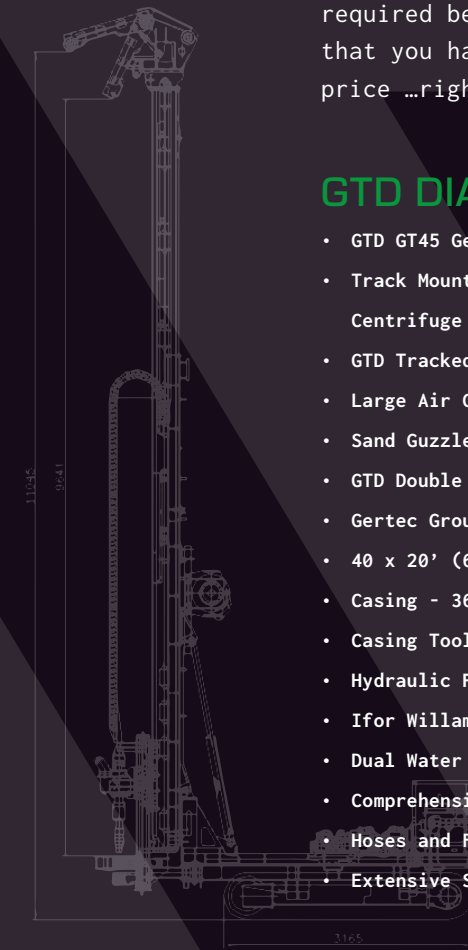
Each individual component has been specified to work together as a complete balanced drilling system, fine-tuned for optimum drilling potential - after all productivity is king.

### WHO ARE GTD?

GTD are unique as we are dedicated manufacturers & suppliers of ground source geothermal drilling equipment, but also operators who have a vast experience in UK & European ground source drilling as well as more recent operations in North America, Africa & Asia. We understand the balance required between cost and capability, to ensure that you have the right equipment ...at the right price ...right now.

### GTD DIAMOND GT45 PACKAGE:

- GTD GT45 Geothermal Drill Rig
- Track Mounted Mud Guzzler - Shaker, Hydrocyclones & Decanter Centrifuge
- GTD Tracked Carrier
- Large Air Compressor - For Air Drilling
- Sand Guzzler - Pit Pump
- GTD Double Hydraulic Loop Reeler
- Gertec Grout Pump
- 40 x 20' (6.0m) PP52 thread drill rods
- Casing - 36 x 10' (3.0m) 18 x 20' (6.0m) & Racking
- Casing Tooling Pack
- Hydraulic Pipe Manipulator (Casing Grab)
- Ifor Williams Trailer
- Dual Water Tank System
- Comprehensive pack of drill bits and tooling
- Hoses and Fittings
- Extensive Spares and Consumables Package





## ➔ GTD DIAMOND PACKAGE ➔ GTD GT35 DRILL RIG



### GTD GT45 DRILL RIG

The GT45 is the most powerful rig in our shallow geothermal GT series. It has been designed and engineered specifically for ground source geothermal drilling & complex geology. Suitable for both domestic and commercial drilling. It can drill beyond 2300' (700m) and can perform mud, air and hammer drilling. It comes standard with a single head but we also offer a doubled headed version (GT45 DD).

GT Series rigs are known for their record-breaking productivity because they come with huge specifications as standard, many are shared across the entire range, as we consider them 'must-have' features to ensure productivity.

Arguably the rig's most defining feature is the rod rack and loading system, it's the most robust, reliable, and safe rod handling system on the market. The onboard rack contains 800ft of rods, with dual controls so that the lead driller can operate all the rigs systems alone (Typically when drilling down) and/or with a second person assisting with the rod handling (Typically when extracting rods or casings at high speed). The GT series rigs are capable of being run by a single driller for much of the time, freeing up time and crew resources to attend to other site tasks.

Flexible mud pump configurations include dual pumps, triplex piston, centrifugal, or a combination of both to meet specific drilling needs.

They are fitted with Doosan DL Tier 4 engines renowned for power, fuel efficiency, and quiet operation, able to supply mud pumps and auxiliary pit pump without compromising drilling capability.

# GT45



- ▶ **47,040 lbs (21 ton) Pull-Back**
- ▶ **13,228 lbs (6 ton) Push-Down**
- ▶ **24ft 7" (7.5m) Top Head Stroke**
- ▶ **290 HP (Doosan DLO8 Tier 4)**
- ▶ **Rod Rack & Rod Loader System**
- ▶ **3½" (89.9mm) x 20ft (6m) Rods**
- ▶ **40 Rod Capacity - 800ft (240m)**
- ▶ **Crawler Track - Steel & Rubber Pads**
- ▶ **High/ Low 2-Speed Head**
- ▶ **Sliding Drill Head**
- ▶ **Floating Spindle Sub**
- ▶ **Height Adjustable Working Table +6ft/-3ft (+2m/-1m)**
- ▶ **Capable of drilling up to 45° Angle**
- ▶ **Triple Clamps - One rotating**
- ▶ **Dual Mud Pumps - Various options**
- ▶ **Water Injection Mist Pump**
- ▶ **Hydraulic Centralizing Rollers or Sliding Rod Wrench**
- ▶ **Hydraulic Breakout Chain Wrench**
- ▶ **Auxillary Hydraulic Ports & Controls**
- ▶ **Winch and Sandline (Wireline)**
- ▶ **Welder & Generator (7.5Kw) Hydraulic**
- ▶ **Wireless Remote Control**
- ▶ **Air Compressor (5HP)**

## ➔ GTD GT35 DRILL RIG

### WHY A GTD DRILLING RIG?

The answer is simple... productivity!

Our rigs drill down your costs, both in purchase price and increased productivity. How? By outperforming other manufacturers currently used in the ground source geothermal industry. A bold statement, but one that is backed up by fact and experience.

These rigs hold international performance records for the most distance drilled, both on a single day, week and over the course of a year. Scan the QR code and see the GTD Rig breaking records in Holland.

The long rod length, automated handling system and powerful engine means they are fast and capable. It is purposefully designed to simplify its operation, maintenance and fixes. The net result is less downtime and higher productivity.

SCAN TO WATCH A GT SERIES DRILL RIG BREAKING RECORDS

175M [574FT] BOREHOLE DRILLED IN 54 MINS

**RECORD BREAKING PERFORMANCE!**

4130M [13,550FT] DRILLED, LOOPS INSTALLED & GROUTED IN ONE WEEK WITH ONE RIG

SCAN TO WATCH AN INTERNATIONAL GTD CUSTOMER BREAKING RECORDS IN HOLLAND

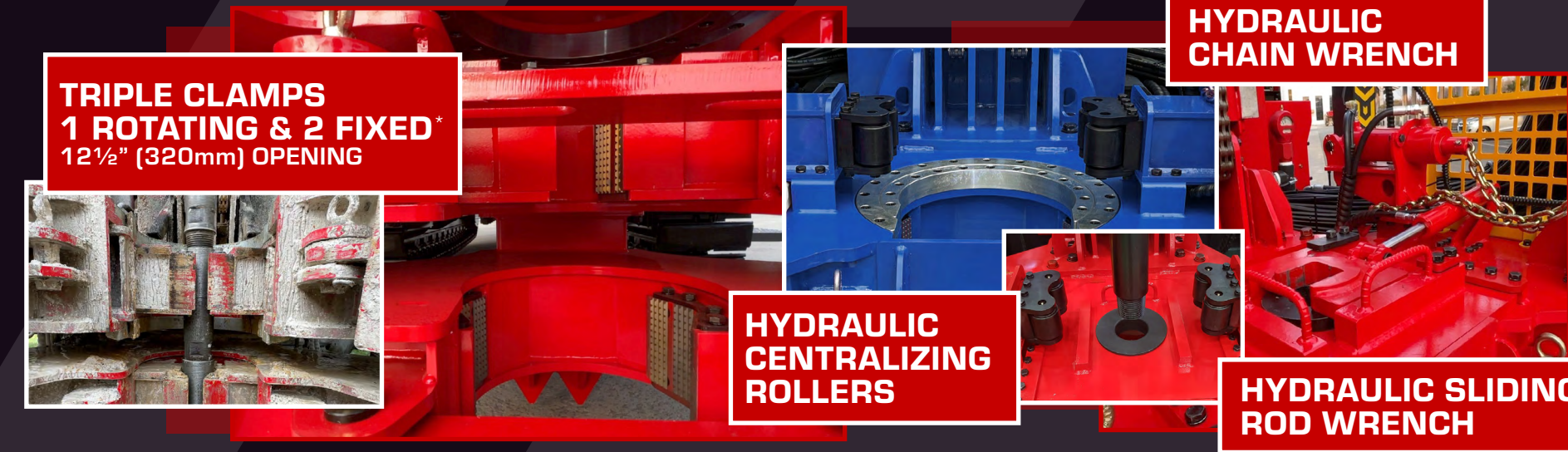
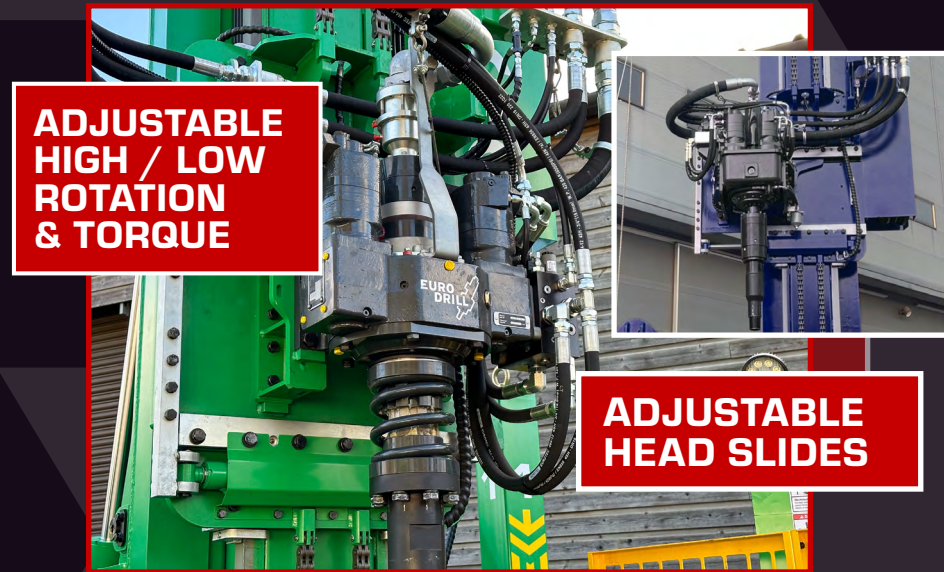


**DON'T BASE YOUR DECISION ON SPECS ALONE, COME & SEE THE RIG IN ACTION...**

**GET IN TOUCH AT INFO@GTD-DRILLING.COM**



## GT SERIES RIG FEATURES & OPTIONS



## GT SERIES RIG FEATURES & OPTIONS

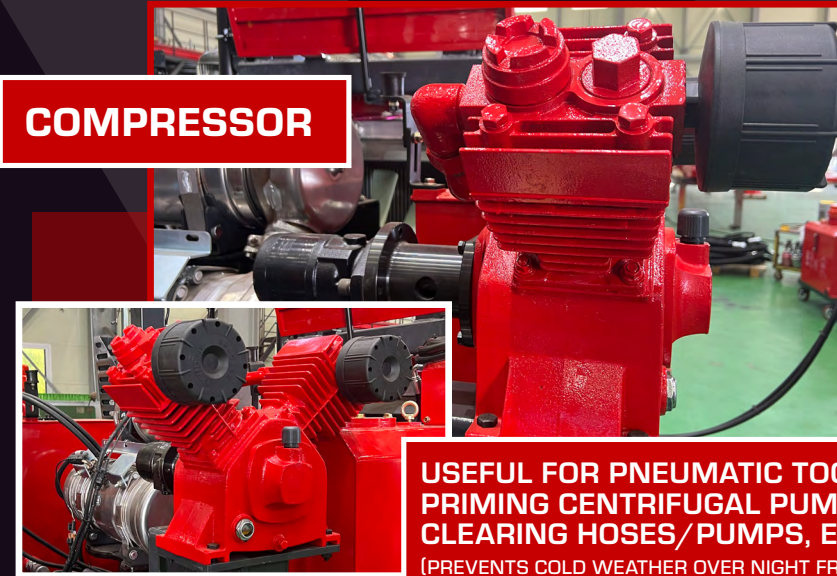




➔ GT SERIES RIG FEATURES & OPTIONS



**COMPRESSOR**



USEFUL FOR PNEUMATIC TOOLS, PRIMING CENTRIFUGAL PUMPS, CLEARING HOSES/PUMPS, ETC. (PREVENTS COLD WEATHER OVER NIGHT FREEZING)

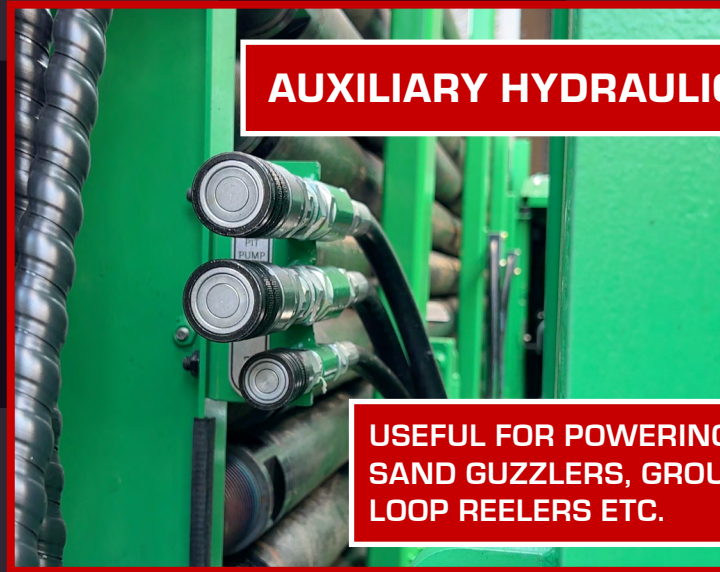
**ROTATING 90° AND EXTENDS**



**INDEPENDENT MAIN WINCH & SANDLINE WINCH\***

\*GT35 & GT45 MODELS

**AUXILIARY HYDRAULICS**



USEFUL FOR POWERING SAND GUZZLERS, GROUTERS, LOOP REELERS ETC.

**WELDER & GENERATOR**



➔ GT SERIES RIG FEATURES & OPTIONS

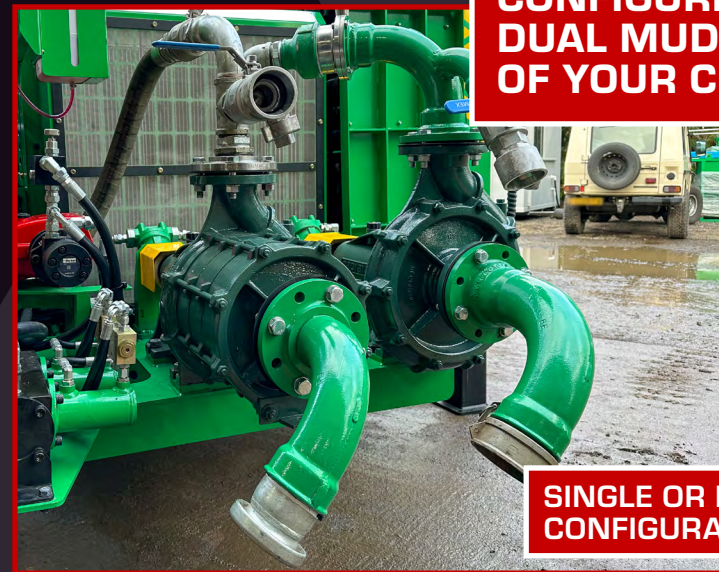
**TRIPLEX MIST PUMP FOR AIR DRILLING & PRESSURE WASHER**



**4x3x11 CENTRIFUGAL  
4x3x13 CENTRIFUGAL**

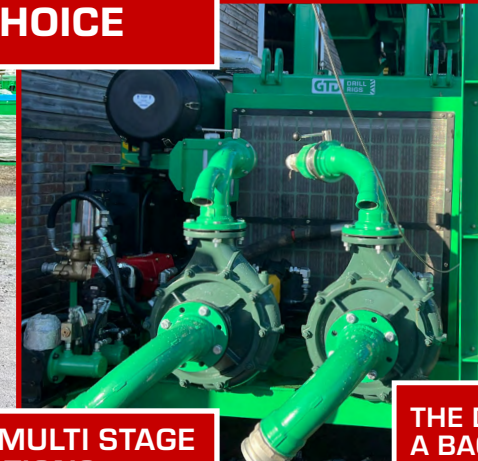


**CONFIGURED FOR DUAL MUD PUMPS OF YOUR CHOICE**

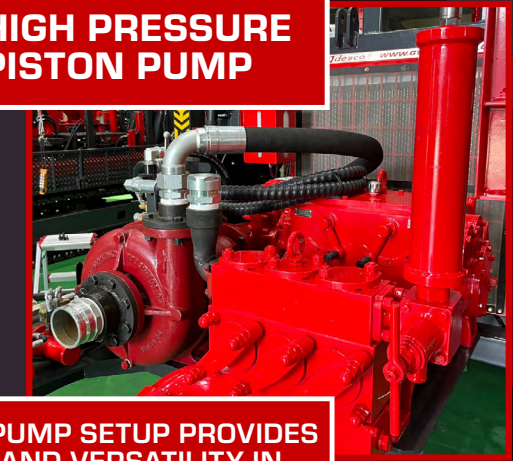


**SINGLE OR MULTI STAGE CONFIGURATIONS**

**HIGH PRESSURE PISTON PUMP**



**THE DUAL PUMP SETUP PROVIDES A BACK-UP AND VERSATILITY IN CHANGING DRILLING CONDITIONS**





## ➔ GTD DIAMOND PACKAGE ➔ GTD TRACKED CARRIER

### GTD TRACKED CARRIER

The tracked carrier is a versatile tool that can be used to transport the Mud Guzzler system, additional rods if drilling beyond 800' (240m), casing and any other auxiliary equipment.

Additionally, it acts as a hydraulic power pack that can power auxiliary equipment such as the triplex piston pump, grouter and loop reeler.



- 26,880 LBS (12-TON) LOAD CAPACITY
- REMOTE CONTROL
- LEVELLING AND SELF-LOADING OUTRIGGERS/JACKS
- 100HP DOOSAN DLO4 ENGINE
- STEEL TRACKS WITH RUBBER PADS

## ➔ GTD DIAMOND PACKAGE ➔ GTD MUD GUZZLER



### TRACK MOUNTED MUD RECYCLING UNIT

GTD's tracked, drilling mud recycling units are a three-stage separating system that comprises of a high G-force double deck shaker, two or three hydrocyclone desilters and a decanter centrifuge.



ISN'T IT TIME YOU GOT YOUR MUD RECYCLING UNIT ON TRACK?

"THE TRACKED MUD UNIT IS AN ABSOLUTE GAME CHANGER"

AW SYNERGY (UK)





## ➔ GTD DIAMOND PACKAGE ➔ COMPRESSOR & GENERATOR

### LARGE PORTABLE AIR COMPRESSORS

Our mobile diesel air compressors are equipped with high efficiency Cummins engines.

Our air compressors always meet the harsh environments of the drilling industry. Suitable for geothermal air drilling as well as water well drilling, oil & gas exploration, mining & DTH drilling etc.

For any driller, having your own compressor is essential. The uncertainties of different geologies mean that sometimes water (mud) drilling isn't possible and the only option is to swap to air drilling. The GT series of drill rigs are equipped so that you can swap between the two instantaneously



### GENERATOR – PRAMAC GSW65P - 65kVA- DIESEL GENERATOR



The generator's primary function is to supply the power to the Mud Guzzler drilling fluid recycling system. It has the added advantage of providing your own power source for any auxiliary equipment.

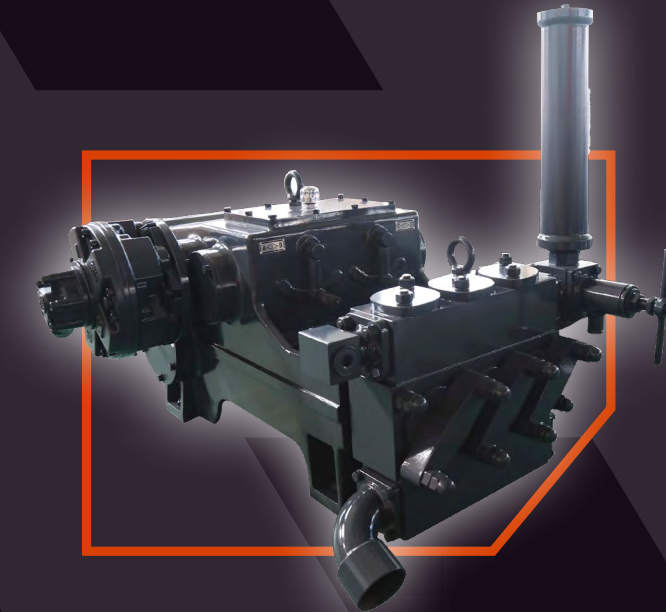
- Prime power 60.52 kVA
- Perkins diesel engine
- 3 Phase

## ➔ GTD DIAMOND PACKAGE ➔ PUMPS

### TRIPLEX PISTON MUD PUMP

90% of the time, centrifugal pumps are more than adequate for drilling most geologies and most depths. However, for that extra deep hole and dense geology, such as heavy clays, a high-pressure piston pump is necessary.

These pumps use pistons to create pressure and circulate the drilling mud. With the pistons reciprocating within a cylinder, they draw in and expel mud with each stroke. Due to their positive displacement nature, piston pumps possess high-pressure capabilities. They generate significant hydraulic pressures to overcome resistance during drilling and ensure efficient mud circulation.



### SAND GUZZLER - PIT PUMP



Robust and proven pit pump for return cuttings and drilling fluid back to the Mud Guzzler recycling system. Powered by the Aux connections on the drill rig.

- 10" (254mm) Sand Guzzler with 3" (76mm) outlet
- Fittings and hose kit with Q/R fittings



## ➔ GTD DIAMOND PACKAGE ➔ HYDRAULIC LOOP REELER

### HYDRAULIC LOOP REELER

Robust and adjustable for all loop sizes and both free spinning and hydraulic. Powered by the rig, tracked carrier, telehandler or excavator.

- Double reels for double loops and grout pipe
- Hydraulic-driven for controlled entry and retrieval
- Free spinning for non-restricted unrolling
- Light weight alloy wheels for ease of manual handling
- Extendable drums for all loop sizes
- Removable base for ease of moving into a location
- Three methods of lifting: forklifting, excavator quick hitch, and lifting eye



## ➔ GTD DIAMOND PACKAGE ➔ GROUTER

### MAKE LIFE EASY WITH A GEOTHERMAL GROUTER

Chosen for its consistent and reliable batch mixing that can be used with either premixed or component part grout, bulk or 55 lbs (25kg) bags.

- Capacity 660 gal/h (3m<sup>3</sup>/h)
- Mix volume 33 gal (150 litres)
- Hydraulic-driven
- Powered from either the drill rig or tracked carrier



**SIMPLIFY YOUR  
GROUTING  
OPERATION  
WITH A  
READY MIXED  
DRY GROUT AND  
A CONTINUOUSLY  
OPERATING  
MIXING PUMP**



## ➔ GTD DIAMOND PACKAGE ➔ WATER TANK SYSTEM & TRAILER

### WATER TANK SYSTEM

Water supply can be a challenge for a drilling operation and without a good supply, it can stop productivity in its tracks. Therefore, we have developed a way to mitigate this issue.

Two 2,200 gal (10,000ltr) tanks mounted on their own frame with auto-fill points and delivery pump system. This can be deployed prior to arrival so that when you arrive with the main equipment on-site you have a large buffer of water to immediately start drilling, top up/ fill your drilling fluid recycling system, use for flushing the hole when at depth and for mixing up the grout.



IFOR WILLIAMS / BIG TEX TRAILER

### TRAILER – IFOR WILLIAMS / BIG TEX

A trailer is an essential tool for any drilling contractor and due to the nature of the industry, we specifically supply the most robust on the market.

This model is picked to work in conjunction with the water tank system, and can be used for general haulage of supplies and consumables.

## ➔ GTD DIAMOND PACKAGE ➔ DRILL RODS & CASING

### DRILL RODS

We supply 3½" (89mm) diameter rods with PP52 full flush thread.

This thread has been specifically designed as it offers the best combination of strength and increased internal diameter on a 89mm rod. These work perfectly with the GT Rig Series rod rack & rod handling system.

Features:

- Extra long tool joints for added strength
- Heavy duty thickness for extra strength & longevity
- 4 x Spanner flats



### CASING

Due to complexity in geology, casing of holes is inevitable. GTD supply temporary rope thread casing in varying lengths and diameters.

We have engineered them to be extra strong to reduce the risk of crush damage which in turn, extends the life of the product.



- Single start rope thread
- 6' (152mm) diameter
- 34 x 10' (3m) long lengths
- 17 x 20' (6m) long lengths
- Friction Welded
- 3/8" (10mm) gauge
- 3 x 10' (3m) rack stillages
- 2 x 20' (6m) rack stillages



## ➤ GTD DIAMOND PACKAGE ➤ CASING ACCESSORIES

### CASING ACCESSORIES

The Diamond package comes supplied with all the necessary tooling for any drilling techniques used.

As with all our equipment, it is tried and tested and developed with our 'drillers co-operative'.



- Drive head
- Shoe
- Shoe blank
- 10' (3m) sling
- 20' (6m) sling
- Stillages for all casing (5)
- Air drilling diverter
- Loop installation cone

### HYDRAULIC CASING GRAB

Due to the complex nature of different geologies, casing can sometimes be required.

The amount of casing necessary can vary from 10' (3m) of surface casing, down to casing a complete hole. Although the package includes casing slings, where possible a hydraulic casing grab makes light work when projects require large amounts of casing. Check out the video opposite to see it in action.



## ➤ GTD DIAMOND PACKAGE ➤ DRILL BITS & TOOLING

### DRILL BITS AND TOOLING

A comprehensive selection of all the drill bits required for all types of geology.

All bits come with our own PP52-developed thread to match the rods for unrestricted flow.



### GTD DIAMOND - TOOLING STARTER PACK

UNITS	PART DESCRIPTION
2	5 1/8" - 4 WING STEPPED PDC
2	5 5/8" - 4 WING STEPPED PDC
2	5 1/8" - 3 WING ROUNDED PDC
2	5 5/8" - 3 WING ROUNDED PDC
1	5 1/8" - ROCK ROLLER
1	5 5/8" - ROCK ROLLER
1	SUB 3 1/2" IF BOX - BR50 PIN
1	SUB BR50 BOX - 2 7/8" REG BOX
1	SUB BR50 BOX - 2 3/8" IF BOX
1	SUB BR50 BOX - BR50 BOX
1	CHAIN WRENCH SPANNER

### SPARES & CONSUMABLES

**A HUGE SELECTION OF SPARES THAT WILL ENABLE YOU TO SERVICE EQUIPMENT UP TO 3 YEARS**  
(BASED ON RECOMMENDED 500HR SERVICES)



Included tablet computer with full factory Doosan Licenced diagnostic program



# IN THE PRESS

READ ALL ABOUT IT...  
AS THE GTD DESCO GT SERIES RIGS CONTINUE TO  
CAPTURE THE ATTENTION OF THE INTERNATIONAL MEDIA.

SCAN THE QR CODES TO READ THE FULL ARTICLES.



**GTD DRILL RIG, COVER STORY OF THE  
GEODRILLING INTERNATIONAL MAGAZINE**

## ARTICLES AND INTERESTING READS

Discover how GTD is revolutionizing the industry. Explore technical articles that delve into the evolution of our GT Series rigs, engineered to excel even in the most challenging geologies. Gain insights on why now is the ideal time to diversify or expand into shallow geothermal drilling.

Learn about GTD's rapid rise to becoming a global leader in specialized shallow geothermal drilling equipment. With case studies, which feature projects from across continents, attest to the effectiveness, safety, and ease-of-operation of our rigs.

Scan a QR code to read more.



**CASE STUDY OF HOW GTD EQUIPMENT HAS BEEN REFINED FOR HIGH PRODUCTIVITY IN COMPLEX DRILLING CONDITIONS.**



### Drilling down to success with GTD

Those involved in ground source heat pump (GSHP) drilling operations will no doubt have heard of GTD's drill rigs and equipment. Its seemingly rapid rise to success, initially in the UK and now internationally, prompted GDI to delve deeper into how it has accomplished this feat and solidified its position as a global player in the GSHP sector.



**THE RAPID RISE OF GLOBAL SUCCESS OF GTD EQUIPMENT IN GROUND SOURCE HEAT PUMP DRILLING.**



**WHY SHALLOW GEOTHERMAL IS BECOMING THE BIGGEST OPPORTUNITY FOR DRILLERS IN DECADES**

### A driller's future?

Simon Sergides, of GTD Group, suggests that the escalating climate crisis is delivering new prospects for seasoned drillers to transfer their skills from sectors which are facing inevitable decline, into what is becoming the biggest opportunity for drillers in decades – providing boreholes for ground source heat pump (GSHP) installations

**Above:** With the introduction of its line of rigs designed specifically for...  
**T**he threat of diminishing demand for drillers in conventionally lucrative sectors, such as oil and gas, raises significant concerns for those whose livelihoods depend on these industries. However, the climate success stand in stark contrast. Unlike the unpredictable and often unsuccessful hunt for gold — a highly prized resource buried beneath our feet — the extraction of thermal energy offers a far less risky and vastly received a stark wake-up call recognising that the shortsighted hunt for gold is their true bottleneck in achieving their green goals. Consequently, the spotlight is now firmly on the necessity for workforce training to attract and upskill new



## » WHAT SOME OF OUR GLOBAL CUSTOMERS ARE SAYING

“**MEGA RIG** – DOES EXACTLY WHAT IT SAYS ON THE TIN”

ACE DRILLING SERVICES (UK)

“GTD EQUIPMENT HAVE ENABLED US TO SET **NEW STANDARDS IN PRODUCTIVITY** NEVER ACHIEVABLE BEFORE!”

GEOTECH BV (HOLLAND)

“THE TRACKED MUD UNIT **IS AN ABSOLUTE GAME CHANGER**”

AW SYNERGY (UK)

“I CAN NOW SEE WHY THIS RIG HAS **BROKEN SO MANY RECORDS IN EUROPE**. THE ROD HANDLER IS A DREAM!”

QC GEOTHERMAL (USA)

“IF YOU ARE DIVERSIFYING INTO GEOTHERMAL DRILLING LIKE US, **GTD REALLY ARE THE ONLY CHOICE**. THEY CONTINUE TO **SUPPORT US ALL THE WAY**”

FUTURE DRILLING SERVICES (UK)

“THE GT35 **MAKES LIGHT WORK OF THE CHANGING & CHALLENGING GEOLOGY** ACROSS FRANCE”

SYNERGIE FORAGE (FRANCE)

WE'RE EXPERTS IN SHALLOW GEOTHERMAL DRILLING, PROVIDING SPECIALISED EQUIPMENT SOLUTIONS FOR HIGH PRODUCTIVITY IN A BOOMING INDUSTRY.



**GTD** DRILLING

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WWW.GTD-DRILLING.COM

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A  
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SUMMER 2023