

JOIN THE REVOLUTION



THE GTD
**EMERALD
DRILLING
PACKAGE**
2023

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

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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 EMERALD GT35 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 EMERALD GT35 PACKAGE:

- GTD GT35 Geothermal Drill Rig
- Trailer Mounted Mud Guzzler - shaker & hydrocyclones
- 40 x 20' (6.0m) PP52 thread drill rods
- Casing & racking
- GTD Double wheel loop reeler
- Grouter
- Trailer
- Pramac Generator
- Starter pack of drill bits and tooling
- Extensive spares and consumables package



➔ GTD EMERALD PACKAGE ➔ GTD GT35 DRILL RIG



GT35 DRILL RIG

The GT35 has been designed and engineered specifically for ground source geothermal drilling & complex geology. Suitable for both domestic and commercial drilling. It can drill beyond 1300' (400m) and can perform Mud, Air and DTH drilling.

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.

- ▶ **35,274 lbs (16 ton) Pull-Back**
- ▶ **13,200 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)**

GT35



➔ 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!

SCAN TO WATCH AN INTERNATIONAL GTD CUSTOMER BREAKING RECORDS IN HOLLAND

▶

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



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

GET IN TOUCH AT INFO@GTD-DRILLING.COM

GT SERIES DRILL RIGS

4-MONTH BUILD TIMES!

it's not just our rigs that are setting new standards in the industry!

At GTD Desco, our innovation goes beyond just our products; it permeates our entire manufacturing process. We've shattered the norm with our rapid 4-month build times, significantly outpacing the usual 12-24+ month lead times in the industry. This speed translates directly into a commercial advantage for our customers. This efficiency is no mere coincidence; it stems from significant investments in our global manufacturing infrastructure to meet surging market demands.

For a behind-the-scenes look, scan the QR code to view a video tour of GTD Desco's state-of-the-art factory and R&D center in South Korea. We take immense pride in our skilled workforce and world-class facilities, which stand at the core of our relentless commitment to produce the world's most capable, productive, affordable, and readily available specialist shallow geothermal drill rigs.

WANT TO SEE OUR GT SERIES RIGS IN ACTION OR TAKE A TOUR OF OUR PRODUCTION FACILITIES?

We strongly encourage site-visits to see our GT Series rigs operating on 'live' commercial projects. This offers a genuine, real-world perspective on why our rigs are so productive, safe, and user-friendly. In the same spirit, we actively invite you to experience our cutting-edge production facilities firsthand. Words and videos alone can't capture the full scope of what we offer, so come see for yourself how GTD Desco is setting new industry standards.

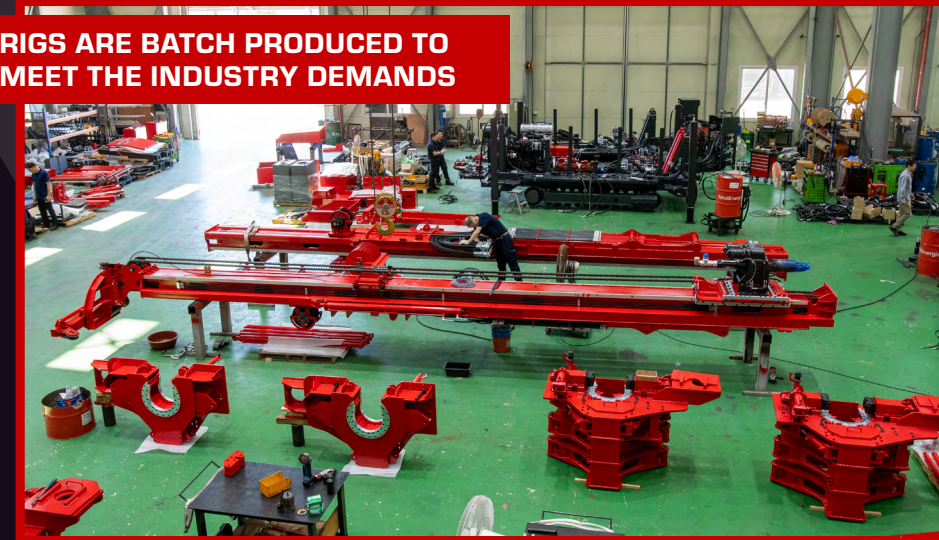


5 OF OUR RECORD BREAKING GT35 DRILL RIGS READY FOR SHIPMENT



GT SERIES DRILL RIGS

RIGS ARE BATCH PRODUCED TO MEET THE INDUSTRY DEMANDS



CNC MACHINE AREAS WHERE WE PRODUCE OVER 70% OF COMPONENTS IN-HOUSE (ACCELERATING PRODUCTION AND AVOIDING SUPPLY CHAIN DELAYS)



4 MONTH BUILD TIME!

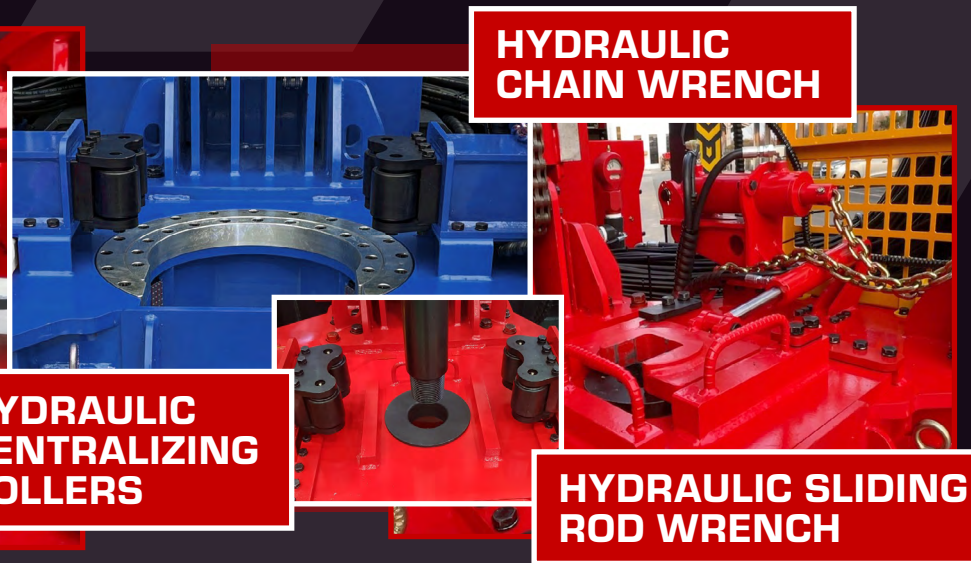
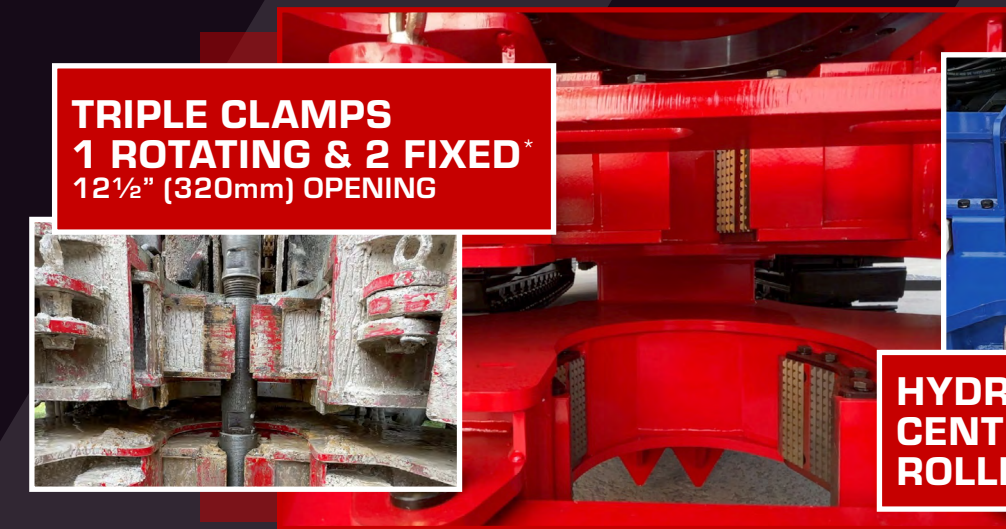
A DEDICATED IN-HOUSE R&D TEAM TO ENABLE RAPID PROTOTYPING OF INNOVATIONS AND DEVELOPMENTS



SCAN TO WATCH A TOUR OF OUR MANUFACTURING FACILITIES



GT SERIES RIG FEATURES & OPTIONS



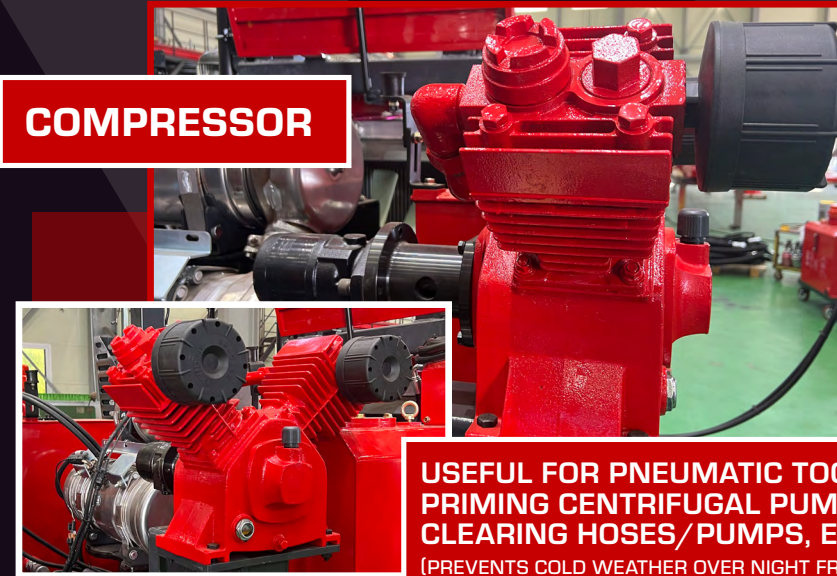
GT SERIES RIG FEATURES & OPTIONS



➔ GT SERIES RIG FEATURES & OPTIONS



COMPRESSOR



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

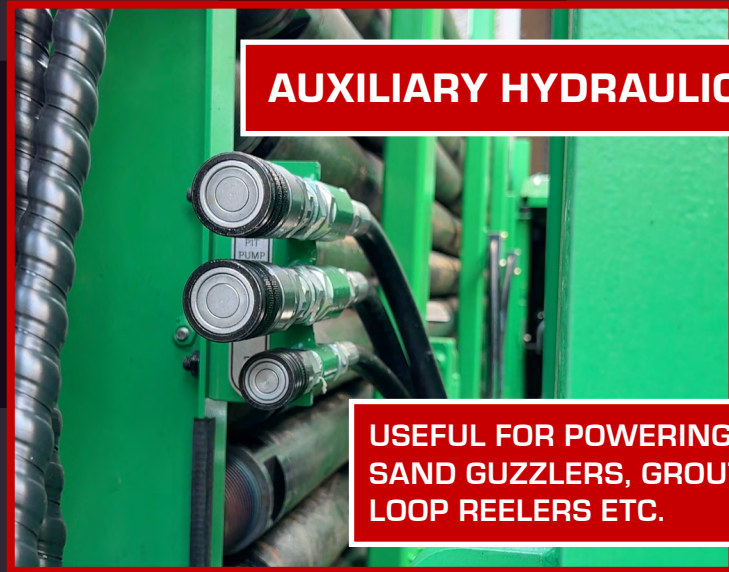
ROTATING 90° AND EXTENDS



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

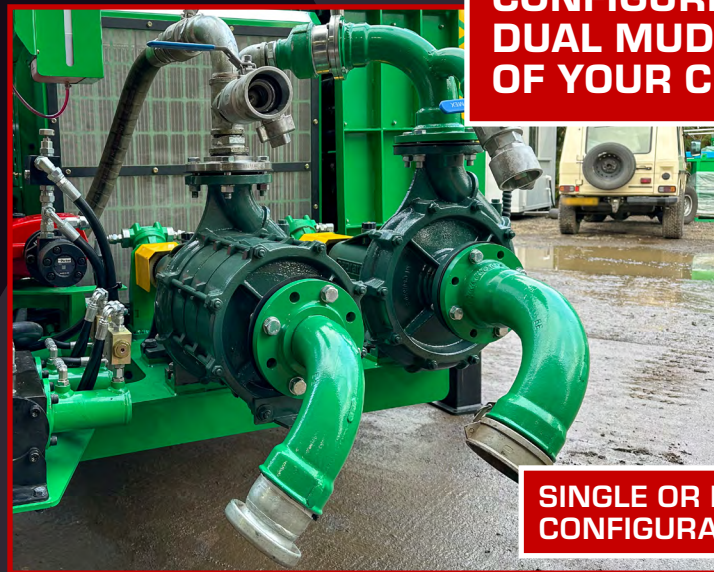
TRIPLEX MIST PUMP FOR AIR DRILLING & PRESSURE WASHER



4x3x11 CENTRIFUGAL
4x3x13 CENTRIFUGAL

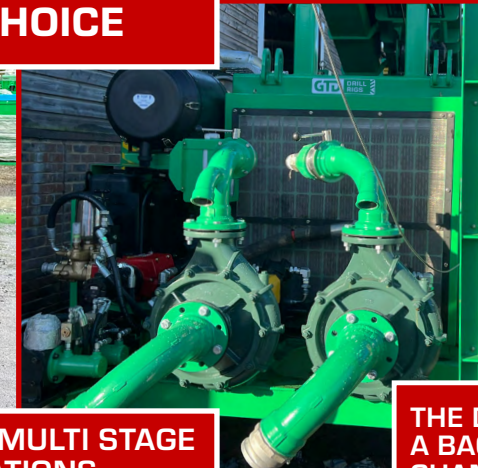


CONFIGURED FOR DUAL MUD PUMPS OF YOUR CHOICE

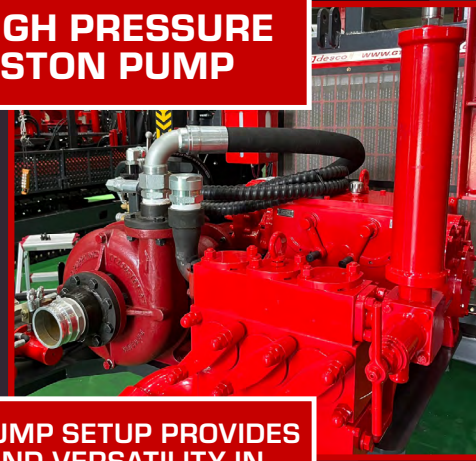


SINGLE OR MULTI STAGE CONFIGURATIONS

HIGH PRESSURE PISTON PUMP



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



➤ GTD EMERALD PACKAGE ➤ GTD MUD GUZZLER



TRAILER MOUNTABLE MUD RECYCLING UNIT

- 200 GPM (45M³/H) CAPACITY
- HIGH G FORCE DOUBLE DECK SHALE SHAKER
- 3 X HYDROCYCLONE DESILTERS
- SUBMERSIBLE FEED PUMP
- TANK AGITATORS
- 1000+GAL (4700 LITRE) TANK
- TRAILER MOUNTABLE
- 20KVA GENERATOR



➤ GTD EMERALD PACKAGE ➤ GTD LR1 LOOP REELER

A LOOP REELER CAN OFTEN BE OVERLOOKED...

...But it is an important part of an efficient operation. It is a false economy to make do without one if you are truly committed to drilling down your costs.



Friction is a huge source of frustration and is a drag on manpower, efficiency and safety. A loop reeler can be the make or-break element of whether the install goes to depth.

A proper smooth running reeler can reduce the amount of weight required to counter act the buoyancy of the loop, saving money. Smooth consistent unreeling of the loop means the risk of damage and stoppage is reduced. Quick, controlled unreeling saves time and manpower energy. Allowing you to move onto the next hole and set up for the next days drilling.

The Emerald package loop reeler is built to last. Its robust design means it will put up with the every day strains of a drill site. Reinforced fork holes on all 4 sides enables lifting from any angle and easy positioning over the borehole.

Ball bearings on the drums ensure super smooth unreeling and the solid sides ensure the loop is contained and eliminates the risk of getting limbs caught in the rotating parts or loops popping out the side and kinking.

➔ GTD EMERALD PACKAGE ➔ GROUTER

MAKE LIFE EASY WITH A GEOTHERMAL GROUTER

This grouter is a continuously operating mixing pump for ready-mixed dry grout. There is no need to mix sand, bentonite and water. Simply add dry bags of premix, either 55 lbs (25kg) or 2200 lbs (1000kg) bulk bags, straight into the hopper, and the G4 does the rest!

Easy, quick and efficient. At the push of a button, ready-mixed dry grout is automatically fed into the mixing pump, minimising dust too. It is then mixed with water and pumped down the borehole.

It's compact, easy-to-transport and offers a high delivery rate and large delivery range. The low filling height is ideally suited for filling by hand or bulk bags hung above.

Powered electrically, it can be run off the generator included in the package.



➔ GTD EMERALD PACKAGE ➔ TRAILER & GENERATOR

TRAILER – IFOR WILLIAMS / BIG TEX

A trailer is an essential part of the drilling operation, so we have included the very best.

The Ifor William or Big Tex flat bed are ultra-strong, robust and versatile. They have been picked specifically to work in conjunction with the Mud Recycling unit.

The system, including the generator, can be transported on the trailer and remain under the weight limit permitted. Additional stabilisation legs/supports have been added to all four corners, to allow the system to be used whilst mounted on the trailer.



IFOR WILLIAMS / BIG TEX TRAILER

GENERATOR – PARAMAC GBW22

20 kVA THREE PHASE SILENT DIESEL GENERATOR

Standby: 22 kVA / 17.6 kW
Prime: 20 kVA / 16 kW
Engine: UK Built
Perkins 40AD-22G
Alternator: Mecc Alte
ECP28-M4 C
Voltage: 400V
Frequency: 50Hz
Amps Per Phase: 31.7
Control Panel: ComAp



Having your own power supply on-site has huge advantages regarding self-sufficiency. This reduces the risk of delays, potentially waiting on others, and helps productivity!

The generator is designed to be mounted on the deck of the mud recycling unit, powering its systems. It also has an additional connection points for powering other on-site equipment such as sump pumps, etc.

➤ GTD EMERALD PACKAGE ➤ STARTER PACK & SPARES

WE'LL GET YOU DRILLING AND KEEP YOU DRILLING

So that downtime is kept to a minimum and productivity is at the maximum, we provide a HUGE spares parts package to go with the set-up.

We also supply a starter pack of tooling, which includes a large selection of drill bits, subs & saver subs.

GTD EMERALD - 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



GTD ALSO STOCKS AN EXTENSIVE RANGE OF OUR EXCLUSIVE PINK PENETRATOR DRILL BITS AND A COMPLETE ECOSYSTEM OF CONSUMABLES

➤ GTD EMERALD PACKAGE ➤ STARTER PACK & SPARES

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...
The 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 the 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
INFO@GTD-DRILLING.COM
WWW.GTD-DRILLING.COM

SPRING 2023