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Looking to Improve, Expand or Set Up a New Ground Source Drilling Operation?

The demand for Ground Source Heating and Cooling (GSHP) drilling specialists is growing exponentially. Sources indicate that the sector is currently operating at under 1% of the potential market share.

Local and International Government Net Zero Carbon targets, combined with significant legislative changes, are creating expansion opportunities and accelerating demand way beyond the capacity of the current number of operational rigs.

Why Buy a GTD Package?

The GTD Opal package 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.

GTD can help you achieve the most metres possible in every hour of the 256 working days we have in the UK.

Why are GTD?

GTD are unique as we are dedicated manufacturers & suppliers of ground source 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.

About GTD and the Opal Drilling Package

Projects are getting bigger and boreholes are getting deeper, with this in mind each component in the GTD Opal package has been carefully considered, designed and developed to reduce strain on your equipment and your personnel.

One of the most significant barriers to ground source 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 the cost per metre for ground source 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.

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Growth Opportunities in Ground Source Drilling

There is a seismic shift in the climate conscience of the public, planners and politicians. Ground Source 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 world. (Greta you can borrow that line if you fancy.)

GTD's Equipment is Designed Specifically for the Ground Source Drilling Industry Allowing the Highest Operational Efficiency

• Complete turn key drilling packages
• Training and development
• Operating procedures and operational assistance
• Access to large scale contracts
• Access to loan equipment pool (compressors etc.)
• Supervision and management support
• Service and maintenance
• National and regional advertising & promotion

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GTD Opal Package:

• GTD5500 Geothermal Drill Rig
• GTD SC1200 Mud Recycling system - shaker & hydrocyclones
• UL & 4.5 BSI Thread drill code
• GTD LR1 Double wheel loop reeler
• PFT Grouter
• Ifor Williams trailer
• Pramac GBW22P Generator
• Starter pack of drill bits and tooling
• Extensive spares and consumables package

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WHY GTD DRILLING RIG?

The answer is simple... productivity!

Quite literally, our rigs drill down your cost per metre, both in purchase price and increased productivity, too! By outperforming other manufacturers currently used in the ground source industry. A bold statement, but one that is backed up by fact and experience.

These rigs hold the record for the most metres drilled, in the UK and Europe, both on a single day and over the course of a year. 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 use. The net result is less downtime and higher productivity.

AN EFFICIENT DRILLING OPERATION IS NOT JUST ABOUT THE RIG...

This is why we have put together the package of equipment to enable the rig and crew to put in the metres.

- 192 BHP (TIER 4)
- 11 TON PULL UP
- 6 TON PULL DOWN
- DOUBLE CLAMPS
- 40 X 4.5M RODS
- AUTOMATED ROD HANDLING
- CENTRIFUGAL MUD PUMP
- TRIPLEX PISTON MIST PUMP
- WIRELESS REMOTE CONTROL
- WINCH
- BREAKOUT CHAIN WRENCH
- SAFETY CAGE

The unique built-in rod rack and automated handling system performs safely and efficiently, increasing productivity whilst reducing manual handling and risk of injury. It comes complete with 180m rods (BR50 thread, 4.5m long with 10mm wall thickness and extra-long tool joints). The increased rod length and internal diameter vastly reduce wear and tear on the rig and ancillaries whilst increasing productivity.

It is fitted with the powerful world-renowned Doosan DL06 engine, producing a 192 BHP! This is one powerful compact rig, and is capable of supplying the mud pump and auxiliary air pump without compromising the drilling capability.

It comes complete with a Triplex piston pump & Caprari centrifugal mud pump capable of drilling down beyond 200m, lifting heavy London clays with ease.

GTD5500R DRILL RIG

The GTD5500R is our compact model and capable of both domestic and commercial drilling. It can drill beyond 200m in all conditions with ease and can perform both mud or air drilling.

The unique built-in rod rack and automated handling system perform safely and efficiently, increasing productivity whilst reducing manual handling and risk of injury. It comes complete with 180m rods (BR50 thread, 4.5m long with 10mm wall thickness and extra-long tool joints). The increased rod length and internal diameter vastly reduce wear and tear on the rig and ancillaries whilst increasing productivity.

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WORKING TABLE & HYDRAULIC CLAMP
- Double Clamps - one rotating
- Max. diameter 304mm

HYDRAULIC OUTRIGGERS
- 4 x Hydraulic Jacks & Outriggers
- Ground clearance 1450mm
- Width 3000mm

DRILL PIPE & CASING
- Drill pipe length Ф89mm  X  4.5M
- Max. diameter 304mm

WINCH
- Winch
- 20M / 5 ton (12mm)

CRAWLER BASE
- Crawler model Doosan Solar 55
- Crawler type Steel type with rubber pads
- Crawler speed 2.5 km/h

ROD RACK & FEEDER
- Integrated Rod Rack Handling & Feeder System
- 89mm x 4.5m x 40
- BR50 thread rods

DIMENSIONS & WEIGHT
- Length-transport 9.2M
- Width 2.3M
- Height-transport 2.6M
- Weight 14.5 ton

DRILL HEAD & ROTATION
- Rotary head with side shift (For ease of handling & alignment of rods/casings)
- Swivel & Shock Absorber Ф60mm
- Two motors - Series and Parallel Flow
- Bullshaft 3-1/2 API IF
- Max. RPM 1ST : 0~200 2ND : 0~100
- Max. Torque 1ST : 350kg.M 2ND : 700kg.M

ENGINE
- Model Doosan DL06 - Tier4
- Rated power 192HP (141.2kW)
- Fuel capacity 300L

FEED SYSTEM
- Head travel 5.5M
- Pull-up capacity 11 ton
- Pull-down capacity 6 ton

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Improving Efficiency of Your Drilling

Proper Mud Recycling equipment is essential to the drilling operation and a key part to increased productivity. We have designed and engineered the GTD SC1200 system to work perfectly with the GTD5500R geothermal rig.

Quickly and effectively remove solids from the mud as you drill. This enables your pumps to work more efficiently, reducing wear & increasing lifespan of equipment. It also increases the up flow velocity, meaning you clear the hole quicker, reducing the risk of collars whilst increasing penetration rate.

The improved penetration rate not only increases productivity but also reduces the need for additives in your fluids, enabling you to drill with just water. This saves time and money.

A LOOP REELER CAN OFTEN BE OVERLOOKED...

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 OPAL package loop reeler is built to last. Its robust design means it will put up with the everyday 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 a 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 OPAL PACKAGE ➔ GTD SC1200 MUD RECYCLING SYSTEM

KEY BENEFITS

- Removes low gravity solids for greater drilling efficiency
- Reduces water, mud, transportation and mud disposal costs
- Increases water storage capacity
- Reduces site footprint, rig site management and environmental management costs
- Improves on-site health and safety, reducing slips and hazards due to mess, mud and water
- Easy to transport “single unit” package

GTD SC1200 SYSTEM

- 1900 Lpm Capacity
- 2 High G force double deck shale shaker
- 2 Hydrocyclone Desilters
- Submersible feed pump
- 2 x Tank agitators
- 4500 Litre tank
- 10kw power
- Dimensions: 3620(l) x 1980(w)mm
- Weight: 1980kg + 545kg (generator)
- Trailer Mountable: 3500kg gross

GTD OPAL PACKAGE ➔ GTD LR1 LOOP REELER

CONTACT US TO DISCUSS PACKAGE DETAILS +44 (0) 1580 388792 INFO@GTDGROUP.CO.UK
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 25kg or 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.

Length: 1500mm
Width: 700mm
Height: 1600mm

Powered by

Perkins 404D-22G
Mecc Alte ECP28-M4 C

Generating up to 22 kVA / 17.6 kW

TRAILER & GENERATOR

TRAILER – IFOR WILLIAMS LM126T

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

The Ifor Williams flat bed is ultra-stron, robust and versatile. It has been picked specifically to work in conjunction with the Mud Recycling unit.

The system, including the generator, can be transported on the trailer and remains under the 3500kg limit. Additional stabilisation legs/supports have been added to all four corners, to allow the system to be used whilst mounted on the trailer.

Model: LM126T (tri-axle)
Internal Length: 3.62m
Internal Width: 1.98m
Overall Length: 5.00m
Overall Width: 2.10m

The system, including the generator, can be transported on the trailer and remains under the 3500kg limit.

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 skid 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.

GENERATOR – PARAMAC GBW22

20 kVA THREE PHASE SILENT DIESEL GENERATOR

Steady: 22 kVA / 17.6 kW
Prime: 20 kVA / 16 kW
Engine: Perkins 404D-22G
Alternator: Mecc Alte ECP28-M4 C

Voltage: 400V
Frequency: 50Hz
Amps Per Phase: 23.6
Control Panel: ComAp

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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 OPAL - SPARE PARTS

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<th>QUANTITY</th>
<th>PART DESCRIPTION</th>
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<tbody>
<tr>
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<td>AIR CLEANER OUTTER FILTER</td>
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<tr>
<td>2</td>
<td>5</td>
<td>AIR CLEANER INNER FILTER</td>
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<tr>
<td>3</td>
<td>5</td>
<td>FUEL FILTER ; DL06</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>ENGINE OIL FILTER ; DL06</td>
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<td>5</td>
<td>5</td>
<td>HYD. OIL FILTER / DOOSAN</td>
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<tr>
<td>6</td>
<td>2</td>
<td>HYD. OIL FILTER - 2*1/2&quot; SUCTION</td>
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<td>HYD. OIL FILTER - 3&quot; SUCTION</td>
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<td>8</td>
<td>2</td>
<td>IN-LINE FILTER</td>
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<td>9</td>
<td>2</td>
<td>FILTER ; FUEL STRAINER</td>
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<td>10</td>
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<td>SEAL KIT FOR GEAR BOX</td>
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<td>11</td>
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<td>SWIVEL ASS’Y</td>
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<td>SEAL KIT FOR SWIVEL</td>
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<td>SPACER (SWIVEL)</td>
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<td>15</td>
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<td>SWIVEL PIPE</td>
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<td>16</td>
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<td>INNER PIPE</td>
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<td>LOW PIPE (SHOCK ABSORBER)</td>
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<td>ADAPTOR (3-1/2 IF BOX - NO THREAD PIN)</td>
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<td>JAWS (V-TYPE) FOR CLAMP</td>
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<td>JAWS (89MM) FOR ROD HANDLER</td>
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<td>JAWS (114MM) FOR ROD HANDLER</td>
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<td>JAWS (152MM) FOR ROD HANDLER</td>
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<td>FAN BELT ; DL06</td>
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<td>WATER HOSE FOR WATER INJECTION PUMP</td>
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<td>MC COVER (BY-PASS BLOCK)</td>
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<td>ANGLE SUPPORT</td>
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<td>FULL THREADED BOLT</td>
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<td>RESERVE TANK (PLASTIC)</td>
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<td>DEF HOSE SET ; DL06</td>
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<td>RADIATOR &amp; INTERCOOLER HOSE - UPPER &amp; LOWER</td>
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<td>1</td>
<td>MUFFLER CLAMP &amp; GASKET</td>
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<td>38</td>
<td>1</td>
<td>DRAIN HOSE</td>
</tr>
<tr>
<td>39</td>
<td>1</td>
<td>TOOL FOR SWIVEL PIPE</td>
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<tr>
<td>40</td>
<td>1</td>
<td>CLAMP SOLENOID VALVE</td>
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GTD OPAL - TOOLING STARTER PACK

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<th>ITEM</th>
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<tr>
<td>1</td>
<td>2</td>
<td>5/8&quot; - 4 WING STEPPED PDC</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>5/8&quot; - 3 WING ROUNDED PDC</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1/8&quot; - 4 WING STEPPED PDC</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1/8&quot; - 3 WING ROUNDED PDC</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1/8&quot; - ROCK ROLLER</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1/8&quot; - 3 WING ROUNDED PDC</td>
</tr>
</tbody>
</table>

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

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TALK TO US
+44 (0) 1580 388792

BECAUSE BROCHURES MAKE TERRIBLE LISTENERS!

GTD HAS TURNKEY PACKAGES WITH EVERYTHING YOU NEED TO DRILL DOWN THE COST PER METRE OF GROUND SOURCE GEOTHERMAL INSTALLATIONS.

OUR GTD OPAL PACKAGE INCLUDES GTD5500R RIG, SHAKE & HYDROCYCLONES MUD RECYCLING SYSTEM, MUD PUMP, 40X RODS, GENERATOR, DOUBLE LOOP REELER, GROUTER, IFOR WILLIAMS TRAILER, DRILL BITS AND SPARES PACKAGE!

PLUS GET DISCOUNTED ACCESS TO THE GTD ECOSYSTEM OF LOOP WEIGHTS, GROUT AND OUR PINK PENETRATOR DRILL BITS!