

# TRACTO

Further information  
on GRUNDODRILL

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GRUNDODRILL  
18ACS / 18N  
ROCK DRILLING HDD RIG  
KING OF ROCK



**ADVANCED TRENCHLESS TECHNOLOGY**

# GRUNDODRILL 18ACS / 18N

## MAKES AN IMPACT IN ALL SOILS

### Ideal power ratio

Drive carriages with "rack and pinion":

- Stepless adjustment of torque and speed for maximum rotational power and maximum productivity at any speed\*
- Best possible adaptation to demands and soil conditions

### Lightning-fast rod exchange

- Fully automatic operation ensures minimal downtime, maximum productivity and relief for the machine operator
- The on-board crane facilitates easy handling of the rods, stacking boxes and additional components
- Rotation of drill rods within rod box possible during normal operation, which results in consistent use and consistent wear of the rods

### Rods for every purpose

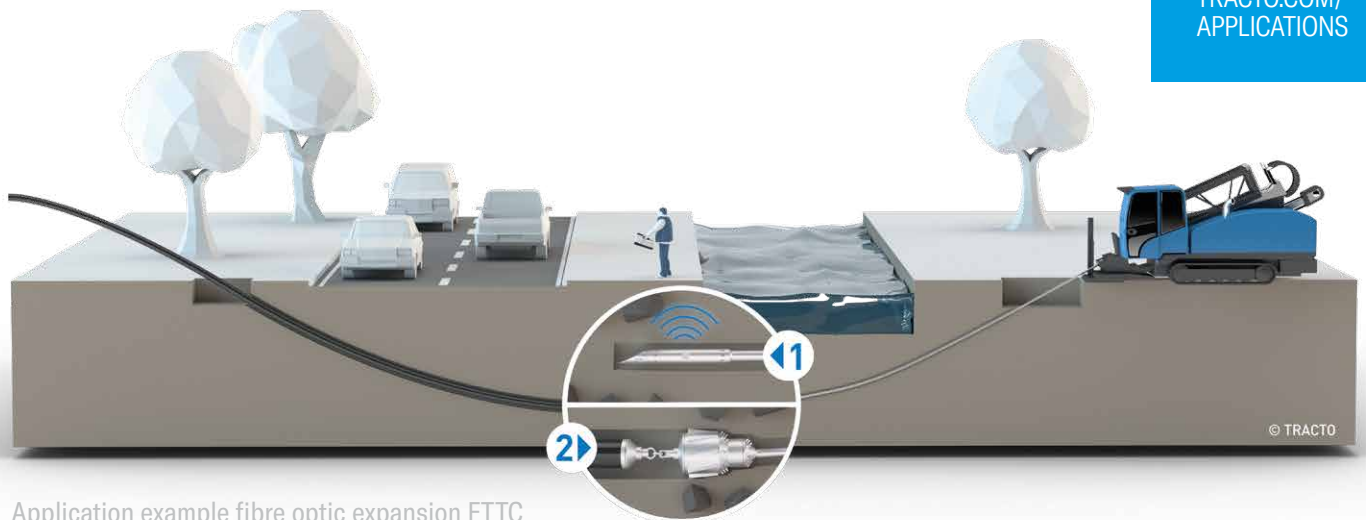
- Rods TD73 and TD82 for jet drilling
- Elicon 80 and Elicon 95 twin tube rods for rock drilling\*
- Quick conversion from fluid-assisted to rock drilling\*

### Cable-guided drilling

- The GRUNDODRILL 18ACS and the GRUNDODRILL 18N can optionally be converted for cable-guided bores when drilling in challenging terrain and at great depths
- Cable-guided drilling is also possible in connection with twin-tube rod system\*

\* only for GRUNDODRILL 18ACS

## APPLICATION



Application example fibre optic expansion FTTC

**GRUNDODRILL**  
Application  
video at



TRACTO.COM/  
APPLICATIONS

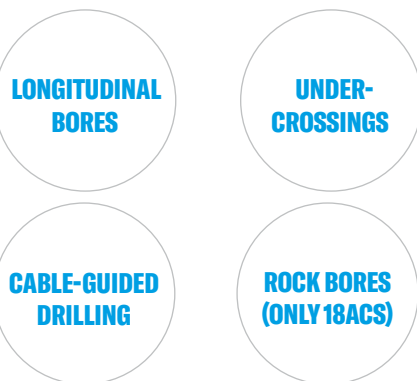
### INSTALLATION METHOD



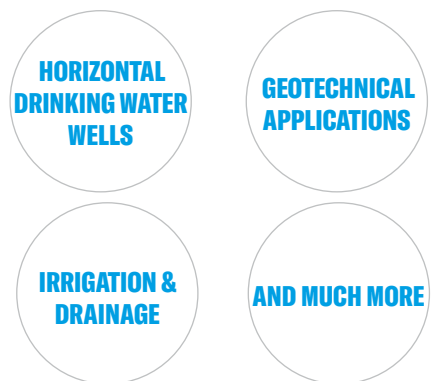
### BORE DIAMETER



### MAIN APPLICATIONS

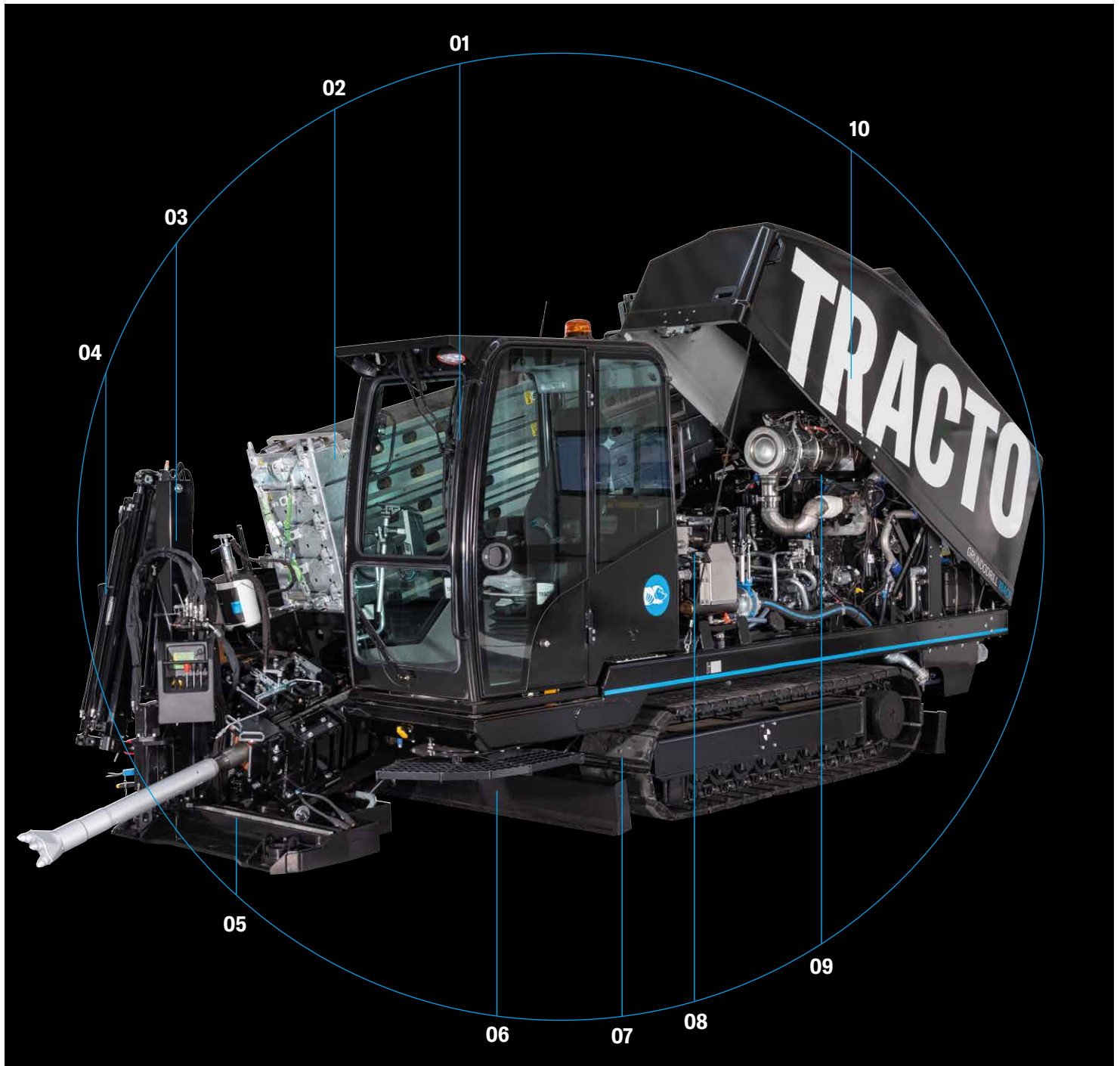


### SPECIAL APPLICATIONS



\* depending on soil conditions

# OVERVIEW



**01 Comfort cabin** hydraulically-adjustable and vibration, dampened, user-friendly, clear layout, can be positioned flexibly

**02 Large rod magazine** - up to 225 m of TD 73 jet drilling rods or 210 m of ELICON 80 rock drilling rods on board

**03 Anchoring system** for enhanced stability while drilling

**04 Hydraulic loading crane** for self-sufficient handling of optional stacking boxes, drilling rods and attachments

**05 Bentonite collecting tray** - optionally with Bentonite suction pump

**06 Two stabilisers** - maximum stability, variable inclination of the cradle for an ideal penetration angle

**07 Broad undercarriage** - with rubberised steel tracks – extremely mobile and self-supporting

**08 High performance bentonite pump** - for rapid reaming speed and large reaming diameters

**09 Diesel engine with the highest output of its class** – low fuel consumption, low noise and emission levels

**10 Large GRP hood** - easily accessible for service and maintenance

# GROUND CONTROL – MAXIMAL OPERATOR COMFORT

## 1 | Total ease of use

Two multi-function joysticks for all functions in bore and driving mode. Different operating modes, which can be freely selected by the machine operator:

Manual mode:

- All machine functions controlled by the machine operator

Semi-automatic mode:

- Memory functions for rotation and thrust
- Automatic paddle mode
- Automatic rod exchange mode
- Automatic reloading for rod magazine

Fully automatic mode:

- incl. automatic drilling, automatic rod exchange\*, rod lubrication and cleaning, etc.

Service mode:

- Complete diagnosis of drilling system via integrated display
- Complete parameter setting/adjustment of bore rig via integrated display

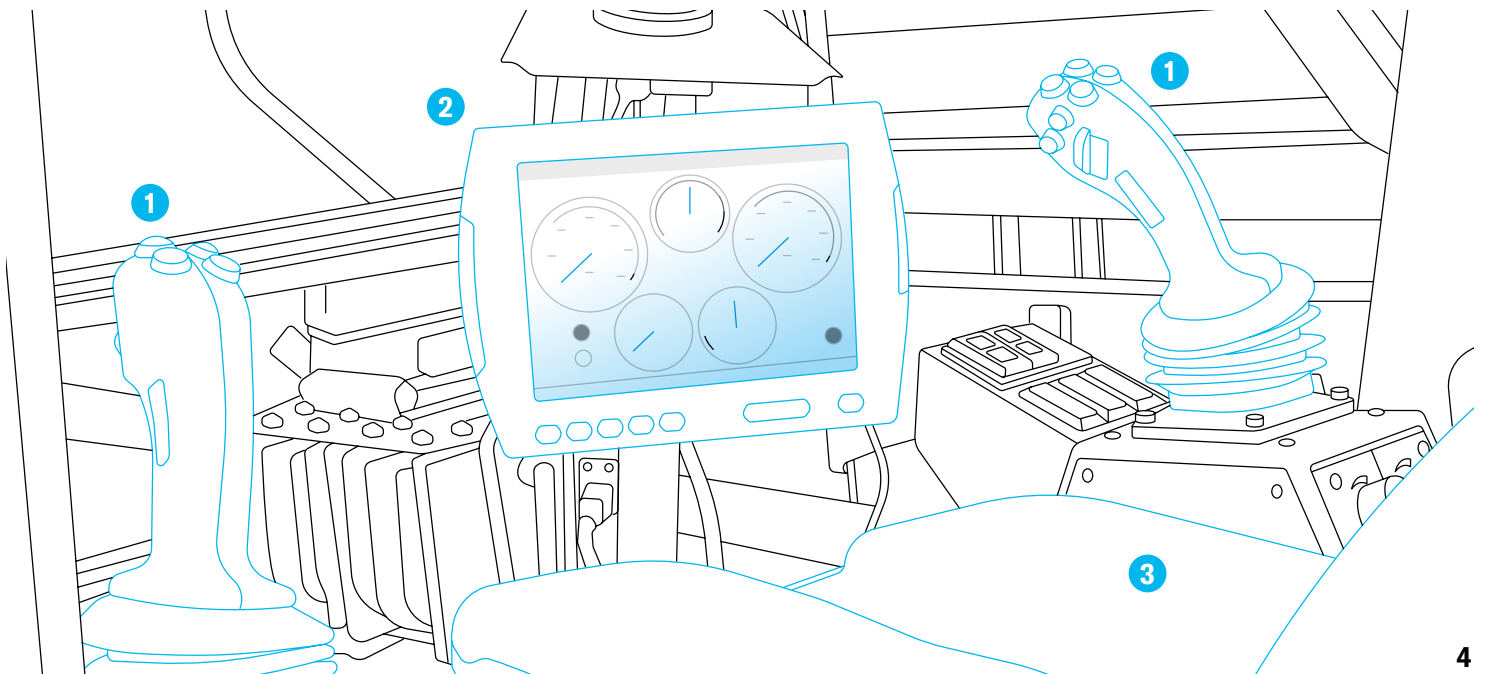
\* only with TD73/TD82

## 2 | Top notch workplace

- Panel PC with touchscreen and internet access
- High-resolution colour screen
- Language selection
- Automatic drill data log according to DVGW standards
- Remote diagnosis with telemetric data transfer
- LED lighting
- Radio with Bluetooth hands-free system, CD drive and USB port

## 3 | Customised ergonomics

- Grammer comfort seat XL
- Air suspension with automatic weight adjustment
- Can be adjusted individually
- Seat heater
- Fabric upholstery
- Panorama glazing for optimum overview
- Stepless hydraulically swivelling cabin. If required, work can also be carried out with the cabin in transport position, e.g. in confined spaces
- Heating and air conditioning



# EFFICIENCY – METRE BY METRE



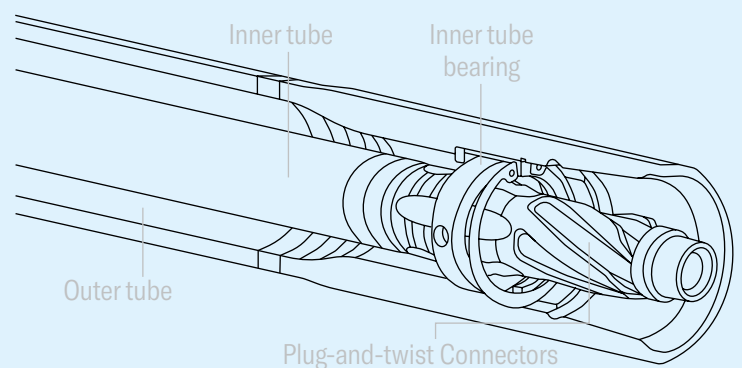
**Full performance - economical from the first metre**

All GRUNDODRILL rigs are designed for a wide range of applications; a long service life, minimal wear, minimal downtime and low consumption of resources and fuels – making them particularly flexible and economic – from the first day onwards.



**Elicon TWIN-Tube Rods \***

The inner tube is bedded inside the outer tube by means of wear elements. The inner tubes are simply, quickly and firmly connected using plug-and-twist connectors. The special design of the ELICON twin-tube system makes maximum fluid volumes possible even with long drilling bores.



\* only for GRUNDODRILL 18ACS

## VARIANTS

# GRUNDODRILL 18ACS / 18N TRAILBLAZER

### FEATURES | BENEFITS

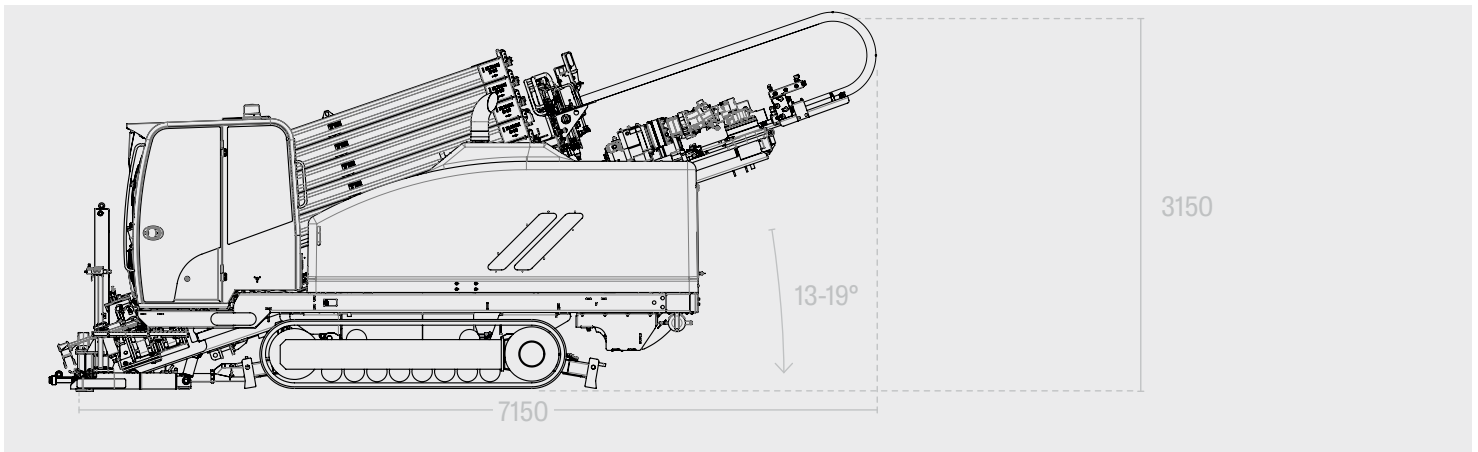
- Cummins motor Stage V for driving and drilling, 123 kW
- Stepless adjustment of torque and rotational speed for maximum rotation and highest level of productivity at any speed \*
- Drill rig with rubber track undercarriage, stabilisers
- Wireless remote control
- Spacious cabin, comfortable seat, joysticks, panel PC with touchscreen, air conditioning
- Automatic bore mode

- Fully automatic rod exchange system \*\*
- Fully automatic clamp and break-away facility
- Anchoring system with drilling fluid collecting tray
- Powerful HP Bentonite pump on board the rig
- Bore data logging - data transfer
- High-pressure cleaner
- Optionally with drill rod type TD73 or TD82

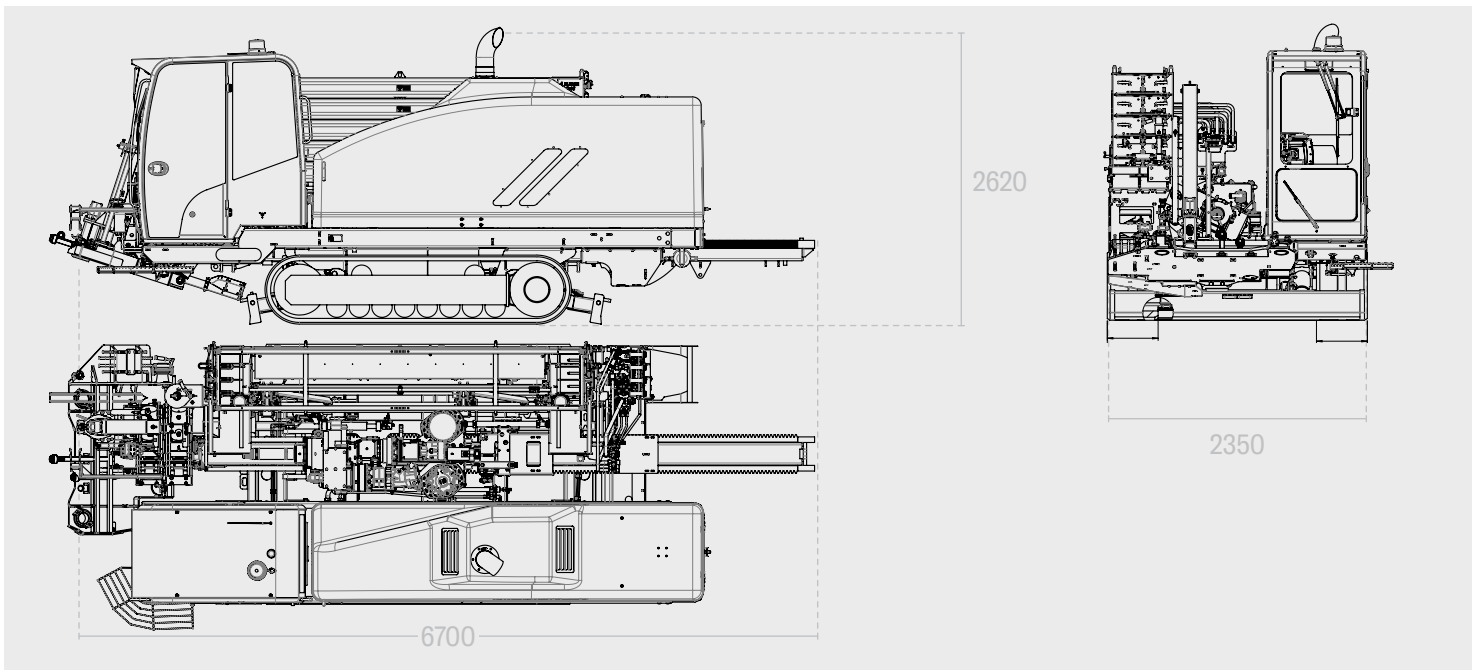
\* only for GRUNDODRILL 18ACS

\*\* only with TD73/TD82

### WORKING POSITION



### TRANSPORT POSITION



# VARIANTS



## TECHNICAL DATA

|  |  |  | DRILL ROD                          |   |                                   |            |
|--|--|--|------------------------------------|---|-----------------------------------|------------|
|  | ELICON 80 (ROCK)                                 | ELICON 95 (ROCK)                                 | TD73                               | TD82  | TD73                              | TD82       |
|  | <b>GRUNDODRILL 18ACS</b>                         |  |                                    | <b>GRUNDODRILL 18N</b>                                |                                   |            |
| Thrust and pullback force                                  | 130 kN   | 180 kN   | 180 kN                             | 180 kN  | 180 kN                            | 200 kN     |
| Max. feed rate (without load)                              | 36 m/min   |  |                                    |   |                                   |            |
| Max. torque  | outer rod<br>4.500 Nm<br>inner rod<br>1.200 Nm   | outer rod<br>7.500 Nm<br>inner rod<br>2.500 Nm   | outer rod<br>7.500 Nm   10.000 Nm  |   | outer rod<br>7.500 Nm   10.000 Nm |            |
| Max. spindle speed   | outer rod<br>200 U/min<br>inner rod<br>350 U/min | outer rod<br>200 U/min<br>inner rod<br>350 U/min | outer rod<br>180 U/min   200 U/min |   | outer rod<br>180 U/min            |            |
| HP Bentonite pump P72/320   P72/400                        | 320 l/min   400 l/min                            |  |                                    |   |                                   |            |
| Bentonite pressure   | 90 bar   |  |                                    |   |                                   |            |
| Rod magazine contents                                      | 210 m  | 120 m  | 225 m                              | 210 m   | 225 m                             | 210 m      |
| Rod weight   | 60 kg  | 80 kg  | 42 kg                              | 46 kg   | 42 kg                             | 46 kg      |
| Effective rod length                                       | 3.000 mm   |  |                                    |   |                                   |            |
| Number of rods   | 70 pcs   | 40 pcs   | 75 pcs                             | 70 pcs  | 75 pcs                            | 70 pcs     |
| Pilot bore Ø   | 140 mm   | 165 mm   | 115 mm                             | 140/170 mm  | 115 mm                            | 140/170 mm |
| Drill rod Ø  | 81/68 mm   | 98/95 mm   | 73/63 mm                           | 82 mm   | 73/63 mm                          | 82 mm      |
| Min. bore radius   | 35 m   | 55 m   | 55 m                               | 60 m  | 55 m                              | 60 m       |
| L x W x H (transport position)                             | 6.700 x 2.350 x 2.620 mm                         |  |                                    |   |                                   |            |
| L x W x H (Working position with cabin swivelled in)       | 7.150 x 2.350 x 3.150 mm                         |  |                                    |   |                                   |            |
| L x W x H (Working position with cabin swivelled out)      | 7.150 x 3.050 x 3.150 mm                         |  |                                    |   |                                   |            |
| Max. weight with EL 80   EL 95 combi box                   |  |  | 16.190 kg   15.350 kg              | (Weight may vary depending on selected configuration) |                                   |            |
| Engine manufacturer  | Cummins  |  |                                    |   |                                   |            |
| Engine model   | B4.5-C165  |  |                                    |   |                                   |            |
| Emissions standard   | Stage V  |  |                                    |   |                                   |            |
| Max. engine output   | 123 kW   |  |                                    |   |                                   |            |
| Tank capacity Diesel   AdBlue                              | 180 l   22 l                                     |  |                                    |   |                                   |            |
| Fresh water tank capacity                                  | 105 l  |  |                                    |   |                                   |            |
| Inclination angle  | 0-30 °   |  |                                    |   |                                   |            |
| Max. driving speed 2 stages                                | 1,3/2,2 km/h                                     |  |                                    |   |                                   |            |
| Sound pressure level $L_{PA}$   Sound power level $L_{WA}$ | 77 dB   104 dB                                   |  |                                    |   |                                   |            |
| Workplace vibrations                                       | $\leq 0,5 \text{ m/s}^2$                         |  |                                    |   |                                   |            |
| Upsizing $\emptyset^* \leq$ Outer pipe $\emptyset^* \leq$  | 600/500 mm                                       |  |                                    |   |                                   |            |
| Bore length* $\leq$  | $\leq 400 \text{ m}$                             |  |                                    |   |                                   |            |

\*depending on ground | Subject to change

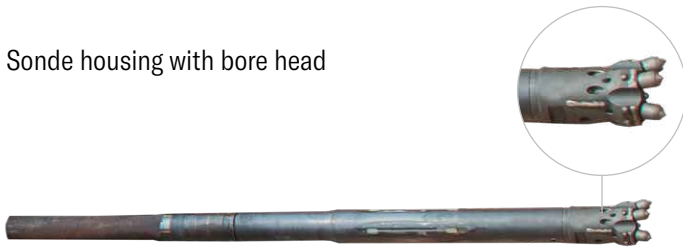


# WELL EQUIPPED IS HALF WAY THERE

Drilling tools, perfectly adapted to the bore rig, guarantee optimal drilling progress through every type of soil. Robustness and durability of all parts are assured.

## STANDARD DRILLING

Sonde housing with bore head



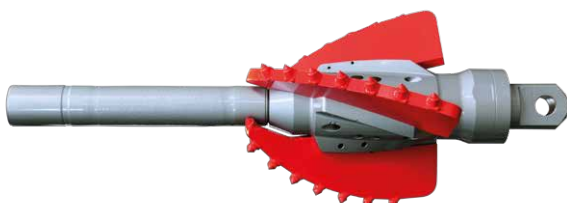
Medium Soil Reamer



Cone Reamer



GRUNDOREAM

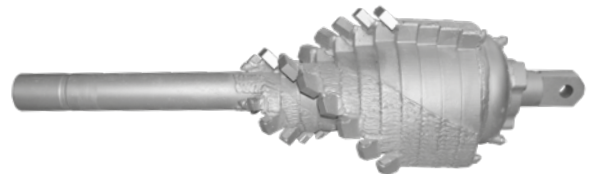


## ROCK DRILLING

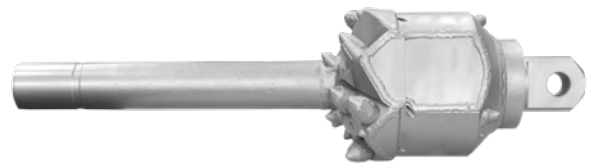
Rock drilling unit with roller chisel



Hard Soil Reamer



Hard Soil Rockreamer



Holeopener





## MIXING SYSTEMS

A first-class drilling fluid technique is an important component for successful drilling. In combination with the BORE rig and drilling tools, the drilling fluid technique of TT provides a coherent package for an efficient job completion – even in complex and alternating soils.

Powerful mixing systems and pumps guarantee high drilling fluid performance. Professional measuring units and drilling fluid additives are available to ensure a drilling fluid quality, which is well adapted to the soil.

Learn more about this topic in our in-house training courses or ask us for additional information on mixing systems and truck platforms.



MIXING SYSTEM MA07



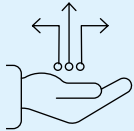
MIXING SYSTEM MA010

## TRANSPORT

We are happy to provide assistance with the configuration and choice of your truck including trailer. For details, please contact your local sales representative.

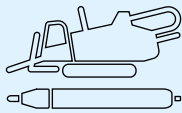
# FULL SERVICE FOR TRENCHLESS TECHNOLOGY

Whether its before, during or after the purchase, whether in person or online – we are always at your side with advice and support. Our wide-ranged service is specially tailored to the requirements of trenchless pipe installations, so you can concentrate fully on your core business.



## Digital Solutions

Our website offers you the whole world of trenchless technology in digital form. Find out more about our company, our products and their applications. Discover the digital tools for the HDD drilling technology and many other intelligent solutions. Always stay up to date by using the links to our social media channels. Or you can order machines, accessories and spare parts in our eSHOP – easy and conveniently via PC, smartphone or tablet.



## Nodig Product Specialists

You can truly rely on our product specialists for all technical questions regarding the function and application of our steerable and non-steerable NODIG-systems. With comprehensive knowledge in each of their special fields, you can be sure they will find the best solution for your trenchless projects and advise you competently on setting up your jobsite.



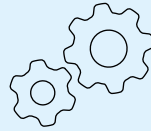
## Financing

We offer attractive financing solutions for new and used machines to our customers and sales partners through the TRACTO-TECHNIK Finance GmbH. Be it financing, hire purchase, various types of leasing or insurance: we provide extensive expert advice, individually and personally, in order to find the tailored solution for you. Discretion goes without saying.



## Training

Qualified training enables you to apply trenchless technology even more effectively and profitably. Our wide range of training courses for machine operators, construction professionals as well as planners and clients cover all aspects of NODIG technology, including special topics. Certified trainers also instruct you, in theory and practice according to your individual requirements, either at one of our numerous company locations, or directly on your own premises or online, independent of time and place.



## Specialised Civil Engineering Service (Application Technology)

The specialised civil engineering service for application technology provides support for all your trenchless construction sites. Our experts demonstrate the steerable and non-steerable NODIG technology live in practical use, show your drilling teams how to use it or actively assist with special projects.



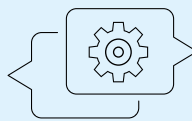
## Geoservice

Precise knowledge of the soil is the key to successful trenchless projects. Our Geoservice team provides you with this professional knowledge. Our expertise puts you in a position to master every type of soil. Based on geoscientific maps and existing construction files, we supply information on the soil, which will help you with calculations or supplements.



## Used Equipment

If you want to sell a used machine at an attractive price or are looking for the right equipment for your tasks, our full service for used NODIG machines will take the workload off your hands – from appraisal and price determination to professional repair and certification, through to achieving the best price for you via our used machine website with access to one of the world's largest construction machinery platforms.



## After Sales

Via our worldwide service network we are always there for you, even after the purchase. A total of five TRACTO plants and seven customer centres in Germany, as well as our worldwide sister companies and sales partners guarantee fast supply of spare parts and immediate availability. Our competent service staff offer fast assistance, to ensure you don't lose any time.



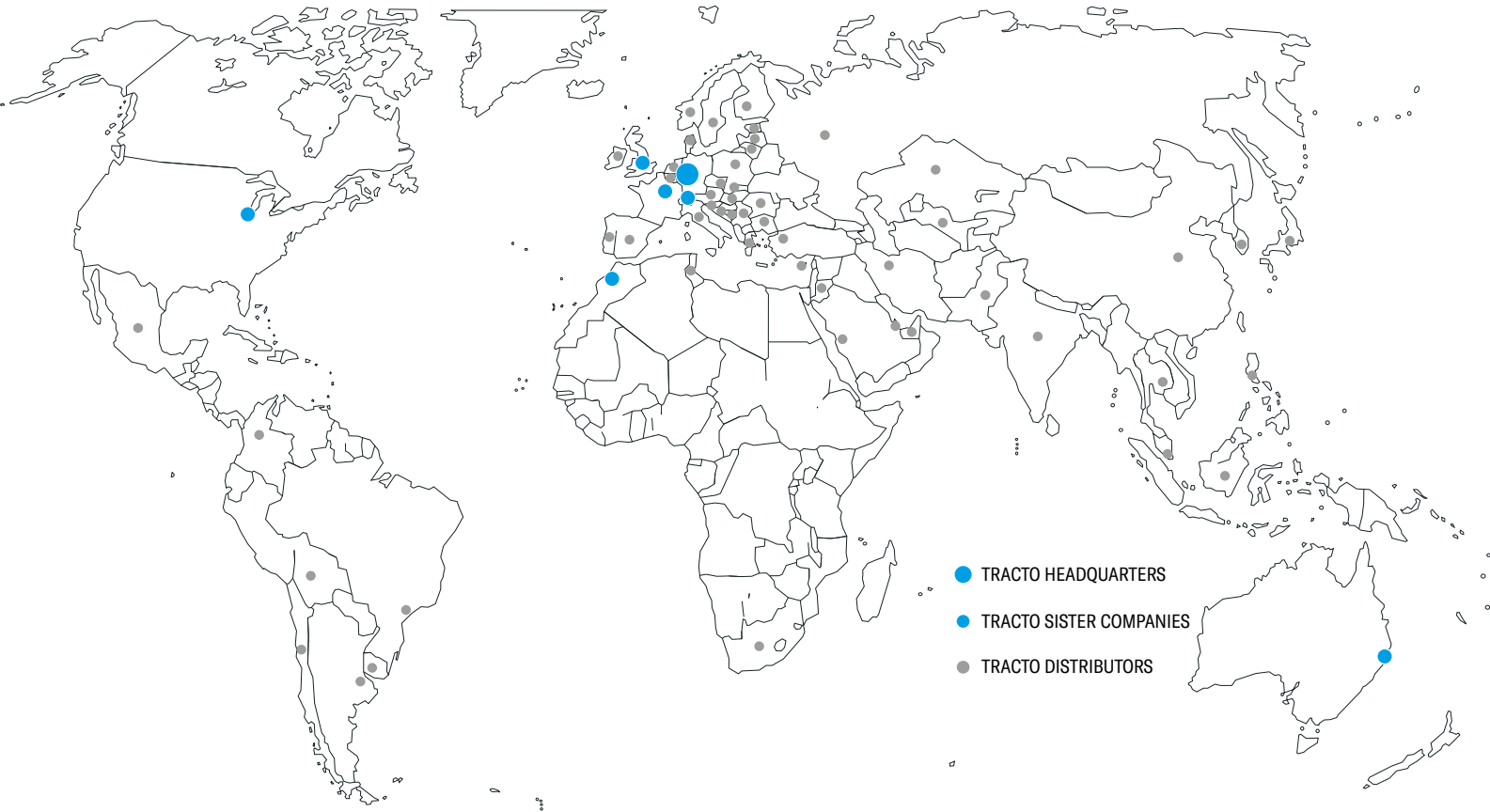
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**TRACTO-TECHNIK  
GMBH & CO. KG  
HEADQUARTERS**

PAUL-SCHMIDT-STRASSE 2  
57368 LENNESTADT, GERMANY  
T +49 2723 808-0  
F +49 2723 808-180  
INFO@TRACTO.COM  
TRACTO.COM/DE



**SWITZERLAND**  
TRACTO-TECHNIK SCHWEIZ AG  
INDUSTRIESTRASSE 4  
8360 ESCHLIKON TG, SCHWEIZ  
T +41 79 8203897  
CH@TRACTO.COM  
TRACTO.COM/CH-FR

**UNITED KINGDOM**  
TRACTO-TECHNIK UK LTD  
10 WINDSOR ROAD  
BEDFORD MK 42 9SU  
T +44 1234 342566  
F +44 1234 352184  
INFO@TRACTO-TECHNIK.CO.UK  
TRACTO.COM/UK

**FRANCE**  
TRACTO-TECHNIK FRANCE S.A.R.L.  
1/3 RUE DE LA PRAIRIE  
F-77700 BAILLY ROMAINVILLIERS  
T +33 1 60 42 49 40  
F +33 1 60 42 49 43  
FR@TRACTO.COM  
TRACTO.COM/FR

**USA**  
TT TECHNOLOGIES INC.  
2020 EAST NEW YORK STREET  
AURORA, IL. 60502  
T +1 630 851 8200  
F +1 630 851 8299  
INFO@TTTECHNOLOGIES.COM  
TTTECHNOLOGIES.COM

**AUSTRALIA**  
TRACTO-TECHNIK AUSTRALIA PTY LTD.  
10 ALICIAJAY CIRCUIT  
LUSCOMBE, QLD 4207  
T +61 7 3420 5455  
AU@TRACTO.COM  
TRACTO.COM/AU

**MOROCCO**  
TRACTO-TECHNIK AFRIQUE S.A.R.L.  
ROUTE DE TAMESNA 4022  
POSTE 2044, 12220 TAMESNA  
T +212 5 37 40 13 63 / 64  
F +212 5 37 40 13 65  
INFO@TRACTO-TECHNIK.MA  
TRACTO.COM/MA

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