

TRACTO

More about
GRUNDODRILL
HDD Rigs



GRUNDODRILL 20ACS HDD ROCK DRILLING RIG ROCKSTAR



ADVANCED TRENCHLESS TECHNOLOGY

GRUNDODRILL 20ACS MASTERS ANY SOIL

The GRUNDODRILL 20ACS is the latest addition to TRACTO's 'All Condition System' series. Like its predecessor, the 'King of Rock' 18ACS, it can be used flexibly as a jet or rock drilling rig. Increased thrust and pulling force, as well as an optimised rod concept, ensure even greater efficiency and flexibility. However, the GRUNDODRILL 20ACS truly comes into its own when drilling in solid rock: the ELICON twin-tube EL D101 rods and increased torque make the 20ACS the new 'Rockstar' that masters even the most complex drilling projects in changing ground conditions, including rock.

More productivity

- Increased thrust/pull force of 200 kN, torque of 9,000 Nm on the outer rods, and 2,500 Nm on the inner rods for demanding bores
- 123 kW diesel drive, continuously variable torque adjustment for maximum performance at any speed and a wide range of drilling profiles
- Fully automatic serial drilling, rod change and rod lubrication in rock drilling mode save time and make work much easier

More safety

- Strong undercarriage for safe set-up even in critical situations
- Two stabilisers and anchor drilling rig with auger profile as an option for maximum stability under full load
- Steep inclination angle for minimal setback in confined spaces

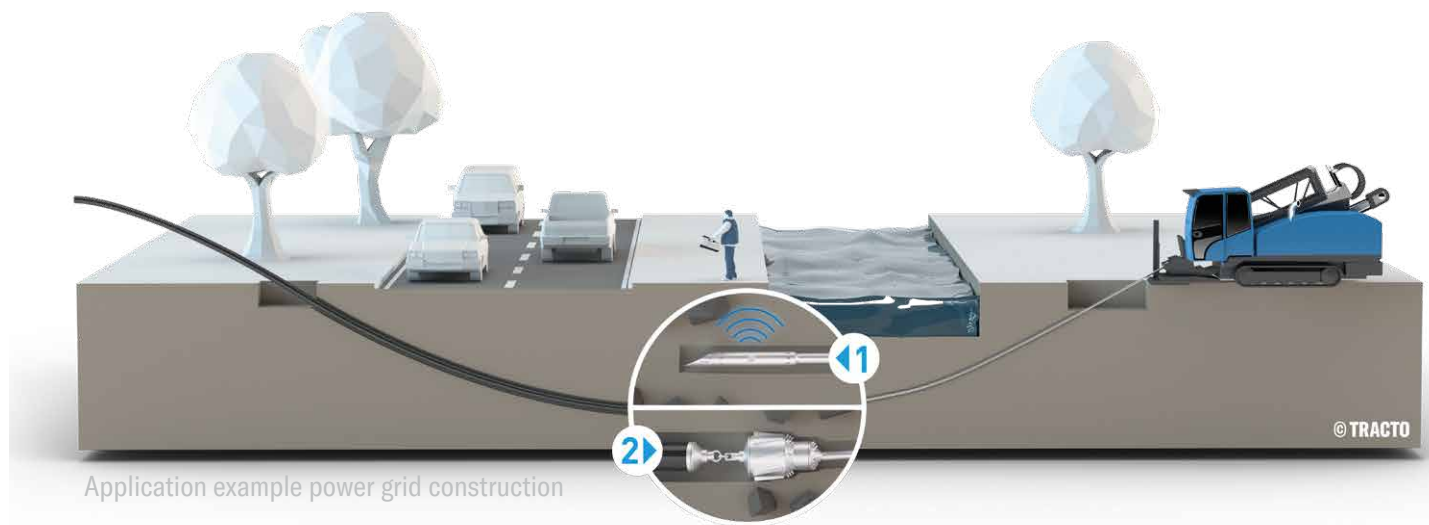
More operating comfort

- Rotatable comfort cabin with an optimised design and top-of-the-range features for maximum ergonomics and the highest level of operating comfort in all construction site conditions

Simple solutions for complex projects

- Radio remote control for driving and operating the drilling rig from outside the cabin
- Drilling data recorded with the BORE DATA app can be easily read out via cloud or USB connection.
- Free integration into the COMMANDER fleet management app, which allows you to keep an eye on the location, performance and consumption data of the drilling rigs at all times.

APPLICATION



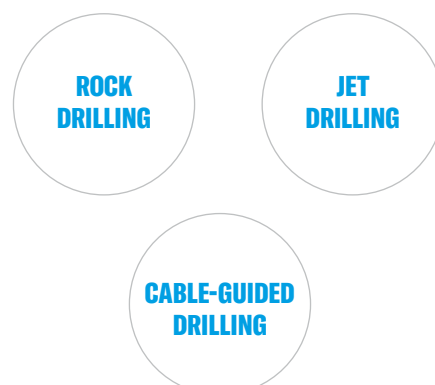
INSTALLATION METHOD



BORE DIAMETER



TYPE OF USE

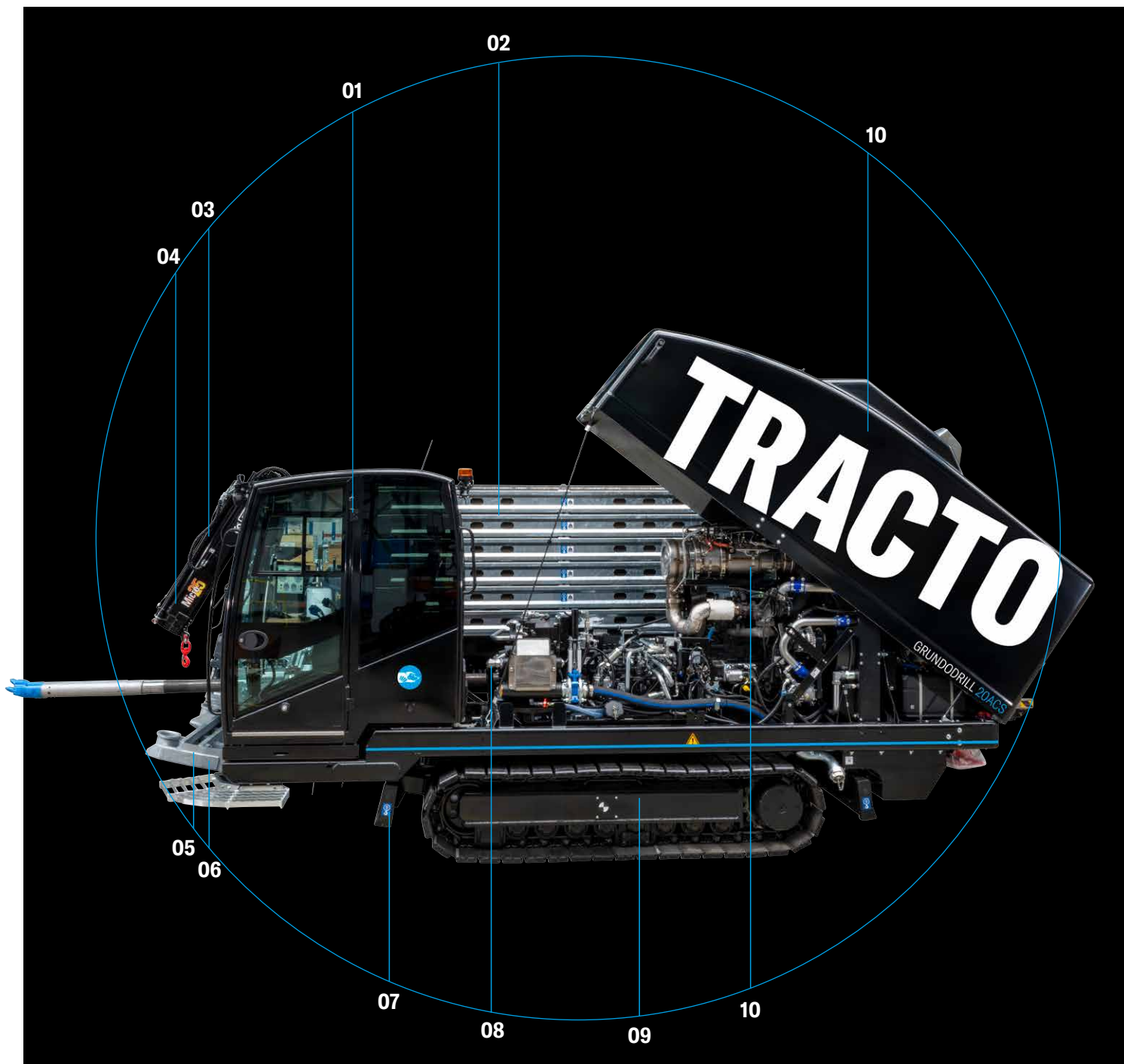


APPLICATION RANGE



* depending on soil conditions

OVERVIEW



01 Comfort cabin - hydraulically adjustable and vibration-damped, with more storage space, USB ports, removable foot mat, drink holder, powerful air conditioning

02 Large rod magazine with 144 m EL D101 rock drilling rods on board - on request in stacking boxes or combi boxes

03 Anchor drilling system for even greater stability when drilling with optimised auger profile

04 Remote-controlled loading crane - optional for safe handling of rod boxes, drill rods and accessories

05 Bentonite collecting tray - Bentonite suction pump optionally

06 High-pressure cleaner in the anchor plate area - Large HD cleaner with 15 m hose and drive via Bentonite pump as an option

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

08 Recycling-friendly high performance Bentonite pump - for rapid reaming speed and large reaming diameters

09 Broad rubberised steel chain track - extremely manoeuvrable and stable

10 Powerful diesel engine - low fuel consumption, low emission levels

11 Large GRP hood - easily accessible for service and maintenance

COMFORTABLE CONTROL CENTRE

Total control

Convenient control of all functions in drilling and driving mode via two multifunction joysticks. Different operating modes freely selectable by the machine operator:

Manual mode:

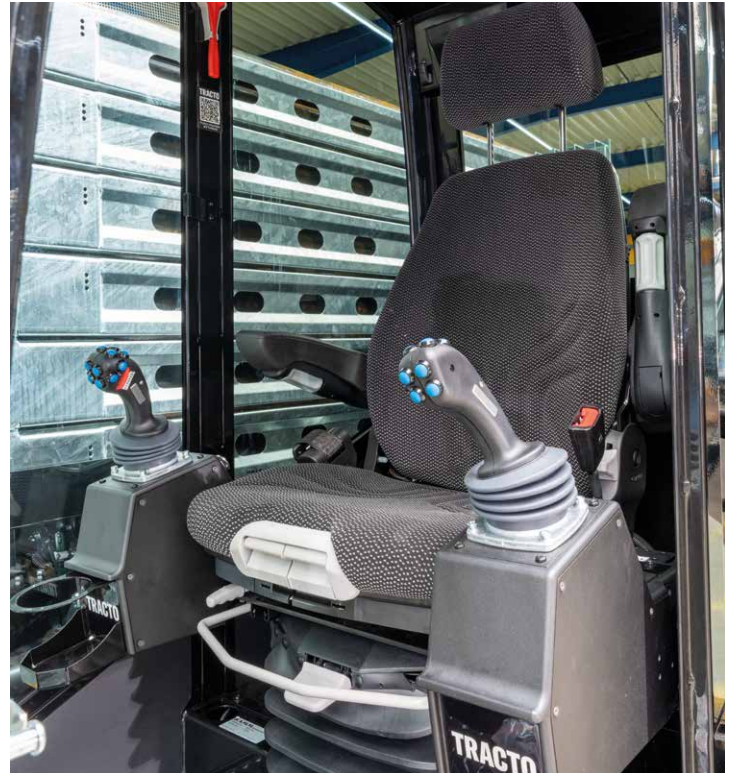
- All machine functions controlled by the machine operator

Semi-automatic mode:

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

Fully automatic mode:

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



Ergonomic workplace

The rotating comfort cabin's top-of-the-range features boast an ergonomic design and practical details that make working on the construction site fatigue-free.

- Grammer comfort seat XL with air suspension, automatic weight adjustment, seat heating, fabric cover
- Sun visors and tinted rear and side windows
- All-round glazing for optimum visibility
- In confined spaces, work can be carried out in the transport position of the hydraulically swivelling cabin
- USB ports, cup holders and mobile phone holders, removable foot mat
- Heating and powerful air conditioning



One display for everything

The integrated display allows complete parameterisation of the drilling rig with just a few taps of the finger:

- Panel PC with touchscreen and internet connection
- High-resolution colour display
- Language selection
- Automatic drilling data acquisition in accordance with regulations
- Remote diagnosis with telemetry data transmission
- LED lighting
- Radio with Bluetooth hands-free kit, CD drive and USB port



DRILLS AND DRILLS AND DRILLS

Optimised rod concept

The fully automatic rod changing system of the GRUNDODRILL 20ACS ensures low idle times and reduces the workload for the operator. An increased torque of 9,000 Nm guarantees powerful drilling progress even when drilling in solid ground and rock.

- Increased rod capacity with 144 m EL D101 twin-tube rods on board
- Easy selection of rod types EL D80, EL D101, TD73, TD82 by the drill operator

- Selection of rod type including necessary settings on the machine feasible without the need to hire a TRACTO service technician
- Rotation of the drill rods inside the box possible during normal operation, resulting in uniform use and wear of the rods
- Jet drilling can also be carried out without any problems with our twin-tube rods
- Cable-guided drilling in difficult terrain and at great depths is also possible when operating with twin-tube rods



Reliable and fast through all geologies

ELICON twin-tube rods are precisely matched to GRUNDODRILL rigs. Thanks to their special design, they enable significantly smaller bending radii, higher performance and maximum drilling fluid flow, even over long distances.

The inner tube is supported by wear elements within the outer tube. The inner tubes can be connected to each other quickly, easily and securely using plug-in connectors (1). One-piece forged drill rods with ELICON threads and supported inner tubes ensure reliability and a long service life. (2)



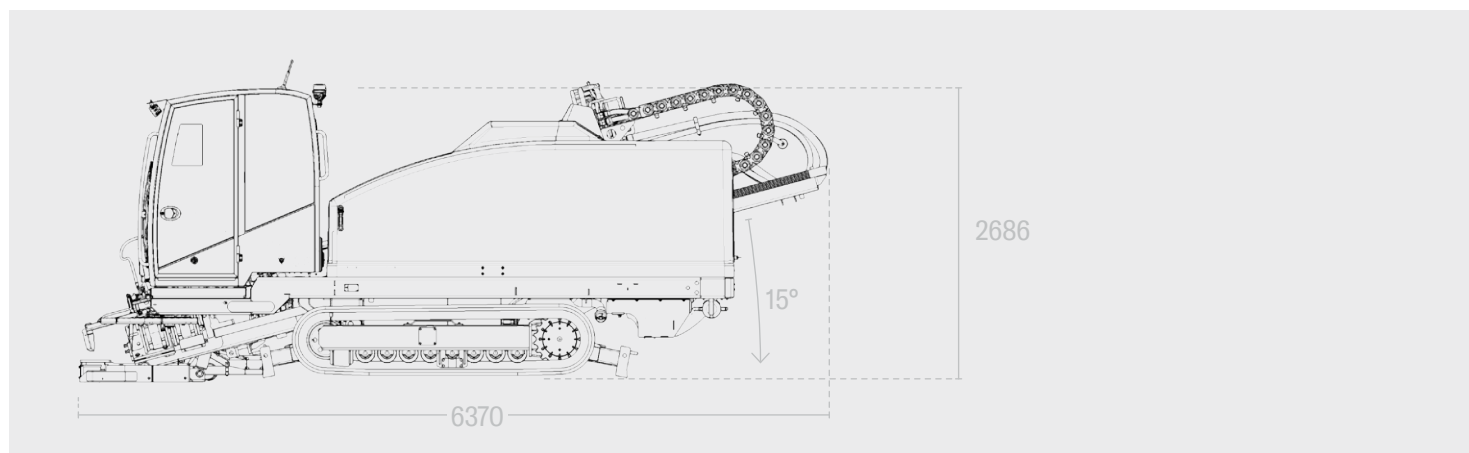
FEATURES

GRUNDODRILL 20ACS ROCKSTAR

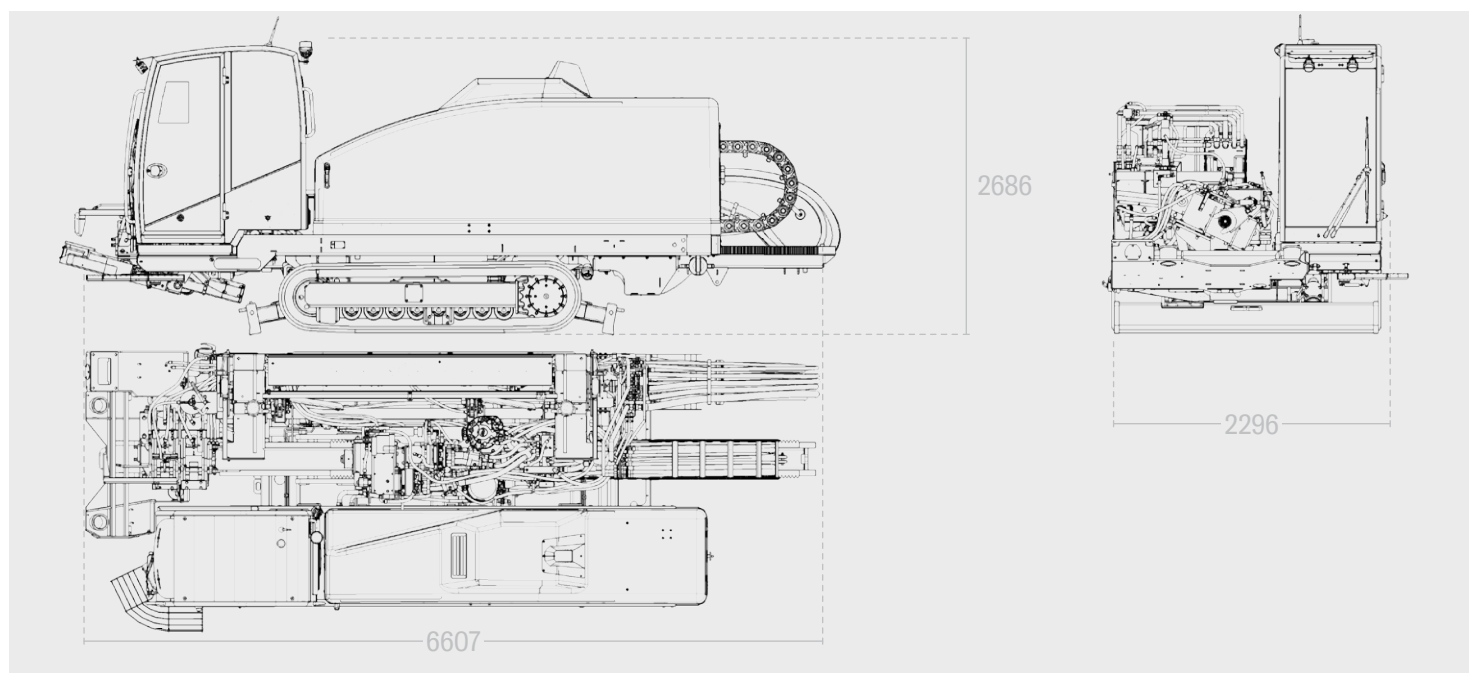
FEATURES

- EL D101 twin-tube rods with improved bearings
- Increased torque for efficient drilling in variable and solid soils including rock
- Cummins Stage V engine for driving and drilling, 123 kW
- Stepless adjustment of torque and speed for maximum rotational power and highest productivity at any speed
- Fully automatic rod change system for low idle speed, maximum productivity and reduced operator workload
- On-board crane for easy handling of rods, stacking boxes and accessories
- Fassi loading crane on anchor plate and slurry pump on anchor plate optional
- Anchor drilling system with auger profile optional
- Powerful Bentonite pump with 400 l/min delivery rate
- Spacious cabin, comfort seat, joysticks, panel PC with touch-screen, air conditioning
- Radio remote control for moving and operating the machine from the pit
- High-pressure cleaner as standard, optional large HP cleaner with 15 m hose and drive via bentonite pump
- Optional central lubrication for simplified maintenance
- Drilling data logging with BOREDATA App and data transfer via cloud or USB
- Free integration into COMMANDER fleet management app
- Convertible for cable-guided drilling with twin-tube rods

WORKING POSITION



TRANSPORT POSITION



FEATURES



TECHNICAL DATA	ELICON		DRILL ROD S	
			TWIN DRIVE	
	EL101	EL80	TD73	TD82
Thrust and pullback force	200 kN	160 kN	180 kN	200 kN
Max. feed rate (without load)	36 m/min			
Max. torque	Outer rod 9.000 Nm Inner rod 2.500 Nm	Outer rod 5.500 Nm Inner rod 1.200 Nm	7.500 Nm	10.000 Nm
Max. spindle speed	Outer rod 200 U/min Inner rod 320 U/min	Outer rod 200 U/min Inner rod 405 U/min	200 U/min	180 U/min
HP Bentonite pump P72/320 P72/400	400 l/min			
Bentonite pressure	90 bar			
Rod magazine contents	144 m	210 m	225 m	210 m
Rod weight	85 kg	60 kg	42 kg	46 kg
Effective rod length	3 m			
Number of rods	48 St.	70 St.	75 St.	70 St.
Drill rod Ø	101 mm	81/68 mm	73/63 mm	82 mm
Min. bore radius	55 m	35 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 pos. with cabin swivelled in)	7.150 x 2.350 x 3.150 mm			
L x W x H (Working pos. with cabin swivelled out)	7.150 x 3.050 x 3.150 mm			
Max. weight Stacking boxes Combi boxes	16.350 kg (Stacking box)	16.300 kg (Combi box)	15.340 kg 15.380 kg (Combi box Stacking box)	15.380 kg 14.890 (Combi box Stacking box)
Engine manufacturer	Cummins			
Engine model	B4.5-C165			
Emissions standard	Stage V			
Max. engine output	123 kW			
Diesel tank capacity 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 _{WAA}	77 dB 104 dB			
Workplace vibrations	≤ 0,5 m/s²			
Upsizing Ø* ≤ Outer pipe Ø* ≤	600/500 mm			
Bore length* ≤	≤ 400			

*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.

JET DRILLING

Sonde housing with bore head



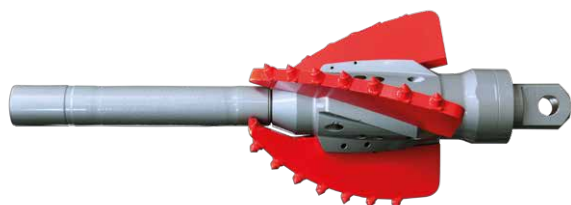
Medium Soil Reamer



Cone Reamer



GRUNDREAM

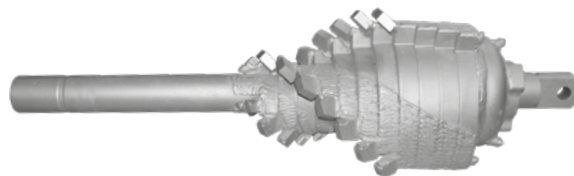


ROCK DRILLING

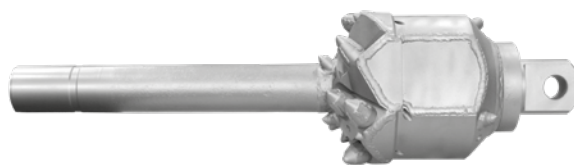
Rock drilling unit with roller chisel



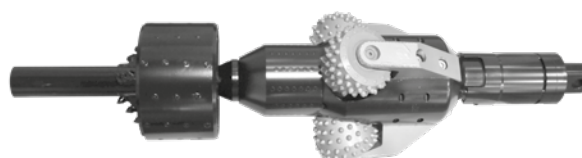
Hard Soil Reamer



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



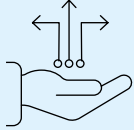
MIXING SYSTEM MA010

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.

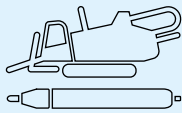
FULL SERVICE FOR TRENCHLESS TECHNOLOGY

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.



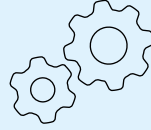
Financing

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.



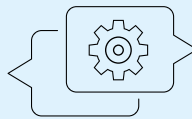
Geoservice

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.



**Discover
our service
solutions**



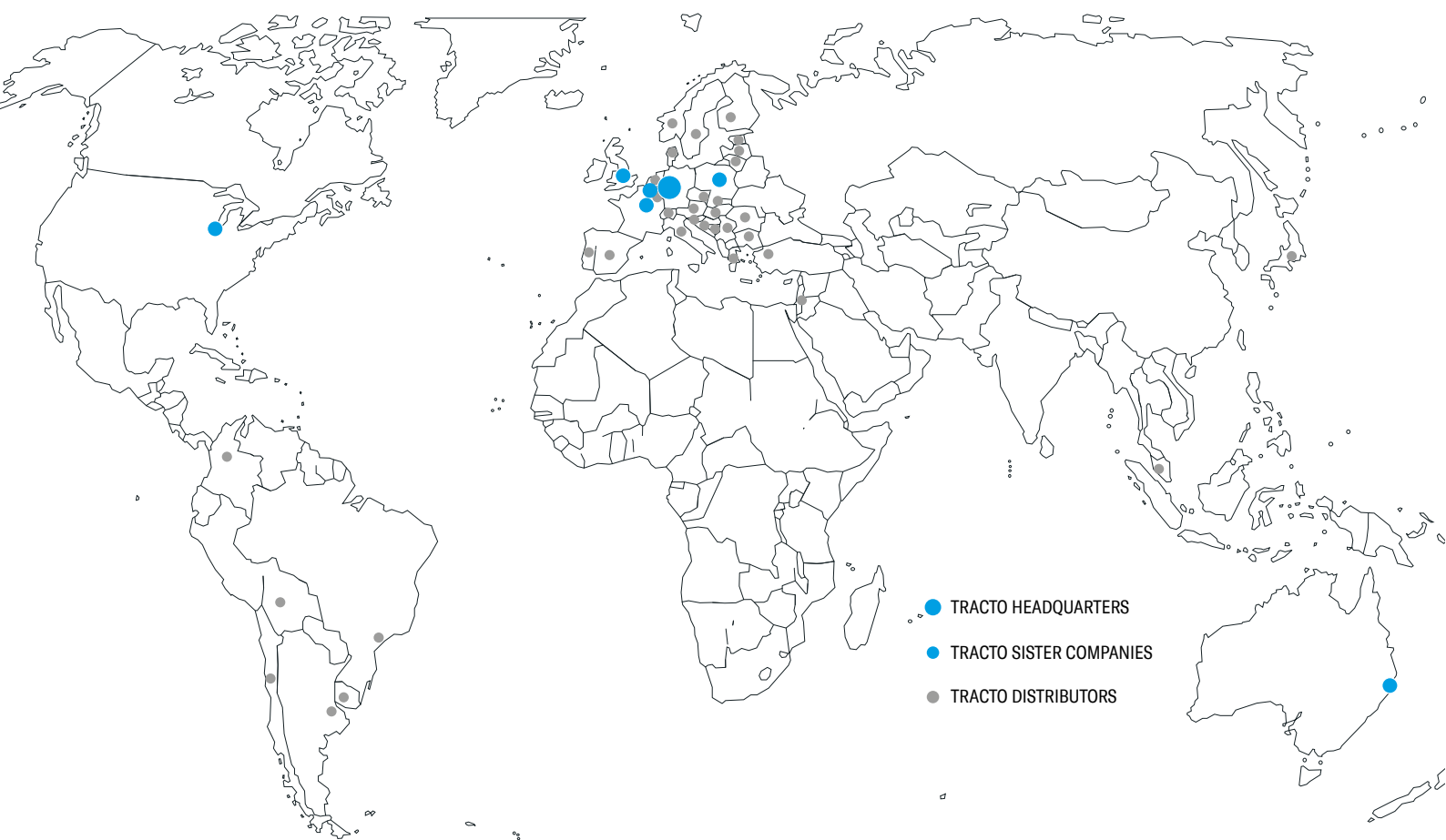
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TRACTO ADVANCED TRENCHLESS TECHNOLOGY

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