

INSPIRING TRENCHLESS TECHNOLOGIES



TRACTO-TECHNIK



28Nplus TOP PERFORMER

MADE
IN
GERMANY

GRUNDODRILL^{28Nplus}
Fluid-assisted HDD rig



Comfortable swivelling cabin
for high operator comfort and convenience,
clearly arranged with flexible positioning

Automatic rod exchange
high productivity, uniform wear of
all rods due to a tactical approach
towards the magazine compartments

Spacious rod magazine
288 m on board

Anchoring system
for increased stability while
drilling and **minimal rod wear**

Integrated **high-pressure cleaner**
for handy cleaning

POWER VEHICLE

Self-supporting and dynamic



Two stabilisers

maximum stability, variable inclination
of the cradle for an ideal penetration angle

ACHIEVES PEAK VALUES IN EVERY DISCIPLINE



■ The Bentonite pump forwards up to 650 l/min and allows high speed and large upsizing diameters in the upsizing.

■ The highly efficient motor technology operates economically, with low noise and emission levels.



POWERFUL DRIVE



- Convertible to cable-guided boring for tracking in challenging terrains and great depths.
- Rack and pinion drive (toothed rack).
- Stepless adjustment of torque and revolution speed for optimal power transmission.
- Best possible adaptation to demands and soil conditions.

BEST-IN-CLASS PEAK PERFORMANCE



- Slenderly built, with the smallest space between the drill axis and the outer edge of the machine.
- Duo to its low machine weight, the rig an the mixing unit can be transported on a truck.



GROUND CONTROL

Full vision, maximum comfort



OPTIMAL OPERATOR'S POSITION

The glazing of the operator's cabin offers a panoramic view of the surroundings. The operating elements are clearly arranged and all functions and drilling parameters can be controlled without difficulty via interactive control.

- Panel PC with touchscreen and internet access
- High-resolution colour screen with optional online traction force measurement
- Display with optional tensile load measuring
- Data log acc. to the latest standards, printing via PC, USB port
- Recording of the complete drilling course data
- Remote diagnosis with telemetric data transfer
- automatic bore mode
- fully automatic rod exchange system
- fully automatic clamp and break-away facility



TOTAL EASE OF USE

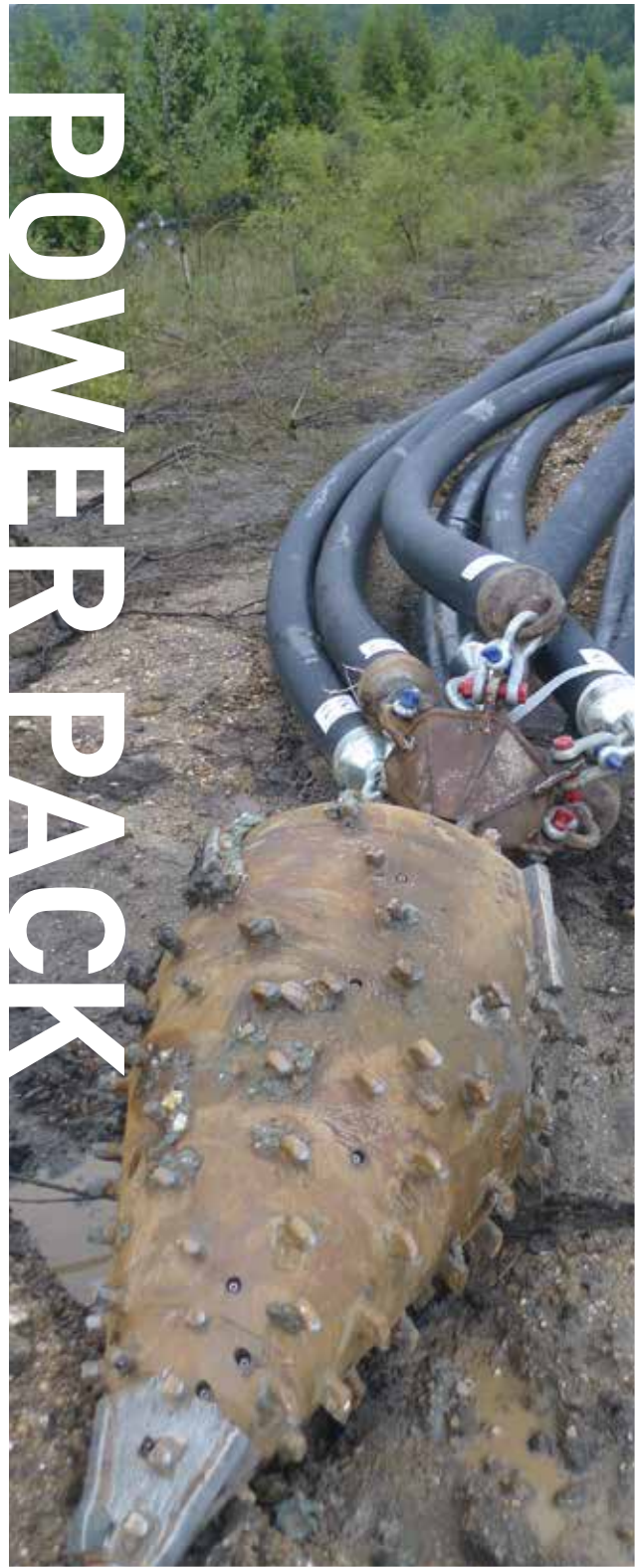
All functions are controlled at the push of a button via two multifunctional joysticks.



CUSTOMISED ERGONOMICS

The comfortable seat is spring-mounted and can be adjusted individually. This makes it ideal for comfortable and convenient working.





POWER PACK

MULTI



UPSIZING



LONG-DISTANCE



PLE PULL-IN



PILOTING





EARNs ITS REPUTATION FROM THE FIRST METRE ON

Application

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.

■ UNDERCROSSINGS

The standard applications with the GRUNDODRILL include directional drilling operations beneath roads, railway tracks and buildings.

■ LONGITUDINAL BORES

Not only undercrossings, but also linear drilling operations which take a parallel course to roads, water bodies and buildings, are all common applications.

■ CABLE-GUIDED DRILLING

When detection of the bore is especially demanding, cable guided drilling is applied, e.g. for deep boreholes, crossings underneath water bodies or railway tracks or when interferences occur.

The fluid-assisted HDD method

PILOT BORE*



Implementing of the planned bore path:

- Linear bores: pushing and rotation of the bore head.
- Curved bores: pushing of the aligned bore head, supported by paddle mode if required.

UPSIZING & PIPE PULLING*



Installation of the product/protection pipe:

- Reverse pulling of the backreamer with pipe attached, intermediate upsizing may be necessary.

* Depending on soil type and required upsizing diameter special drilling tools are used.

WELL PLANNED EQUIPMENT IS WORTH THE EFFORT



Accessories

Drilling tools, perfectly adapted to the drill rig, guarantee an optimal drilling progress in every type of soil. Robustness and durability of all parts are guaranteed.

STANDARD DRILLING TECHNIQUE



TD82 rods



Medium Soil Reamer



Cone Reamer



GRUNDOREAM

Maintenance-free
centrifugal pump for
conveying up to 1800 l/min

870 l/min
fresh water filter



WELL PREPARED MEANS HIGH PERFORMANCE

With marking grid for
50 kg Bentonite, processes
25 kg of Bentonite in only
25 seconds



A first-class drilling fluid technique is an important component for successful drilling. In combination with the drill rig and drilling tools, the drilling fluid technique of TT provides a coherent package for efficient work – even in complex 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 that is well adapted to the soil.

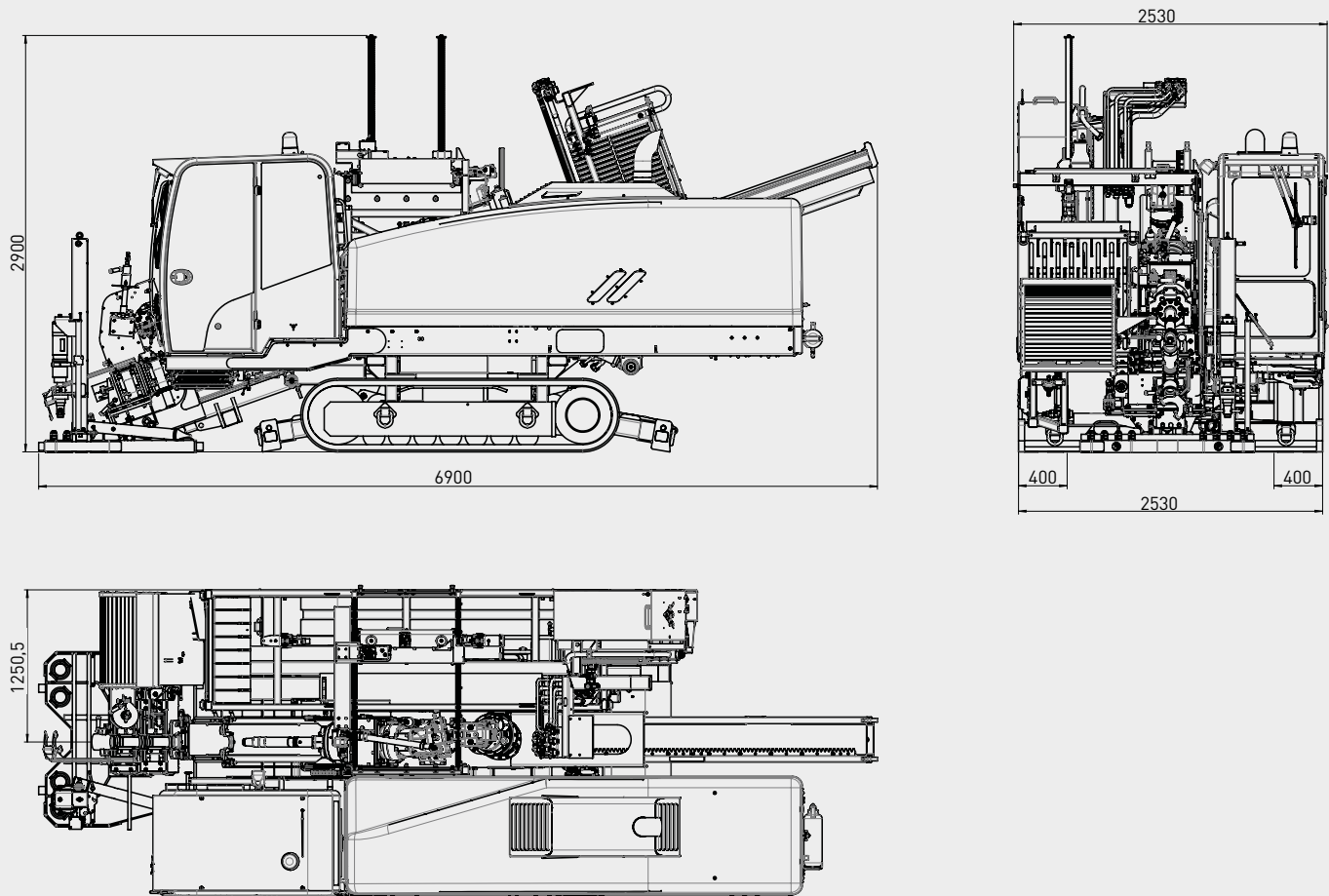
For more information on this important topic, please visit our website for in-house training courses or ask for detailed information on mixing systems and truck platforms.



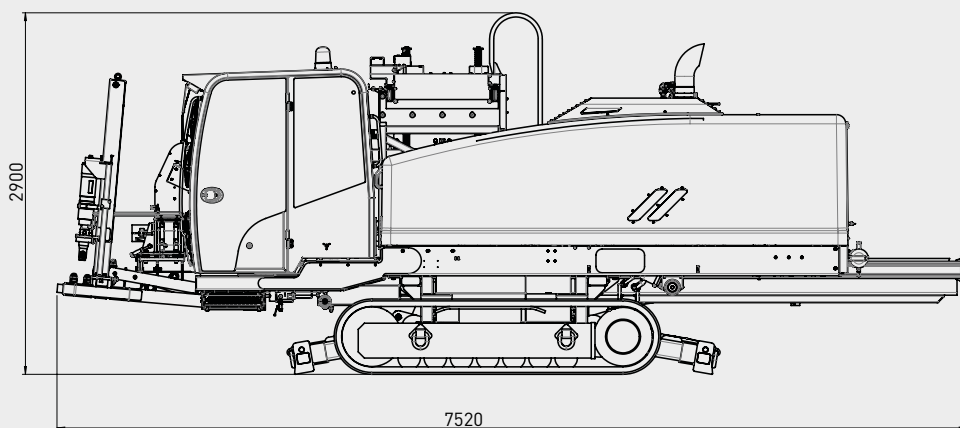
Mixing system MA07

TECHNICAL DATA GRUNDODRILL 28Nplus

WORKING POSITION



TRANSPORT POSITION



TECHNICAL DATA



Model

GRUNDODRILL 28Nplus

Basic equipment

- Cummins motor Tier 4 final, Stage IV for driving and drilling, 224 kW
- infinitely variable torque adjustment rotation for maximum drilling capacity across the entire speed range
- 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 galvanised rod box
- fully automatic rod exchange system
- fully automatic clamp and break-away facility
- Anchoring system
- powerful HP Bentonite pump on board the rig
- Bore data logging – data transfer
- High-pressure cleaner

Performance data

Drill rod type: TD82

L x W x H [mm]	7.520 x 2.530 x 2.900
Weight incl. rods [kg]	18.980
Rod magazine capacity [m]	288
Inclination angle	12°–30°
Thrust and pullback force [kN]	280
Max. torque [Nm]	11.000
Max. spindle rotation [rpm]	180
Pilot bore Ø [mm]	140/170
Drill rod Ø [mm]	82
Effective rod length [mm]	3.000
Rod weight [kg]	46
Upsizing Ø* [mm]	≤ 900
Outer pipe Ø* [mm]	≤ 710
Bore length* [m]	≤ 500
Min. bore radius [m]	75
Max. driving speed [km/h] 2stage	3,3/5
Fresh water tank [l]	155
Sound pressure level L_{PA} [dB(A)]	76
Sound power level L_{WA} [dB(A)]	106
Max. engine output [kW]	224
HP Bentonite pump [l/min]	650
Bentonite pressure [bar]	85
Whole body or Hand / Arm vibrations [m/s ²]	< 0,5
Diesel tank [l]	250

* depending on soil conditions



TRANSPORTATION WITH A PLAN



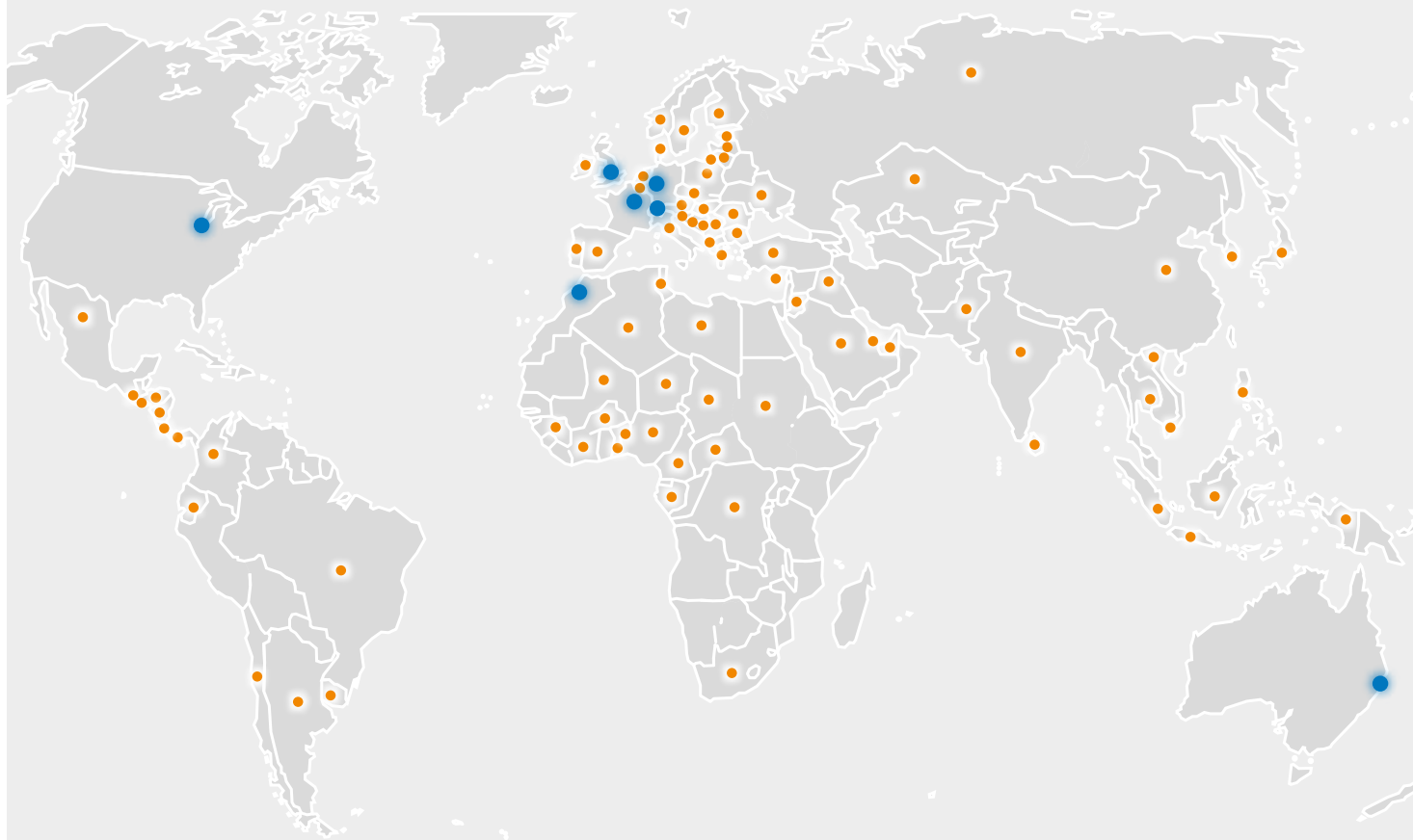
Everything on board: truck platform for mixing systems, drive and accessories.

WE KNOW THE DRILL

We will gladly assist you in selecting the most suitable truck and trailer. Ask for our flyer for details on system recommendations.

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