INSPIRING TRENCHLESS TECHNOLOGIES



400 MIGHTY CALIBRE

MADE IN GERMANY

GRUNDOBORE⁴⁰⁰ Auger boring unit



High-power drive unit – high torque of 6,000 Nm and thrust force of 400 kN

Centring facility for the jacking pipe – precise, dead-on-target pipe alignment

Robust, compact frame design – load resistant, extremely durable, easy to transport

ENDURANCE RUNNER Powerful and torque-proof

Height adjustment at the base of the frame – simple and precise alignment of the jacking frame

GRUNDOBORE⁴⁰⁰

- With GRUNDOBORE⁴⁰⁰ pipe lines can be installed with high positional accuracy from out of a pit.
- The auger boring unit is especially suitable for installing property sewer connections up to the manhole with product pipes and protection pipes up to OD 406.
- The main frame can be extended to 8.50 m, this allows for the installation of casing pipe strings in lengths up to 6 m.

MEASURING TECHNIQUE

The bore progress is monitored precisely, either by video theodolite or walk-over system; both systems can even be used simultaneously if required.



Operator-friendly manual rear pressure bridge lock

Large jointed support plates – for flexible and safe bracing of the machine

> Central application of thrust forces into the frame profile

Automatic front lock when setting back the pressure bridge – takes up the reaction forces of the pipe string

Permanent control of the drive unit

PRESSURE BRIDGE LOCK

The double-sided clamp lock of the pressure bridge guarantees straightforward pressing in of the pipe.



MAIN FRAME LENGTHS

Two different pressing frame lengths of 1.6 m and 2.1 m allow for flexible application, even in limited spaces.





DIRECTIONAL OR NON-DIRECTIONAL That is the crucial question

Directional pilot pipe installation

PHASE 1

With linear bore paths exactly determined, a pilot rod with a pilot bore head is pushed forward precisely and in the correct position from out of the pit simultaneously displacing the soil en route.



PHASE 2

On arrival in the target pit, an auger bore lead by the exactly placed pilot pipe string is carried out using steel protection pipes or retrievable pipes reamed with a bore head and conveyor auger.



PHASE 3

While pushing in the product pipes, the retrievable pipes are pushed into the target pit and are recovered in sections.





Non-directional pilot pipe installation

PHASE 1

If the linear bore path is not exactly defined, protection pipes or retrievable pipes can be pushed in directly, i.e. without pilot pipe installation, then the bore head loosens up the soil which is then conveyed through the augers into the target pit.



PHASE 2

If product pipes are being pressed in, the applied retrievable pipes are pushed into the target pit at the same time and then recovered.



PILOT PIPE INSTALLATION CONTROL

The pilot pipe steering head is controlled by an electro-optical video theodolite measuring system. With this measuring system an LED target board is built into the steering head at the front of the pilot pipe string. The LED pictures generated there are transferred to a monitor with the help of a CCD camera in the theodolite. Even the tiniest deviations from the planned drilling axis are recorded and can be corrected by the steering head.

100% ON TARGET















HOUSING WITH STEERING HEAD directional



RETRIEVABLE THREADED PIPE





CONVEYOR AUGER

SHOE PIPE



PULLING SLEEVE/ADAPTER





PIPE STRING BRACKET





HYDRAULIC BREAKAWAY FACILITY FOR PILOT RODS





CALIBRE AUGER DRILL



STANDARD BORE HEAD directional

GUIDE BEARING





STANDARD BORE HEAD non-directional

FOLDING ROCK BORE HEAD non-directional













Technical data

GRUNDOBORE400

400 kN
315 kN
280 mm
2.8 rpm
6,000 Nm
45 rpm
250 bar
2,100 x 990 x 1,200 mm
1,095 kg
500 mm
2.2 m
1.1 m
1 m
88 mm
406 mm
50 mm

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