INSPIRING TRENCHLESS TECHNOLOGY

TRACTO-TECHNIK

FOR THE PERFECT CONSTRUCTION PIT

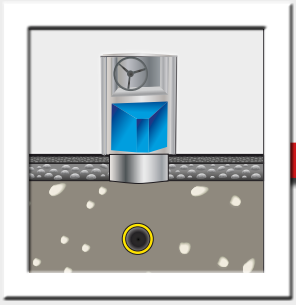
GRUNDOCORE
Core drill units

THE ROUND CONSTRUCTION PIT

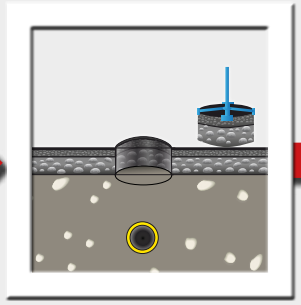
The method of the future

- Conceptual solution for the trenchless installation and renewal of water, gas, power and data property service connections
- Lower surface damage and subsequent costs compared with conventional square-cut excavation pits
- Safe, more productive and reduced reinstatement surface work.

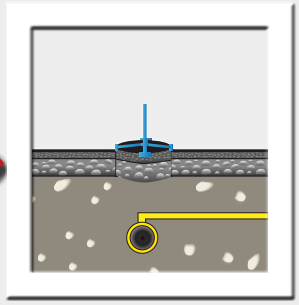
If you would like to find out more about our fluid-assisted mini dril rig GRUNDOPIT^{KS50} and the Long Handled Toolings (LHT) please contact us.



Creating a core bore.
650 mm (minimally invasive keyhole)
to 1,500 mm (round, walk-in construction pit).



Removing core,
installation work or repairs.

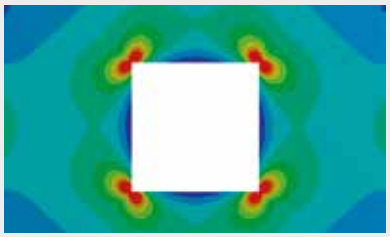


Following completion of
installation work: Reinstatement
with special mortar.

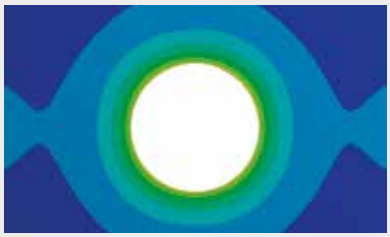
Drilling over gate valve caps.

One crucial benefit of round excavation pits, when compared to conventional square pits, is the long-term resistance of the repaired surface after the work has been carried out. This is due to the round shape.

Resealed excavation pits suffer severe stresses from the traffic running over or the thermal strain. The corners of square-cut pits are subject to stress peaks and as a result cracks appear which then enable water to penetrate into the surface. If the excavation pit is circular, the strain is distributed evenly so stress is up to four times less. A sustainable restoration of the cover layer is achieved and consequential costs are avoided.



Strain distribution in a square-cut excavation pit.



Strain distribution in a round excavation pit.

Square-cut pit – consequential costs cannot be avoided.

Restored surface.

GRUNDOCORE 650/450

The basic machine

- Low investment and operating costs
- Short set-up times, simple transportation
- Crowned bore heads for asphalt or concrete, also with combined bits
- Bore depth thrust via large hand wheel – lifting and lowering are easy to control
- Connection for central cooling water supply

PERFORMANCE FEATURES

- Max. crowned bore head diameter: 650 mm
- Max. drilling depth: 450 mm
- Max. rotation: 200 rpm

Flange for crane connection for flexible handling

Propulsion adjustment via hand wheel – direct drilling control

Manual speed adjustment – simple control

Mechanically adjustable depth indicator – non-sensitive

3 vertically adjustable pedestals (250 mm) – simple alignment of the keyhole drill

Rotation on/off via foot pedal – ergonomic, safe operation

GRUNDOCORE 650/600

The power pack

- Short set-up times, simple transportation
- Crowned bore heads for asphalt or concrete, also with combined bits
- Simultaneous application of two crowned bore heads is possible
- Bore depth thrust via large hand wheel – lifting and lowering are easy to control
- Connection for central cooling water supply

PERFORMANCE FEATURES

- Max. crowned bore head diameter: 650 mm
- Max. drilling depth: 600 mm
- Max. rotation: 200 rpm

Rotational speed setting via proportional valve – simple torque adjustment

Rotational drive with two concentric drive spindles, optimal cutting speed for inner and outer crowned bore heads with different speeds

Easy-to-dismantle panelling sheets with safety shutdown for maximum safety at work

Great cutting depth up to 600 mm – can cut through thick road surfaces

Integrated reception for a second (smaller) crowned bore head – optimal cutting speed with both crowned bore heads

GRUNDOCORE$^{TSC650/600}$

The all-rounder

The GRUNDOCORE$^{TSC650/600}$ core drill unit offers the solution for opening up a minimally invasive keyhole. But it can also be used for other jobs. The GRUNDOCORE$^{TSC650/600}$ is the drill of choice for great cutting depths and hard surfaces. Due to the double spindle gear, two concentric crowned bore heads can be driven simultaneously with optimal cutting parameters. In a single working cycle, the core is cut out while a smaller core hole is bored in the centre. This small central bore hole allows even very thick cores to be lifted out quickly and safely.

PERFORMANCE FEATURES

- Application of crowned bore heads with a max. diameter of 650 mm
- Great cutting depth of 600 mm
- Strong torque of 560 Nm
- Crowned bore heads for asphalt and concrete cover layers
- Optional quick-change system for simple and safe change of crowned bore heads

Wireless remote control –
control of the drilling process from an optimal and safe position, operator is not exposed to any vibrations

Output signal for activating external flushing pump -
adapt flushing volume to drilling process

Non-wearing swivel –
minimal maintenance effort

Stepless adjustment of rotational speed and thrust force –
adherence to drilling parameters

WIRELESS REMOTE CONTROL

Operation from any position – ergonomic and safe.

CLEARLY LAID-OUT CONNECTIONS

For supply and operation.

Flange for crane connection and forklift reception –
very easy transportation

Infinitely variable adjustment of the rotational speed and thrust force –
the optimal drilling parameters are maintained

Possible to use different crowned bore heads –
diameter range: 800 - 1500 mm

Crowned bore head guide –
stabilisation of the crowned bore head for spot drilling

3 hydraulic vertically adjustable pedestals (300 mm) –
simple alignment of the core drill

GRUNDOCORE$^{1500/650}$

The changeable

The GRUNDOCORE$^{1500/650}$ core drill supplements the keyhole technique with its round, walk-in excavation pits of up to 1,500 mm in diameter. Within the domain of sewerage rehabilitation methods, this technique has turned out to be very economical and highly productive. The GRUNDOCORE$^{1500/650}$ offers optimal ease of operation and thanks to the compact frame design it is easily transported despite the huge crowned bore head.

PERFORMANCE FEATURES

- Application of crowned bore heads with a max. diameter of 1,500 mm
- Great cutting depth of 650 mm
- Strong torque of 2,320 Nm
- Crowned bore heads for asphalt and concrete cover layers

CROWNED BORE HEAD GUIDE

For precise spudding and reduction of vibrations.

Wireless remote control –
control of the drilling process from optimal and safe position

Output signal for activating external flushing pump -
adapt flushing volume to drilling process

Non-wearing swivel –
minimal maintenance effort

Easy-to-dismantle panelling sheets with safety shutdown
for maximum safety at work

CROWNED BORE HEAD 1,500 mm & HEIGHT ADJUSTMENT

With three pedestals for optimal stability.

WIRELESS REMOTE CONTROL

Operation from any position – ergonomic and safe.

Model

Basic equipment

GRUNDOCORE$^{650/450}$

- Speed adjustment via oil supply – simplest control, robust
- 3 vertically adjustable pedestals (250 mm) – simple alignment of the core drill
- Propulsion adjustment via hand wheel – direct drilling control
- Mechanically adjustable depth indicator – non-sensitive

Height (mm)	1,360
Diameter of core drill unit (mm)	1,060
Max. crowned bore head diameter (mm)	650
Weight without crowned bore head approx. (kg)	300
Max. weight with crowned bore head (kg)	360
Max. drilling depth (mm)	450
Max. operating pressure (bar)	200
Max. oil required (l/min)	25
Max. rotational speed (outer / inner crowned bore head) (rpm)	200 / -
Torque (Nm)	360
Max. support pressure, carrier (kg)	600
Permissible operating pressure of external coolant and water fluid (bar)	1–4

* When using the inner crowned bore head

** Pre-series machines

GRUNDOCORE[650/600]

- Manual speed adjustment – simple control
- 3 vertically adjustable pedestals (250 mm) – simple alignment of the core drill
- Propulsion adjustment via hand wheel – direct drilling control
- Mechanically adjustable depth indicator – non-sensitive

GRUNDOCORE[TSC650/600**]

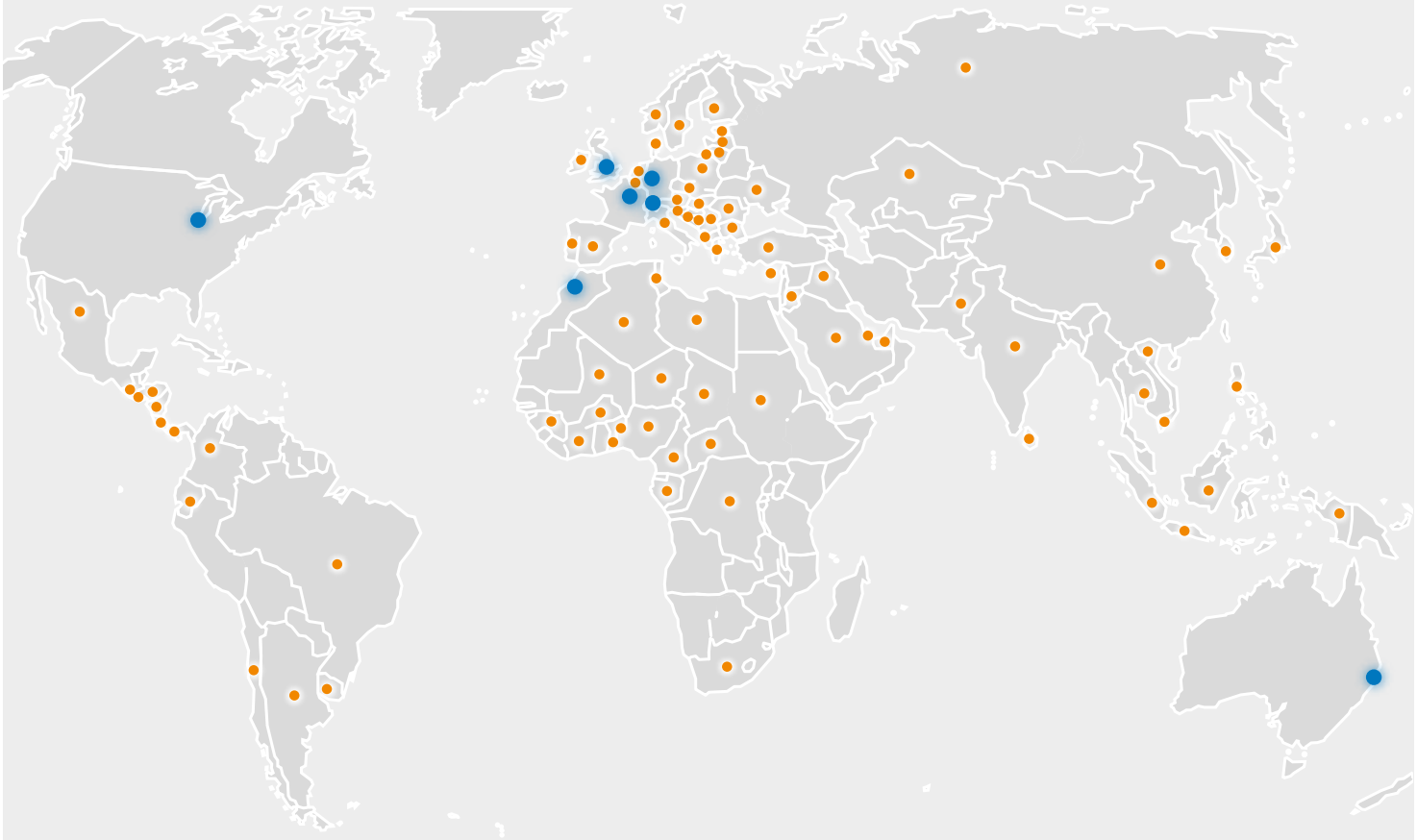
- Rotational speed setting via proportional valve
- Wireless remote control – control of the drilling process from optimal and safe position
- Great cutting depth up to 600 mm – can cut through thick road surfaces
- Integrated reception for second (smaller) crowned bore head – optimal cutting speed with both crowned bore heads
- Stepless adjustment of rotational speed and thrust force – adherence to optimal drilling parameters
- Output signal for activating external flushing pump – adapt flushing volume to drilling process
- Non-wearing swivel – minimal maintenance effort

GRUNDOCORE[1500/650**]

- Output signal for activating external flushing pump – adapt flushing volume to drilling process
- Automatic crowned bore head guide (1200 - 1500 mm) – stabilisation of crowned bore head for spot drilling
- Wireless remote control – control of the drilling process from optimal and safe position
- Infinitely variable adjustment of the rotational speed and thrust force – the optimal drilling parameters are maintained
- 3 hydraulic vertically adjustable pedestals (300 mm) – simple alignment of the core drill
- Possible to use different crowned bore heads – diameter range: 800 - 1500 mm
- Crane connection and forklift reception – very simple transportation

1,780	1,780	1,900
1,220	1,220	2,040
650	650	1,500
355	435	995
420	500	1,250
600	600*	650
200	150	250
35	55	45
200	160 / 1,280	60 / -
470	560	2,500
600	600	-
1–4	1–4	1–4

TRACTO-TECHNIK
worldwide



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No. 366101 P04 V04 Edition: 07/2018 EN