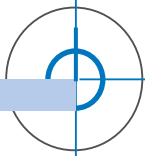


*The most successful  
soil displacement hammer  
of all times*

GRUNDOMAT "P"-Generation



**TRACTO-TECHNIK**

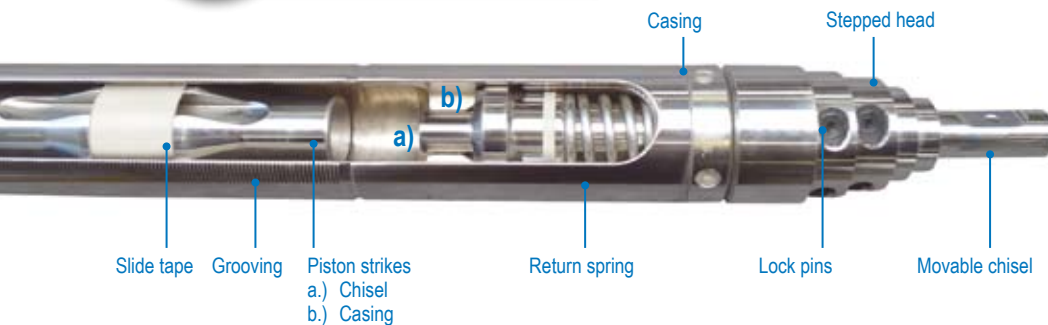


# GRUNDOMAT

## GRUNDOMAT - the number 1



The GRUNDOMAT soil displacement hammers have been around since the 70's. The idea for the development came with the disruption of a freshly asphalted road just to install a small water pipe. Since then the "mole" has been used worldwide on countless occasions. Over the years it has been technically improved to perfection. The precise target accuracy is the main reason for its success which is achieved with the unique two-stroke impact moving head method.



### The two-stroke impact method - often copied but never equalled

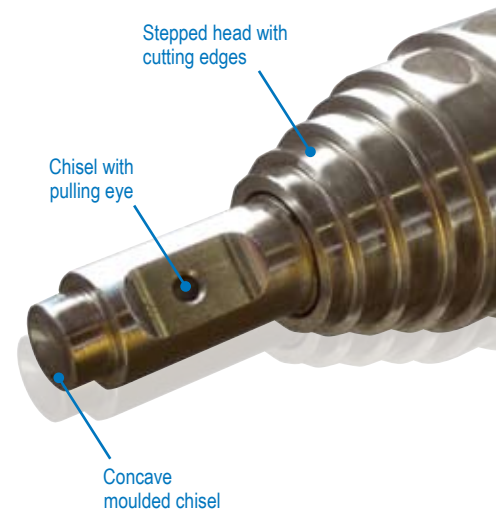
The precise target accuracy as well as the exact alignment and adjustment are achieved through the two stroke impact method. On the first stroke **a)** the whole moving head assembly is propelled forward as the piston accelerates and impacts against the rear of the chisel driving it forward to create a pilot borehole. As the piston then returns, the second stroke **b)** the compressed spring in the head further pulls the long cylindrical casing into the previously made pilot borehole.

Should an "obstacle" be encountered and forward propulsion hindered, the chisel/multicutter cone in the reciprocating head will continue "chiselling" independently until the obstruction is fragmented and displaced.

The stepped head, which is fastened on to the chisel by lock pins, can easily be exchanged for other types of head profiles.



Producing a service connection.



# GRUNDOMAT



Made in Germany

## Advantages:

- Maximum aiming accuracy
- High penetrating power even in stony soils
- Stepped head with cutting edges
- Maximum directional and running stability even in soft soils due to partly grooved casing
- Approved worldwide
- Low air consumption
- Simple and safe handling
- Operator training courses



Driven with compressed air (compressor 7 bar).

## Control stud

The GRUNDOMAT-P has a forward and a reverse gear. The reverse gear is used, for example, for vertical or blind bores (dead-end bores).



From GRUNDOMAT types 130 to 180 -  
Servo control stud  
(Switch over with simple lever operation)



From GRUNDOMAT types 45 to 110 -  
Thrust control stud  
(Switch over with a 1/4 turn of the air hose)



Lock pins

## You can rely on this displacement hammer

The GRUNDOMAT is especially corrosion resistant and low on wear because:

- head and piston are heat-treated,
- the casing is hard-chrome plated inside and outside,
- the piston is positioned on slide tapes,
- seal rings provide an economical air consumption and prevent the penetration of water/dirt.



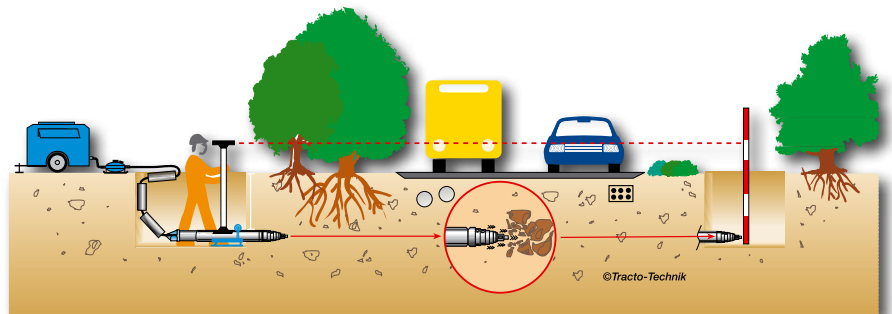
Teflon slide tapes on the phosphated piston prevent any metal to metal friction.



## *For undercrossings*

The GRUNDOMAT soil displacement hammer is used for

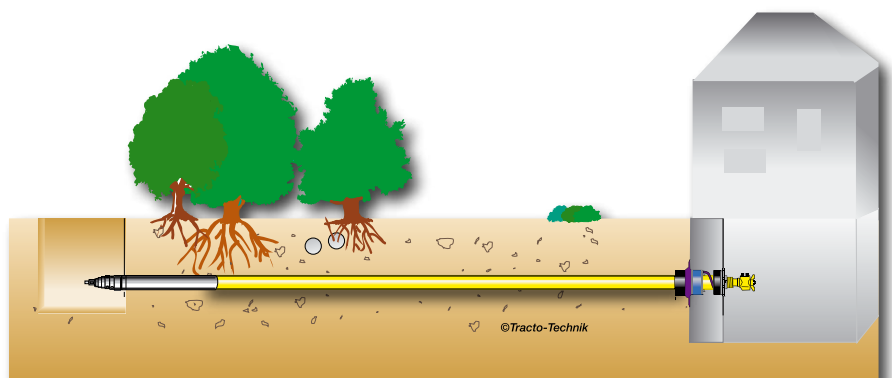
- road, railway and river undercrossings. From type 130 > it is also suitable for
- steel pipe ramming and for
- pipe cracking.
- sewage house connections
- blind bores, mini piling etc. are also possible. PE and PVC pipes up to ND 160 can be installed.



## *For property service connections...*

There are shorter K type Grundomats, which can be started directly out of the basement or confined spaces. Applicable for

- gas
- water
- power
- telecom (FTTX). Old steel pipes can even be driven out using a slip-on cone.

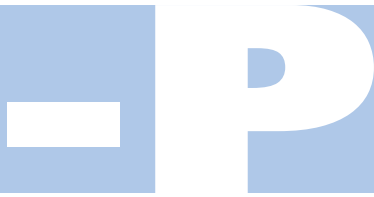


Confined space property connection directly out of the basement.



## *For the environment*

Using the soil displacement hammer means: no disturbance to gardens, flora and fauna, no objections from the general public, minimal excavation, less construction plant equipment, prevention of traffic jams, diversions and subsequent road repair work as well as low noise emissions, reduced dust particles and CO<sub>2</sub> outputs.

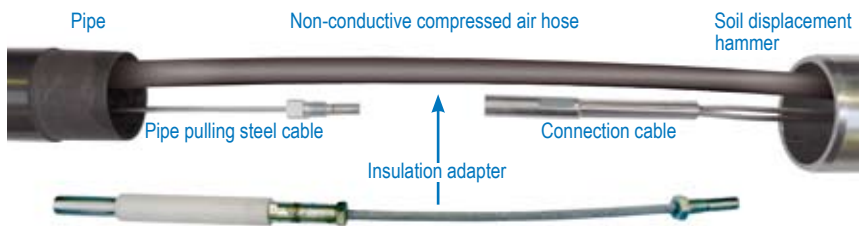


Location of adjacent service pipes/cables.

## Safety is the main concern

Before each application the bore path must be examined for any adjacent pipes and cables and a safe working distance must be maintained.

## new Safety package



A **non-conductive compressed air hose**, the **insulation adapter**, as well as the **safety launch equipment** for the operator provide a high level of security against accidental damage from power cables within distance of the soil displacement hammer.

## Direct pipe installation



PE or PVC pipes are directly pulled in by the GRUNDOMAT. Subsequent installations in reverse mode are also possible.

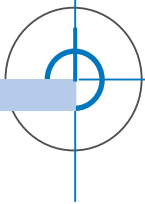
Practical, small profile, quick couplings simplify the connection and disconnection of the compressed air hoses and allow for a trouble free direct installation of pipes.



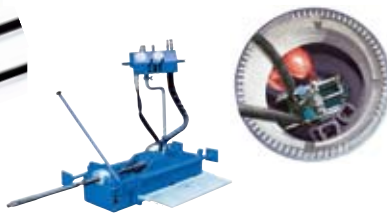
## Grooved casing

The optional partially grooved casing increases the friction in softer soils and stabilises the soil displacement hammer.





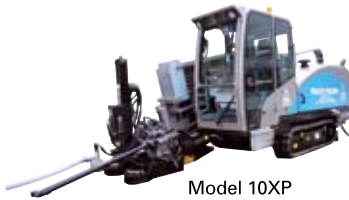
**GRUNDOMAT** soil displacement hammers  
up to Ø 180 mm - for more than 40 years



**GRUNDOPIT "P" Family**  
Models: Standard, Power, Manhole  
Mini bore rigs for Pit launch  
4 t pulling force, bores up to Ø 180 mm



**GRUNDORAM** - steel pipe ramming machines  
for installation up to Ø 4000 mm



Model 10XP

**GRUNDODRILL "X" Family**  
Models: 4X, 10XP and 15XP,  
4 - 15 t thrust and pulling force  
Bores up to Ø 400 mm



Model 15N

**GRUNDODRILL "N" Family**  
Bore rigs for special requirements,  
15 - 25 t thrust and pulling force  
Bores up to Ø 700 mm, bore lengths up to 400 m

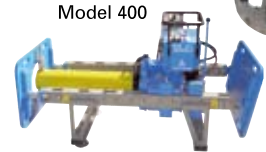
Model 25N



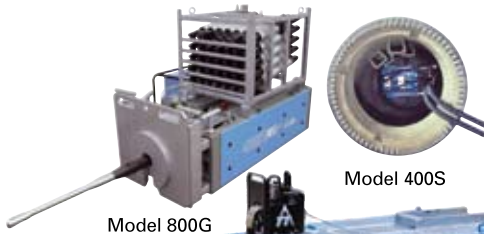
Model 200S  
(Manhole version)



Model 400



**GRUNDOBORE**  
Auger boring units, pilot-steered,  
e.g. for gravity pipes  
Models 200S and 400



Model 800G



Model 400S



Model 2500G

**GRUNDOBURST** - Static pipe bursting  
Models: 400G + S, 800G, 1250G und 2500G  
Pipe renewal up to Ø 1000 mm



GEODRILL 20V

**GEODRILL**  
Bore rigs  
for geothermal  
heat extraction  
Model Geodrill 20V  
for vertical bores  
and 4R for  
radial bores



GEODRILL 4R



**PRIME DRILLING** - Large HDD rigs  
Up to 600 t pulling force, bores up to Ø 2000 mm



## THE ONLY CHOICE FOR PERFECT PIPE INSTALLATIONS

**Germany:**  
Tracto-Technik GmbH & Co. KG  
Tel: +49 (0) 27 23 80 80  
Fax: +49 (0) 27 23 80 81 89  
www.tracto-technik.com  
export@tracto-technik.de

**United Kingdom:**  
TT UK Ltd.  
Tel.: +44 (0) 1234 342 566  
Fax: +44 (0) 1234 352 184  
www.tt-uk.com  
info@tt-uk.com

**USA / Canada:**  
TT Technologies  
Tel.: +1 (0) 630 851 8200  
Fax: +1 (0) 630 851 8299  
www.tttechnologies.com  
info@tttechnologies.com

**Australia:**  
TT Asia Pacific Pty Ltd.  
Tel.: +61 (0) 7 3420 5455  
Fax: +61 (0) 7 3420 5855  
www.tt-asiapacific.com  
info@tt-asiapacific.com

**France:**  
Tracto-Techniques S.a.r.l.  
Tél. +33 (0) 5 53 53 89 83  
Fax: +33 (0) 5 53 09 39 41  
www.tracto-techniques.com  
ttf@tracto-techniques.fr

Presented by your partner: