

# GRUNDOMAT®

## PNEUMATIC PIERCING TOOL



# HORIZONTAL BORING

## DO IT RIGHT THE FIRST TIME

**Superior accuracy** puts the GRUNDOMAT piercing tool in a class by itself. The GRUNDOMAT performs accurate horizontal bores up to 150 feet powering through obstructions and staying on target. The GRUNDOMAT is ideal for water, gas, sewer, electrical, CATV and other construction applications. For accurate, on-target horizontal boring choose the GRUNDOMAT piercing tool from TT Technologies.



**TT Technologies**

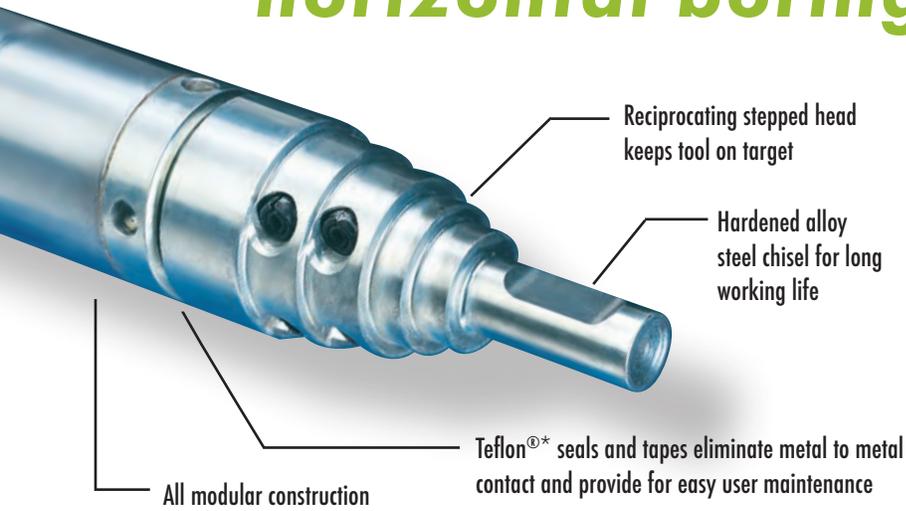
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# The Most Accurate horizontal boring tool



## Easy, Efficient, Effective

Minimal crews can quickly and economically perform accurate bores from 50 to 150 feet in length with the GRUNDOMAT tool. Minimal operating space is required and the tool serves as a complement, and in many situations an **economical alternative to, larger, more expensive directional drilling equipment.**

- Easily launched by hand or from cradle
- Minimal tool setup for fast, profitable work
- Durable construction means little maintenance
- Better value than directional drilling equipment on a cost-per-foot basis

## GRUNDOMAT ADVANTAGES

For over 40 years, GRUNDOMAT pneumatic piercing tools have been providing accurate horizontal bores beneath roads, railways, and landscaping across North America and around the world. Today, after over 200 patents worldwide, TT's pneumatic tools are used in trenchless applications ranging from pipe pulling, pipe ramming, pipe bursting, sliplining, and directional drilling. GRUNDOMAT piercing tools are constructed to the highest standards for limited wear, long tool life and optimum performance.

- **Finest quality alloy steels ensure durability**
- **All components precision machined for exceptional performance**
- **Teflon® seals on moving parts prevent metal-to-metal contact and help air consumption efficiency**
- **All modular, durable construction means minimal maintenance**

## Simultaneous Pipe Pulling

In just one simple step, the tool performs a bore and pulls in pipe behind it. It's perfect for use in soft, unstable soils.

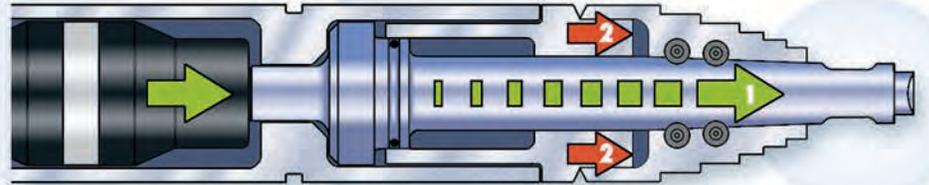
- Tools easily configured for steel, PVC, or PE pipe pulling
- Ideal for service installations, including sewer grade bores
- Saves job time for increased profits



The GRUNDOMAT's reciprocating stepped-cone chisel head powers through obstructions staying on target, while conventional fixed head piercing tools are easily knocked off-course.



# Technology That is a Step Ahead



## GRUNDOMAT Hammers Straight Ahead of Conventional Tools

Fixed head piercing tools have a tendency to take the line of least resistance when encountering difficult soils and obstacles in their bore path. When they hit an obstruction, they're easily knocked off-course... resulting in a failed bore.

The reciprocating stepped-cone chisel head action of the GRUNDOMAT tool is unique because it hammers away at solid obstacles. This two-stroke action means that the piston's impact is concentrated on the reciprocating tool head for optimum boring performance.

## Here's How It Works...

Compressed air repeatedly propels the piston against the rear of the chisel head assembly. This first compresses the pre-tensioned steel spring which forces the chisel head assembly forward independently of the main casing to provide a pilot bore. Then, the same continuous force thrusts the main casing ahead.

- Chisel-tip performs pilot bore
- Reciprocating head powers through obstructions
- Stepped-cone design and long tool length hold trajectory

## Long, Accurate Bores

The tool follows the pilot bore to the targeted exit, even through rocky soils and cobble. GRUNDOMAT's stepped head design fractures and displaces rock, resulting in the directional stability of the tool. This provides for consistently on-target bores, from short to long-distance shots.



### Basic Package

- GRUNDOMAT Boring Tool
- 50' Air Supply Hose
- In-line Lubricator
- Magnetic Starting Level
- Operators & Parts Manual
- 1 Gallon Grundo-oil® Tool Lubricant

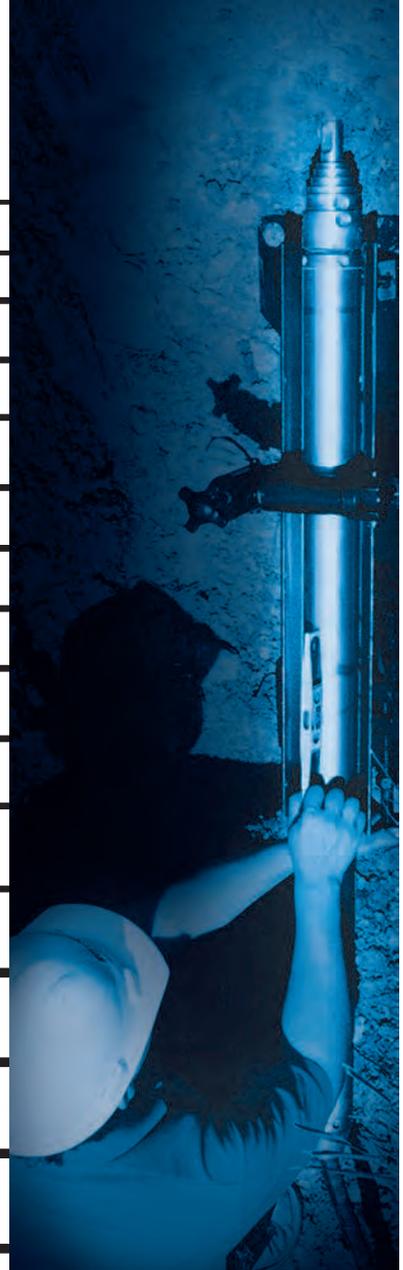
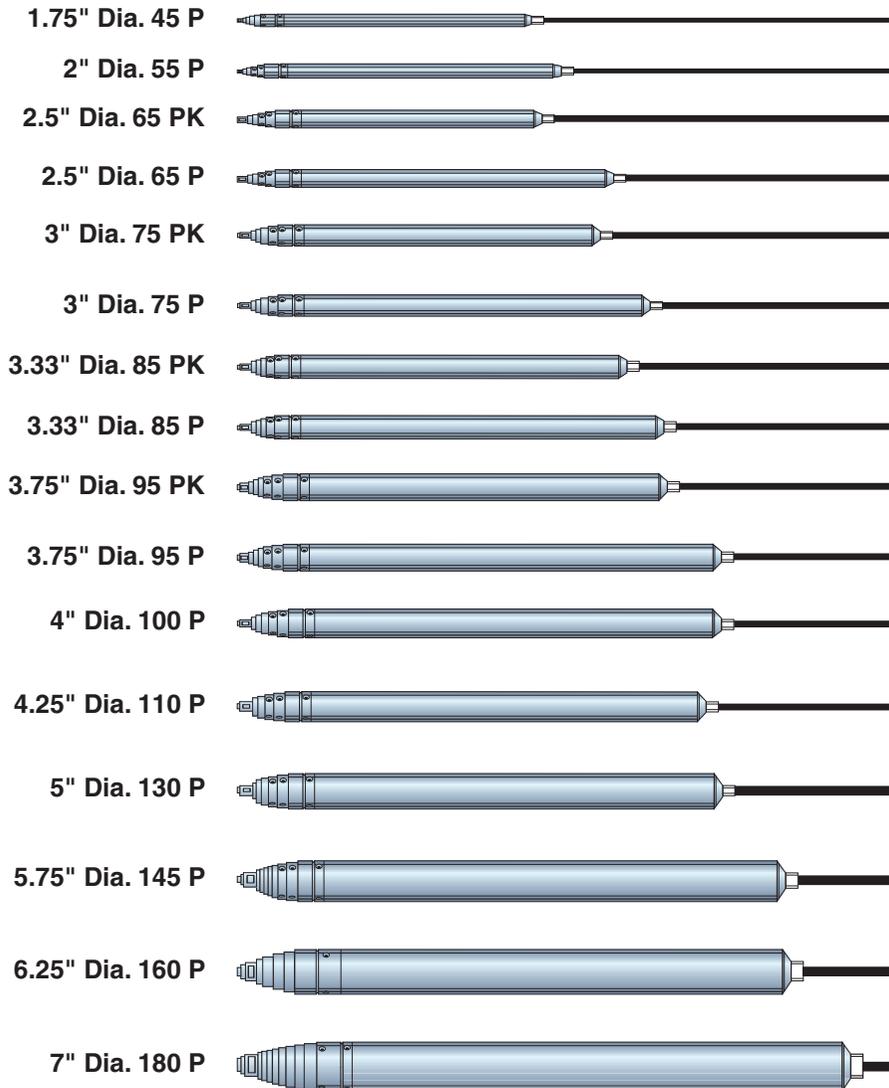


### Deluxe Package

- Includes Basic Package, plus
- Maintenance Tool Box that includes:
  - Spanner Wrench, pair
  - Replacement Spanner Pins
  - Seal Compression Clamp
  - Roll Pin Punch
  - 50ml Liquid Teflon
  - 10ml Loctite
  - Roll Pin Kit

# Specifications

*The right tool for the job*



MODEL	TOOL DIAMETER (IN.)	TOOL PART #	BASIC PACKAGE PART #	DELUXE PACKAGE PART #	LENGTH (IN.)	WEIGHT (LBS.)	AIR CONS. (CFM)	STROKES/MINUTE
45 P	1 3/4	GP0450032	07076917	07060417	39	20	12	580
55 P	2	GP0550031	07076920	07060120	43	32	18	480
65 PK	2 1/2	GKP0650030	07076924	07060424	41	40	23	640
65 P	2 1/2	GP0650030	07076926	07060426	52	55	25	460
75 PK	3	GKP0750031	07076929	07060429	49	62	28	460
75 P	3	GP0750031	07076930	07060430	57	75	32	400
85 PK	3 1/3	GKP0850028	07076933	07060433	53	88	25	480
85 P	3 1/3	GP0850030	07076934	07060434	61	101	32	390
95 P	3 3/4	GP0950030	07076937	07060437	68	143	53	320
95 PK	3 3/4	GKP0950030	07076939	07060439	60	123	46	360
100 P	4	GP1000025	07076940	07060440	68	148	53	320
110 P	4 1/4	GP1100030	07076943	07060443	66	212	64	325
130 P	5	GP1300028	07076950P	07060450P	69	258	92	340
145 P	5 3/4	GV1450030	07076957P	07060457P	78	370	120	310
160 P	6 1/4	GV1600030	07076960P	07060460P	79	437	159	320
180 P	7	GV1800030	07076970P	07060470P	87	573	159	280

# GRUNDOMAT Versatility

## special applications

The GRUNDOMAT piercing tool is one of the most versatile tools in any contractor's toolbox. In addition to extremely accurate horizontal bores, the tool also performs ramming, bursting, pipe extraction functions and more.

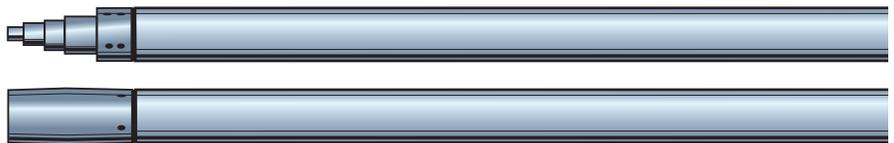
### Pipe Ramming

Converting the GRUNDOMAT for pipe ramming is a simple operation. A tapered pipe-driving adapter is placed on the front of the tool. The GRUNDOMAT's percussive power easily rams steel pipe and casings under sidewalks, roadways and other structures. With models ranging in size from 1 3/4 inches to 7 inches in diameter, the GRUNDOMAT can be used for ramming a wide range of pipe diameters.



### Pipe Extraction

The GRUNDOMAT can be used to drive steel pipe out of the ground, a process called pipe pushing or pipe extraction. During pipe extraction, a pipe-pushing adapter is placed on the front of the piercing tool. The tool's percussive force is then used to literally drive out an existing service line. Often the new pipe is pulled into place behind the tool, but also functions as the air supply for the GRUNDOMAT through the use of an air nipple.



### Pipe Bursting

Various adapters and expanders are available for the GRUNDOMAT to allow it to be configured for bursting applications. Size for size replacement and nominal size upsized replacements can be easily accomplished with the GRUNDOMAT configured for pipe bursting.



### Dead End & Vertical Boring

The GRUNDOMAT is ideal for vertical or dead end boring. With the GRUNDOMAT's patented reverse mechanism, the tool can be reversed out of a bore simply by adjusting a level on the lubricator control mechanism.



### Keyhole

Minimal excavation service line installations called keyholes help municipalities and utilities save time, manpower and money. The superior accuracy of the GRUNDOMAT piercing tool makes these installations possible. The tool is launched from a small launch pit at the house or business receiving the new installation. An even smaller pit is used at the main. When the GRUNDOMAT arrives on target at the main, the new pipe is attached to the front of the tool. The GRUNDOMAT is then reversed out, pulling the new pipe in place.



# Accessories

## for a complete piercing system



**GRUNDOAIR®**  
The GRUNDOAIR 70 portable air compressor can run up to a Model 95 P piercing tool, or power two smaller units simultaneously.



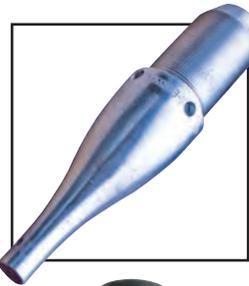
**In-Line Lubricator**  
An economical way to provide essential lubrication to your GRUNDOMAT pneumatic tool.



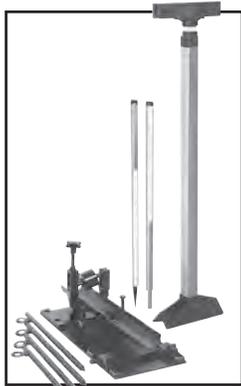
**GRUNDO-OIL® All-Season Air Tool Lubricant**  
Synthetic air tool lubricant that is environmentally friendly and biodegradable, for use in GRUNDOMAT piercing tools.



**Heavy-Duty Lubricator**  
Provides a continuous source of lubrication to ensure long life and maximum performance of GRUNDOMAT tools.



**Solid Head Smooth Cone – Thread On**  
Replaces the stepped head converting the GRUNDOMAT to a non-reciprocating machine. The cone may increase boring speed when accuracy is not as critical.



**Aim & Launch Kit**  
Includes a Telescopic Aiming Frame, Surveyor's Stake, Starting Cradle and Anchor Stakes.

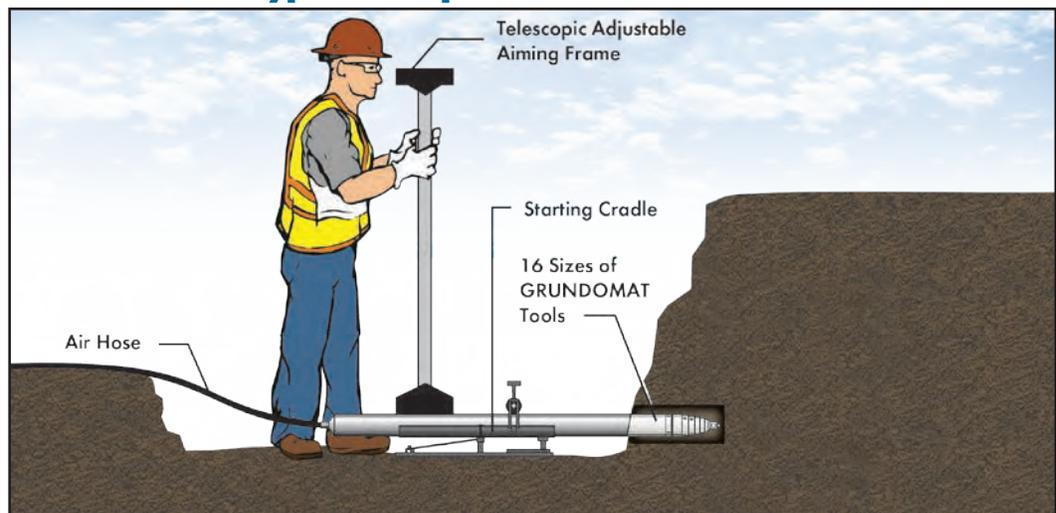


**PE Pipe Pulling Tail Piece**  
Self threading cutting teeth attach PE Pipe to the boring tool so that the pre-cut length of pipe can be pulled in while the tool is boring.



**Multicutter Cone (Oversized)**  
This 2 mm oversized cutter cone is used in tight clay conditions to increase the soil displacement so that the soil does not contact and grip the casing of the tool too tight, thus increasing the bore speed.

### GRUNDOMAT® Typical Setup



**TT Technologies**

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