Method: **COMPACT DIRECTIONAL DRILLING**

Tool: **GRUNDO DRILL®**

Capabilities:
- Computerized Smart Vice™ system simplifies the drilling process
- Maximum drilling power in tight working conditions
- Ideal for “last mile” installations

Method: **DIRECTIONAL DRILLING**

Tool: **GRUNDOPIT® PIT LAUNCHED MINI-DIRECTIONAL DRILL**

Capabilities:
- Ideal for installing water services, electrical conduit, gas services, etc. in tight working conditions, over difficult runs
- Anchored by four hydraulically operated telescopic bracing supports allowing for perfect alignment and maximum thrust and pull back
- Easy to use and highly portable

Method: **HORIZONTAL BORING**

Tool: **GRUNDOMAT® PNEUMATIC PIERCING TOOL**

Capabilities:
- Bores up to 150 feet
- Install services, laterals, mains & conduit
- Tool diameters from 1.75 inches to 7 inches

Method: **PIPE RAMMING**

Tool: **GRUNDO RAM® PNEUMATIC PIPE RAMMER**

Capabilities:
- Install casings from 4 inches through 147 inches in diameter and larger
- No surface slump or voids
- Horizontal, vertical, and angled applications
**HDD ASSIST–BORE SALVAGE**

**GRUNDORAM® PNEUMATIC PIPE RAMMER**

- Rammer attached to product pipe after pullback fails.
- Percussive action pulls product pipe, removing it from the bore.
- Salvage the job and bore again.

**HDD ASSIST–PULLBACK ASSIST**

**GRUNDORAM® PNEUMATIC PIPE RAMMER**

- Rammer attached to product pipe during pullback.
- Percussive action keeps pipe moving and helps prevent high levels of pullback stress.
- Percussive power frees immobilized product pipes.

**HDD ASSIST–CONDUCTOR BARREL®**

**GRUNDORAM® PNEUMATIC PIPE RAMMER**

- Ram casings through difficult soil conditions to more desirable drill starting points.
- Guide down-hole or mud motors to rocky soils through the conductor barrel.
- Provides friction free section for product pullback.

**SERVICE LINE SPLITTING**

**GRUNDOCRACK®**

- Split & replace 1/2-inch to 2-inch pipes quickly and easily
- Splits copper or plastic pipes
- Various accessory packages available

**PNEUMATIC PIPE BURSTING**

**GRUNDOCRACK®**

- Burst & replace fracturable pipes from 4 through 54 inches in diameter
- Replace size to size or increase existing diameter
- Lateral equipment available

**STATIC/HYDRAULIC PIPE BURSTING**

**GRUNDOBURST®**

- Burst & replace ductile iron and steel pipes
- Special bladed cutting wheels split pipe
- Burst & replace 4-inch through 48-inch pipes and larger

**LATERAL PIPE BURSTING**

**GRUNDOTUGGER®**

- Replace 4-inch to 4-inch, 4-inch to 6-inch or 6-inch to 6-inch service laterals
- GRUNDOMAT piercing tools can assist in difficult soils
- Lightweight, no component over 70 pounds

**HDD ASSIST–DRILL STEM RECOVERY**

**GRUNDOCRACK®**

- Pipe Rammer fitted with a special sleeve.
- Stuck drill stem welded to the back of the rammer sleeve.
- Percussive power frees drill stem, saving time and money.
Method: **STATIC/HYDRAULIC PIPE BURSTING**

**Tool:** 
**GRUNDOBURST®** 
**STATIC PIPE BURSTING SYSTEM**

**Capabilities:**
- Burst & replace ductile iron and steel pipes
- Special bladed cutting wheels split pipe
- Burst & replace 4-inch through 48-inch pipes and larger

Method: **LATERAL PIPE BURSTING**

**Tool:** 
**GRUNDOTUGGER®** 
**LATERAL PIPE BURSTING SYSTEM**

**Capabilities:**
- Replace 4-inch to 4-inch, 4-inch to 6-inch or 6-inch to 6-inch service laterals
- GRUNDOMAT piercing tools can assist in difficult soils
- Lightweight, no component over 70 pounds

Method: **PNEUMATIC PIPE BURSTING**

**Tool:** 
**GRUNDCrack®** 
**PNEUMATIC PIPE BURSTING SYSTEM**

**Capabilities:**
- Burst & replace fracturable pipes from 4 through 54 inches in diameter
- Replace size to size or increase existing diameter
- Lateral equipment available

Method: **SERVICE LINE SPLITTING**

**Tool:** 
**GRUNDCrack Jr.®**

**Capabilities:**
- Split & replace 1/2-inch to 2-inch pipes quickly and easily
- Splits copper or plastic pipes
- Various accessory packages available

Method: **HDD ASSIST–CONDUCTOR BARREL®**

**Tool:** 
**GRUNDORAM®** 
**PNEUMATIC PIPE RAMMER**

**Capabilities:**
- Ram casings through difficult soil conditions to more desirable drill starting points.
- Guide down-hole or mud motors to rocky soils through the conductor barrel.
- Provides friction free section for product pullback.

Method: **HDD ASSIST–PULLBACK ASSIST**

**Tool:** 
**GRUNDORAM®** 
**PNEUMATIC PIPE RAMMER**

**Capabilities:**
- Rammer attached to product pipe during pullback.
- Percussive action keeps pipe moving and helps prevent high levels of pullback stress.
- Percussive power frees immobilized product pipes.

Method: **HDD ASSIST–BORE SALVAGE**

**Tool:** 
**GRUNDORAM®** 
**PNEUMATIC PIPE RAMMER**

**Capabilities:**
- Rammer attached to product pipe after pullback fails.
- Percussive action pulls product pipe, removing it from the bore.
- Salvage the job and bore again.

Method: **HDD ASSIST–DRILL STEM RECOVERY**

**Tool:** 
**GRUNDORAM®** 
**PNEUMATIC PIPE RAMMER**

**Capabilities:**
- Pipe Rammer fitted with a special sleeve.
- Stuck drill stem welded to the back of the rammer sleeve.
- Percussive power frees drill stem, saving time and money.
**Method:** COMPACT DIRECTIONAL DRILLING  
**Tool:** GRUNDODRILL®  
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