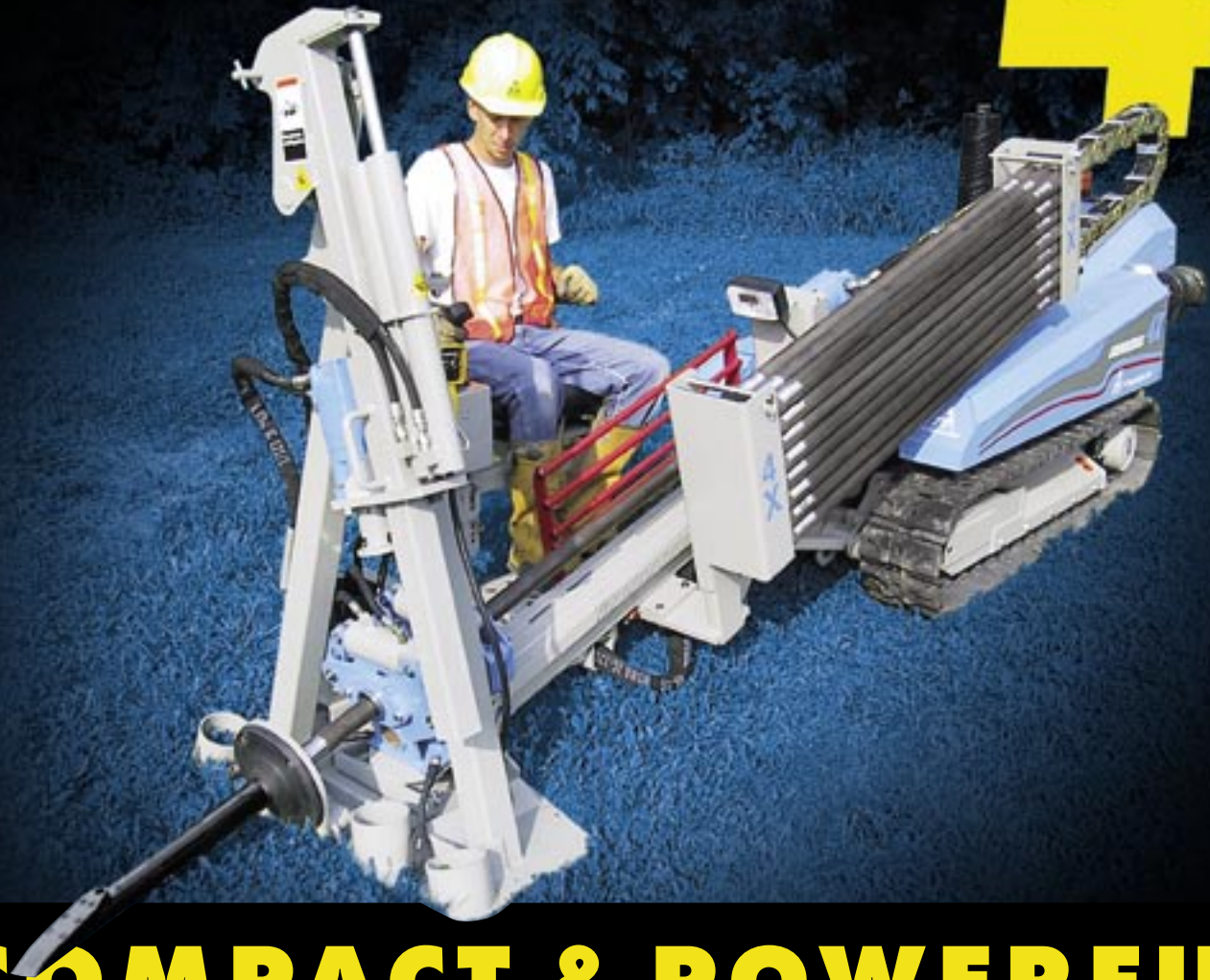


GRUNDODRILL 4X

STEERABLE BORING SYSTEM

4X



COMPACT & POWERFUL

with **THE SMART VICE™ SYSTEM**



Power and accuracy packaged to fit almost anywhere!

A Smarter Directional Drill from TT Technologies.

The **GRUNDODRILL 4X** from TT Technologies gives you the power you need to complete tough bores and the maneuverability you want for tight working conditions. Plus, the **GRUNDODRILL 4X** comes with the exclusive Smart Vice system that makes directional drilling easier than ever before.



TT Technologies, Inc.

GRUNDODRILL 4X

GRUNDODRILL 4X

The Ultimate in Power and Portability

The compact GRUNDODRILL 4X is ideal for residential service, last mile, small diameter main and fiber-to-the-home applications. With over 9,800 lbs. of thrust and pullback, the 4X is the most compact and powerful directional drill in its class. The drill features a dual hydrostatic pump system that gives the operator optimum control during drilling operations.

All components of the 4X are easily accessible, making maintenance a snap. For residential areas, tight working conditions, difficult access projects and anything in between, the GRUNDODRILL 4X has the power and the portability to finish the job.



TT Technologies, Inc.

SMART VICE™



Computerized controls make the GRUNDODRILL 4X extremely efficient and easy to operate.

SMART VICE™

The computerized Smart Vice system simplifies the drilling process by performing vice cycling operations automatically. It provides single push button control, improving efficiency, speeding up drill times and enhancing operator performance. The vice is also self-centering, reducing wear and tear. With a flip of a switch the operator can return to manual control for special situations. The Smart Vice system is another exclusive from TT Technologies.



NEW 4X HDD TRAILER

The new GRUNDODRILL trailer is designed and rated to accommodate the GRUNDODRILL 4X and a bentonite mixing and delivery system. The trailer comes equipped with added stem racks that can hold up to 32 additional drill stems (160 feet) and comes standard with electric brakes, a built-in toolbox, tie-downs and a spare tire.

MOTORS

The 4X incorporates individual hydraulic pumps for rotation/thrust, increasing downhole power.

small size - BIG



CONTROL PANEL—The GRUNDODRILL's control panel and gauges are clearly marked and labeled providing the user with simple, single joystick operation.



REMOTE CONTROL—The convenient handheld remote allows the user to quickly position the GRUNDODRILL 4X, even in the tightest working conditions.



RACK AND PINION—The rack and pinion provides greater precision and less maintenance than standard ch...

SIZE

The 4X, at a width of 35.5 inches, travels easily through gates and backyard easements.

CUSHION CYLINDER

The cushion cylinder helps protect the drill head from abrupt stops during the rod reloading process. It also positions the drill head properly during rod disjoining.



STAKE DOWN

The unique stake down system provides greater stability, helping maximize thrust and pullback power.

TRACK FRAME

The 4X track frame serves as the reservoir for diesel and hydraulic fluids. This helps give the 4X an extremely compact profile as well as a low center of gravity, increasing stability.

WEIGHT

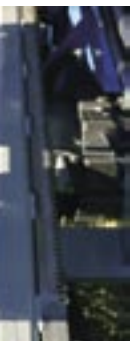
At a weight of only 4,829 lbs fully loaded, the GRUNDODRILL 4X can be towed with a pick-up or work truck.

COMPACT, POWERFUL & PORTABLE

The highly compact design of the GRUNDODRILL 4X makes it an ideal choice for residential service and "last mile" operations. Its power and performance make it the first choice.

The GRUNDODRILL 4X features an innovative dual hydrostatic pump system, the most efficient way to transfer power downhole. This efficient hydraulic system gives the operator optimum control during drilling operations. The 4X's 37.5 HP engine is the most powerful in its class. And since the 4X utilizes an external bentonite pumping system, all power is used for drilling operations.

RESULTS!



PINION—The pinion drive system offers excellent traction and durability while minimizing potential damage to concrete and turf.



TRACK—The 4X's special steel track with bonded rubber pads offers excellent traction and durability while minimizing potential damage to concrete and turf.



DUAL MOTORS—Dual drive motors pull equally down center of the rack and pinion adding stability and reducing wear on the drive system.



TRAVEL MODE—The compact and highly portable GRUNDODRILL 4X travels easily from jobsite to jobsite.

SPECIFICATIONS
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GRUNDODRILL 4X Specifications

Engine:	37.5 HP
Length x Width x Height:	130 in x 35.5 in x 70.5 in
Weight including drill stems:	4,829 lbs
Pull back:	9,800
Thrust:	9,800
Max Torque:	1,100 ft-lbs
Spindle Speed:	230 rpm
Diameter Pilot Bore:	2.5 in
Diameter Drill Rod:	1.75 in
Length Drill Rod:	60 in
Diameter Back Ream:	8 in
Pipe OD:	6 in (dependent on conditions)
Bore Length:	dependent on conditions

Specifications subject to change at any time.



37.5 total HP GRUNDODRILL 4X.

GRNDOMUDD 225 Bentonite System

Engine:	9.5 HP (gas) or 7.5 HP (diesel)
Length x Width x Height:	72 in x 46 in x 46 in
Weight:	650 lbs
Capacity:	225 gal (larger sizes available)
Max Operating Pressure:	800 psi
Max Operating Flow:	10 gpm



The compact 4X provides maximum drilling power in tight working conditions.



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